



KEITH'S MAGAZINE

ON HOME BUILDING

LIBRARY

JUL
19
1982

UNIVERSITY
OF CHICAGO

NA
7100
K4
V.35-
36

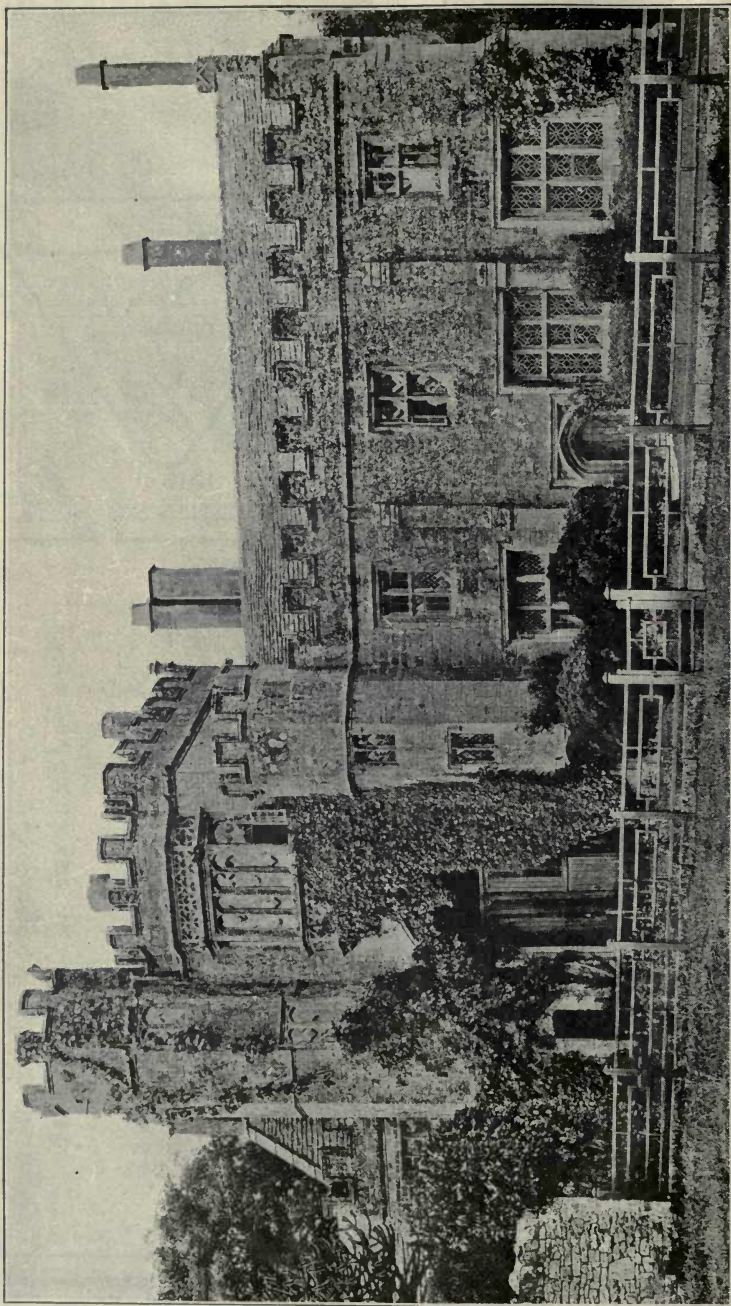
CONTENTS FOR JAN., 1916

Vol. 35-36

Just a Word	6
The Hampstead Garden Suburb— <i>Eleanor Allison Cummings</i>	9
The Sun Room— <i>Margaret Craig</i>	14
The Organization of the Housework and the Butler's Pantry— <i>Edith M. Jones</i>	16
Remodeling the House.....	19
How a Dream-Bungalow Became a Reality	23
Homes of Individuality.....	26
A Permanent Home.....	29
The Kitchenette House.....	31
A Tiny Home.....	33
A Modern Two-Story House	34
The Chimney a Distinctive Feature	36
The Home of a Business Man.....	37

DEPARTMENTS

Inside the House—	
Decoration and Furnishing.....	40
Answers to Questions on Interior Decoration.....	46
Household Economics	50
Table Chat.....	54
Building Material and Notes on Heating, Lighting and Plumbing.....	58
The Architect's Corner.....	62
Woods and How to Use Them.....	64
Splinters and Shavings	68
New Booklets and Trade Notes.....	72



HADDON HALL.
The English build with thought for posterity.

68067

KEITH'S MAGAZINE

VOL. XXXV

JANUARY, 1916

No. 1

The Hampstead Garden Suburb

Eleanor Allison Cummins



I SHALL always think of the Garden Suburb less as an aggregation of streets and houses and churches, than as a stretch of grass-grown upland, swept by all the breezes of heaven, basking in summer sunshine, under the bluest of skies, with a vista of distant hills to the north and west, with shadowy woods to the east, and stretching away to the south the undulations of the heath. It is a place of wide roadways, sweeping about in gentle curves, of open squares gay with flowers, of houses, some dignified, some pictur-

esque, some almost homely, but none ugly, and all of them charming in their low tones of gray, buff and white cement, of red, gray and brown brick, and of reddish brown tiles.

The first impression of the estate is agreeable and its skyline is charming. You walk perhaps a quarter of a mile from the main thoroughfare, and ascend by two or three steps to a rose-hung pergola, at the entrance to the Meadway, as the main street, east and west, is called. On either side are two similar groups of



Irregularities are carefully calculated to avoid monotony.



Many houses have no projection except the eaves.

gray concrete houses, four to each group, their front lines curving inward, the facades being at four different angles. The sharply pointed gables, the projecting eaves, the long lines of the lofty roofs, the great space between the windows of one story and those of the next, the casements filled with leaded glass, the elevation of the houses on a low terrace, above retaining walls of grayish brown brick, the varying angles at which the doors of the different houses are set, the projecting bays of the end houses, all these are features typical of a considerable proportion of the houses in the suburb.

The general type of architecture is what we may call English Domestic, which derives from Queen Anne. It is diversified by emphasizing the angles of roofs, adding bay windows, porches and hooded dormers, by the almost universal use of casement windows and by the irregular disposition of door and window openings.

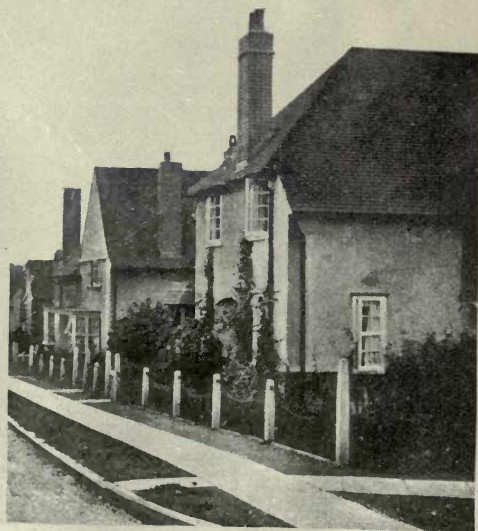
The arrangement of houses on three sides of a quadrangle is much in evidence, as few as four or five houses being grouped in this way, and it is certainly an effective disposition of a number of small houses, the long line of the rear giving an opportunity for picturesque groupings of doors and windows. It would be an

exaggeration to say that the backs of the houses are as ornamental as their faces, but a good deal of attention has been given to eliminating unsightliness, and where the backs of buildings are visible from the adjoining roads they are not noticeably different from their fronts. Certainly in no case is building material

of a different quality used for them.

In one mass of buildings, containing many small apartments of a single large living room and a tiny scullery, there is a central space of turf and flowers, the houses on all four sides, with entrance arches cut through the buildings at either end. I do not remember to have noticed more than once the crescent, the long curving lines of houses, which is so common a feature in English towns.

Everywhere are evidences of the attention given by English architects to the



Emphasizing the angles of the roof.

façade as a whole. The fronts of three or four adjacent houses are regarded not as four spaces but as one, and doors and windows are arranged with reference to the effect of the whole. Irregularities are carefully calculated, and are just enough to prevent the suggestion of monotonous repetition, but never carried to the point of eccentricity. The treatment of the combined fronts as a single unit saves the building from the finicky effect of the average row of small houses, makes wide gables and long roof lines possible, and enables the architect to

piazas, and their place is inadequately supplied by canvas canopies in the gardens. Still, it must be remembered that the English summer is never very hot, and that for at least nine months of the year all the light and sunshine available are needed in the house, and a broad piazza certainly subtracts a good deal of both.

To anyone who has an eye for architectural details, the suburb is full of interest. The houses seldom strike one as in any way unusual as far as outline or proportion are concerned, and eccentrici-



An archway is cut through the center of a block of houses.

place the chimneys, always an important feature in the English skyline, to the best advantage. One interesting feature is the disposition of the tradesmen's entrance. An archway is cut through the centre of the block, onto which the kitchens of the two central houses open, while a flagged walk at the rear leads to the others. The glimpse of greenery seen beyond the arched passage is an agreeable addition to the general effect.

An American is struck by the absence of piazzas. There are upstairs balconies in abundance, and sometimes the rooms on the shaded side of a house open with French windows onto a flat, bricked terrace, but there are no broad, shady

ties are few and far between, but everywhere one runs across little things which are distinctive and add greatly to the interest of the houses.

A large proportion are of cement. When the gray tone is used, what wood appears on the exterior will be the warm brown of walnut, rather than the dark, weathered tones so common with us. A weathered gray wood has been used in some houses with good effect, and the trimmings of the buff cement houses are apt to be of green, quite a bright, dark olive being much affected. One most effective house is absolutely white, the cement very rough, all the window casements with white sashes, even the door



The end houses, sharply gabled, are of brick.

white with iron trimmings, the one touch of color being a flutter of violet curtains.

In many of the cement houses there is practically no timbering and there is a considerable use of very narrow bricks, not more than an inch thick and of varying lengths. These set in squares at the corners of the walls, carefully graduated, form supporting brackets for projecting eaves and, closely set, edge door arches. They are also used for panels of herringbone, set into walls and to edge door-steps of larger bricks.

The stone door step, whose careful whitening is a part of the daily ritual of all well regulated English houses, is not in evidence in the Garden Suburb. Its place is taken by brick, sometimes by tiles. A characteristic feature is the use for garden paths and front walks of irregular pieces of flagstone, laid in mortar. The greater number of the houses stand above the street level, and their front yards are enclosed by retaining walls of grayish brown brick. Few houses are without a hedge, planted above a low brick wall, and usually of privet, either the plain green or the golden sort, and always trimmed with the greatest precision.

The cement surface of the houses is usually rather smooth, but in a few cases it is exaggeratedly rough. In some of the houses the cement has been scored

with a tool either horizontally or longitudinally, giving a sort of brushed effect not unpleasing. A common feature in the cement houses, which have high windowless gables, is the insertion of some simple ornament in the peak, four crosses made with bricks, four square bricks symmetrically arranged, or some simple geometrical pattern, the bricks when projecting from the surface

being washed over with cement.

The brick houses are very many of them gray or brown, although dull red is used in many cases, and even exclusively in some sections of the estate. Gray brick is used for the central group of institute and churches, and is varied by patterns worked out in red brick. Many of the red brick houses are absolutely flat, having no projections whatever, except the eaves of the roof and a possible porch, and the needed relief is given by the insertion of panels of herringbone in red, or red and black bricks. The flat look is largely modified by the use of casements, opening out. The houses built of brown brick are usually trimmed with white wood, and of course in all the larger houses of the Queen Anne type the white wood trimmings are very conspicuous.

You have to see a place like this to realize the value of leaded glass windows. The small paned, wooden framed window looks clumsy in contrast with it, the large paned, modern window commonplace. Whether it is plain, in tiny panes, or its lines curve at the top into leaflike forms, or whether the plain glass is varied by the insertion, in a pane or two, of a bullseye, the leaded window is always delightful.

The combination of two materials is sometimes used, and a cement house will

have a brick lower story. In one block of houses the end houses, sharply gabled, are of red brick, while cement is used for the long, low centre houses.

One hardly sees at all the familiar timber and plaster gables, but in the newer houses there is a considerable use of gable ends filled in with weatherboarding, of some hard wood, probably oak, weathered gray. Vivid red tiles are pleasantly absent, the prevalent tone for the roof being reddish brown, while very occasionally a slated roof is seen, usually in the same reddish tone.

The Garden Suburb is well named, for in the summer months it is a blaze of brilliant color, while there is even in winter an abundance of evergreen foliage. Many of the houses are creeper covered, some of them when built having a trelliswork securely fastened to the whole front of the house. One may wish that the gardening behind the hedges were a little less particular, but a confusion of homely flowers in brilliant bloom is surely to be preferred to the smug regularity of carpet bedding, and now and then one finds masses of a single color to rejoice one's soul. And everywhere one sees the most beautiful flat beds of English ivy, vividly green, and prospering as it never can in our climate of extremes.

Two circumstances have been advantageous to the development of the Garden Suburb along artistic lines: first, the restriction as to acreage, allowing the building of a limited number of houses on a given area of land; secondly, the co-operation of a number of companies, in the

building of the rented houses, each employing its own architects, who have naturally, each working according to his own ideas, redeemed the settlement from the painful monotony common to most places of its sort.

Considered as an investment the Suburb has been highly successful, paying its stockholders, who are also tenants, about four and a half per cent upon their investment, as well as a dividend of nearly as much more. It meets the needs of a



Chimneys are always an important factor in the English skyline.

large class, as its rents range from about five dollars a month for a combined living room with a scullery, to perhaps seven hundred and fifty dollars a year for a large house. The club has something like five hundred members, and the institute provides all sorts of interests in the way of concerts, lectures, classes and an excellent library. An Anglican and a Nonconformist church, a kindergarten, elementary and secondary schools, and shops, all go to the making of a prosperous and self-contained community, whose original idea is being adopted in many places, all over England.

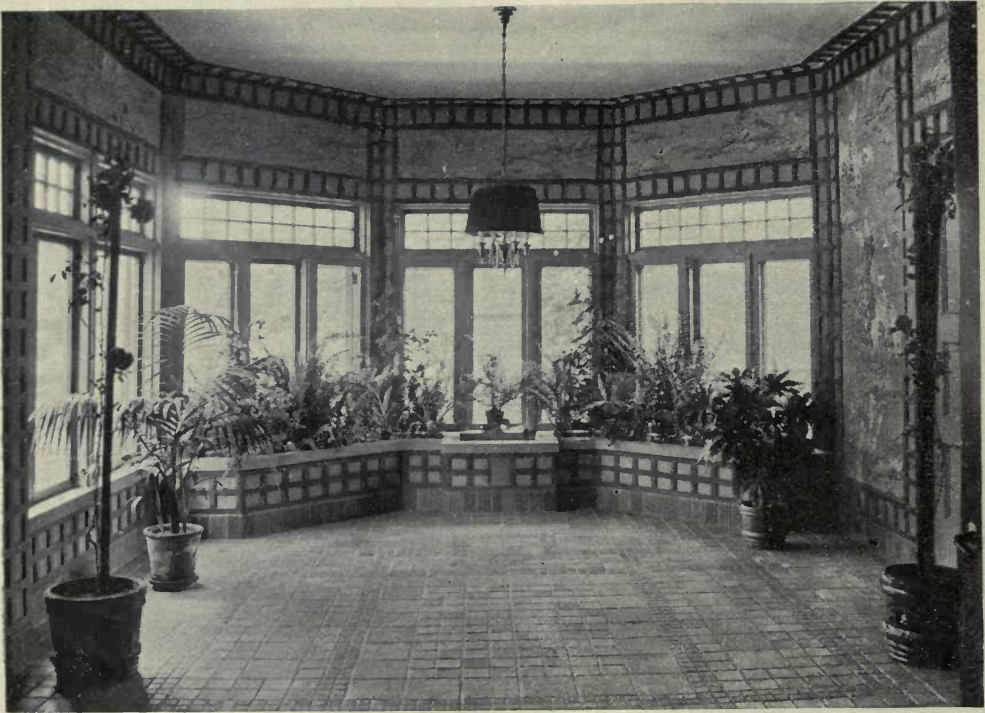
A Sun Room

Margaret Craig



THE modern sun room which may also serve as a breakfast room is receiving an abundance of attention nowadays. It has furnished an opportunity for the expression of originality and beauty, to the decorator as well as to the architect, because an in-

The decorator shows fine feeling in the design of this room. Her idea was to incorporate as far as possible a woodsy atmosphere. The lattice work, stained a delicate green, bounds the panels, that form the dominant scheme of color, and serve as door and window trim. Miss



As a breakfast room it is an inspiration for the day's work.

finite amount of latitude can be shown, that would not be permissible in more formal rooms.

In the accompanying photographs, the room pictured contains some interesting features, that are very appropriate to a room that forms a setting for the early morning half-hour, and which should be an inspiration for the day's work.

Helen Gatch, the decorator, in the conception of this room, has achieved something distinctive and very charming.

The vertical panels are composed of peacocks resting in the branches of cypress trees, embowered by large clusters of yellow wistaria and lavender lilacs.

The principal panels were formed by pasting flowers, peacocks, and tree

branches cut from French wall paper, on wall backgrounds painted fawn color.

The end of the room, opposite the dining room, is devoted to a semi-circular group of case-ment windows, that open above a built-in yellow cement trough filled with growing ferns and various plants. A fountain in the central division of this inner window box plays into a pool that contains gold fish.

The lattice work is carried around this



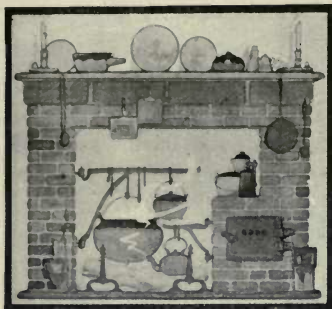
Vertical panels of peacock and wistaria.

cement box, and forms a frieze above the single row of tiling that forms the base of the room. The floor is laid in Batchelder tiles that correspond in color to the soft dull blues, tans and yellows that appear in the peacocks' plumage.

A room such as this can be used in summer and winter, especially in sunny California, as the windows can be opened to the breezes, or closed to keep in the heat.



The lattice serves as door and window trim.



THE KITCHEN



Organization of the Housework and the Butler's Pantry

Edith M. Jones

(Copyright, 1915, by Edith M. Jones)

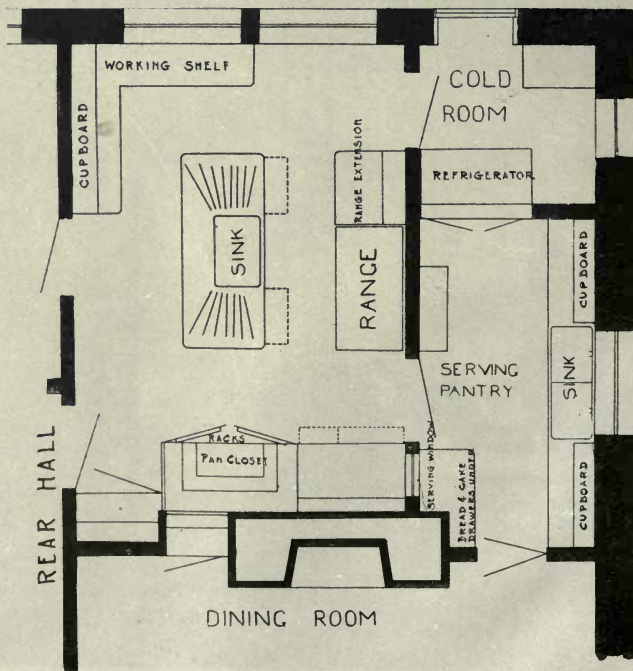
SYSTEM and organization are the wonder workers of the successful business of today. A well-planned organization and a carefully chosen system are absolutely necessary for any business whether that business requires one man or a thousand.

The careful housing of this organization means efficiency and the successful system installed means conservation along every line.

In other words, "conservation and efficiency"—the slogans of modern business methods—are the *fruits of organization and system*.

Men and women are engaged in many different kinds of business, but, as someone has truly said, "Every profession or business is tributary to home-making." Thus the home is the greatest organization on earth and house-keeping is the greatest business there is in the world today. Practically all business (with the possible exception

of the making of munitions of war, and that primarily is for the protection of the home), all business contributes to and is itself dependent on the home. Its success depends upon the organization and system of the individual housewife and the suc-

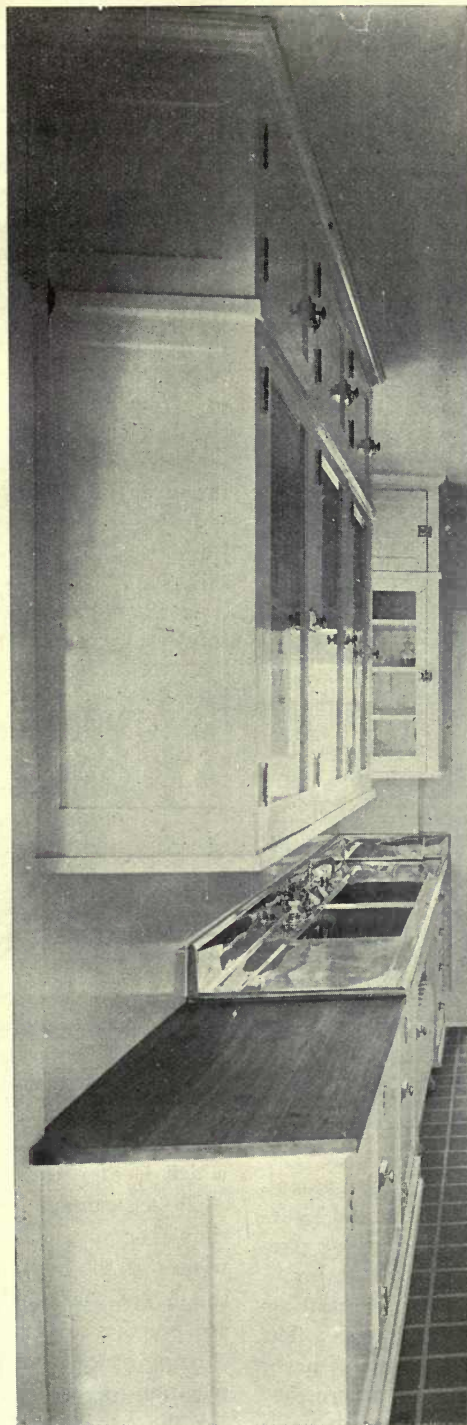


cessful housing of this organization determines the efficiency and conservation obtained.

"The kitchen must be under as efficient a system as has been found indispensable in the modern factory," says Frederick A. Osborne of the University of Washington. He also says, "By paying attention to her movements the housewife can easily save 25% of her energy, and miles of unnecessary steps can be eliminated by careful attention to the arrangement of furniture and utensils and the organization of movements."

The successful business man of today is eager for the new methods and quickly adopts the advice and reports of the "efficiency man."

One rarely hears a man say he can get along without any of these "new-fangled notions." But women are more conservative and very apt to regard their house-keeping as "Mother used to do it," as



Dishes are washed in the pantry.

being quite good selves. It is curious that in house-keeping alone, they hold to the traditions of an older time.

A girl who has been employed in an office before her marriage, who has kept everything there in a systematic, closely related order, and so has done most efficient work, seldom thinks it is possible to follow the same ideas in her kitchen after her marriage.

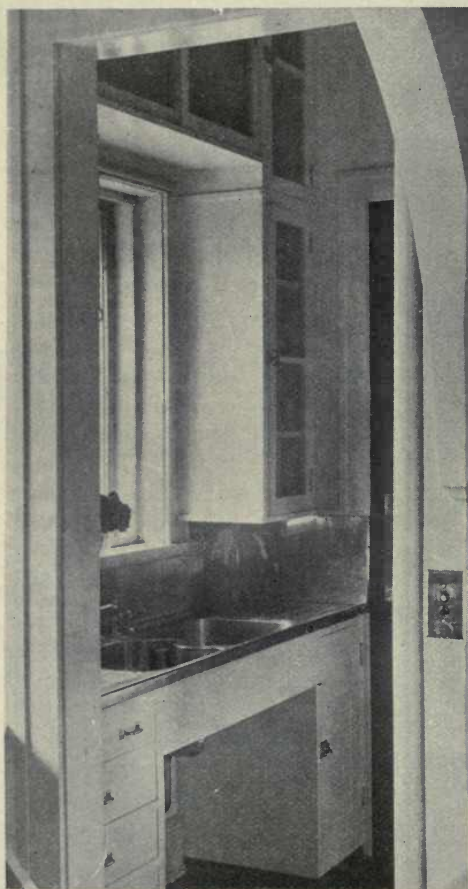
There is little reason to doubt if she fitted up her kitchen and ran her home on the same business principles that she previously employed in her office she would develop into the best kind of a housekeeper and find her work in her kitchen quite as interesting and absorbing as the work at her desk in the business world, and the results would be as satisfactory in the home as they have proven in the business world.

In studying business methods we quickly discover that *confusion* and *congestion* are two

things that must be avoided in any kind of business.

Butler's Pantry in the Small House

Housekeeping is no exception and it is with this in mind I want to point out the advantages of the Butler's pantry in even the small-sized house. The floor plan given



The double compartment sink.

before is almost an ideal arrangement. The kitchen is very compact and especially well arranged but the Butler's pantry has proven itself the greatest joy.

As you see, the distance between kitchen and dining room is but a few steps. The dishes from the dining room are never taken further than the pantry, where they are washed and put in the cupboards without a single needless step. The *double-*

compartment sink allows one part to serve as a dishpan and the other compartment as a draining pan. The ample drain boards are valuable not alone for dish-washing but are of the greatest help in affording a place for foods before they are served and a place to put accumulated dirty dishes during the process of serving the meal. Congestion more than any other cause is responsible for much dish breakage, and confusion more than any other one thing is responsible for much of the dreaded weariness which often comes to the worker. The extra working table surface of the Butler's pantry, in that it separates the *preparation* and *clearing processes*, is therefore of great value.

Then the refrigerator opening into the Butler's pantry is another valuable part of this plan. The icing is done from the rear service porch and drainage is provided. The refrigerator stands up from the floor so that the food chambers are approached *without stooping*. One can readily see the value of this placing of the refrigerator. Cream, butter and left-over foods can be put in the box directly from table. Salads and cold foods can be kept in the box and can be easily served at meal time, at the same time the refrigerator is also convenient to the kitchen.

A serving window opens from kitchen into pantry. The hot foods can all be put through window onto working shelf of the Butler's pantry beside dining room door. This saves many steps and foods do not lose heat. Under this working shelf of pantry are the cake and bread drawers. This conserves the working table top, which is of great importance.

These Butler's pantries can be very simple or very elaborate, according to the wishes of the housewife, but in any case a small, compact kitchen, where the foods are prepared and a Butler's pantry where clearing process is done, is the rational distribution of the kitchen activities and cares for the system and organization with the greatest efficiency and conservation.

Remodeling the House

FEW city houses are living up to their possibilities and country houses often fall short of them. Few have attained the maximum of harmony with all the needs of the owners: need of comfort, convenience, pleasure and usefulness. It is here that remodel-

talities find expression in the old Kentucky home, pictured here; the rebuilding of which included decorations and furnishings, as well as the planting, drives, gardens and greenhouses. Remodeling the estate as well as the house gives a great opportunity and advantage has been



Generous hospitality finds expression in this old Kentucky home.

ing, like the touch of a fairy wand, can do wonders. After a house has been lived in for a while, it begins to reveal limitations; certain rooms somehow do not give the satisfaction that was anticipated; others, through family changes, have ceased to be needed for their old service, but offer possibilities of greater usefulness for some other purpose and their present half service, is decidedly unsatisfying.

Perhaps no type of building lends itself so well to the remodeled job as the Colonial. Graciousness and generous hospi-

talities find expression in the old Kentucky home, pictured here; the rebuilding of which included decorations and furnishings, as well as the planting, drives, gardens and greenhouses. Remodeling the estate as well as the house gives a great opportunity and advantage has been

taken of every possibility of situation and environment. In many houses, with their generous supply of rooms, the master of the house often feels the need of "a little room" all his own, where he can be alone when he wants to be, to think things out; to do some bit of extra work, write letters, and be absolutely free from intrusion, that is impossible in his large library. He wants a room that is simple, comfortable, made just to fit him and to fit his needs.

A hobby room in a home has suggestions of appeal to the man who is inter-

ested in any of the dozens of collections that require special drawers, cabinets or tables for the greatest amount of ease and convenience.

A book room may be much more intimate in plan and arrangement than is found in the usual library. The book room illustrated claims a strong touch of dignity in the Elizabethan ceiling, treated in old ivory tones. The hangings and portieres harmonize pleasingly, not only

the porch or lawn, has been one of the pleasant memories of the summer in the country home. When the family remain in the city or before and following the summer exodus they are not satisfied with indoors eating so a breakfast porch is built overlooking the garden at the back of the house. Enclosed in glass and heated during the winter they have a delightful conservatory or sun parlor.

Where there are children in the home,



The great hall lends itself to a charming Colonial treatment.

with the woodwork but with the rich leather binding of the books on the shelves.

The mistress of the home often feels the necessity of transforming her kitchen so that she may obviate many inconveniences that have grown into real problems. Her practical experience shows her what is needed and the growing thought on the domestic sciences gives her the aid of expert council and suggestions by which she may be able to convert her dream of what a kitchen might be, into a veritable reality which is a joy.

The delight of eating out of doors, on

with their susceptibility to diseases contagious in their character and demanding isolation, one room on an upper floor might be transformed into a nursery or home hospital. Bright, cheerful, simple in furnishing and sanitary in all its appointments, this would keep a sick child within the home but absolutely apart under ideal conditions. Here absolute quiet could be secured, with no restriction on the play of the children in other parts of the house. A children's combination play room and gymnasium, with a compressed cork flooring, deadening noise and soft to the tread, special closet room ingen-



The book room with Elizabethan ceiling.

iously planned to hold all the toys and perfectly adapted to the limitations of the little legs and arms of the child tenants, with space and facility for the utmost freedom in play and exercise, should prove an attractive addition to the house.

An attic or upper-floor now little used,

rebuilt in iron and glass, has infinite possibilities as a solarium and heated for winter use, would furnish a delightful addition to the city home. With its hardwood floor, rugs, palms and easy chairs, it makes a charming place for entertaining and gives a cozy unconventional atmos-



A music room is often the object in remodeling.

phere which is different from other rooms. In giving the pleasure of growing things the present city house fails of its possibilities oftentimes; partly because as an unnecessary expense it was not included in the original planning; partly because the care becomes onerous to those to whom the pleasure of growing things

house is another motive for remodeling a room. Some provision may have been made for the music room in the original planning but often the organ is simply built into a convenient space, where other musical instruments may be grouped about it and thus the music room grows into its place.



The comfort of green growing things in the winter season.

is a luxury rather than a necessity. The conservatory is one of the luxuries which modern day conveniences have made possible to the person of moderate means. In the modern conservatory a bit of summer is held captive; here one may have the pleasant warmth of the sun and the "comfort of green growing things" through the bleak winter months.

The building of a pipe organ into the

Remodeling a city house means fitting it to the individual needs of the owner and his family after living in it for some time has gradually revealed those needs. Thus the remodeled house often gives an equal or even greater success and satisfaction than a new house which may in turn reveal the inadequacy which can only be discovered by being at home in the house.

Concerning Home

"Home is the place where the heart is" but how much more will the heart be in the home if the little place has been built according to the heart's fond plans? How much more attractive will even the simplest home be if the little house carries out the ideals that the heart has loved, the choice hopes and rare desires that have been sacrificed for, worked for, shared with others in the little building?—*Evelyn M. Watson.*

How a Dream-Bungalow Became a Reality

M. C. Johnson

A Building Experience by One of Keith's Readers



HY should not the school teacher in the boarding house satisfy her desire to have a home of her own?

This question kept recurring to her mind until there seemed to be no good reason against it excepting lack of funds. She set about seeking a remedy so vigorously, that sooner than she could have dreamed it possible, the home was her proud possession. Denying herself what had seemed to be necessities became interesting when she could picture the joy of a home of her very own.

When she had saved up pennies enough to buy a lot, she asked a reliable real estate dealer to be on the lookout for

a bargain, and before many days he put an irresistible temptation before her. It was a lot in a newly opened part of Seattle, with a glorious view of lake and mountains. The lot had to be sacrificed in two days to meet a mortgage. She went, saw, was conquered and before night the lot was hers at a low price for such a beautiful location. With the money thus saved she negotiated a loan, with the balance to be paid monthly.

Fortune again favored her daring in a few days. The lot had a precipitous slope towards the back. She had been planning to study up on cliff dwellers, thinking the price of filling would be pro-



The exterior is of shingles stained brown.

hibitive, when the city began grading the neighboring streets and the workmen requested the privilege of dumping earth into her ravine. She soon had a beautifully sloping lot, with the front one foot above street level, with a terrace midway, so that the basement door leads out on a level with the back yard. The back boundary has a five foot wall with ivy and trailing vines growing over it.



The boys spent a strenuous but happy summer.

with eight boys, from 14 to 18 years old, were on hand with pick axes and shovels, to make the excavation. The second day this was ready for the cement foundation.

They selected native material as far as possible. The original plan called for three rooms and bath room, with attic above and basement under the back half of the house. But after the frame work was up, this seemed like such a waste of

good space, that they concluded to finish the upper story. Even after two rooms and two sleeping porches were partitioned off, it was decided to utilize the corners under the roof. These made a roomy, built-in dresser, a closet and two spaces where screens and trunks and boxes galore are stored.

The boys spent a strenuous but happy summer. Eight were chosen from a long list of applicants, on account of the skill

For years she had been studying plans and building-magazines, so the castle in the air had assumed rather definite shape. She took her dream-plan to a contractor, who pronounced it practicable. The Manual Training Department in her school heard of this, offered to build her bungalow, convinced her that it was possible, and in a few days the contract was theirs. She had occasional misgivings and visions of a boy-built home collapsing over her head. But the boys went at the preliminaries in such a business-like way that her doubts vanished. The working plans and specifications were made during the last three weeks of school and the day that school was out the instructor

which they had shown in their school shop work. They were paid by the day and received school credit for a semester's work. The owner was camping on a nearby island, but often came in to watch the progress of the dream-bungalow quickly becoming a reality. When she happened in at noon, the boys were making a merry picnic with their lunches brought from home.

The exterior of the bungalow is of cedar shingles stained brown with green roof. The windows are casements opening out. There is a small porch at the front and a fine, roomy porch across the entire back of the house, for it is from this side that the view is so glorious. She plans to

have this porch enclosed in screens in summer and with glass in the winter. It will make a beautiful sun room.

Native fir is used for the interior for everything excepting the living room floor, which is of quartered oak. The kitchen and bath room have white enameled woodwork with blue and white linoleum on the floors. Native fir, stained the shade of the oak floor, makes very satisfactory flooring and is used for the rest of the rooms.

The living room is 13x24. One end of it has a folding oak table and is used for a dining room. A large square window with a casement window on each side is in the south wall. This forms a frame for a wonderful picture, with snow-covered Mt. Rainier for a center. Even when clouds cover the glorious mountain, the wooded foothills and beautiful



A small porch in front and a wide one for the view from the rear.

Lake Washington are always visible.

A boy of 16 built the chimney, in the center of the house, with the living room fireplace, which draws perfectly. At one side of this is a built-in bookcase, at the other side the staircase begins with three steps. These are hinged and when drawn back they reveal an ample wood box or can even serve for a "safe deposit vault." Above the landing the stairs lead up be-

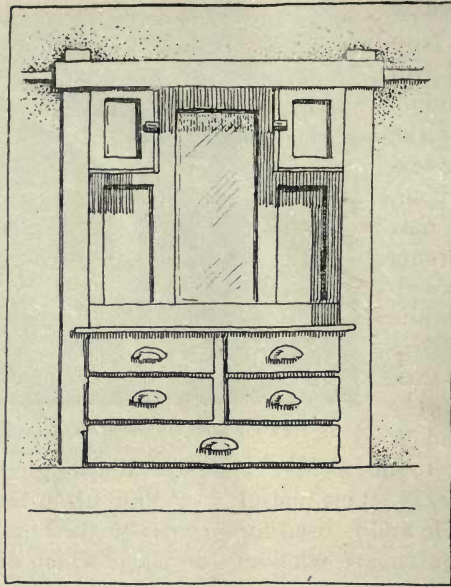


Fireplace with book case and "safe deposit."

hind the chimney into a small hall, which opens into the two bed rooms, one on each side of the house. The sleeping porches are at the front and the back, with dormer windows.

The basement contains laundry tubs, a hot water heater and a partitioned space for coal and wood.

The summer's work was a complete success. The boys received splendid practical training and completed a neat little home that is workable and livable in every way. The question of furniture was



A built-in dresser.

simplified by all the built-in contrivances. To say that the woman who moved into her longed-for home, the week that school began, was happy, would be a very mild expression. In addition to her own joy, she gives a fellow teacher a pleasant home and still has room for a homeless student who assists in the work.

Every spare moment is now being spent in beautifying the yard, which is rapidly becoming a fitting setting for the dream-bungalow which became a reality.

Homes of Individuality

Selected by W. J. Keith, Architect

A Home You Are Proud to Own

A NOT unpardonable vanity attaches itself to the house to which we carry the latch key. In case we also own the house the feeling is appreciably stronger. This feeling has had much to do with the houses that clamor for attention. As the feeling for good design has increased and the taste is simpler, the dignified, substantial house makes an appeal to the home-builder.

The entrance at the side gives more available space in one unit in the plan as well as allowing a wide unbroken lawn.

In this plan the enclosed portico gives entrance to the hall or a direct entrance to the living room if desired. A wide-

columned entrance connects the hall and living room. Under the stairs, opening from the hall, is a lavatory and toilet. At the other end of the hall a door opens to the service part of the house, the kitchen, rear and basement stairs.

The fireplace makes the chief feature of the large living room, which extends across the front of the house. It is 15 by 27 feet, really a large room. A triple group of windows fills the center of the space, making a feature of the exterior with a smaller group on the second floor. Beyond the hall is the dining room with a wide-cased opening, and still beyond that is the sun porch, ending the vista from the hall.

Between the dining room and the

kitchen is a roomy pantry with a wide work-shelf with bins and drawers under. Cupboards fill the available wall space. The kitchen has easy communication both with the rear stairs and the basement. The entry gives good room for the refrigerator, where in extremely cold weather it may be possible to get along without ice if desired.

The stairs connect the finish of the main hall with that of the upper hall. The finish of the second floor is white enamel. The mahogany rail of the stairs and white spindles carry this to the mahogany finish of the lower hall.

The finish of the entire house is very simple in line. The natural surface of the wood is stained only enough to give

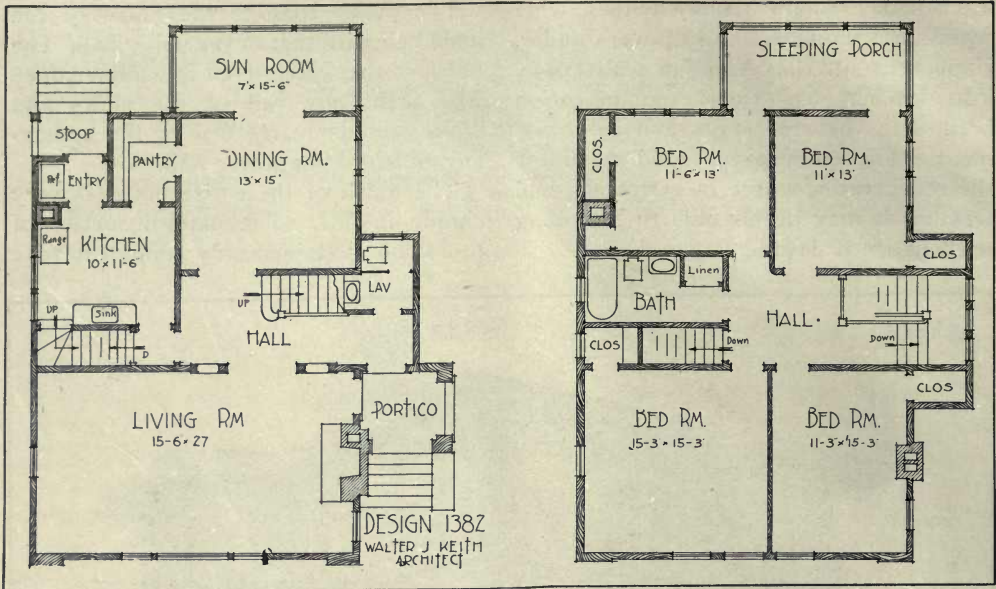


A dignified, substantial house makes an appeal to the home-builder.

On the second floor are four bedrooms which, as houses are built nowadays, are all large rooms. When a bedroom is more than fifteen feet square we admit that it is large, and 11 by 13 gives very good accommodations. All of the rooms have large closets, and the generosity of the closet space in one of the rear bedrooms is quite unusual. A sleeping porch opens from either or both of the two rear bedrooms; an ideal arrangement for the family rooms. In the bathroom is a good linen cupboard. A door closes off the service stairs.

a good color tone in keeping with the color scheme of the interior. Simplicity is the keynote of the house. The finish of the dining room and sun porch may vary slightly in treatment, but the same simplicity of line is kept. The hall sets the key and connects the treatment of the other rooms and at the same time carries it to the second floor. Here, as is often the case, a daintier or more personal color scheme is carried through the sleeping rooms.

The use of cement and stucco has had a strong influence on the design of Amer-

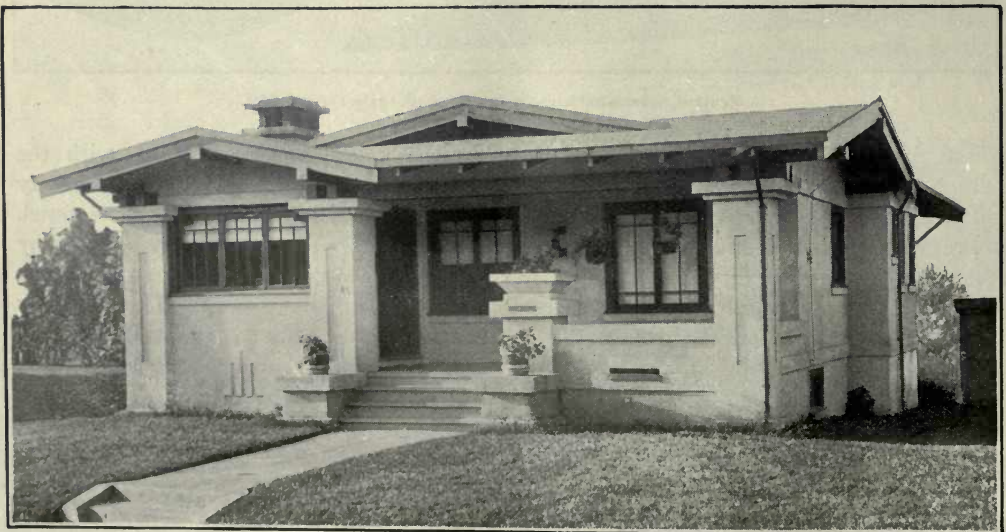


ican homes. Here again the simplicity of treatment is used with telling effect, in the small bungalow as well as in the full two-story house. The plain wall surface is given its full effect, pierced by the window groups. Perhaps no other feature has been more strongly affected than the cornice. It is designed in strong, bold

lines. The stucco of the wall surface is carried in the soffit of the cornice or the eaves, giving the protection of an unbroken surface, with a broad projection to the roof and a strong roof line in silhouette.

Stucco for the Bungalow

In its attractiveness the bungalow and

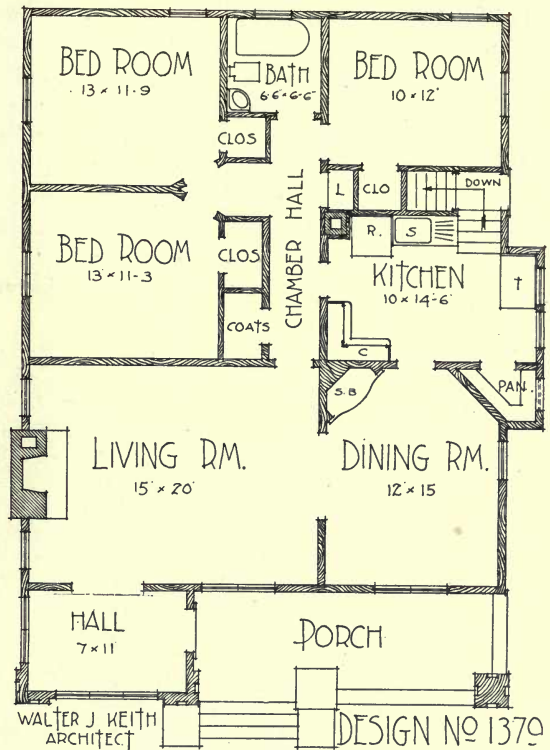


A logical pilaster treatment.

small house sometimes has advantages over the larger, more imposing house. It is more appealing, perhaps, because it is not imposing. A logical pilaster treatment is carried out in this stucco bungalow, which is very attractive, and the porch accessories are carried out in the same treatment.

While this bungalow is not large, yet the rooms are so compactly arranged and it is so well planned that the accommodations are adequate to the needs of a small family. The entrance from the porch is into a glass enclosed hall, and thence through a wide cased opening into the living room. Both living and dining room have windows on the porch. The living room is 15 by 20 feet in size. The big fireplace and windows fill one end of the room. Opposite the fireplace, through a similar opening, is the dining room. The corner sideboard is balanced on the other side of the door by a simple wall treatment at the same angle, enclosing a closet from the kitchen. The kitchen itself has built-in cupboards and work table. This table is particularly well lighted and has the usual bins and drawers built under it. The outside kitchen door is the grade entrance which leads down to the basement.

A hall sets the bedrooms away from the rest of the house and at the same time connects them and the bath room, making them easy of access from any part of the



house. The bedrooms are of good size and well supplied with closets. In addition to the closets in each room a large closet opens from the hall near the door to the living room and can be used for coats. A linen cupboard is provided. The bath room fixtures are closely grouped as the bath room is small.

An extremely livable home this is, and so easily cared for that the housewife is comparatively independent of the servant question.

A Permanent Home

THE size of a house is measured by its living capacity rather than by its actual size. The proportioning and placing of the rooms is the secret of ample living space rather than its being a

matter of feet and inches. Here is a home in which the main part of the house is 28 by 35 feet, not a large house, with a sun porch and library extending beyond, and a balcony over the sun porch.

This end of the house is almost entirely of glass, with the sun room below and the glazed sleeping porch above.

The exterior of the house is of brick and half timber, a happy combination, which yet lends itself well to climbing vines and greenery. Brick of a granite shade forms the first story, with stone trimmings. The belt course is at the second story beams. The walls and gables

one side and the dining room on the other. Opposite the stairs is a coat closet and beyond under the landing is a small toilet and lavatory. Sliding doors separate the dining room from the hall, and also separate the library from the living room. Both living room and library open on the sun porch with glass doors.

Connecting the dining room and kitchen is a pass pantry filled with cup-



Brick and half-timber makes a handsome exterior.

Lindstrom & Atmars, Archts.

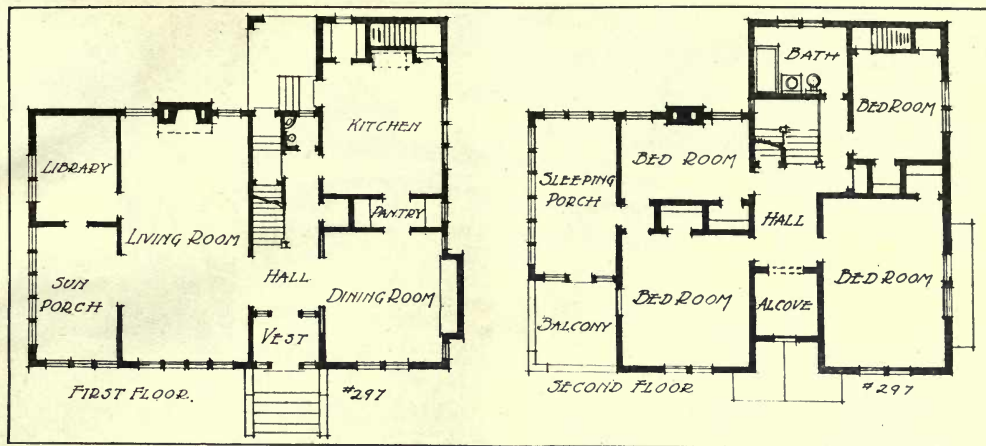
of the second story are covered with rough cast between half-timbers over metal lath. All exterior woodwork is stained tobacco brown while the roof is stained red.

The sun porches are fitted with sash to swing in, and their walls and ceilings are finished in Washington fir with encaustic tile floors in the sun porch and also in the vestibule.

The house is laid out to turn the wide side of the house to the street. The hooded entrance is filled with glass. Entering the hall a wide flight of stairs is directly in front, with the living room on

boards. A broom closet opens from the kitchen. The basement stairs are under the main stairs, convenient both to the kitchen and to the front part of the house. A grade entrance gives direct access to the basement under the main stair landing. Rear stairs open from the kitchen and communicate directly with the maid's room. Under these stairs is a kitchen pantry with shelving and cupboards.

The kitchen sink is on the same wall as the lavatory, making the plumbing fixtures on the first floor very compact. The bath room on the second floor is directly over these, giving the closest possible



connections to all of the plumbing pipes

On the second floor there are four bedrooms, all corner rooms with windows on two sides. Each has good closets, with a linen closet opening from the hall. The attic stairs are over the main stairs. One end of the wide hall makes an alcove, which may be used as a tiny sewing room if desired. The sleeping porch, which is quite good sized, is enclosed and opens from a tiny hall between the two family bed rooms.

The second floor of the house is finished in pine, to paint or enamel, with hardwood floors.

On the first floor the finish is hard-

wood throughout, with hardwood floors. In the living room the six-foot fireplace is the central feature of one end of the room, with windows on either side.

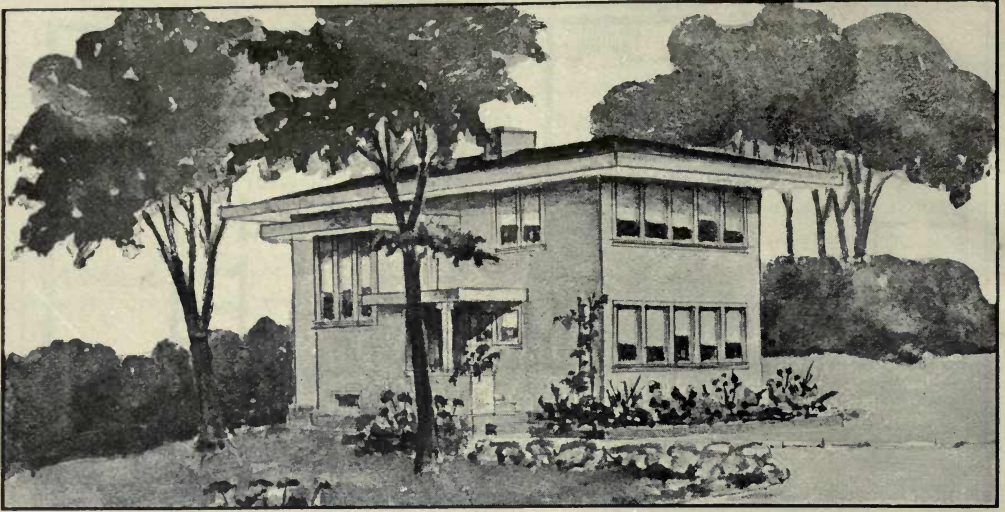
There is a full basement under the house, with the laundry under the kitchen bringing the plumbing fixtures under those of the other stories. The heating plant and fuel rooms are well located, as are also the vegetable, fruit and storage space.

The planting, which always adds to the attractiveness of the house, has in this instance been particularly successful. It gives the feeling of permanence as well as of home.

The Kitchenette House

IN the olden days on a New England farm our grandmothers wanted a kitchen that extended all across the rear of the house and it was none too roomy for its use. The two rooms at the front of the house were best room and bedroom and shut up a considerable portion of the time. The life of the house went on in the kitchen, which was really the living room. The cooking, the spinning, washing, ironing, eating and visit-

ing were centered about the roomy fireplace of the big kitchen. But a hundred years has brought us to a different way of living—our cooking is a simplified process because of the nearby delicatessen and corner grocery, our washing and ironing is either done in the basement laundry or outside the house entirely. We need to do few of the things in manufacturing that our grandmothers did. We buy our clothes ready made, we buy soap



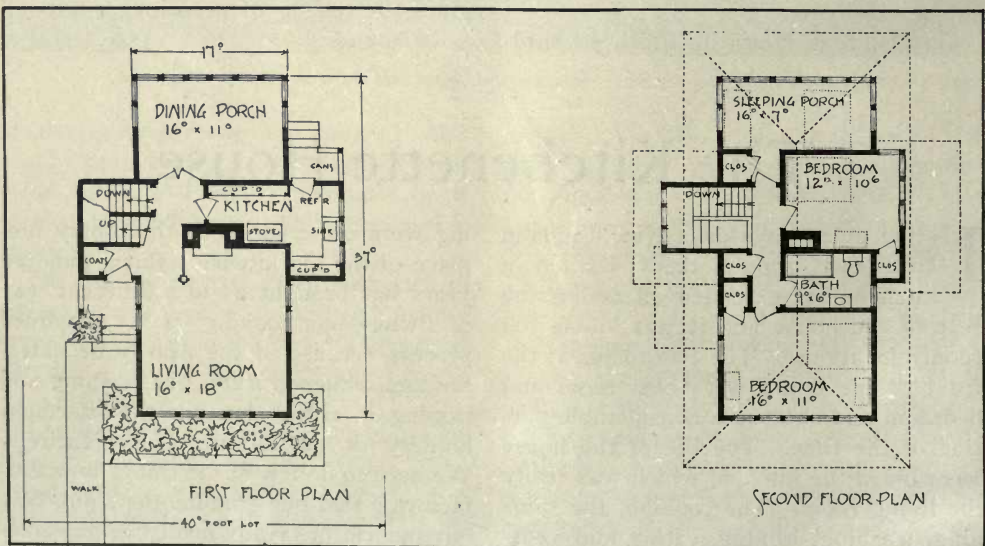
An economical and livable house.

Marion Alice Parker, Home Planning.

in boxes, and also most of the kitchen supplies. We do not dye, and we are coming every year to do less preserving and pickling. Our kitchen is a little workshop where we hardly do more than rush into it 15 minutes before the meal is to be served and prepare the food, most of it already cooked in some factory for the table. In this age of rush, rush, rush, a step saved is to be counted and the kitchen where you can reach from stove

to sink, from refrigerator to cupboard, is coming to be more and more the desideratum of a busy woman. Here is a kitchen of queer shape but see how workable; plenty of cupboard space, plenty of light, everything at hand. The porch could be enclosed and the refrigerator placed outside if desired, but it can simply be iced from outside in the position shown.

The dining room may be used in a variety of ways. It may be made a formal



dining room and all the meals served there, or it may be used more or less as a lounging room, and the meals served either there or in front of the fireplace in the living room in the cozy English way. The modern way of many busy housewives of having a formal dining room and then serving the majority of the family meals from the kitchen table, could well be improved upon without making additional labor. The breakfast tables now so often found, with broad, folding leaves, make an ample table for two or three.

The second floor has a well lighted hallway and an abundance of closet room, but not an inch of waste space.

The bedrooms are roomy and with excellent circulation of air.

The best point about the whole house if you want to build it is its extreme sim-

plicity of construction and the fact that not an inch of space is wasted anywhere. Yet with the simple roof lines you get a feeling of dignity and honesty.

Casement windows are designed throughout the house. Birch finish and floors throughout, full basement, with hot air heating and laundry.

The screen and light post by the fireplace is a little touch which gives dignity to the entrance and really serves a good purpose of shielding the occupants of the living room from draughts and the interruption of the front door.

Though it is designed for a forty-foot lot, you are well away from the lot lines and have plenty of light and air. Altogether it is a very economical house in every sense, cost to build and cost of labor in making it a livable home.

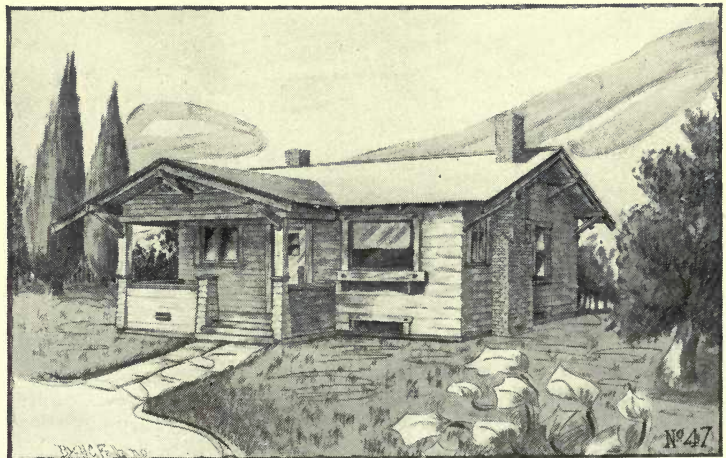
A Tiny Home

THIS snug little home was designed and built for an artist and his little family. It contains every practical convenience that can be built into a house, all of which are included in the plans but which of course do not show in the small picture shown on this page.

The house is only about 26 ft. front by 25 ft. deep, exclusive of porches and has been built several times in California at a low cost and at a somewhat higher cost it had a cellar and furnace and was built away up in Minnesota.

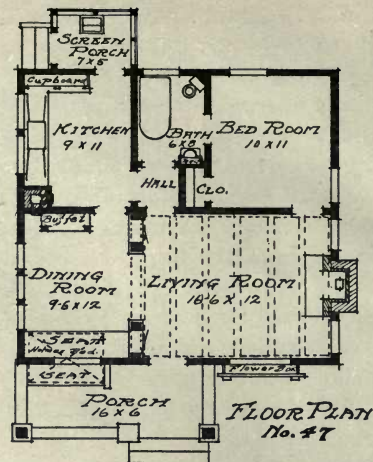
The exterior is weather-boarded with

This Home
Was Built
for an
Artist



shingle roof, and projecting brick chimney. Inside the walls are well plastered either rough for tinting or smooth for papering at the option of the owner. Every built-in feature is included and a disappearing bed is installed under the broad seat in the dining room in such a way that it may be rolled out either into the room or on the front porch for an ideal out-of-door sleep on warm nights.

The end of the porch is well screened in such a way that the screens can readily be removed in case they are not needed. As every inch of space is utilized without the least indication of crowding this may well be called a very big little home.

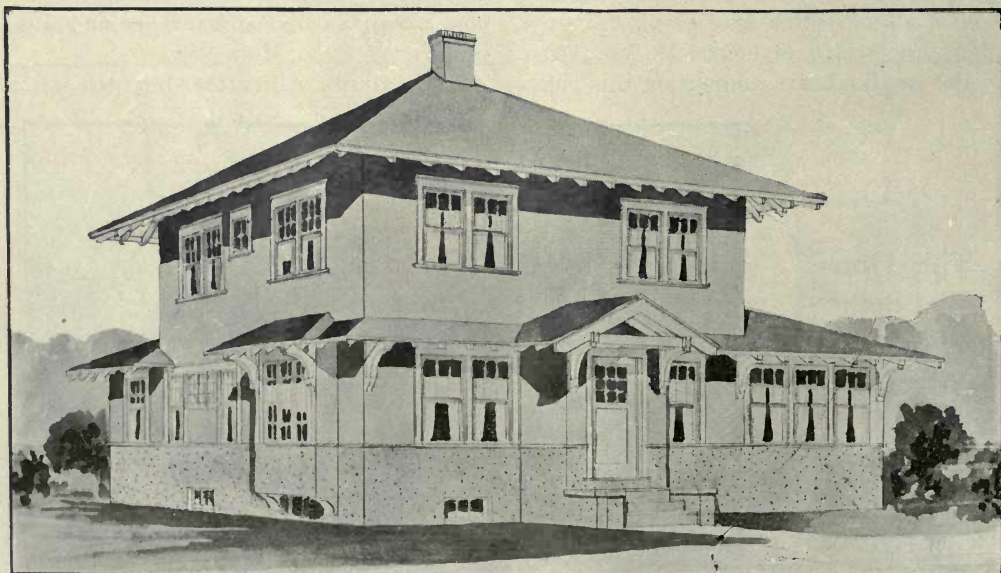


A Modern Two-Story House

HERE is a modern design for a two-story frame house, finished with cement stucco on the exterior from the grade line to the first story window sills and above this point to the roof is covered with narrow siding mitred on

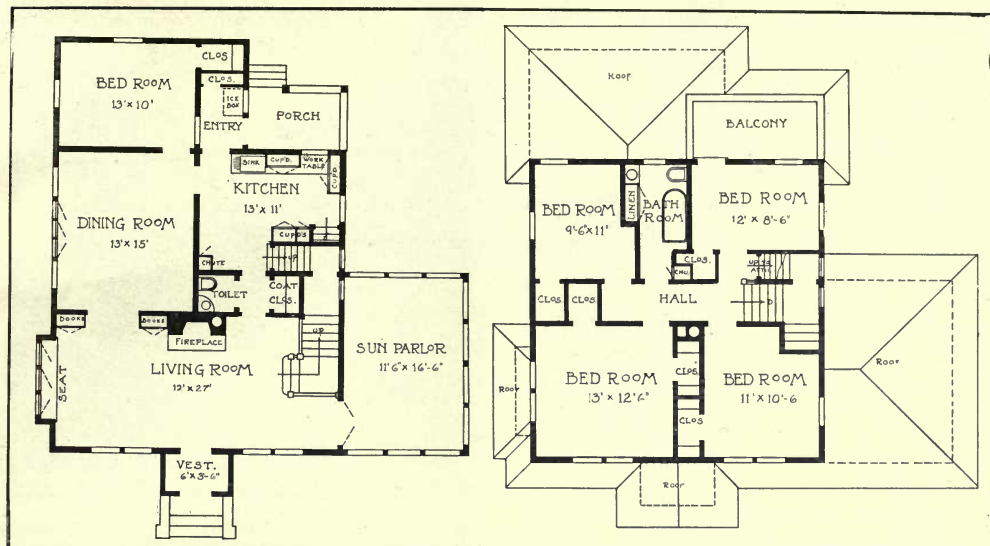
the outer angles. The architect estimated the cost of building this house according to the following description exclusive of heating and plumbing at from \$4,500 to \$4,800.

The house is 28 ft. wide by 39 ft. deep,



The hooded windows give added interest.

Chas. S. Sedgwick, Archt.

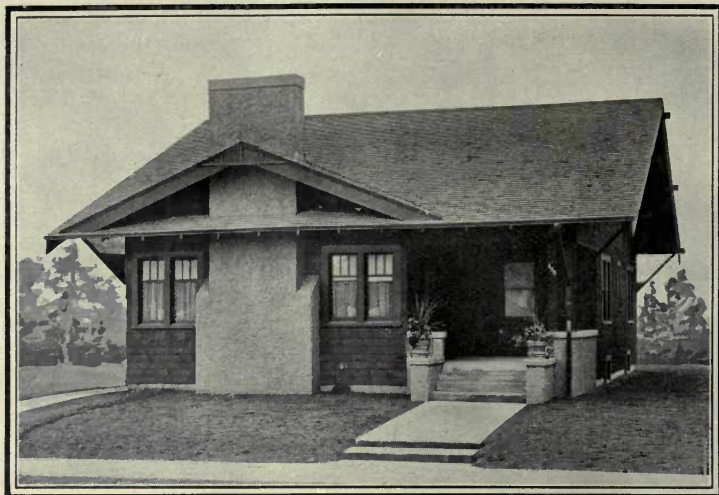


exclusive of the sun parlor at the right which is 11'-6" by 16'-6". There is a central vestibule entrance opening into living room 12' by 27' extending the full width of the front of the house, with French doors opening onto the sun parlor on the right, fronting to the east and south. A wide opening connects the living room with the dining room at the rear and fronting west. Beyond the dining room is a room designed to be used for a bedroom or a den 13' by 10', with an ample closet. The kitchen on the right of the dining room is 13' by 11' and is provided with ample cupboards and a clothes chute in the corner extending from second story to basement, and between kitchen and living room opening from either side of a small passage is a toilet room and a coat closet. The main stairs are carried up from the right end of the living room. They are wide and easy with two platforms and with the combination feature of steps from the kitchen leading up to

the main stair landing. Basement stairs are built beneath the main stairs with grade entrance. This plan has been carefully studied and has many conveniences. In the main living room is a wide chimney for fireplace with round tile flue for furnace, kitchen and laundry, and a separate flue for the fireplace. At the left end of the living room is a projected Dutch window or seat.

The second story has four good chambers and bathroom over the kitchen, each chamber provided with good closets. Over the rear porch is a balcony very convenient for shaking of rugs. The two principal rooms of the first story are finished in oak, all other portions of the house are finished in birch. There is a full basement with laundry, heating room, etc. The attic has storage space only, with stairs leading to the same, the roof is shingled and stained and all outside trimmings, cornices, etc., painted white.

The Chimney a Distinctive Feature



On entering one looks first for the fireplace.

Jud Yoho, Archt.

FROM the porch beside the living room the entrance is into a vestibule in this bungalow. A coat closet is accessible from the entry. The living room is entered through a wide opening, and first interest attaches to the grouping of fireplace with windows on either side which has been promised by the exterior. The living room, 16 by 20 feet with a beamed ceiling, makes quite an imposing room. A wide opening also connects with the dining room which has a beamed ceiling as well and is paneled. A built-in buffet is centered in the wall opposite. A door from the living room opposite the fireplace opens to the passage way which connects the other rooms of the

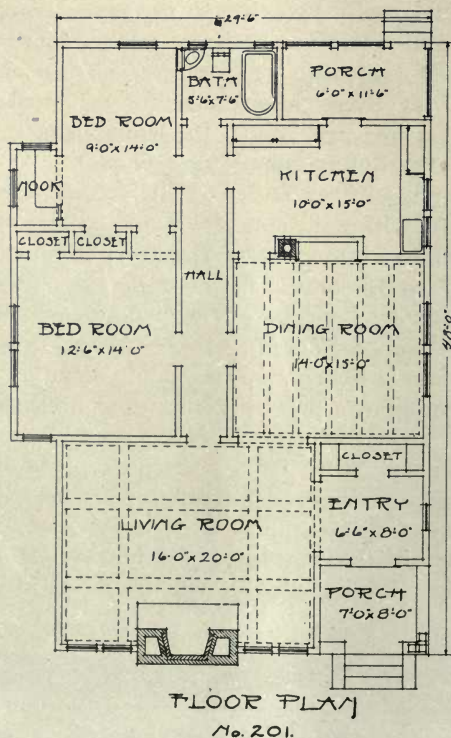
house and makes the bathroom accessible from any part of the house, a most desirable feature.

The two bedrooms are on one side of the hall with a door connecting them.

Each has a closet. The rear bedroom makes a good nursery for the children with its little alcove for all manner of games. It may also be used as a sewing room with the nook for the machine and a doubly - lighted window-seat for the needle work.

The kitchen is fitted with cupboards, sink and drainboards. The working porch beyond has good space and relieves the kitchen of much of the work in pleasant weather.

The exterior of the house is shingled, with wide over-



hanging eaves, and all of the woodwork has a dark stain. The concrete of the porch and of the chimney is in strong contrast, and quite effective against the dark background.

The little formality of bay tree on either side of an entrance, or of palms or ferns in small tubs on a formal pedestal built to receive them, gives a distinctive

touch to an entrance, and leads one to expect a greater interest inside the house.

The treatment is very simple in this case. The porch wall of cement is carried to the height of a balustrade. The porch floor and steps are of concrete and the buttress at either side of the steps forms a pedestal for the tubs in which the small tree or ferns are set.

The Home of a Business Man

THE accompanying design, planned for a physician, is a plan quite as practical for the family where the man of the house maintains an office at home. This plan as will be seen from the illustration, was planned for a corner lot, the house proper facing the main street with entrance onto a small porch and from there into a reception hall.

A feature of the plan is the garage in the basement, built under the sun porch. The lot pitches from the corner both ways, and by building a retaining wall the drive enters the garage with only a

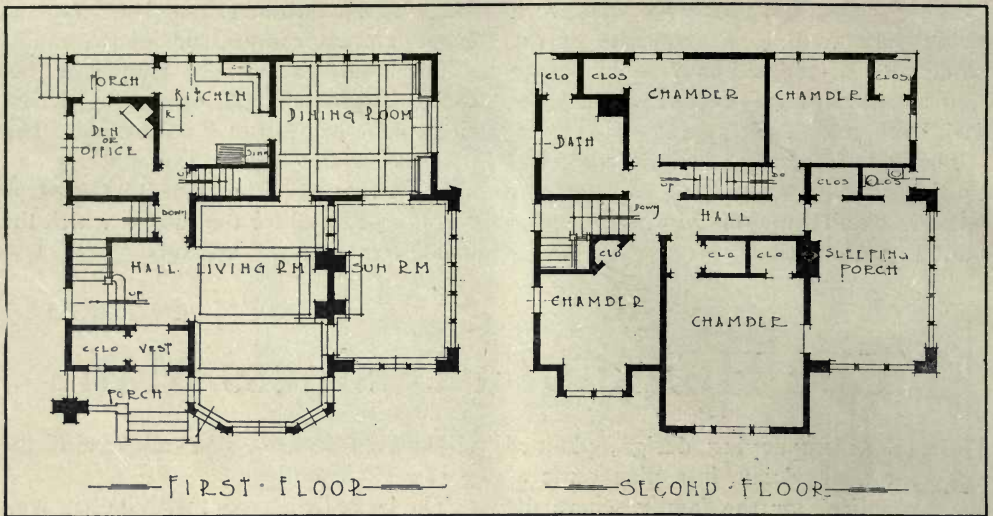
slight drop from the sidewalk level to the garage doors.

The large living room with its bay window projected in order to take advantage of the view of the park down the street a block distant, makes an exceedingly attractive and homey gathering place for a large family. It has a massive brick fireplace, and beam ceiling. A French door opens onto a large sun porch which has an open fireplace. This room is fitted with casement sash, and has a tile floor, which has been laid over a reinforced concrete slab to comply with the building ordi-



Planned for a corner lot.

W. W. Purdy, Archt.



nance which requires walls and ceiling of a garage to be of fireproof construction where same connects with residence.

French doors open in to the dining room, where a massive buffet extends across the entire end of the room. The kitchen is complete with built-in cupboards.

The small office has a corner fireplace and can be reached from the front of the house, from the grade entrance or has direct access to the rear porch, making it very convenient for patients or business callers at the house.

The main stairs lead up from the reception hall, and under them are the basement stairs, with a grade entrance. The rear stairs start from the small hall beside the kitchen door. These land at the opposite end of the main hall and allow the maid direct access to her room. A door shuts this service hall from the rest of the house.

On the second floor are four chambers, and in addition to these there is a large

sleeping porch, and large bath. A stairway leads up over the rear stairs to the attic where two additional servants' rooms or a large amusement room might be finished off.

The stairway leading to the basement is convenient to the front of the house. Beside the garage there is a laundry with a dry room adjoining, a fruit and vegetable room, a fuel and furnace room.

The floors of the main portion of the house on the first floor are of oak, with fumed oak finish in the living room, and the dining and sun room are finished in ash, stained a silver gray, the kitchen is in pine for white enameling with linoleum floor. The office is finished in fir with linoleum on the floor. The floors on the second floor are of maple with pine trim for white enameling, tile floor and wainscot in the bath.

The exterior walls are of frame with stucco applied over metal lath, with shingle roof stained.



Oak Flooring

*"America's Best
Flooring"*

- ☞ In the majority of the finest residences where floors of **permanent** beauty are desired, **Oak** is specified and used. In moderate priced residences where the cost question is considered more closely, **Oak** is again the chosen material for floors.
- ☞ An **Oak Floor** needs no disguise. Its natural grain imparts an air of quiet refinement and is even more dignified than carpets or other floor coverings.
- ☞ **Oak Flooring** $\frac{3}{4}$ " thickness by $1\frac{1}{2}$ " or 2" faces can be laid over old floors in old homes or over cheap sub-floors in new homes at a very low cost. It is cheaper than carpets or pine flooring.
- ☞ A carpenter or handy man can lay **Oak Flooring** successfully. It offers a very profitable side line for carpenters in winter or during the slack season.
- ☞ The lady of the house wants **Oak Flooring** because it is capable of friendly harmony with all other furnishings.
- ☞ The landlord demands **Oak Flooring** because it commands better selling and rental values and assuring the highest class of tenants.

Write for booklet

The Oak Flooring Bureau
1348 Conway Bldg., Chicago



The "Home Builders"

NO. 2 THE HALL AND STAIRWAY

THE gratifying success of John's suggestion for a white dining room led to its adoption for other rooms. It was found to be true that

LUXEBERRY WHITE ENAMEL
Whitest White Stays White

produced a rich permanent snow white finish with no tendency to turn yellow, crack or chip. It was also seen that the immaculate white finish could be preserved indefinitely by a gentle washing. So it was decided to use Luxeberry White Enamel on the reception hall and stairway, and to give some of the bedrooms the same treatment as well.

LIQUID GRANITE for FLOORS
Lasting Waterproof Varnish

The Homebuilders too, decided that no matter what style of finish was adopted for the interior trim, Liquid Granite was the ideal floor finish. It is transparent, develops and preserves the grain and color of all woods and makes a lustrous finish that is mar proof, waterproof, wear resisting, and is kept in perfect condition by the occasional use of a floor mop.

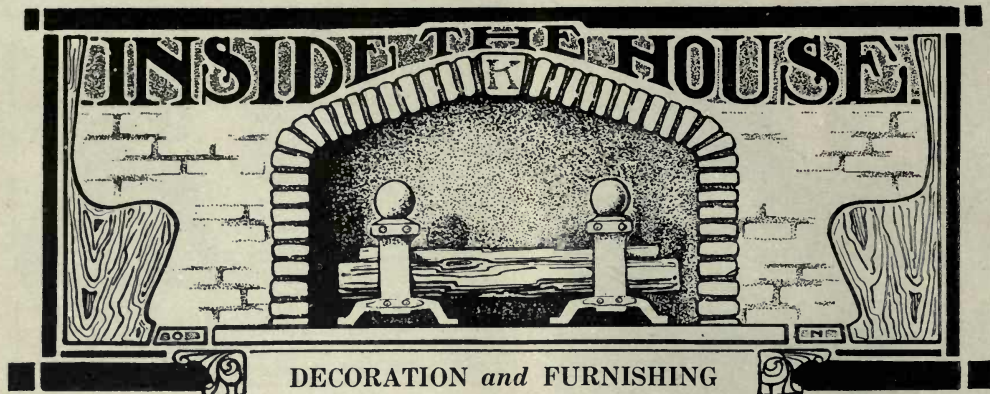
Homebuilders everywhere can secure finishing information from the nearest Berry Brothers dealer or from our factory.

BERRY BROTHERS
INCORPORATED
World's Largest Varnish Makers

Established 1858

Factories: Detroit, Mich.; Walkerville, Ont.; San Francisco, Cal.
Branches in principal cities of the world.

(202)



The Background for Home Life

GOOD decoration in the home appeals with special force to cultured people, to whom the beauty of design and color is not only a source of genuine enjoyment, but a constant necessity. The hangings for the walls, the selections of the fabrics for the draperies, the choice of laces and their harmonious treatment, all tend to disclose the characteristics of the occupants.

The general form of wall surface in the usual home is a smooth white plaster,

which may be treated in a number of ways. It may be finished in flat oil applied directly on the plaster, blended and stripped and then embellished with stencils, or worked out in free hand. Also, the walls may be finished in water-color or hung with paper, burlaps or some of the many different fabrics.

Invariably the home builder puts more money into the completion of his home than was at first intended; therefore, for the sake of economy, wall paper is de-

cided upon for the wall covering. Studied from the standpoint of the almighty dollar, nothing will approach wall paper when one is striving for truly artistic effects at a moderate price.

To enhance the beauty and dignity of a well planned home serious thought should be given to the selection of colors, the design



A charming living room done in pretty color and mulberry. (Residence of Dr. H. E. Braasch.)

INSIDE THE HOUSE

of patterns, the quality, texture, etc., of any material which is to be introduced into the home for the purpose of decoration. These should all be carefully worked out in conjunction with some person who has made this work a study and who understands the technical points and their inter-relations. Under no circumstances should you seriously enlist the aid of your neighbors or intimate friends, because they have dabbled in china painting or "done a few things" in oils. Bear in mind that it is your own home you are planning; that you must live with this or that paper surrounding you for a number of years; that you cannot discard it like a poorly selected garment and also, that if you have made an unwise selection, you will have a long time to regret it.

Never make a final decision on the wall and window hangings of your living room, in fact any room, until you have had large samples submitted to you in your own home and lived with them for a few days, both by natural and artificial light. It is surprising how different some paper will appear when brought into your own home surroundings. In the salesroom it was charming, but in your home it may be entirely out of place.

As the welcome guest enters the house, he should have a feeling of pleasant anticipation; as he steps into the living room, the eye should be met with pleasing gradations of colors or soft contrasts and not be shocked by a series of discordant notes.

Living Room.

The accompanying photo shows one end of a charming living room done in putty color and mulberry tones, which make a pleasing and harmonious contrast when properly handled. This room has a south and west exposure and the large expanse of glass admits a profusion of sunlight.

The walls are hung with a heavy embossed paper of a beautiful putty shade with a slight textile weave which makes



B-yond is a most delightful sun room. (Residence of Dr. H. E. Braasch.)

a splendid background for a few well chosen pictures which may be framed in Circassian walnut or dull gold. The panels of the heavy beamed ceiling are done in a light cream tint just off the white.

The window hangings are built of a heavy Sunfast repp in a beautiful shade of mulberry, the side curtains being unlined, but finished with a two-inch hem and caught back with bands made of the same material, edged with a small cord in dull gold.

Each group of windows contains four casement sashes which swing into the

INSIDE THE HOUSE

room with stationary transoms above. The old fashioned lambrequin with pipe pleats finished with a metal galoon in dull gold, is made quite shallow so as to admit plenty of light and allow a free swing to all of the windows.

The lambrequin is made over heavy buckram, lined with cream sateen and attached to a narrow pine board with a three-inch return at each end. The side curtains are of fifty-inch material split in half, pleated to fourteen inches and hung with rings over small books screwed into the back of the board. Screw eyes at each end of the board permit the board (with lambrequin and side curtains attached) to be hung on two long hooks which have been screwed into the window casing at the upper corners. This arrangement is a blessing to the housewife at cleaning time as the hangings can be easily removed by simply lifting them from the hooks.

The laces are made of a very soft "all over" pattern fancy net, with two-inch hems on both sides and bottom. The tops of the laces are not finished in the conventional manner with casing and heading, but are pleated to fit the width of each window with small rings attached to each pleat, the pleats averaging about six inches apart.

The laces are suspended from a small brass rod, fastened to the casings with brackets projecting two inches and placed immediately behind the board, allowing plenty of room to slide the laces to one side when the window is opened. When the window is closed the laces may be easily drawn back and, the pleats being accurately spaced, each fold will find its proper place.

Opaque shades are also concealed behind the lambrequin with plenty of room

to roll freely between the glass and the laces.

This form of drapery, the lambrequin embracing the four windows, with the addition of the laces which are very sheer and do not interrupt the view, presents a broad and satisfactory treatment without stuffiness.

At the other end of the room is a wide generous fireplace of grayish brown brick, showing touches of soft green and dull red. A plain six-inch oak slab extending the full width of the room, forms the mantel. With bookcases on each side and small casement windows arranged in pairs over the mantel, the fireplace is the architectural feature of this very livable room.

The floor is covered with a large Mahal rug from that far off village of Sultanabad. The field of the rug is a rich red with a beautiful luster, in a pure Farghan pattern, while the wide border is worked out in dark royal blue, deep red and camel's hair brown.

Sun Room.

Opening off this room with two large French doors, is the most delightful sun room imaginable. This room extends from the front of the house with six groups of swing windows arranged in pairs on three sides, permitting a splendid view in all directions.

The walls are hung with a cool gray striped paper in two tones, with a simple border to relieve it at the beginning of the coved ceiling. This room depends solely on the blue and rose cretonne with its gorgeous splashes of color, for the decoration.

A flat stiff valance made over buckram with side curtains of split width, is used in this room and hung from a frame in the same manner as the living room dra-



peries. This cretonne is unusual, being printed on both sides and appeals to the eye when viewed from the street.

Cretonne shades are hung on the French doors on the sun room side and when drawn halfway down with the light showing through them, they give a wonderfully charming effect. These two cretonne shades are made of half widths, fastened to ordinary shade rollers, scalloped on the bottom and finished with edging. A thin bar of iron is slid into a small pocket near the bottom of the shade to make it hang flat and smooth.

This room is what its name implies; a sun room pure and simple and no laces are hung at the windows for this reason; the wood muntins being sufficient decora-

tion. When it is desired to shut out the strong light, a large opaque shade may be found, concealed at the top of the window behind the valance.

All the furniture for this room is of comfortable cool wicker, enameled in old ivory, with cushions and back pads filled with fluffy silk floss and covered in the same cretonne.

The lighting of this room is obtained from a luminous bowl, which throws the light on the ceiling, suffusing the room with a soft glow which is soothing and restful to the eye.

As sunshine is a synonym for health, happiness and optimism, this little room should be a constant joy and pleasure to the occupants.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing
Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given FREE OF CHARGE. Enclose stamp for reply.

IT is surprising to see the wonderful increase being made in the abundant use of chintzes, cretonnes, printed linens and cottons, which are now available in a wide range of design and coloring and are charmingly adaptable in beautifying the rooms of our modern habitations.

The delicate pinks, blues and yellows of Priscilla's garden; the printed linens of old England; and the crude block prints with their gorgeous splashes of color on a black ground, each with an atmosphere of its own, radiate color, sunlight and cheerfulness.

In the treatment of doors and windows, charming fabrics may be procured suitable for any scheme of decoration or

architectural design that may exist.

"My lady's chamber" offers an exceptional opportunity to bring into the home the atmosphere of the garden with the aid of these inexpensive fabrics with their delicate harmonious colorings and pleasing designs.

A very attractive sleeping room may be conceived having the walls covered with a simple narrow stripe paper in French gray with ceiling treated in a creamy white; or, if a stripe is not desirable, a soft gray Chambray paper with a rough linen finish may be substituted. This may be used with woodwork enameled in white or ivory and rubbed to a dull finish. The floor should be coated with white, not orange, shellac and

INSIDE THE HOUSE

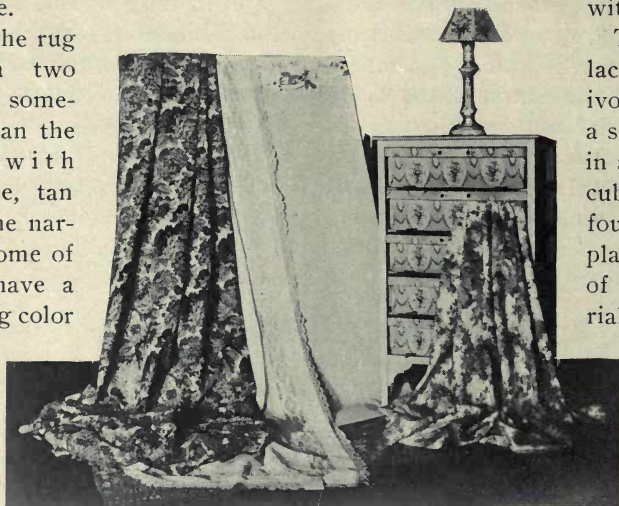
waxed. This chamber scheme may include a rug made of body brussels carpeting with a twelve or eighteen inch border. This popular material comes in a wide range of designs and colors and are usually copied from the better grades of Wiltons. The body of the rug should be of a small pattern in cube form or of an interwoven design on the lines of a trellis or lattice.

The field of the rug should be in two tones of gray somewhat deeper than the wall color, with touches of rose, tan and green in the narrow border. Some of these carpets have a little contrasting color scattered over them in the form of roses carelessly thrown here and there and are very effective.

The walls being in gray it is preferable to display plenty of color in the draperies, which will permit the abundant use of cretonne and prints. At the windows a twelve-inch ruffled valance gathered on a rod projecting from the casing two and a half inches, with side curtains underneath, made of fifty-inch material, split, or two single strips of thirty-six inch fabric, and caught back with cuff bands, make a very simple and pleasing treatment.

The valance may be made more elaborate by stretching the material flat over

buckram, shaping the bottom edge and finishing with a narrow edging. Also the side curtains may have on the front and bottom edge a three-inch band of plain percale or cotton taffeta to match the ground color of the cretonne with a very small cotton cord placed over the seam where the two fabrics are joined. This will necessitate lining the side curtains with sateen.



Chambray wall hanging No. 90, 22 in. wide, at 50c single roll; border No. 85, at 25c per yd. Lace curtains 36 in. wide, 2 1/2 yds. long, No. 52156E, \$4.50 pair. Cretonne on left; roses on white taffeta ground; 36 in. wide, 15c yd. Gray and rose Brussels carpet; carpet 27 in. wide, \$1.85 yd.; border 13 in. wide, \$1.35 yd. Shadow taffeta on the right, printed on both sides; 50 in. wide, \$2.50 yd. Lamp stand in high relief in old ivory and rose; No. 012, at \$2.75. Lamp shade in Papier-mache, edged with rose and green, \$1.00. Linen Cabinet with 5 sliding drawers, covered with French cretonne, No. 169, \$25.00; enameled in ivory.

The filmiest of laces in white or ivory or curtains of a soft Swiss muslin in a suitable dot or cube design with a four-inch ruffle of plain organdie or of the same material, is the proper thing. The ruffle should be cut from the length of the fabric instead of cross wise as it will ruffle better.

Remove the closet door and hang a cretonne curtain inside the opening on a small brass pole with traverse rings. Or, if the door is to remain and it is desirable to cover the woodwork, a swinging crane attached to the casing will carry the portiere nicely.

A slab of plate glass with a polished edge (a bevel edge chips easily) cut the size of the dresser top, with cretonne underneath, is more practical and decorative than a lace cover.

Cover the chairs with the same cre-

INSIDE THE HOUSE

tonne or make loose slip covers which can be removed for laundering. A cretonne spread may be made for the bed with side and foot valance, gathered or pleated on a sheet and laid on springs under the mattress. If this makes too much color in the room a Marseilles spread is always appropriate.

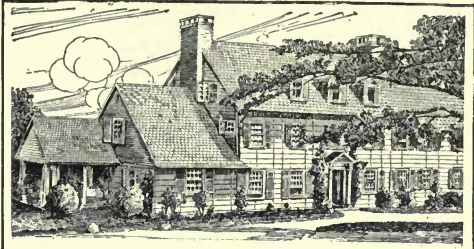
A finishing touch may be given to the room by having shades for the side lights made of the same material and gathered on little wire frames. If the cretonne is too stiff, soft sheer silk may be used.

After the room is completed, an artistic touch may be added by taking the motif and coloring from the cretonne and applying in free hand, four or five clusters of flowers on the prominent wall spaces immediately under the picture moulding.

A spray here and there may pass under the moulding and project a few inches out on the ceiling. This must be executed in water color and handled in a very sketchy manner with very little detail worked out.

A clever conceit is a luminous bowl for indirect lighting hung with chains from the center of the ceiling. These bowls are to be had with a floral design etched on the surface. A thin transparent glaze of the same color as the decorations, is to be applied to the etched design and when illuminated presents a stunning effect. The finish of the metal parts of the lighting fixtures should be in silver.

Lingerie cabinets are very much in vogue. These clever pieces of furniture are simply light frames of wood enameled the same as the wood trim of the chamber, with sliding boxes of heavy card board, covered with cretonne of the desired pattern. Dainty desk lamps are shown which may be selected in the prevailing color of the room.



Do You Prefer White Enameled Woodwork?

The ultimate success of this treatment depends upon the *kind of wood under the enamel.*

ARKANSAS SOFT PINE

Is particularly adapted to this effect because it possesses well-balanced absorbing qualities which *provide a sustained "life" to the finished surface.*

Being free from pitch or resinous oils, this wood positively *will not discolor the enamel* from underneath.

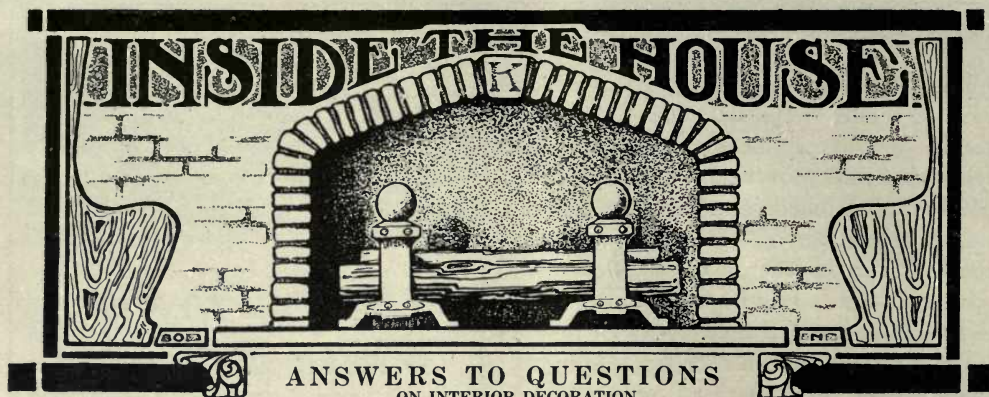
To *avoid regrets* and obtain *permanent satisfaction*, choose Arkansas Soft Pine for your new home—or remodeling.

White Enamel Trim booklet now ready. Ask for it. Lovers of the perfect house should have our new Home Builders Book de luxe. Sent on request. Address Dept. K.

Free Stained Samples

Arkansas Soft Pine is sold by dealers. Should the one you patronize not have it, let us know.

Arkansas Soft Pine Bureau
Little Rock, Arkansas



Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

A Color Scheme.

C. R.—We are building a house and have gotten to the interior decorating. Will you kindly advise us?

Our woodwork is oak, dull finish, not very light, and not very dark.

We have a southern exposure for our living room, and our hall opens into same, also French doors in living room on the east; the hall has western exposure.

We had intended finishing the walls in a light gray tone, and having mulberry rug and hangings.

The question of fireplace brick has come up and our original plan was a tan, something that blended well with the woodwork.

Dining room has north, east and southern exposure. Can we use the blues in this room?

Ans.—In reply to your questions: Your color scheme so far as you state it is excellent. The oak finish, gray wall and mulberry is a fine combination.

The fireplace brick will be even prettier in gray than in tan and blend equally well with the woodwork and better with the wall. Gray brick is never a true gray but has an ecru cast very soft and pleasing, laid up in mortar slightly darker than the brick. The hearth, of course, the same. The wall should be a fawn gray also. There are many lovely tones of this gray in paper, but it is not so easy to get a tint.

Yes, old blue will be entirely feasible in the dining room, especially if combined with the same warm gray as a dado or

background in a decorative paper, in blue, dull green and warm gray. Some of the grasscloth papers which combine these tones would be good in the hall and complete the scheme.

To Supplement Black Walnut Furniture.

L. G. N.—I would like to have your ideas and suggestions for rugs and hangings in a living room and dining room, opening together. The walls will be the color of rough plaster, sand finish, with beamed ceiling.

The living room has an eastern exposure, extending the entire width of the house. The dining room faces south.

I have old-fashioned black walnut furniture for the dining room, and enough to partly furnish the living room.

If possible I would like to have the woodwork in both rooms finished in mission.

Suggestions in the matter of color schemes, etc., would be appreciated.

Ans.—We have lately seen a house furnished similarly to yours, in which the woodwork was treated with a dark stain, Antwerp or Cathedral Oak. These stains are darker than mission and the effect with the dark antique furniture was rich and elegant. A rubbed wax finish will be better than varnish.

With the eastern exposure of the living room, we would use a mulberry color in the rugs and hangings, which will offset the rather cold effect of the gray plaster.

Supplement the walnut furniture for

A perfect background for pictures



Get this
book—
it's free

Beautiful, restful

Not only does Mellotone add rare beauty and restfulness to walls and ceilings, but it provides the ideal setting for your pictures.

Mellotone is exceedingly durable, not easily scratched or marred, fadeless and washable. Ideal for stenciling.

Lowe Brothers
High Standard
Mellotone

Boston Jersey City Chicago
Kansas City Minneapolis

The Lowe Brothers Co.

Lowe Brothers, Limited, Toronto, Canada

Write for this book

Full of good ideas for home decoration. With it comes 18 beautiful color plates of charming homes, exteriors and interiors, with description of each house and room, giving specific directions for painting and decorating.

465 E. Third St.
Dayton, Ohio



Nursery finished with Ceil-Board, then papered.

CAREY

Ceil-Board
SUPERSEDES PLASTER FOR
WALLS
AND CEILINGS

makes the most sanitary walls. It eliminates the dirt and possible danger of plaster. For the children's room its flat, even tones are restful and pleasing. Papered, painted, varnished or in the five finishes of the board itself, Ceil-Board is the ideal wall finish. Non-absorbent—easy to apply.

Write for booklet "Beautiful Interiors" and samples.

THE PHILIP CAREY CO

Gen'l Offices: 1024 Wayne Ave., Lockland, Cin., O.
Offices and Warehouses in Principal Cities.



Fixtures That Are Made to Light and to Last

"Gauger lighting everywhere follows the evening glow"



Look for this Tag on every indoor fixture

BUILT to give service as long as your house shall stand—this is the aim of

GAUMER

Guaranteed

Lighting Fixtures

No loose joints or flimsy construction—every Gaumer Fixture must stand a rigid test for strength and careful construction before it leaves our shops. Designed by our own craftsmen, finished by a special electroplating process, it preserves its beautiful surface without corrosion or tarnish.

Tell your dealer you want the genuine Gaumer Fixtures. The Gaumer Guarantee Tag protects you.

Write us for advice and suitable designs, sending us an idea of your house or room plans. Address Dept. D.

BIDDLE-GAUMER COMPANY

3846-56 Lancaster Avenue

Philadelphia, Pa.

LIGHTING GAUMER FIXTURES

Keep the American Dollar at Home.

INSIDE THE HOUSE

living room with wicker, stained dark gray and upholstered in a cretonne having gray and dull red or mulberry coloring. Such cretonnes are easily found in the large cities. The hangings should be plain mulberry color.

The dining room rugs and hangings should be soft old blue.

PICTURE MOULDING.

W. R. T.—“As regards interior woodwork for this house, are they now using a continued belt course from the tops of the door and window casings around a room in place of a moulding? I now intend to have my rooms tinted instead of papering them. I understand that a ‘sand plaster’ will take a tint better than a hard-finish plaster. However, will a sand plaster take wall paper in a satisfactory manner?”

Ans.—A flat moulding which carries a line at the top of the door and window casings makes a very effective division between wall and ceiling color or material, but it should not be heavy. The picture moulding is ample and this placed on a line with the tops of the door and window casings, bringing ceiling color down to it, gives a very satisfactory frieze effect. The addition of a little cornice mould in the corners where ceiling and wall come together adds much to the richness of the effect.

“Sand plaster” finish does take water color tints better than the smooth putty finish, but it is very difficult to get as satisfactory a job of wall papering over the rough sand surface as can be secured over the smooth putty finish.

A Colonial Interior.

R. D. H.—As a constant reader of Keith's, I turn to you for advice in decorating our new colonial home. I am

sending you a rough sketch of same. The woodwork is in white with mahogany doors. Kindly suggest colored scheme for living room, dining room, hall and den. At present I have the contents of two living rooms. In one I have mahogany pieces, a rug 9x12, in which the colors are old rose, cream and blues. In the other I have mission furniture. I got new mahogany furniture for my dining room (Adam style), also a Wilton rug. The colors are principally gold and blue. What color should the walls and overdrapes be?

I am very anxious to have everything in good taste and feel sure you can help me.

Ans.—We should advise a soft greyish tan for the walls of living room in a grass-cloth weave of paper, emphasizing the rose of the rug in the over curtains and some furniture. The glass curtains should be ecru rather than white. We should use the mahogany furniture in the living room and place the mission pieces in the den. A dull bronzy green would be a good color for the wall with the mission oak and the south facing.

Blue and gold is very pretty for a dining room but as yours has only north and east exposures, we should make the walls old gold and ceiling deep cream. You could then have curtains of old gold sunfast or a madras with blue and gold mixed.

We should use a tapestry paper on the hall in colors that would blend with both the tan and rose of the living room and the blue and gold of the dining room. There are such papers in soft tones of all these colors. One having a pale tan or gold background with design introducing the blended colors. Tint the ceiling pale tan or ivory.

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



**You Can Have Beautiful, Permanent Walls
With Little Cost and Trouble**

You, among many of Keith's readers, are probably planning to build or repair. Above all, you want the interior of your home to be artistically distinctive—inviting and modern. You certainly don't want plaster, because you know it cracks, chips and falls. You don't want dusty, fading wall paper—unsanitary, and meaning constant expense for re-papering. Why not use

UPSON PROCESSED BOARD

and line your walls and ceilings to last? You can keep them spotlessly clean. You do away with the nuisance and dirt of plaster—and save one-third the time of building and remodeling.

But there is a BIG difference in wall boards. Some are soft and spongy and hard to handle—it takes carpenters longer to apply them—it takes more paint to finish them.

Upson PROCESSED Board is hard, stiff and woodlike—KILN CURED like interior trim; WATERPROOFED; and READY PRIMED to afford the most perfect bond for paint. There isn't a dollar's difference in the average room between the cost of DEPENDABLE Upson PROCESSED Board and the soft, spongy, unreliable boards. And this slight difference is saved several times over in the lower cost of painting Upson Board, which takes less paint per coat and fewer coats.

In the end it is the CHEAPEST board you can buy.

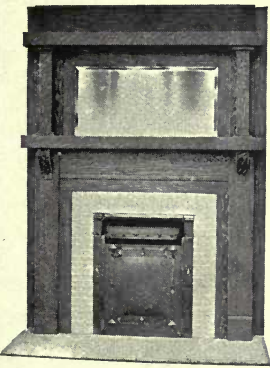
Get the handsome painted sample of Upson PROCESSED Board which we have for you. See how strong and stiff it is. Show it to your carpenter for his opinion.

And write also for our fascinating booklet that shows you how to Upsonize your walls and ceilings—how attractive and beautiful you can make them. (Enclose 2c stamp.)



THE UPSON COMPANY, Fibre Board Authorities
5 Upson Point, Lockport, N. Y.

LOOK FOR THE BLUE CENTER -- TRADE-MARKED



\$22⁵⁰

**"From Factory
to You"**

For this Elegant,
Massive selected
Oak or Birch, Ma-
hogany finished
Mantel.

**Beveled Mirror
18 x 36**

Price includes
our "Queen"
Coal Grate with

best quality enameled tile for facing and hearth.
Mantel is 82 inches high, 5 feet wide. Furnished with round or square columns, as shown in cut.

Dealer's price not less than \$35.00.

CATALOGUE FREE

We send our 100-page Catalogue, the finest ever issued, free, to carpenters, builders, and those building a home.

Hornet Mantel Company

1127 Market St., St. Louis, Mo.

Birch Trim

A combination of beauty and economy that gives lasting satisfaction—"What wonderful woodwork," exclaims the visitor. Architect and builder receive the credit.

Doors made of rotary cut Birch veneers, in a proper setting of Birch trim, increase the value of a structure without proportionately increasing the price. Many beautiful effects are within reach of the builder who uses Birch for trim, stairway and all interior woodwork.

Homes Trimmed with Birch have the added value of appearing partly furnished. Birch trim is suitable for residence, hotel, club, apartment, churches, schools, halls, office buildings. Birch does not masquerade as something else.

**Northern Hemlock & Hardwood
Manufacturers Association**

OSHKOSH

WISCONSIN

INSIDE THE HOUSE

HOUSEHOLD ECONOMICS

Full Efficiency for the Window Opening

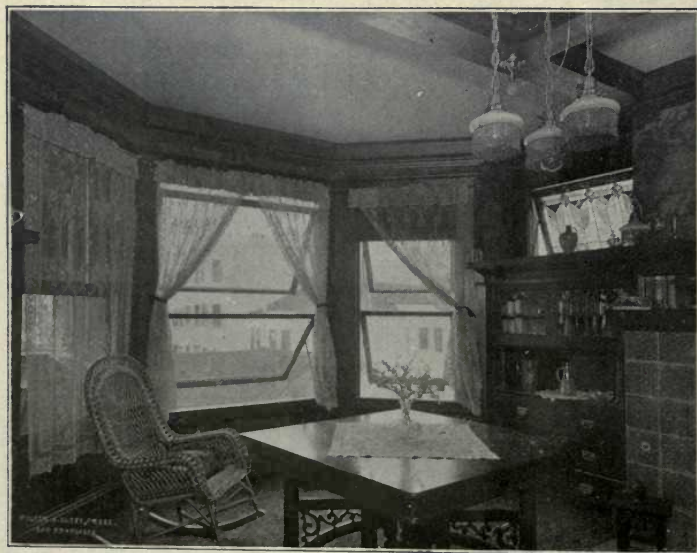


DEVICE has lately been perfected and put on the market by which both parts of the usual double sash window may be opened at the same time if desired. This gives a full efficiency to the window, allowing the full space to be opened, instead of one-half or less as the possible maximum opening. The sashes are weightless and reversible. One sash only may be opened and that to the smallest degree,

one or both may be turned to leave the entire space open, or the sash may be entirely reversed, allowing the outside of the windows to be washed from the inside. The movement of the sash is rotary, and entirely outside of the line of the window stop, so that it does not interfere with a screen on the inside of the window, nor with draperies over the window opening.

Schools, churches and public buildings are availing themselves of the open air possibilities of this device. It has especial value for sun and sleeping porches, but it is applicable equally to the regular windows in the house. Its possible application to residence work, and to all of the windows in the house as well as to glazed porches, gives it a particular interest to the home builder.

Nearly every feature in building construction has kept pace with modern demands except windows for the home. These have not changed materi-



A dining room where both sash opens.

His Coal Cost Cut In Half



**$\frac{1}{2}$ to $\frac{2}{3}$ Guaranteed Saved
The UNDERFEED Way**

You can't fail to get the real *money significance* to you of a letter like this—one among thousands of such others telling of more and better heat for less money the New-Feed UNDERFEED way. It's mighty interesting:

FEED. It is indeed truly remarkable how comfortably it has heated my home during this long and trying winter, on what, on a conservative basis, I should say would be about half what I have formerly expended on other furnaces with less favorable results.

"In all my years as a householder I have never taken care of a furnace that requires less labor than the UNDERFEED. Coal is fed from *below*. The clean, live fire is always on top—in direct contact

(Signed) Jas. S. Copeland,
98 Murray St., Binghamton, N. Y.



Save Your Coal Money Likewise

All this comfort and saving is due to the scientific principle of combustion of the New-Feed UNDERFEED. Coal is fed from *below*. The clean, live fire is always on top—in direct contact

with the most effective radiation surfaces. Fire is never chilled, because there are no feed doors to open. There is no smoke, soot or gas, because these valuable heat elements are all consumed, since they *must* pass UP through the fire.

Easy to Handle

A boy of twelve can handle the New-Feed UNDERFEED with every success. A few easy strokes of the operating lever from a standing position, and the fire pot is replenished with coal. And the New-Feed UNDERFEED burns the cheaper grades of coal as effectively as others burn the costlier grades. No clinkers—no partly burned coal. Everything burned to clean white ashes—and few of them.

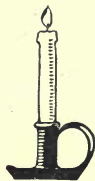
Ask For Free Book

It is called "From Overfed to Underfed." Solves many a heating problem for you. It's free. No obligation. Just send the coupon today—NOW. Remember, a saving of $\frac{1}{2}$ to $\frac{2}{3}$ coal cost is actually *Guaranteed* the New-Feed UNDERFEED way—a guarantee backed by a million dollar concern.

The Williamson Heater Co.

(Formerly the Peck-Williamson Co.)

36 West Fifth Avenue, Cincinnati, Ohio



This cut-out view of the New-Feed UNDERFEED Furnace shows how it burns coal on the "candle" principle. Fuel is fed from below. Clean, effective flame always on top. All smoke, gas and dirt transformed into usable heat. No waste.

THE WILLIAMSON HEATER CO., 36 West Fifth Ave., Cincinnati, O.

Tell me how to cut my coal bills from $\frac{1}{2}$ to $\frac{2}{3}$ with a Williamson New-Feed.

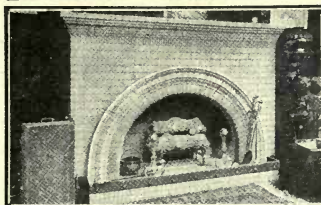
Warm Air.....Steam or Hot Water.....
(Mark X after System interested in)

NAME

ADDRESS

MY DEALERS NAME IS

DEALERS—Let us tell you about the New-Feed UNDERFEED and our new proposition. Both are winners.



**Colonial
Fireplaces
ARE RIGHT**

Made to Order
from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

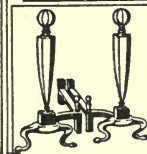
Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

YOU NEED THESE



**OUR SELECT LINE
OF
AND IRONS**

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc., will interest all who are building or improving their homes. We make only high grade goods but our prices are right.

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

Send in the Coupon and Get Our Catalog

STOVER MANUFACTURING CO.
704 EAST STREET FREEPORT, ILL.

Send me your Catalog No. 1525. I am especially interested in
Name
City State

INSIDE THE HOUSE

ally since Colonial days, other than a better adjustment of weights and pulleys and the fact that glass is made in larger plates so that small panes are not necessary in modern work. Even the casement sash is an adaptation of the much older English casements.

The ease with which screens and window draperies are arranged with double hung windows has done much to

cords, ecetera. The sash is not unlike the ordinary sash in appearance and, equipped with the metal attachments, it is fitted into a plank frame. A pivot and shoe in the top of each sash slides in a groove in the jamb of the window, while a carrier arm attached to the sash gives an outward rotary motion which opens, and finally if pushed to the limit reverses the sash, placing it with the outside of

the glass in the room. This makes it easy to reach both sides of the window in keeping them clean. It also facilitates reglazing a broken light of glass, and refinishing the window.

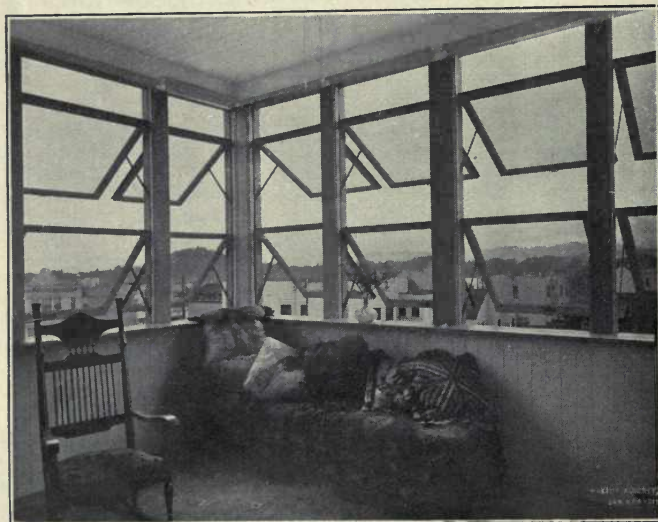
The open sash sheds rain, several sashes acting as a louvre. With a shade attached it serves as an awning. The window is easy of operation. It is noiseless, the window itself cannot rattle, and there are no weights to rattle in the box.

An efficient weather strip may be readily applied to this window. Storm windows may be placed either outside of

the window in the usual way, or they may be pivoted on the inside. When the storm sash is pivoted on the outside, the lower rail of the storm sash is attached to the lower rail of the bottom sash of the window and moves with it. In reversing the lower sash the storm sash automatically unlocks.

Screens may be easily arranged on the inside of the window. They may be pivoted at the top and swing in so that they will not interfere with the shades and draperies, and be easily removed when desired. A rolling screen is perhaps the most convenient device for screening a window opening.

These attachments, as applied to casement windows, take the place of hinges and hold the window firmly in at any



For a sleeping porch.

keep them in general use, notwithstanding the fact that they only give half efficiency in their opening. Most windows are not opened even to their full efficiency on account of the draft they produce.

The angle at which the reversible window turns tends to allow the air to enter at the upper part of the window opening without causing an objectional current of air, thus giving the ventilation so much needed. This window, it is hoped, may help to solve the vexed problem of ventilation in the home through the winter months and more open air in the house when it is desired.

INSIDE THE HOUSE

desired position. They may be applied to three-fold or four-fold casements with or without transoms over and used without mullions between the sashes.

A Rolling Screen.

We have become willing to look through a wire mesh screen for two-thirds of the year, rather than be subjected to the pest of insects when we wish to open a window. A rolling screen has been devised which allows the screen to be pulled down when the window is opened and rolled out of sight when not needed. Such a screen is especially well fitted for use with the reversible window illustrated, and may be found useful in many conditions. The copper wire mesh screen is mounted on a spring roller in the usual way. The edges are metal bound and are arranged to run in a guide on either side of the window. When the window is opened the screen is pulled over the opening, and when not needed is rolled up out of sight.



The
Center of Comfort
in your home is the fireplace. Let your plans for it be well considered. Let us send you our illustrated literature about

"Lorenzen"
Fire Places Tiles Firesets Screens Grates Andirons Etc.


We are the largest exclusive Fire Place and Tile dealers in America. We save you approximately 50 per cent on everything you buy from us.

If you contemplate building write for Catalog No. 50 "Vogue in Fire Places," also booklet of Lorenzen Tiles and Mosaics.

We solicit inquiries from architects and contractors who seek the "unusual" at less than "usual" prices.

CHAS. F. LORENZEN & CO.
Established 1896
132 Reaper Block, CHICAGO, ILL.

Trade at home and prosperity takes no vacation.



**This Little Device
In My Living Room
Eliminates All
Damper-Tending
Drudgery &
Uncertainty**

Gives Even Temperature
Insures Comfort and Health
Prevents Waste of Fuel
Makes Heating Safe
Saves Many Steps
Is Automatic

**The MINNEAPOLIS
HEAT REGULATOR**
"The Heart Of The Heating Plant"

She may be willing, but she can't be as accurate. Her other duties divert her thoughts, and open, uncontrolled dampers allow the fire to go too far, burning coal wastefully and making the house too hot. The reverse might also be true and the fire go out for lack of draft or burn so low as to give little heat.

This device affords a sure, safe, guaranteed method of accurate temperature control. By automatically regulating the dampers it maintains the temperature desired—a warm even temperature during the day and a lower degree during the night hours. An absolute requirement in every modern home.

**ENTIRELY AUTOMATIC
A New Feature**

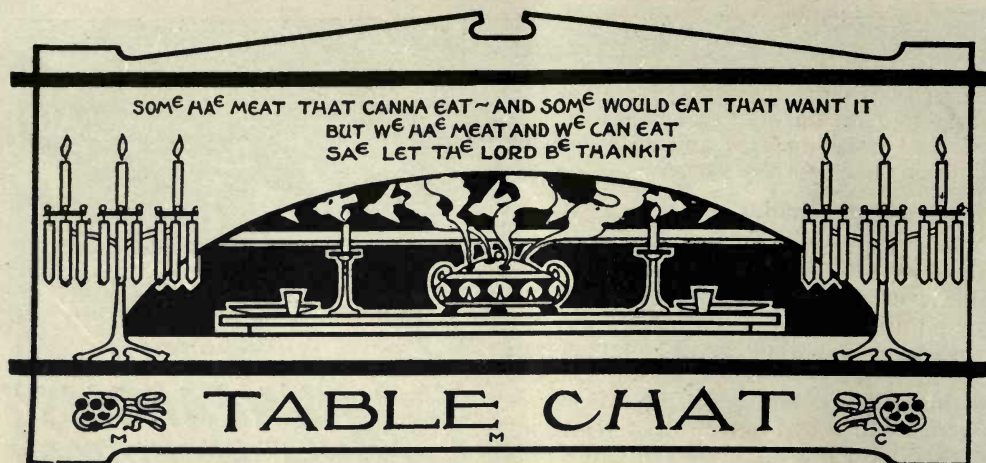
For the home owner who wishes to eliminate all care of the regulator motor we have just perfected our *electric motors* which require no winding. For homes having electric current we supply our alternating current motor, the power being secured direct from the lighting circuit. Where no electric current is available our direct current motor is used, with power furnished by four cells of dry battery which have ample capacity to last a full year.

The "Minneapolis" has been the standard for over 30 years. Used with any heating plant—old or new—hot water, hot air, steam, vapor or vacuum—coal or gas.

Sold and installed by the heating trade everywhere. Guaranteed satisfactory. Send for booklet—shows models, explains details, gives prices.

Minneapolis Heat Regulator Co.
2725 Fourth Ave. So., Minneapolis, Minn.





Twelfth Night

EXCEPT for New Year's Day, which has fallen greatly from its high estate, the only festival January has to show is Twelfth Night, the sixth of January, which used to be made much of, and still is in Europe, as it marks the end of the Christmas season. Then is the time to take down all the Christmas greens, and to have the final eating of the Christmas cake. The cake for Twelfth Night must

have all sorts of things baked in it, and the person who gets one or another of them has his future determined for him.

It is rather an amusing thing to have the cake and its cutting for the final attraction of a children's party. Naturally the cake will be a very simple one, but with plenty of raisins, and spice so that it may look as Christmas cakey as possible. The coin and the thimble and the ring may be repeated several times, so

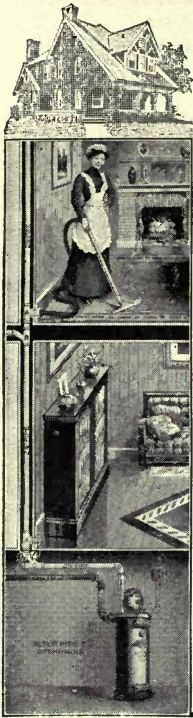
that each child may have a fortune. To the end that every slice of cake may contain one or other, fill the round pan half full and arrange the articles at regular intervals, before pouring in the rest of the dough.

A Vegetarian Meal.

Recently I watched the preparation of a meal, which was substantially vegetarian, and which was intended to give a large amount of nourishment at a very small cost. It consisted of lentil



A cake for Twelfth Night.



Write today for the TUEC HOME BOOK It is FREE!

BEFORE you let your contract for that new home you should read this little book that tells how thousands of other home makers, like yourself, have solved the problem of *keeping their new homes new*. Learn how they have solved the housecleaning problem, simplified the servant problem and insured their family health and happiness by means of the

TUEC STATIONARY CLEANER

For Health and Cleanliness

Learn about this wonderful device that can be installed, out of sight and hearing, in your cellar from where it will automatically draw all the dust and dirt and all the breathed-over atmosphere from every nook and corner of your house and every article of furnishing in it.

Before you pipe your house for any system of vacuum cleaning read this book and learn why you should never install any piping less than 2½ inches in diameter. Pipes of this size are necessary to permit the free and unobstructed passage of large volumes of air and of articles that would completely obstruct a smaller pipe.

Write today for the free book and for estimate of TUEC Installation for your home.

THE UNITED ELECTRIC COMPANY

10 Hurford Street,

CANTON, OHIO

The TUEC in competition with all leading Stationary Cleaners was awarded the Grand Prize at the San Francisco Exposition.



Cleanliness in the Home

Protect your family's health and keep your house and grounds clean and sanitary with a **Majestic Garbage Receiver** and a **Majestic Coal Chute**. Bury the Garbage Receiver in your back yard close to the kitchen. It is handy, but never unsightly. It is sanitary, emits no odors and keeps contents safe from dogs, flies, insects and vermin.

The Coal Chute can be placed in the cellar window space. It protects the house from marts, saves the lawn from coal dust and prevents a waste of coal.

MAJESTIC

Garbage Receiver

The only part exposed is the top and door. This opens and shuts with the foot to empty garbage.

To empty contents simply take off the iron top and lift out the can.

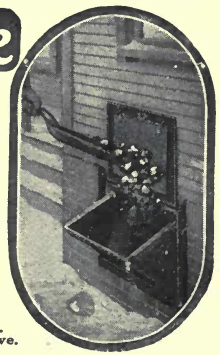
Coal Chute

Hopper comes out and catches all the coal. None is scattered over the lawn or soil. When closed sets flush with the foundation. Has a glass door giving good light to the basement. It locks from the inside and is absolutely burglar proof.

Write for Catalog

The Majestic Co., 517 Erie St., Huntington, Ind.
New York City, 50 Beekman St.

The Galt Stove & Furnace Co., Galt, Ontario, Can.
Kansas City, 5212 Saide Ave.



We have issued a
Very Interesting
Catalogue on

"Pergolas"

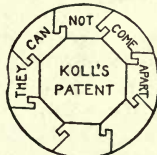
AND GARDEN ACCESSORIES

showing a series of new designs for Pergolas and Pergola Columns.

Hartmann-Sanders Co.

Exclusive Manufacturers of

**KOLL'S PATENT LOCK-JOINT
STAVE COLUMN.**



Pergola Album—"G28"—illustrates Pergolas, Garages, Lattice Fences, Veranda Treatments and Garden Accessories will be sent for 10c in stamps.

Catalogue—"G40"—containing very useful information about Exterior and Interior Columns, will be sent to those who want it for 10c in stamps.

Main Office and Factory: Elston and Webster Aves., Chicago, Ill.
Eastern Office: No. 6 E. 39th St., New York, N. Y.

Stillwell California Homes

—combine all the advantages of the true bungalow with many special features that give pleasing individuality and charm. Adaptable to any climate. No waste spaces. Built-in conveniences and rooms easy of access make housekeeping a delight.

3 PLAN BOOKS for \$1 Post Paid

"Representative California Homes"

50 splendid plans of homes costing \$1600 to \$6000—Price 50c

"West Coast Bungalows"

51—\$600 to \$2000—Price 50c

"Little Bungalows"

21—\$300 to \$1700—Price 25c

E. W. Stillwell & Co.

Architects

448 Henne Bldg., Los Angeles

We sell books and blue prints on a money-back guarantee



No advertising is accepted for "Keith's" that you can not trust.

TABLE CHAT—Continued

soup, a savory dumpling and a bread and cheese pudding. Fried bread was served with the soup.

Lentil soup is the penny dinner, about which we have heard so much in war times, and is immensely nutritious, all the legumes, lentils, peas and beans, being very rich in proteid. For four persons, half a pound of red lentils were used, soaked over night in a quart and a half of water, the water strained and saved. Two large onions, a carrot, a turnip and a stalk of celery were prepared, cut fine and put in the bottom of an iron pot, in which a tablespoonful of

suet and half a pound of flour, a teaspoonful of salt and cold water to mix, into which were stirred three finely shaved onions. It was moulded with the hands into a ball, tied up in a floured cloth, room being allowed for its swelling, and boiled three hours. When done it was turned out, cut in slices and covered with a brown sauce, which was to begin with a plain drawn butter, to which a cup of gravy and a dash of Worcestershire had been added.

The bread and cheese pudding was the ordinary bread and butter pudding, a mixture of two tablespoonsful of grated cheese and one of butter being used for spreading the bread. Over this was poured a custard of one egg, a cup of milk, a little salt and a little made mustard. After standing for half an hour, the pudding was steamed over boiling water for half an hour, or until the custard was set.

The cheese pudding finds a use for the odds and ends of dry bread which are apt to be on hand, also for rind ends of cheese, which should always be grated as fast as they accumulate, as for some mysterious reason, grated cheese does not mould as quickly as pieces. Stock can be substituted for the milk, and the liquid should do no more than saturate the bread. If the bowl in which it is steamed is well buttered, the pudding can be turned out upon a dish and keep its shape. This is a very good and substantial luncheon dish.

Cooking Sausages in the Oven.

Sausages are very popular, but they are also unpleasantly odorous. This difficulty is obviated by cooking them on a plate in the oven. An old platter is convenient, and they will take from twenty minutes to half an hour. Prick them and arrange them side by side. When the fat has fried out of them, pour it off and turn each sausage, and they will be far drier and crisper than if cooked on top of the fire. Spread the drained-off fat on slices of crustless bread and brown them in the oven, or in a hot frying pan; or choose a crisp apple like a pippin or a Baldwin, peel and cut in rather thick slices and fry in the drained off fat, and serve on the same platter with sausages.



Fried apples and sausage.

dripping had been melted. In this the vegetables were stirred till they were coated with the fat. Then the lentils and the water in which they had been soaked, and a teaspoonful of salt were added, and the whole simmered slowly for three hours.

The fried bread was very easily done. Thick, crustless slices were spread on both sides with beef drippings and laid on a tin pan, then cooked in the oven, browned on one side, turned and browned on the other, finally cut in small squares.

The soup was designed to give as much nourishment as possible, and so was merely run through a colander, after the addition of pepper and what salt was needed, but for ordinary use it would have been rubbed through a purée sieve, while it would certainly have been the better for a tablespoonful of butter. Lentils have a better flavor than either, but beans, Scotch or split peas can be used in the same way, while canned tomatoes are a delightful addition.

The savory dumpling was merely a suet crust, made with a quarter of a pound of

Gain Comfort, Secure Health and Economize Heating Expense

by warming your home with our open grate fire that does *More* than look bright and warms *More* than one room.

The Jackson Ventilating Grate

does all these things, and **More.** It draws in fresh air from outside, warms it by circulating it around the fire in a warming chamber and then pours it out into the room thru the register over the arch, just exactly as a furnace does. It warms several connecting rooms, or other rooms upstairs, furnishing four times the heat from the same fuel. The best heating investment for a cheer-loving home. Any mason can set it up from our complete plans furnished Free. Heats the house in Fall or Spring as well as a furnace with about half the fuel.

Send for Free Catalog of ventilating grates, mantels, andirons, and all kinds of fireplace fixtures, with explanations, illustrations, full information and prices; also reference to users in your region.



Many styles of grate and Mantels to choose from.

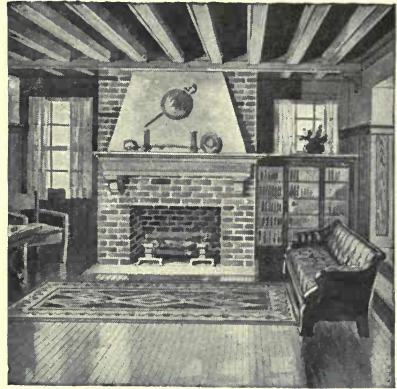


Study this diagram and you will see at once the heating and ventilating principle that makes this grate superior to all others.

EDWIN A. JACKSON & BRO.
M'rs, 25EEKMAN ST., New York

Interiors Beautiful

200 VIEWS



IN PLANNING the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

PRICE \$1.00, POSTPAID

With a Year's Subscription to Keith's Magazine---\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

Building?

Get This FREE Book

It tells all about the proper methods of beautifying your home. Describes Johnson's Prepared Wax, which gives hard, glass-like finish to furniture, floors, woodwork, etc. Does not gather dust. Is not oily. Book also tells about

Johnson's Wood Dye

Comes in 17 harmonious shades. Makes cheap, soft woods as artistic as hard woods. If you are interested in building, we will mail you free a Dollar Portfolio of Wood Panels, showing all popular woods finished with Johnson's Wood Finishes. The Panels and the 25c book Edition are Free and Postpaid.

S. C. Johnson & Son, Racine, Wis.
"The Wood Finishing Authorities"

"HOMES NOT HOUSES"



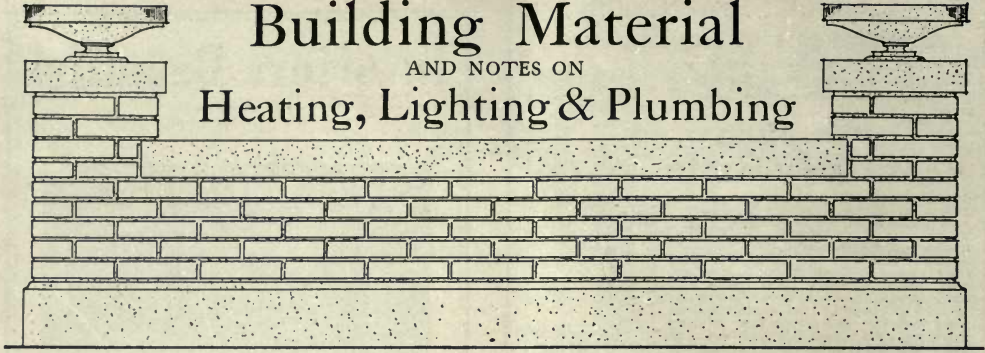
In every number of this magazine you will find a picture of one of our Bungalows. The complete plans and specifications will be sent you for \$10.00. Or, send us \$1.00 for our book. The largest and best published. 123 pages selected from the past 10 years. It costs no more to get the best. Sample pages free. Smaller Book showing 38 small Bungalows 25c.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

Building Material

AND NOTES ON

Heating, Lighting & Plumbing



"Air Is Free?"

FOOD is costly; housing is one of the problems of the day; pure water is a municipal problem; but "air is free," in the common thought. That is to say, we have not yet seriously undertaken our latest problem, and do not realize that clean "fresh" air at a comfortable temperature is not free to a single tax-payer. It is hardly attainable at any price to the lodger, the tenement dweller, the factory worker. "Out of doors" in the day time is indeed not for the workers of the city.

To the pioneer with the chinked log cabin or other crude form of habitation, air was free, altogether too free for the comfort to which we have sacrificed the pioneers' sense of freshness in the air.

In her book on "Conservation by Sanitation" Ellen H. Richards called air a neglected resource, and says, "man has learned very slowly the condition of his own safe living."

"Air in motion is necessary for human comfort and health. When man put a flat roof over his head and windows in the lower part of his room he began his downward career in health. Warm air rises into a cooler medium. Common sources of bad air give also warm air. Man's breath yields carbon dioxide, heat and moisture; man's body adds heat, moisture and odors. Lighting and heating, cooking, sweeping, dusting even walking on the floor, especially if carpeted, each adds its quota. The resulting gaseous mixture would readily escape if an opening were left." The one essential is a hot air shaft of sufficient capacity to take all the foul air rising and hot enough to keep up a good current. The failure of

the vent comes in expecting a cold air-shaft to "draw." "Because waste water runs by its own weight from the lowest point, and because carbon dioxide is heavier than air, the popular fallacy is almost ineradicable that waste air will go out at the bottom of the room if it has a chance. But the existence of an air duct is not sufficient unless there is power behind it. "Contrary to common opinion, foul air coming from bodies or lights always rises and strives to get out at the highest point, and if a sufficiently large and warmed outlet is furnished so as to keep the air warm until it gets to the roof there will be no trouble." As air cools in coming in contact with cool walls it sinks back.

"Under the crowded conditions of modern living, taking account of space, fuel, etc., it is estimated that to supply a family with fresh air costs the householder about one-fourth as much as food, only he does not find it in his bills."

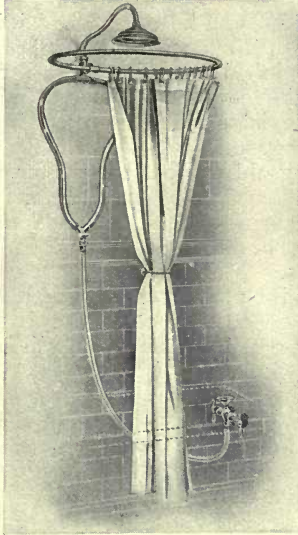
Preparation of Surfaces for Painting.

John Upton.

To get good results in painting you must have good paint and a good painter, and most important of all a good surface to receive the paint.

The condition of the surface is most important and is quite frequently not given due consideration. The final results depend largely upon the thoroughness of the preparatory work.

The surface must be perfectly dry, not only dry on the surface, but the wood must be thoroughly seasoned. In many instances paint is applied to a seemingly dry surface but a close investigation would show that the wood is unseasoned and is dry only to a slight depth.



This Wolff Shower

one of the several Wolff models, will add an invigorating zest to the bath that will be a source of keen satisfaction throughout all the years it will be used. Wolff Showers, in common with other Wolff fixtures, are extra full value for the money. May be added to your initial bath equipment with little increase of cost, or at any time after fixtures have been installed.

*Write for the Wolff
Bath Book Now*

and let appropriate fixtures be a part of your building plans. Wolff fixtures have long been known for their high standard of quality and are easily obtainable anywhere. Your plumber has our complete catalogue and will be glad to furnish them.

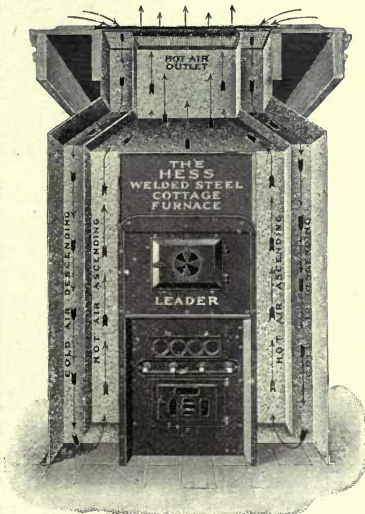
L. WOLFF MANUFACTURING CO.

"Makers of Plumbing Goods for 60 Years"

Pottery: Trenton, N. J.

601-627 West Lake St., CHICAGO, ILLINOIS

THE PIPELESS FURNACE



**Not a successor---but a *mate* for our
Regular Hess Welded Furnace**

The **Pipeless Furnace** heats with one big register, and the cold air returns to the furnace through the ends of the same register. It warms by circulation, better than stoves or radiators, with less fuel, and at less cost for installation. It insures a healthful atmosphere, for moisture is added to the air, and leakage of gas and dust are impossible, for **every seam** is welded, and is always tight. Suitable for bungalows, cottages, stores, churches, etc.

Our regular furnace heats with separate pipes and registers, and will distribute heat to a larger number of rooms than the **pipeless**.

Tell us your needs. We sell direct from **factory to consumer**, and can save you money, no matter where you are. We sell on easy payments also, if desired.

Hess Warming & Ventilating Co., 1217 Tacoma Building, **Chicago, Ill.**

HESS Electric Family Dish Washers save time, hands and dishes.

"Made in U. S. A."

When the sun beats on the surface, the moisture must find an outlet, and forces the paint away from the wood, causing blisters, which afterward peel off. The application of paint to unseasoned wood hinders its further seasoning and also encourages decay. Again, though the wood may be seasoned and dry on the inside, if the surface is wet or damp when the paint is applied all sorts of bad results may follow. What little key there is between the paint and the wood is soon destroyed, and scaling, blistering, and peeling will soon be noticed.

The surface must be clean and free from dust, grease and other foreign matter. On new work it may be sufficient to use a painter's duster, or it may be necessary to do some sand papering and scraping before dusting.

In new work the pitch is apt to cause trouble and destroy any paint that comes in contact with it. Pitch is found in the knots and in other parts of the wood. In some kinds of wood, as yellow pine, it is present to such an extent as to require special care.

The effectual and complete stopping or killing of knots and pitch is a difficult matter. It can be done by leaving the new wood unpainted for six months or a year. By this exposure the resins are brought to the surface and are either washed away or hardened. Another way is to use the painter's blow torch to draw out the treacherous stuff so that it can be scraped off. Perhaps as much trouble in painting is caused by knots and pitchy wood as by any other one thing.

The object to be accomplished with knots is to prevent their appearance in the finished work by covering them over with something to make a coating between them and the paint.

The most common method is to coat all knots and other places where pitch appears with shellac varnish. For yellow pine, spruce, cypress, or any wood containing much sap, it is a good plan to mix a small amount of benzol (coal-tar naphtha) with the priming coat. This will dissolve the surface layer of resins and allow the paint pigment to penetrate into the fibers of the wood.

Before the second coat of paint is ap-

plied all cracks, nail-holes and bad joints should be well filled with putty. Where a very fine job is required, each coat should be rubbed with sand paper before the next one is applied, all dust being carefully removed.

In planning old work even greater care should be taken to prepare the surface. When paint has been on a house for a long time it becomes dead and full of small cracks. Moisture will then get under the paint and loosen it. If a new coat is applied to this old paint it will pull the old paint loose and you will have a case of peeling.

It may be necessary to use a blow torch to secure good results. Thorough scrubbing with soap and water may be a help. This will remove all dirt and grease which would destroy the bond between the new work and the old. The entire surface should be scraped or rubbed with a wire brush and rough places should be sand papered.

The preparation of the surface of old interior woodwork for repainting sometimes presents difficulties. It may have grease upon it which is very difficult to remove with soap and water. It may be so hard and glossy that the new paint will not adhere to it.

The usual method of washing and sand papering may not answer. In such a case Benzol may be used. If commercial Benzol is brushed on a hard painted surface and soon wiped off it will remove the grease and cut the gloss so that the new paint will flow out smoothly and give good results.

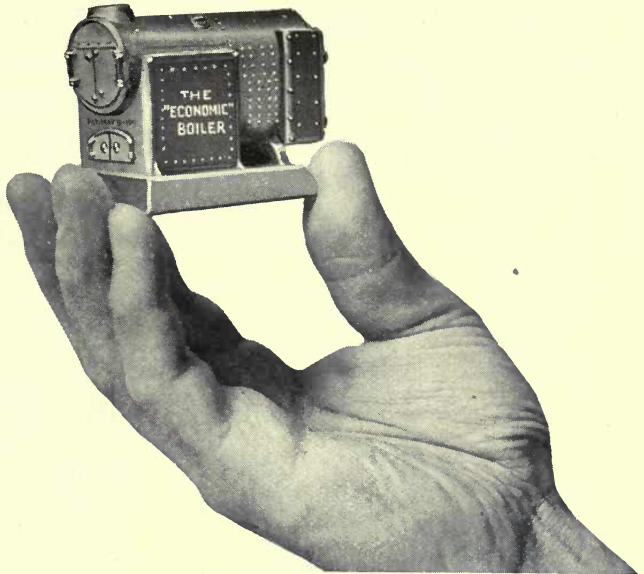
In painting plastered walls we should first give them a coat of glue sizing. This is made by dissolving five ounces of glue in one gallon of water. When this is dry the walls may be painted the desired color. This same glue sizing with about three times as much glue may be used on brick and stone walls as well.

Tin or other metal roofing and galvanized iron are difficult to paint, which is probably due to a very thin film of grease left on such material from the process of manufacture. This can be removed by exposing to the weather, but the better way with the tin roof, at least, is to scrub it with soap and water or with kerosene and let it dry before painting.

An Easy Boiler To Handle

==
Most Efficient
For
Heating
==

Write to
"Economic" Dept.
Erie City Iron Works
Erie, Penna.



Architect, Geo. L. Falk, Brockton, Mass., for Dr. N. M. Preston, Shingles through Taunton Lumber Co. This use of "CREO-DIPT" Stained Shingles on side walls and roof in two different color tones gives most pleasing results.

Artistic Beauty and Building Economy

Our Book of "CREO-DIPT" Homes shows a selection of over 100 houses out of thousands that are to-day covered with "CREO-DIPT" Stained Shingles. Whether you build, or remodel, or put on a new roof, be sure you investigate the economical and artistic values of

"CREO-DIPT" STAINED SHINGLES

17 Grades 16, 18, 24-inch 30 Different Colors
They come in bundles ready to lay without waste

We use only selected cedar shingles and preserve them in creosote and stain any color desired. No wedge-shaped shingles—no waste. Best earth-pigments—no aniline dyes. Save expense, time and muss of staining on the job. Our special process preserves them against curling up, rotting out or pulling off in wind and storm.

Write today for colors on wood and Book of "CREO-DIPT" Homes. Names of architect and lumber dealer appreciated.

STANDARD STAINED SHINGLE CO.

1022 Oliver St. No. Tonawanda, N. Y.

Shipment prompt. Branch Factory in Chicago for Western trade.

A small advertisement can tell you the one thing that makes all paint better paint. This one thing is

zinc

But if you want to know why Zinc is a necessary ingredient of good paint, you must send for—and read—this book, "Your Move."

The New Jersey Zinc Company
Room 414, 55 Wall St., New York

For big contract jobs consult our Research Bureau

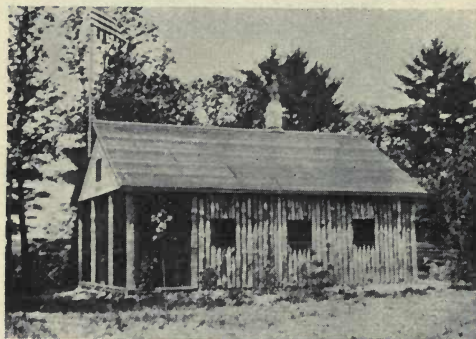
THE ARCHITECT'S CORNER

What Is YOUR Building Problem?

Put Your Home-Building Problems Up to Us, and We Will Give Them Careful Study and Reply Either Through These Columns Or by Mail When Stamp Is Enclosed.

What Can be Done with Logs?

W. H. H.—Your answer to J. S. in the August number was of great interest to me. We built our bungalow very nearly the same as he describes, had all our own logs very near us. It is 22x24 and the labor with chimney and one floor cost two hundred and fifty dollars. It has no finish except for the windows in-

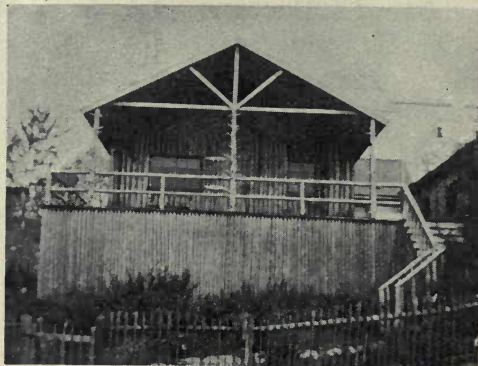


"Reveille."

side, and only patent roofing over the roof boards. We expect to live in it, but cannot possibly heat it. It attracts people to such an extent that sometimes we have over fifty callers a day. We copied our bungalow after one built at Grand Lake Stream, Maine, and which cost much more than ours.

"Reveille," as we call our bungalow, is built on the Sislar road near Andover, Massachusetts, and has a Bird Sanctuary of 14 acres about it.

We are building a shingled bungalow



Log bungalow built in Maine.

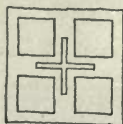
now, nearly the same plan, and costing but little more than the log one. We built the interior from a plan in Keith's and from advice you so kindly gave us some time ago. The living room is 22x15 feet and although it has only four rooms, it has 26 windows and is rather unique and very satisfactory.

Announcement.

We take pleasure in announcing the appointment of Walter C. Kimball, Inc., as eastern representative of this publication.

The New York address of KEITH'S MAGAZINE is now 432 4th avenue and eastern correspondents are invited to either call or address communications to Walter C. Kimball, Inc., and we can assure them of receiving every possible courtesy and service.

KEITH'S MAGAZINE,
M. L. Keith, Publisher.



MARION ALICE PARKER
HOME PLANNING AND HOUSE DECORATION
513 - SOUTH EAST - 4TH STREET
MINNEAPOLIS MINNESOTA

DISPLAY SKETCHES for
CONTRACTORS and REAL ESTATE MEN
Single and Two Family Houses, 1/4 inch scale
on sheets 11x17 Hand Colored. Very attractive
and price moderate. Send for Free
List. Working drawings on application.

Special Offer to Contractors

EVERY building contractor will be interested in securing two of the best journals on building, together with a fine book of plans under my "Special Offer."

12 Big Monthly Numbers KEITH'S \$2.00
12 " " " Nat'l Builder 1.50
1 " Book of Plans \$1.00
\$4.50

Special Price for all three \$3.00

Select Your Book From This List

Vol. 1-136 Designs Bungalows.....	\$1.00
Vol. 2-100 " Cottages.....	1.00
Vol. 3-125 " costing below \$4,000.....	1.00
Vol. 4-175 " " 5,000.....	1.00
Vol. 5-175 " " 6,000.....	1.00
Vol. 6-125 " " above 6,000.....	1.00
Vol. 7-100 " Cement and Brick.....	1.00
Vol. 8-50 " Garages.....	1.00
Vol. 11-40 " Duplex and Flats.....	.50
Vol. 12-100 " Artistic Homes.....	.50

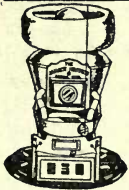
Send all orders with remittance to

M. L. KEITH

828 McKnight Building

Minneapolis, Minn.

BUY YOUR FURNACE \$10 DOWN \$10 A MONTH



Our monthly payment plan of selling direct saves you the dealer's profits and charges for installation. The

JAHANT FURNACE

with the patented "Down Draft System" is best for residences, schools, hotels, churches, etc., because it delivers plenty of heat wherever and whenever desired at a saving of one-third to one-half in fuel bills. Install the Jahant yourself. We send complete outfit, freight prepaid with special plans, detailed instructions and all necessary tools for installation. Satisfaction guaranteed or money refunded.

WRITE FOR FREE ILLUSTRATED BOOK

The Jahant Heating Co., 100 Stetner Ave.
Akron, Ohio

Save 1/3 to 1/2 on Fuel Bills

Plaster's "Backbone"

The strength of any plastered wall, either interior or exterior, is only as enduring as the lath over which it is laid. Specify

Kno-Burn Expanded Metal Lath

and be assured of permanence, smoothness and lasting satisfaction. Kno-Burn is on the mesh principle. The plaster settles into each opening like a knob, forming a grip that never loosens. Homebuilders send at once for our Free Book "Metal Lath for House Construction." It's valuable and will post you on many building questions. Write today.

North Western Expanded Metal Co.

965 Old Colony Bldg.,

Chicago, U. S. A.

Heat Your Garage Save Your Car

No frost damaged car—no cold knuckles in your garage—no discomfort or loss whatever when your garage is kept house-warm all winter long with the wonderfully effective



"REO" Garage Heater

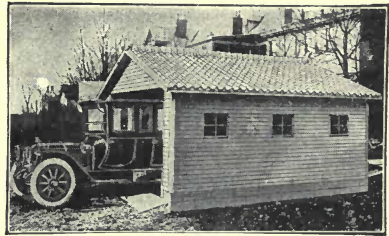
38 inches high, 12 inches wide

\$14

Burns either natural or artificial gas. Gives utmost heat with smallest outlay. Compact and out of the way, yet a veritable heat-producing giant.

Guaranteed safe every way because of its wonderful burner construction and flame protector.

You'll be glad to pay the very low price asked for the "Reo" for the comfort and safety it insures. Send your order today. Complete—all ready to put in your garage, \$14. The comfort and safety it brings will make you glad you ordered NOW!



Own Your Own Garage

All Sizes—All Prices

An Edwards METAL Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and safe. Fire-proof and thief-proof.

\$69.50

and up

All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

Write today—right NOW!

The Edwards Manufacturing Co.

The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.

521-541 Culvert St., Cincinnati, Ohio



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH'S staff of wood experts.

This department is created for the benefit of KEITH'S readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

The Individual Qualities of Certain Woods.



THE Government Bulletin on the Uses of Commercial Woods, in its report on the different varieties, gives some of the qualities of beech, birch and maple, which make these woods especially adaptable to specific uses.

Birch.

On account of the beautiful finish which it takes birch finds a very wide use as a finishing lumber in all kinds of building. The peculiar lustre of sweet birch when polished is due to the bright lining of the wood pores.

Sweet birch is a heavy wood, very strong and hard, compact, satiny and susceptible of a beautiful polish. The heartwood is a dark brown color tinged with red, the sap wood is light brown or yellow.

In the early days of its use small dimension stock cut from green logs gave much trouble because of its tendency to warp, though large timbers behave better. This tendency of birch lumber to warp gave one of the most difficult problems of the early millman.

He would pile his birch lumber, and upon it he would stack thousands of feet of other lumber. If he succeeded in superimposing a sufficient weight to hold the birch straight it slowly seasoned and gave no further trouble. Modern mills, with their improved methods, have no especial difficulty in seasoning birch.

Its use as an imitation of mahogany in addition to its use on its own merit makes birch one of the most widely used of all woods. The richly colored heartwood of the sweet birch is much sought by the cabinet maker, to whom the sapwood is worked as a different wood; for other reasons than simply that of color. Birch does not nail readily because of its tendency to split. When it is glued the best results are attained only when sapwood is glued to sapwood and heartwood to heartwood.

It is stiff and strong and, placed where it was not subject to alternate dryness and dampness, was used much in early New England ship building. In such unfavorable situations it is not durable, but in ordinary use it is physically equal to any wood. It is heavy, dense, of good milling qualities, lends itself to stains and fillers, and holds finish well.

Sweet birch is a satisfactory wood for flooring, both for its good looks and for long service. The wood is handsome, it stands well when thoroughly seasoned, and lasts a long time. The darker heartwood is much sought for use in parquet floors on account of its color. It is much used for all kinds of interior finish with exceedingly satisfactory results. Curly birch is often selected for special places, and finished to display the beautiful grain.

The species of birch known as the paper, or white birch, the Government Bulletin tells us, is one of the very few American species having now a stronger hold on life than when America was discov-

IXL ROCK MAPLE, BIRCH AND BEECH FLOORING



"The Finest Milled
Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.

HESS MEDICINE CABINET LOCKER



The Recessed Steel
Medicine Cabinet

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free



When the Architect Specifies BAYONNE

He is giving his client positively the very best material for Porch Roofs and Decks, Sleeping Porches, Conservatories, etc.

BAYONNE

is standard for quality because it has for years met all the requirements in a superior way.

Does not leak, buckle or contract.

Weather exposure does not effect

its appearance or wearing qualities—and it is both noiseless and unaffected by tread of feet and drip of rain.

Very simple and easy to lay, making a clean job. No "setting" in wet paint and only one coat of paint is necessary for ordinary purposes after laying.

Write for Sample Book "C" giving prices and laying instructions

JOHN BOYLE & COMPANY, Incorporated

112-114 Duane St. NEW YORK CITY 70-72 Reade St.

Branch House: 202-204 Market St., St. Louis

HOT-WATER HEATING

COMPLETE plants with the famous Andrews Steel Boilers; most economical of fuel and easiest to operate. 360 Days Free Trial, guaranteed by bond. Easy to install in old or new houses.

ESTIMATE FREE FOR OLD OR NEW HOUSES

Saves 1/3 Fuel



Locomotive
Steel
Boiler



BIG BOOK FREE

Tells all about heating. Gives thousands of users' names. Also tells about Sanitary Sewage Disposal Systems. Write today.

ANDREWS HEATING CO.
1487 Heating Bldg., Minneapolis



Design No. 524, by Jud Yoho
Estimated cost \$2800

Bungalow Plans

Here's a Bungalow Book, brim full of valuable facts and figures, plans, etc., showing the select of 1,000 Bungalows actually built for from \$400. to \$4,000.

Bungalow Book

De Luxe Edition

The largest exclusive Bungalow Book ever published. I will send this to your address for \$1. postpaid. 112 pages with exterior and interior views, floor plans, size of rooms, actual construction cost and important points and suggestions, written by a Bungalow expert.

Send today for this book. Check, money or stamps accepted.

JUD YOH0, THE BUNGALOW
CRAFTSMAN

460 Craftsman Bldg.,

Seattle, Wash.

Cost Less--Serve Better

Save money on building cost and insure permanent durability by specifying

KEES Metal Building Corners

They do away with corner boards, give the popular mitre effect and are almost invisible when painted. Cheapest to buy, to put on and to use.

Send today for free samples and particulars. Will save you time and money.

ED. KEES MFG. CO. BEATRICE, NEB.
Box 102



ered. It is sometimes spoken of as a "fire tree," because of its habit of pushing in and occupying spaces left vacant by forest fires. Some tracts thus taken possession of within a century, or half a century, cover hundreds of square miles. The wood is light in weight, strong, hard, tough and compact. The sapwood is nearly white.

Maple.

Sugar or hard maple, as it is largely called, is little if any harder than other species of maple in this country. The wood is heavy, hard, strong, tough, narrow-ringed, compact and susceptible of a fine polish. It is used very largely for flooring, perhaps half of the output of maple being used for that purpose. During the "roller skating craze" in the eighties maple used for floors in these skating rinks made such a record for service under hard wear, that it acquired a permanent place in the lumber industry. Care in seasoning and laying it is necessary, for if placed green it shrinks badly, or if dry when laid and later allowed to become damp it swells up in ridges. But when properly managed it is one of the best and most lasting of floor woods. Instances have been cited, apparently well authenticated, where maple has given longer service under excessively trying conditions (stair landings in large stores) than marble.

In its early use it was laid with black walnut in alternate strips. The contrast of the woods was considered effective but was not satisfactory under severe use for the walnut was softer and wore more rapidly than the maple and the floors became uneven.

"Bird's-eye" Maple.

"Bird's-eye" maple is much sought for furniture and some times for interior finish, because of the pleasing growth called "bird's-eye" which adds much to the beauty of the wood when carefully selected and highly finished. The probable explanation of this figure, as given by the Bulletin, is that it is due to buds, which for some reason can not force their way through the bark, but remain just beneath

it year after year during long periods. The young wood is disturbed each succeeding season by the presence of the bud and grows around it in fantastic forms. When such a tree is converted into lumber, the saw cutting through the abnormal growths, exposes the crumpled edges of the tilted annual rings. Curly and wavy maple are accidental forms which frequently occur and are highly prized for furniture and interior finish.

Beech.

In speaking of beech the Bulletin says that it is difficult to work in the shop and is not especially attractive in color and figure, but it is a wood which is free from objectionable taste, so it is used for purposes where it will come in contact with food stuffs. Refrigerators and kitchen tables are made of beech, and culinary utensils.

The wood is very hard and ancient records tend to show that it was one of the earliest mediums upon which ancient writing was inscribed. The words "book" and "beech" were synonymous in some of the earliest written languages coming into Europe, due to the practice of writing on thin beech strips.

When thoroughly seasoned beech absorbs moisture in a smaller degree than almost any other American wood. Hence there is little shrinkage or swelling and it is an admirable material for building drawers in cabinets and chests. Its stiffness also commends it to the maker of furniture.

It ranks after maple and oak among the hardwoods employed for floors. "Its best service is perhaps given in factory and warehouse floors, where usage is rough and wear is great. The wheels of hand trucks produce little effect on a well seasoned beech floor."

In practically all of the uses of beech the heartwood is given preference. The sapwood is seldom desired. It is claimed by some manufacturers that the value of beech lumber would be increased and its uses extended if saw mills would exercise greater care in separating the sap from the heart lumber.



The Cost Is Small, Mr. Builder

For the many valuable suggestions you can receive from the plans, editorial matter and advertising in every issue of the National Builder.

It is to your interest to know about the quality and prices of the many different materials—both old and new—that you will buy when building or doing repair work.

The special feature of this magazine is a complete plan 24x36 inches, drawn to scale. This may be a house, bungalow, barn, two-flat building or double house. They are the same as an architect's blueprint and show front, side, rear elevations, floor plans and details with complete bill of materials.

You Will Also Be Especially Interested

in the practical, easily understood articles on building construction and the many pages of reliable advertising. This advertising will introduce you to the best of the old standard materials and tell you all about the newer ones, which in many buildings replace the others, at greatly reduced costs.

The National Builder Is Well Worth While

to everyone interested in building, as it is published distinctly for the contractor and builder doing the average run of construction work.

Just send the coupon below and get the best possible value for your money. If you mail \$2.00 with the coupon, you will receive two years or twenty-four issues. \$1.50 one year or twelve issues; \$1.00 eight months. 15c per copy.

THE NATIONAL BUILDER

537 South Dearborn St. Chicago, Illinois

The National Builder,
537 South Dearborn St., Chicago, Ill.

Send me.....issues for which I enclose
\$....., money order or stamps.

Name.....

Address.....

If you live in Canada send \$2.00 for one year; \$3.00 for two years.
Keith's

Building the House

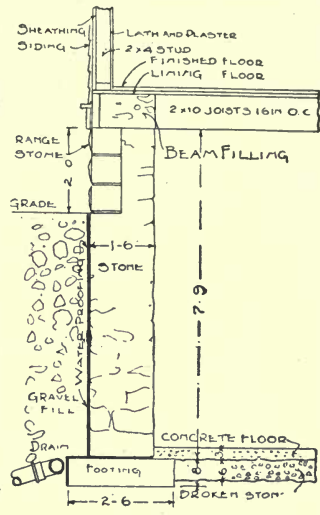
A Handbook Every Home-Builder Should Have

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised
Edition just off
the press

Price \$1.00



(Fig. 6)
SECTION THROUGH BASEMENT WALL

Published by

M. L. KEITH, McKnight Bldg., Minneapolis

"HOMES OF CHARACTER"

The Complete Book on Home Building



320 pages of practical information on how to Finance, Plan and Build a Home, 128 New House designs and 354 illustrations of Interiors and Exteriors, bound in cloth.

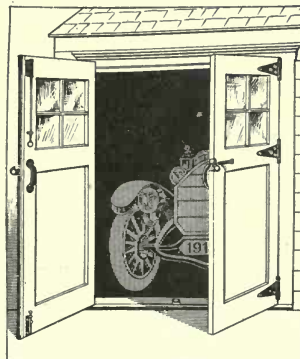
Sent
Prepaid for
\$1.00

Just pin a \$1.00 bill to this advertisement and mail today and this Wonderful Book will be sent you at once prepaid. Sample pages 2c stamp.

The John Henry Newson Co., Architects

1029 Williamson Bldg.

Cleveland, Ohio



For Your New Garage—

Stanley's No. 1776-J1 Set contains complete Hardware 'Trim' for garage with double doors. Write for Circular "T."

THE
STANLEY WORKS
New Britain, Conn.

SPLINTERS AND SHAVINGS

Manufacturers of Willow Seek Home Grown Willow Rods.



BECAUSE the European supply of willow rods has been largely cut off several American manufacturers of willow furniture and baskets have asked the Department of Agriculture for the addresses of persons in this country who have taken up willow growing. For some years the department has distributed willow cuttings of imported varieties with a view to developing the production of high-grade willow rods in the United States. The usual imports of willows come chiefly from England, Belgium, Holland, France and Germany, but these sources have been practically closed.

One manufacturer reports that Japanese osiers are taking the market formerly supplied by Germany, at a slightly higher price. Finished willow baskets from Japan have come in where split bamboo was the only Japanese basketware on sale before the war. As a consequence of the shortage of imported osiers, it is said, the price of American willows has increased and growers here are meeting with a heavy demand for their product.

Nearly two million willow cuttings have been distributed free by the Forest Service among State experiment stations, forest schools, and individual growers. The value of willow culture as a profitable means of utilizing overflow lands not suitable for other crops has been demonstrated, and the Department of Agriculture maintains a small willow holt on the government farm at Arlington, Va., for further tests and for the continued production of cuttings for free distribution. A bulletin on basket willow culture recently published by the department discusses the varieties and methods which have proved most satisfactory in this country.—*M. V. Lumberman.*

The Man Who Can Plan.

"There's pay for the man who can follow a plan

And carry the details through;

But the man whose pay is the most per day

Is the man who can plan and do.

"When a man has to ask you to point out his task

There's very small pay attached to it,
For the man gets the pay who is able each day

To discover his task and then do it."

* * *

United States Civil Service Examination.

SKILLED DRAFTSMAN (MALE).

Ordinance Department, U. S. Army.

January 4, 1916.

The United States Civil Service Commission announces an open competitive examination for skilled draftsman, for men only. From the register of eligibles resulting from this examination certification will be made to fill thirty-five vacancies in this position in the Ordnance Department, U. S. Army, at salaries ranging from \$1,400 to \$2,000 per annum, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer or promotion.

This examination is open to all men who are citizens of the United States and who are between twenty-five and forty-five years of age. This examination is held to secure eligibles with technical training and experience in design and construction of ordnance matériel, turrets, etc., of structural steel work (as applied to turrets) or mechanical engineering design. The applicant must show: (1) at least a high school education or its equivalent, (2) not less than four years' practical experience continuing within two years prior to application, (3) that he has been in charge of designing work with other draftsmen under him. Applicants will be rated: 40% on general and technical education and preliminary training, and 60% on experience and fitness. Especial weight will be given to experience in ordnance and turret work. Applicants must be physically qualified for the duties.

Persons wishing to take this examination who can meet the preliminary requirements should apply at once for Form 1312, stating the exact title of the examination as given above, to the United States Civil Service Commission, Washington, D. C., or to the Civil Service Board in any of the important cities of the country, or of the provinces.

Applications must be filed by January 4th, 1916, properly executed and including the medical certificate.

Make us responsible for your roof

by specifying

UNDERFELT ROOFING

RUBBER SURFACE

You take no chances with Underfelt. Your satisfaction is Guaranteed, no matter what kind of house, barn, shed or factory you roof.



DI-MACK WALL BOARD---ROCK BOARD

Beautiful Duplex Boards

Green and Buff Surface

Brown and White Surface

The Modern Wall and Ceiling Material. It is less expensive as it cost less than lath and plaster, is Warm, Strong, Artistic and Durable. Can be easily applied, painted or decorated. Is a Non-conductor of Heat and Cold.

Write for samples and prices

McCLELLAN PAPER COMPANY -- MINNEAPOLIS



For All Kinds of Houses

from bungalows and camps to suburban residences and country mansions, the deep, rich colors of

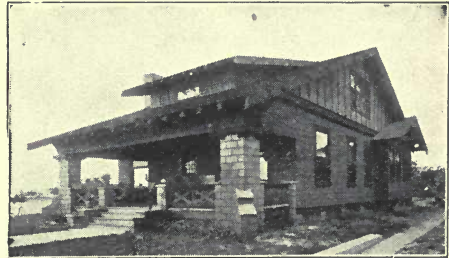
Cabot's Creosote Stains

are most beautiful and appropriate for the shingles, siding or timbers. The colors are clear and transparent and bring out the beauty of the grain of the wood instead of covering it as paint does. They cost only half as much as paint, can be put on twice as fast, the colors are lasting, and the Creosote "is the best wood preservative known."

You can get Cabot's Stains all over the country. Send for stained wood samples and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists
Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



*Bonfoey & Elliott, Architects, Tampa, Fla.
Stained with Cabot's Creosote Stains.*



SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price.....1.00
50 Design Book "Bungalows and Cottages," Price......50
One Large and One Small Book, Together \$1.25, Three Books.....2.00

Many pretty one-story Bungalows and Cottages, Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA



"Bungalows" or "Attractive Homes"

Send for a copy of one of our new plan books, either "Bungalows", containing 100 designs of moderate priced bungalows or "Attractive Homes" containing 100 designs of story-and-a-half and two-story houses.

Our designs are up-to-the-minute in detail and arrangement and incorporate the new features in home building such as, sleeping porches, sun rooms, built-in conveniences, etc. Either Book \$1. Postpaid-Both for \$1.50

LINDSTROM & ALMARS, Architects
400 Auditorium Building Minneapolis, Minn.

"You Build for a Life-

KEITH'S ^{BIG} OFFER

*A Year's Subscription to "KEITH'S" with a Copy***Your Choice**

FOR
\$2.

Vol. 1.	140 Bungalows and Cottages . .	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D-1321 from "KEITH'S"



Design D-1309 from "KEITH'S"

What You Get

From 250 to 300

DESIGNS

by leading architects

From 75 to 100

Practical Articles

on timely subjects of
Home-BuildingDecorative Schemes for
Your New HomeMany Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,
 Editor and Proprietor

Time---Do It *RIGHT*"

To The Homebuilder!

of the Big April Bungalow Number *EXTRA* and

of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" <small>A POCKET HANDBOOK ON CONSTRUCTION</small>	1.00
" 11.	40 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (\$3000 and Up)	.50

FOR
\$2.

for Two Dollars

12 Big House Building Numbers of KEITH'S MAGAZINE, including a copy of our recent 100-page

Special Bungalow Number

containing 25 plans of attractive bungalows and authoritative articles on bungalow building.

The service of our architectural and designing departments in answering questions on construction, design, interior planning, beautifying the grounds or any subject pertaining to the interests of home-building.



Design D-1305 from "KEITH'S"



Design D-1315 from "KEITH'S"

828 McKnight Bldg.
Minneapolis, Minn.

Mr. Condé Nast

Publisher of

Vogue AND *Vanity Fair*

announces the purchase of *House & Garden* and *American Homes and Gardens* and the consolidation of these two widely known publications

UNDER THE TITLE

House & Garden

WITH WHICH IS INCORPORATED

American Homes and Gardens

and promises a magazine of town and country life and of interior decoration and furnishing which will lead in its special field as *Vogue* and *Vanity Fair* are acknowledged leaders in their respective fields.

KEITH'S MAGAZINE

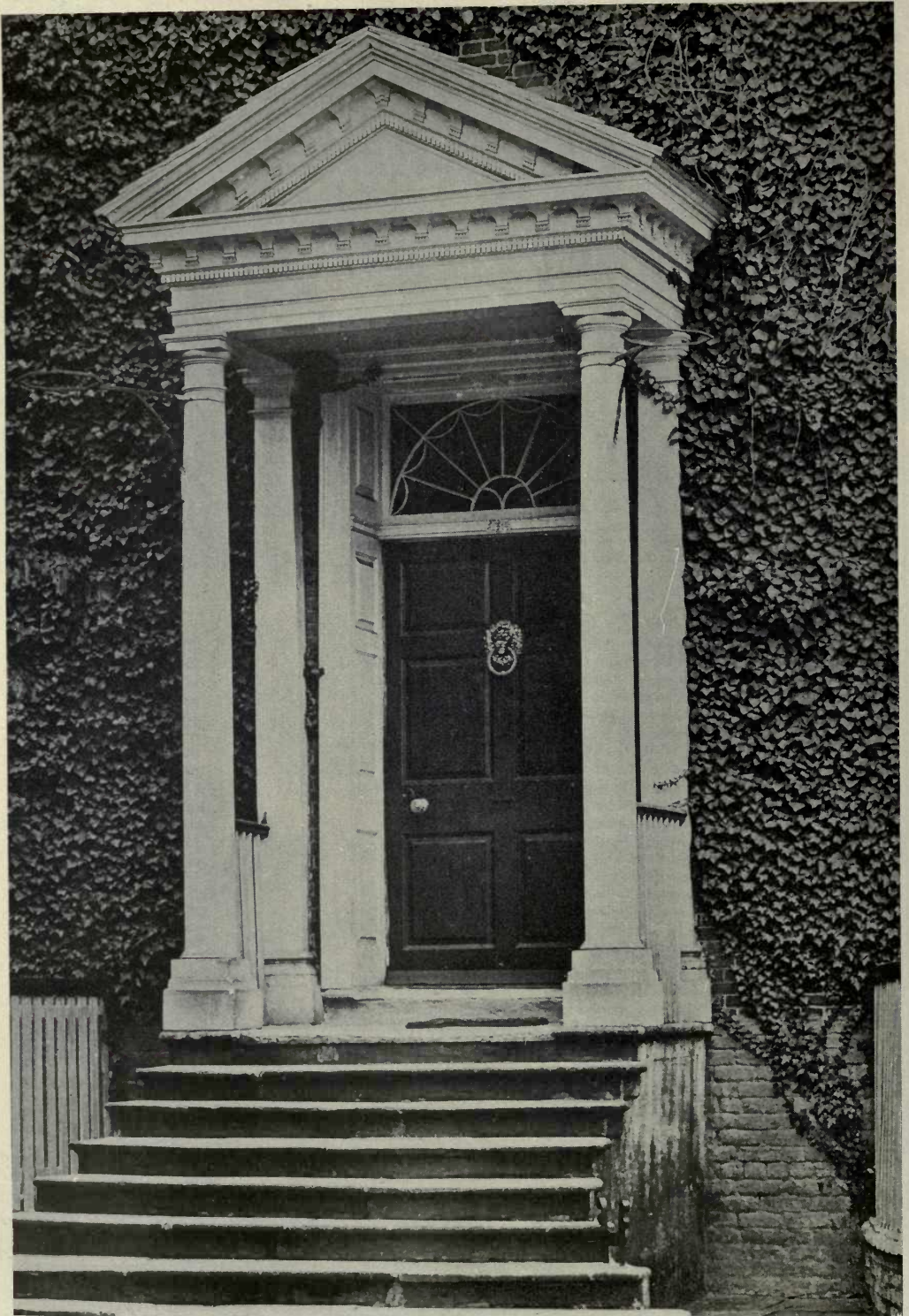
ON HOME BUILDING

CONTENTS FOR FEB., 1916

Just a Word	78
A Colonial Story— <i>E. C. Bartholomew</i>	81
Assembling Apartments on a City Lot— <i>Nellie Ward Haller</i>	85
The Sleeping Porch— <i>Margaret Craig</i>	88
The Kitchen Floor— <i>Edith M. Jones</i>	91
The Garden of Love— <i>M. Pelton White</i>	94
Preparing Soil for Potted Plants	97
The Child's Room— <i>John A. Knowles</i>	98
As We Like It— <i>Mrs. J. Edw. Buckingham</i>	100
A Fire-Safe House to Be Given Away	103
Substantial Dignity in a Home	104
A Well-Planned Home of Hollow Tile	106
A Popular Bungalow Design.....	108
Boulders and Stucco.....	109
Advantages of a Story-and-a-Half House.....	111
Influence of Environment.....	113
Homes of Individuality.....	114

DEPARTMENTS

Inside the House—	
Decoration and Furnishing.....	118
Answers to Questions on Interior Decoration	124
Household Economics	130
Table Chat.....	134
Building Material and Notes on Heating, Lighting and Plumbing.....	138
Woods and How to Use Them.....	142
Splinters and Shavings	146



An early Colonial entrance at Norfolk.

KEITH'S MAGAZINE

VOL. XXXV

FEBRUARY, 1916

No. 2

A Colonial Story The Pierce-Nichols House

E. C. Bartholomew



HE old town of Salem is one of the most fascinating in New England, or in the country, for that matter, in its reminiscence of Colonial days. It was a seaport of some importance in the time of the Colonies, and many a sea captain sailed his ships to "the Indies" and brought them to port at his own counting house near

his own door. These ships came back laden with trophies, as many a Salem house at the present time bears witness.

To the visitor from the mid west, where a house of "the eighties" was scorned as out of date, these houses built a hundred years before are a revelation. He is taken into a best parlor where, after carefully opening the blinds, atten-



The Pierce-Nichols house at Salem—Built in 1782-1800.

tion is called to the mellow tone which the creamy white paint has acquired. He is shown the wall paper made in squares (instead of in strips or rolls as it comes now) which was brought over from Paris to finish the room when it was built. Sometimes the carpet on the floor is scarcely faded, thanks to the carefully drawn blinds.

The old part of the city is rich in traditions and historical reminiscence, nearly every old homestead treasuring heirlooms and memories; these old houses, themselves the most precious heirlooms of the present generation.

In no other period has the simple home achieved the stately dignity of the colonial mansions. They are not larger than other houses. They were seldom elaborate. While to us at this time the details of colonial work may seem elaborate and complicated to construct, so well was it managed in these old houses that it gives the effect of extreme simplicity. The details are so subordinated, and the scale is so in keeping with the design that it charms without demanding analysis.

There is, perhaps, no house of greater architectural interest in Salem, or in New England, than the Pierce-Nichols house on Federal Street. The exterior of the

house is notable. It is dignified, even imposing with its great pilasters on the corners. The third story adds dignity, yet avoids the feeling of too great height. The balustrade above the cornice gives a pleasing touch of formality. Like all houses of the Colonial period, the entrance is given especial emphasis with its beautiful details.

The house was built by Samuel McIntire, the famous old Salem builder, and it is regarded by architects as the best example of McIntire's work now remaining. The house sets somewhat back from the street, unlike many houses of the period whose doors open directly on the sidewalk. An air of seclusion is given by the fence with its carefully detailed posts, which are highly dignified though char-



The mantel in the east parlor framing the mirror from Paris.

acteristic examples of McIntire's work. The two stately guardians at the gateway seem to bid intruders have a care how they trespass, and really make the formal entrance to the house.

At the right on entering the house is the living room, or parlor as they called it, twenty-six by sixteen feet, extending the whole width of the house. Architecturally there is, perhaps, no better room done under the influence of the Adam brothers, than this eastern parlor in the Pierce-

Nichols house, and the room over it is also noteworthy. These rooms were completed some years later than the rest of the house and are still called the "new part."

To get a full appreciation of this work one should measure and draw it all to scale as has been done by the students of the architectural schools. Probably most of the fine old Colonial houses of New England, as well as many in the south, and especially the interesting interiors, have been reproduced in this way by measured drawings. To the student such a house is a revelation, as he studies and measures, reproducing all of those wonderful details; the subtle curves of the mouldings and their grouping, the peculiarities of the dentil courses, even to the curious latch on the door.

Salem people realize the beauty of these old houses and are very generous in opening their homes to the interested visitor. I shall never forget one afternoon spent in the Pierce-Nichols house when, much to our delight, Madam asked us to go up on the roof and she would tell us something of the old house. From its flat roof we looked off, over the terraced garden to the sluggish river below, and noted a large but dilapidated building at one side. The house had been built, she said, considerably more than a hundred years before, and only the "old part,"—that at the left of the hall on entering,—had been



Door in the east parlor.

finished at the time. But when her great-grandmother had come as a bride at the opening of the century (1800), the "new part" had been finished to receive her. In that day in the place of that mild stream was a lordly river carrying sea-going ships. That building had been her great-grandfather's counting house, where his own ships in the East Indian trade had moored on their return voyages. There had been a great garden in his day, almost a park, terraced from the house

and its group of low buildings, through a rose-covered archway down to the river. One can picture it all, like a story from the past.

The "new part" of the house, she said, was considered very good. McIntire considered it one of his best pieces of work. The gilt framed mirror over the fireplace in the parlor had been ordered from Paris and the mantel built to receive it. Much of the furniture had been ordered from Paris at the same time for the bride of so long ago.

It is interesting to notice the way McIntire gave dignity to the features of the room. Not perhaps that we should want to do the same thing now, but that it produced the impression he sought to give. Outside the casing of the door, and framing it, is a pilaster treatment which receives the projections of the wainscot cap and base, and itself carries an architrave. A similar treatment on a smaller

scale in the mantel frames the Paris mirror and its architrave is carried as the cornice of the room, with pilasters of the full height framing the fireplace end of the room, the wainscot being carefully proportioned to the height of the pedestal base of the pilaster. The details were all very carefully worked out but not in

either side. The mantel, simple and dainty, has been an inspiration to designers and has been copied, in part at least, all over the country. It was the custom for many years to close these big old fireplaces and heat the rooms with stoves. The photograph shows the end of the room, which is entirely of wood and therefore white,



The fireplace end of the sleeping room.

the academic way in which it is approached at the present time; hence, perhaps, its charm which can not be reproduced.

The fireplace extends into the room the width of the chimney, leaving a niche recessed on either side. The low wainscot carried around the room has a delicate treatment in the mouldings of the cap and base.

The upper room is a charming bedroom. The fireplace end of the room is treated as a whole, the fireplace being recessed to give depth to the closets on

making a quaint contrast to the rest of the room.

To the architect such a house is vastly more than a well-preserved and beautiful old home. It is a type embodying the living spirit of the fine old craftsman, backed by the responsive owner. Colonial details are among the richest of the heritage which has come down to us. We may use them as jewels which we set in our modern life because we can not of ourselves produce anything more beautiful. The essence of their beauty eludes us if we try to copy in a slavish way.

Assembling Apartments on a City Lot

Nellie Ward Haller



BUILDING one apartment upon another is very common. Building one apartment beside another and placing three apartments in a satisfactory way on a narrow inside city lot is quite an accomplishment. Here is a little diagram of how it has been done, and in a very picturesque way. The families are surely much happier with each its bit of grass about it, than if the apartments had been made in the usual layer cake way, for it is hard to get enough "filling" to make it good.

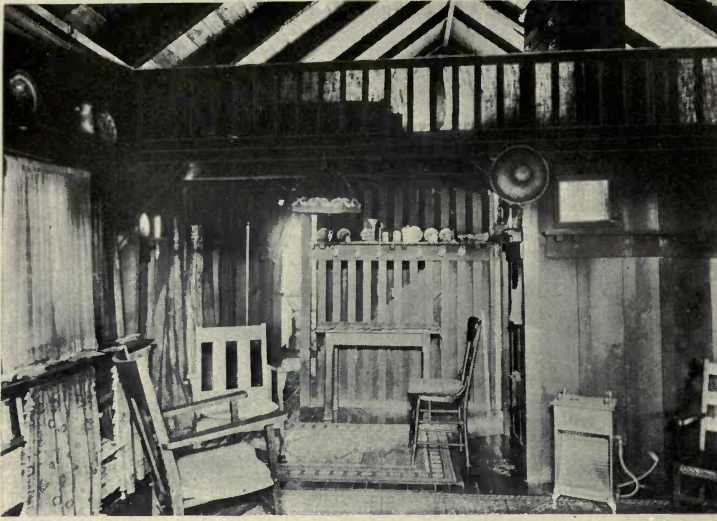
The unsightly back yard is happily a thing of the past. We do not now need to avoid our neighbor's back door, and fear

to look in that direction. A hedge on the lot line gives ample protection. The alley at the rear is well kept,—a narrow street. Each house has a small lawn.

The first house here shown is of the type of construction favored in California, and is very well built. It has foundation walls built of cobble stones; the outside walls of planks and battens, giving a panelled effect. The rooms on the first floor are of a usual height, and the second floor has sleeping rooms under the dormers and sleeping porches in the gables. As will be seen by the photograph the sleeping porch may be closed by awnings. Even the flower boxes give them a protec-



The whole house is stained brown.



The walls become panelled surfaces.

tion, filled with their luxuriant growths.

The exterior as well as the interior of this house is most satisfying in color and in open spaces. The whole is stained brown, like old English oak. The woodwork and the joinery are unusually good in this house. All of the inside work is

quite as interesting as it is also the most simple, both in construction and in design. It is not built of studding in the usual way, but framed together in the old fashioned barn construction, with "four by fours" at the corners and at the partitions framed into the sill and the plates. This

held in place by brass screws. As shown by the photograph the whole house is a mass of windows, which are curtained with brown burlap. The furniture was built especially for the house and is in keeping with the simple lines and good craftsmanship of the house.

In this little group the house at the extreme rear of the lot is in its way

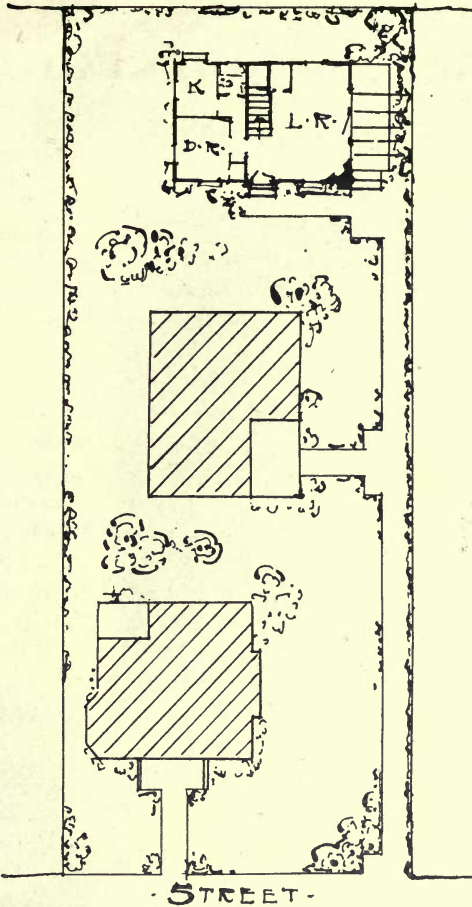


The small house at the rear of the lot.

gives a comparatively rigid frame irrespective of the outside covering. It is sheathed with planks, set upright, the edges butted together. These houses, built in sunny California, have a construction such as that used elsewhere for summer homes, rather flimsy perhaps, if intended to keep out a cold wind, but certainly picturesque and simple. The timber of the window sill is carried around the house and gives an additional bracing to the frame. Two-inch battens are placed over the edges of the planks, both outside and inside of the house. Boards at the top of the battens and for the base

of the room inside make the wall into a panelled surface, the panels extending to the plates under the rafters. The rafters themselves are exposed and with the sheathing over them forming the ceiling of the living room. In plan, the living room occupies about half of the house, and is open to the rafters, giving an unusual effect of spaciousness for so tiny a house. Stairs opposite the door go up to a balcony under the rafters and overlooking the room. This balcony space is only shut off by a movable screen, and between the windows in the two gables, makes a very airy sleeping apartment.

This house is called a four-room bungalow. The kitchen could hardly be accused of being a room, so tiny is it, yet the



necessary conveniences are there. The bathroom beside it is also tiny. These and a small bedroom are under the balcony. To give as much space as possible there is a wall bed in this bedroom, and it also has a closet. The living room serves as a dining room as well. In this room are two French windows and numerous small ones. The casement windows have very deep sills on the inside and under them book shelves have been built. The entire house is of wood, both inside and out, and it is all stained brown. The interior is quite unusual, and exceedingly attractive, but with an

elusive quality not possible to give in a photographic reproduction. The fireplace in the corner is built of brick. The probable cost of this house is given as less than a thousand dollars. While so simple and inexpensive it is unusually attractive with its vine covered pergola.

Set back almost the full depth of the lot, the long strip of green lawn rather enhances the interest in the small house. The second house in the middle of the lot turns a gable toward the street and faces directly on the private walk which is set so near the lot line that there is only room for a little hedge between it and the next lot. The house at the front is set quite near the other lot line and faces directly on the street.

The Sleeping Porch

Margaret Craig



Overhanging a luxuriant garden.



It is interesting, sometimes amusing, to notice the variety of places into which sleeping porches are tucked. Sometimes they are concealed by vines over the front entrance of the house,

sometimes they are under an eave overhanging a luxuriant garden. Oftentimes they are built over driveways or pergolas so as to catch the full sweep of the breezes. Many times these rooms are built on the top of a one-story house and resemble cabins on the deck of a ship.

Little extra expense need be used for these out-of-door sleeping rooms, and the comfort gained by the addition is almost indispensable



A simple screened porch.

to those who have once indulged in the luxury of sleeping in the open air.

In California, with its equable climate, almost every new house that is built has a sleeping porch,—an open room or screened room,—used permanently for a sleeping room. To overcome the discomfort of a blowing rain, these out-of-door rooms are often provided with movable windows that can be set in when the few months rainy season arrives. Sometimes it is possible to build the porch on a corner that escapes the rains, and where the eaves can be extended to break their force.

The porch in this illustration is built over a veranda and its three exposed sides are supplied with movable screens.



A porch built over a veranda.

It is furnished with grass rugs, two iron bedsteads, several wicker chairs and a reading table. Inexpensive cretonne curtains at the windows add a cheerful note.

The next picture is of a porch that has a western exposure, and an uninterrupted view of rolling hills and picturesque eucalyptus trees. On starry nights, one might imagine he was in a nest in a

high tree, for all the slight obstruction in the landscape.

In the fifth picture the arrangement is made so that the screened-in room can be used as well as the railed porch, or both in conjunction.

The porch in the last illustration belongs to a brown plaster house. The beds



This porch gives an uninterrupted view.

compose the only furniture, but the outlook upon the garden and the flowering trees is most refreshing. The curtains here take the place of outside awnings and are raised by pulleys from the lower sills.

These rooms are built in every conceivable part of a house, but experience has proved that there are certain elements to be considered in the choice of location, as the rain, breezes, and sunshine.

If the porch is built on the eastern exposure of the house, the morning sun is very liable to awaken the sleeper rather early, so this must be taken into account



The screened porch and balcony.

with an eastern exposure, and many people will choose to place the sleeping porch on some other side of the house.

The direction of the prevailing breeze, either to be desired or avoided must be kept in mind in the placing of the porch.

So often the sleeping porch is added as an afterthought, or to fill new conditions, that these points of choice can not be very fully considered. The present construction of the house fixes quite definitely

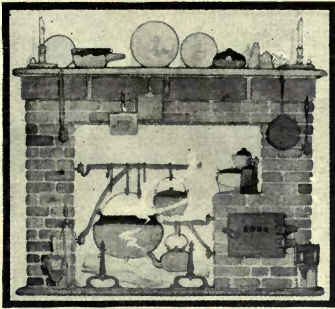


Curtains take the place of awnings.

where the new porch shall be placed at the least expense. For sleeping, a porch must be screened as a matter of course, until we succeed in vanquishing our ancient enemies, the fly and the mosquito.

Electric wiring for the porch is found not only practicable but extremely desirable. A little reading lamp may be placed on a table near the couch.

There are a few hardy spirits who consider heavy canvas curtains a sufficient protection inside of the screen, even during the severe winters of the north country. But to most people in the more severe climates the enclosing windows are necessary if the porch is to be used for sleeping through the greater part of the year. There is a tendency to make the windows permanent, and then to add storm sash, put a radiator in to heat the porch, and then the owner finds that he has added another room to the house, differing from the rest of the house only in the fact that two or three sides are of glass.



THE KITCHEN



The Kitchen Floor

Edith M. Jones

(Copyright, 1916, by Edith M. Jones)



N a recent visit to one of the great hospitals of the country I was impressed with the wonderful equipment that was provided for the care of the sick. No expense, no effort, no detail, had been spared in the splendid buildings. The laboratories and diet kitchens were models of efficiency and beauty.

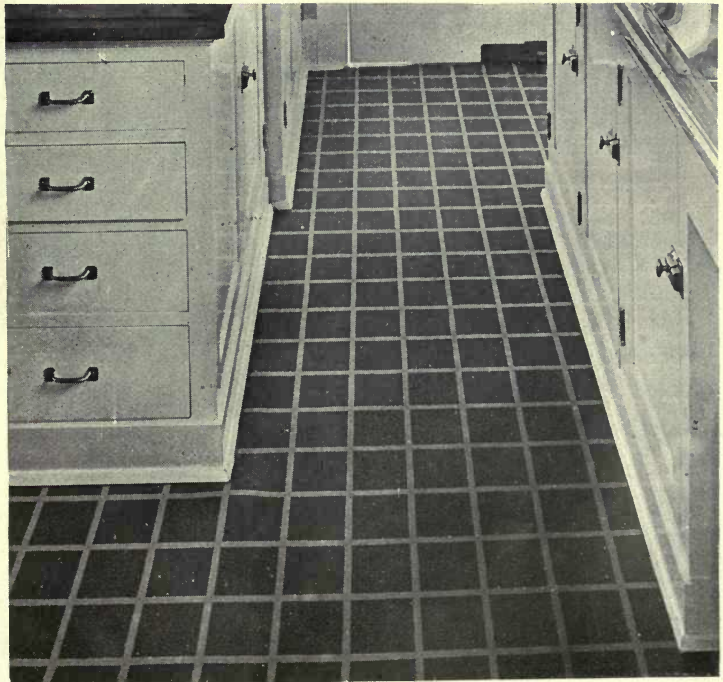
No expense seemed too great in this business of restoring health, and no detail too small for the most careful consideration.

Beautiful floors, tiled walls, metal or porcelain wherever possible. Not one crack or crevice that could be avoided. No useless, unrelated thing. Everything that was necessary and not one unnecessary piece of equipment.

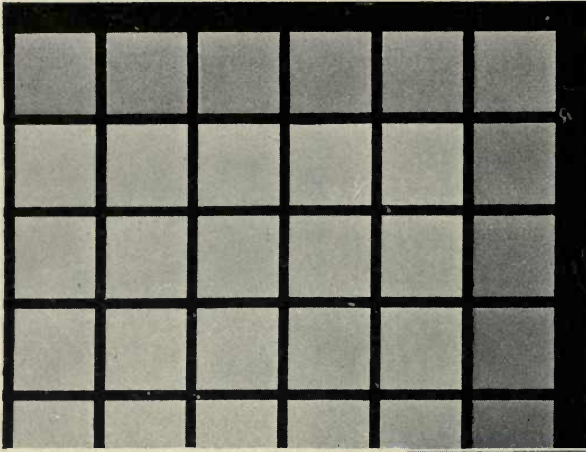
This visit made a great impression upon me. I asked my-

self: Is this curative business of health more important than the preventive business?

It really would almost seem so, because apparently infinitely more care is given to the hospitals where the sick are cared for than to the homes where these



This floor is covered with linoleum made for battleships.



Color possibilities in linotiles.

same people live when they are in their normal health.

Dr. Mayo of Rochester, in addressing a medical convention, said that "rest and relaxation, sanitary conditions and well-cooked foods would do away with medicines."

Great strides have been made along many lines of household problems in the last few years. Housewives have felt the needs and manufacturers have made great efforts to supply the de-

mands which they are making.

One stubborn and as yet unsolved problem, however, is the ideal kitchen floor. The perfect flooring has not as yet appeared despite the fact that there are many kinds of floors on the market of more or less value.



Inlaid linoleum.



Hexagonal tile for a kitchen floor.

The ideal kitchen floor must possess the following characteristics:

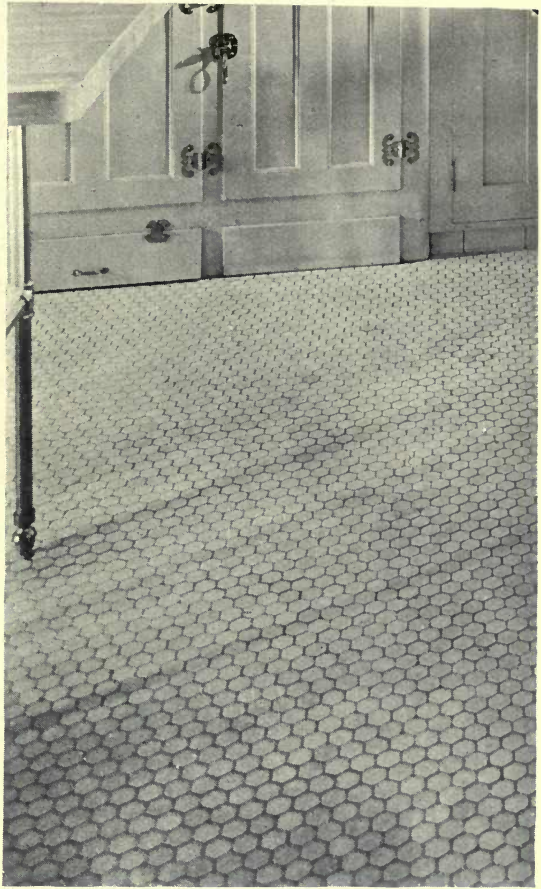
It must be

1. Resilient.
2. Non-slippery.
3. Silent under foot.
4. Warm.
5. Sanitary.

6. Easy to keep clean.
7. Odorless.
8. Artistic.
9. Readily applicable to any type of base.
10. Durable.
11. Moderate in cost.
To which we might add:
12. A minimum of joints, or seamless.
The market affords:
Terrazzo.
Tiles.
Marble.
Mosaic.
Wood.
Cork.
Rubber.
Linoleum.
Battleship linoleum.
Torgomont flooring.
Cement and composition.
Everlastic and Linotile flooring.

The list shows a large choice, but experience has proven that while each material has its good points, it is unsatisfactory in one respect to another, and is not the perfect floor. The architect tries one after another and is still looking patiently for the perfect flooring, which must combine the artistic and decorative possibilities of marble and mosaics, the low cost and durability of tiling, terrazzo and cement, the softness and elasticity of rubber and linoleum and the beautiful color possibilities of everlastic and linotiles. It should be without seam and it must eliminate the objectionable angles at the junction of the floor with the wall.

Every architect feels the need and is looking for this new material. It seems to me this perfect type will appear in some plastic form like cement, because the ideal floor must be seamless and must have a cove base. Surely the man or woman who succeeds in finding this perfect kitchen floor will be rewarded with fame and we hope with money.



Small tile makes a beautiful floor, but has many joints.

In the meantime if a floor must be chosen let the choice be for the floor that lays claim to the greatest number of the twelve necessary characteristics.

And if any one asks why a kitchen floor is of so much importance let us advise a visit to one of the up-to-date modern hospitals and then one can see for oneself how carefully matters of this sort are handled.

If hospital laboratories and diet kitchens require attention in every detail, surely the kitchen—the laboratory of the home—deserves as much consideration.

I am sure such a tour of inspection would convince any of us that the kitchen floor is a most important thing.

The Garden of Love

M. Pelton White



THAT'S what we call our back yard, "The Garden of Love"; and herewith follow the directions for the starting, growing and sharing thereof.

Twelve years ago our forty by forty foot back yard was virgin soil, part of a hillside swamp. When we bought, several months later, the tract had been drained, graded and cut into city lots. The rear of ours was bounded on the north and south by unimproved property; east, the new house and ten feet of side yard; west, a strip of worn poultry netting, the end of a neighbor's woodshed and a weather-beaten tight board fence.

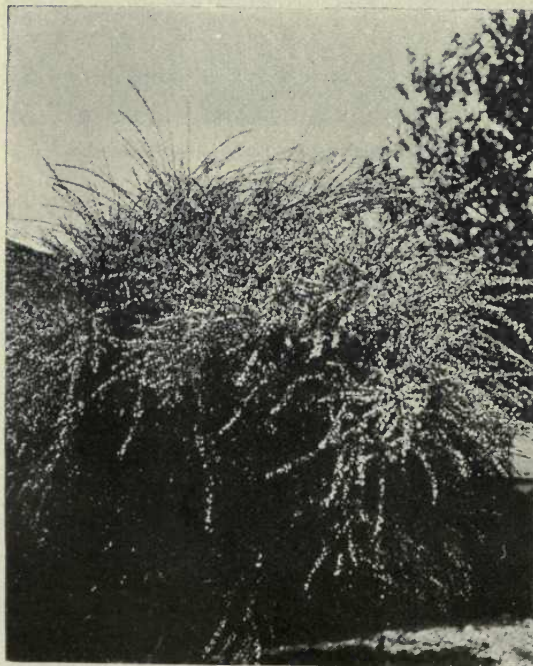
Fortunately, a florist owed us a bill of twenty dollars. Seven of it went into the

"Garden of Love." We were sure of the love all right, but the twigs that we planted on that late March day didn't make much of a showing.

There were a dozen rose bushes—twenty-five cent size,—one each of Japanese cherry, crab-apple and camellia (none over two feet high), one Catonia aster and a few packages of seed—grass, sweet peas, pansy and nasturtium. A load of fertilizer (well rotted horse manure) added two dollars and a half to the first cost. I might as well state here that for the past four years, owing to the rapid growth of our city, and the dawn of a horseless age, we are almost entirely dependent on commercial fertilizers since five dollars a load for the stable article smells too strongly of money.

Twenty-five pounds of the commercial product, reinforced by mulch beds made of potato parings, tea leaves, corn husks, the ashes from an airtight wood heater (all meat bones are burned in it), lawn clippings, fallen leaves, etc., is sufficient to keep the ground in good condition. Nothing inside the house, or out, is wasted that will enrich soil, even to sour milk, which is an excellent rose food. Aside from the expense of fertilizer, the last money spent on the yard was eight years ago. A half dozen choice dahlia bulbs, two small English hollies cost us \$5.25.

From the beginning, the only straight lines in the garden have been the boundary lines. Each year finds more curves, or larger ones, and as the seasons pass the lawn diminishes in size, until, at the present time, as the plan will show, the



The flowering of the white broom.

original grass plot has dwindled to paths and a small clothes yard. Really flower beds are much less trouble than a lawn, for one can keep the dandelions out by turning over the earth.

My husband and I take the whole care of our yard. His working tools are the lawn mower and the hose; mine are pruning shears and a miniature spade with a sharp edge and a strong handle.

"Out of door exercise," advises the physician.

"But I can't waste the time to dress and parade up and down the street," objects the busy housewife.

Try my plan, dear lady. Spend from twenty minutes to half an hour in your own back yard each day. It means health, a saving of doctor's bills and an ever growing appreciation and love for Nature. If you choose there is a monetary return as well.

Come with me. Slip a storm coat over your house dress, if you please, and rubbers on your feet in case it is a typical Western Washington winter's day. We will go through the basement that I may provide myself with a pair of clippers. No visitor ever leaves the "Garden of Love" without an armful of flowers or greens, according to the season.

Behold the hollies on either side of the basement door. Isn't it wonderful how those twigs have grown into great branching shrubs? That variegated leafed one is twelve feet high! We prune them at Christmas time. No gift is complete without its red-berried sprig of holly. It's the "Garden's" message of love to a friend.

But holly is not the only winter attraction. Branches from the big Catonia aster bush with its crimson berries delight the eye, and sprays of glossy-leaved English ivy—take notice that it has com-

pletely hidden the shabby woodshed and fence—adds a festive touch to no few homes and public meeting places.

"Stop! Ivy was not mentioned in your expense account."

True. I forgot to mention that all



Yellow and white Clematis covering Porch—Catonia Aster and Holly in foreground.

plants not included in that \$12.25—and they constitute by far the greater part of the garden—are the fruits of Love's gardening. Every one has a dear association. Take the ivy for instance. It was started from the clippings of an ivy-covered terrace belonging to my girlhood home. While we were waiting for it to root we hid the fence with nasturtiums and sweet peas.

That honeysuckle trailing over the clothes post will ever bring pleasant memories of a vine-snuggled cottage where we spent a summer vacation. Its owner, a sailor in his early days, spun us tales of windjammers afloat on Southern seas.

Always will the spicy scent of honeysuckle remind me of "pinies" (pine apples) and things tropical. Our vine grew from a slip culled from the bouquet thrust into our hands at parting.

Speaking of slips, all our forty-five rose bushes, with the exception of the first dozen, all carnations, and several of our fifty odd varieties of dahlias have been grown from slips. Carnation settings may be started any time

in pots in winter and in open beds in the summer. The shoots must be strong. Pinch off the bud end and tear (never cut) them from the old stalk. Plant deeply, leaving about an inch above ground, and keep well watered. This last instruction applies to all slips. One thorough drying out means their finish.

The beautiful pink climber that covers a part of the basement wall bespeaks the thoughtfulness of a friend while on a motor trip a few years ago. She particularly admired a rose, with a long pointed bud, in an armful of flowers that had been given her. Remembering the "Garden," she kept it alive until the

owner's return. See its thank offering.

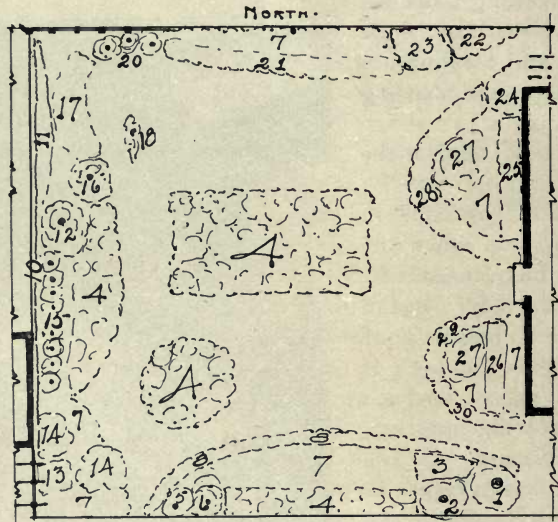
The friend, alas, has gone on the long journey from which there is no return, but the rose of Love is a constant reminder of happy days gone by. Nor is this rose the only treasure whose joy-

giving qualities are tempered with sadness. The stately hollyhocks were grown from seed sent by an inmate of an old ladies' home. She gathered them from the bloom stalks that cheered as they nodded brightly in front of her lonely window. The loganberry was a gift from our washerwoman. The donor of the daffodil bulbs calls the border of blooms "the milky way," but her sightless eyes

have never beheld the beauty of the flowers.

There is no waste space in the yard. Ferns, the loot from many a woody tramp, grow luxuriantly in the dark recess beneath the vine-covered porch. Rose cuttings, the seedlings of Scotch broom, Catonia aster and clematis are tucked in here and there, allowed a two year's growth and at the end of the time either given away or sold to a florist, who also takes the left-over dahlia bulbs. We sell from five to ten dollars worth of stuff a year.

Exchange of dahlia bulbs has given us a good assortment. We still have tubers



Plan of "The Garden of Love."

- | | |
|---|----------------------------|
| 1. Sacred Japanese Cherry. | 16. Pink Japanese Camilla. |
| 2. Japanese Crab Apple. | 17. Rhubarb. |
| 3. Anemones. | 18. Honeysuckle. |
| 4. Dahlias. | 19. Border of Daffodils. |
| 5. Yellow Scotch Broom. | 20. Giant Gooseberries |
| 6. White Scotch Broom. | (3 bushes.) |
| 7. Roses. | 21. Carnations. |
| 8. Polyanthus border (4 varieties.) | 22. Catonia Aster. |
| 9. Ferns. | 23. Garden Hyacinth. |
| 10. English Ivy covering shed and back fence. | 24. Yellow Clematis. |
| 11. Loganberry, trained over ivy. | 25. White Clematis. |
| 12. Norway Maple. | 26. Gladioli. |
| 13. Lavender. | 27. Holly. |
| 14. Lilacs. | 28. Clove Pinks. |
| 15. Double Pink Hollyhocks. | 29. Border (name unknown.) |
| | 30. Single Pinks. |

from the original stock. They have never "run out." Before the first frost stalks are cut to within six inches of the ground. The bulbs are dug, freed from earth, packed in barrels and covered with sand.

"To have and to hold" is not all of Love. True Love hath a way of spilling itself. Not only do the cut flowers, literally hundreds of them, brighten school, hospital, church, home, the house of mirth and the house of death, but seed,

slip and plant are joyfully given to the making of other gardens. Neighboring yards, and many others, belonging to friends in different parts of the city and suburbs are but younger generations of the "Garden of Love."

Truly, he who would derive great pleasure from his garden must start it from seedling and twig and grow up with it. Buying the ready-made article is like adopting a family. You lose the feeling of that mine-own-child sentiment.

Preparing Soil for Potted Plants



EVERYTHING in fresh vegetation which you wish to discard, except diseased plants, if properly prepared may be used to fertilize the soil in a little corner of the garden. Lawn clippings, vegetables which cannot be used, refuse from the kitchen, foliage and stocks from dahlias and other plants may not only be disposed of, but made useful in the preparation of a soil heap which will always be ready for use.

The best time to make an enriched soil heap is in the spring. It should stand for a year or eighteen months before it is fully ready for use. Having once started it no gardener will allow himself to be without his little spot of prepared soil.

In order to make an enriched soil heap use solid layers of the materials in rotation. Use the turned over sod with a layer of good garden soil and a layer of sharp sand, another of leaf mould, one of decayed stable manure, and a layer of green forage already mentioned, any kind of fresh vegetation which you wish to discard. Thin dustings of ground bone and lime should be put between every other layer. The layers of sod should be

more frequent than the other materials. This heap should remain undisturbed for twelve months but the following spring it should be completely turned several times to thoroughly mix the different ingredients. The heap should be turned again at least twice during the summer. When ready, the soil that is taken out for use should be thrown through a sieve to remove any stones or lumps.

When bulbs are to be potted a sufficient quantity of soil is taken from the heap already prepared. The right kind of soil may be purchased from the green-houses by those who do not have gardens, at a moderate price. One should not attempt to use soil from window boxes or from pots in which plants have been grown, for its vitality has been spent and such an attempt only invites failure.

There are excellent books which give some of nature's secrets in the preparation of the soil and the treatment of growing things. One may have anything, it seems, from flowering bulbs to freshly grown salads. The winter garden seems to be possible even to the amateur garden enthusiast.

The Child's Room

With Some Legends for Other Rooms

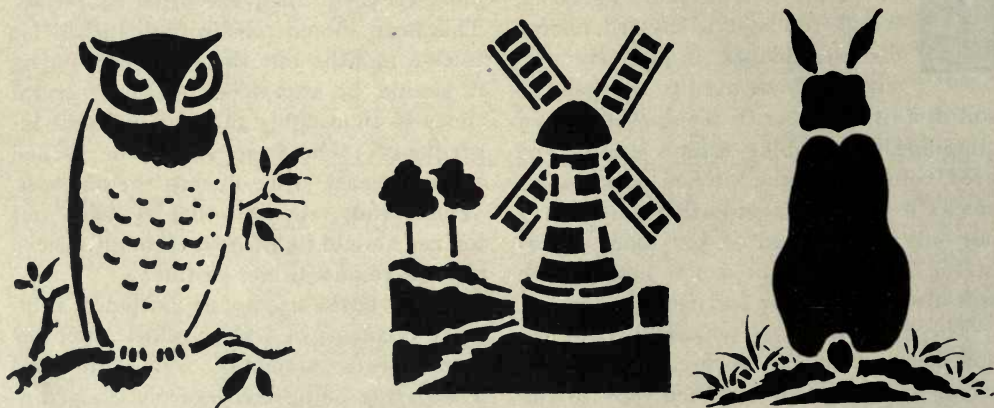
John A. Knowles



THE child lives in a world of his own, furnished and peopled in his own way, from which he reluctantly withdraws himself at the persuasion or behest of the "grown-ups," to demand of them amusement equal to that which his own world supplies. If he has not a room of his own, "Mother" is scandalized to have him crawl under the bed in his clean white

stencilling gives in a simple yet satisfactory way.

Using this easy, yet effective, mode of decoration one need not search long for subjects to please the childish fancy, which may at the same time satisfy the "grown-up's" artistic sense as proper associates for the children, for there is a whole mine of histories, both tragic and comic, from little Bo Peep's sad loss and



Stencil frieze for the child's room.

suit, or retire behind the couch, where his friendly fancies come to play with him.

The "Mother who understands" tries to fit up a child's room, to bring it into his own world, if the house possesses such a delightful retreat where to spend the

"Pause in the day's occupation,
Which is known as the children's hour."

During childhood the most forceful appeal is made through the eye to the brain, and this is especially true of the broad masses of color free from unnecessary details and the bold poster effects which

the disappointment of Mother Hubbard's dog at the non-appearance of the viands, to the self congratulation of Master J. Horner, and Miss Muffit's shock at the unexpected appearance of the spider. These can all be set forth in plain and unmistakable terms and give delight to both old and young. Moreover, so many children's books can be bought nowadays with these nursery rhymes done in broad masses of flat color and therefore admirably fitted for being used for stencilled work, that the amateur decorator will experience no difficulty in carrying them out. Enlargements from the illu-

strations may be made from which the stencils can be prepared. This puts the whole realm of fairy land at the disposal of the decorator. Directions for stencilling at home will be given later in this series.

Many more illustrations of this kind appear in Lear's delightful "Book of Nonsense" which Ruskin said he would place first in his list of best hundred books; and which has been the delight of two generations of old and young children, as well as in Kate Greenway's children's books, "Alice in Wonderland," and all of the marvels of modern child illustration.

Stencilling has all sorts of possibilities, in bringing the home keeper in touch with her own "friendly spirits" as they live in her favorite books, or the man of the house with his pipe dreams. Stencilled decorations, if they are made by the homekeeper, need not be done all at once. After they have all been carefully planned the bits may be added from time to time, nor can it spoil if left for weeks or months. It can be taken up again where it was left off, or something more added where, after due consideration and discussion over the fireside when the more serious work of the day is completed, and after seeing and, what is more to the point, **living** with the work from day to day, you have eventually come to the conclusion that something could be added or improved.

Then again, if you have a literary turn and like Silas Wegg feel like dropping into poetry in your decorative schemes, you take down some favorite and well-thumbed volume, to look up that line or trite couplet you think would be so appropriate for the living room maybe, or perhaps the den. And after all nothing looks quainter nor gives more unexpected pleasure to the beholder who sees it for their first time, than some line which is apt

and appropriate inscribed on wall or frieze, or referring to the purpose of the room to which it belongs. In the music room, for instance, one could put:

"Here will we sit and let the strains of music creep in our ears."—*Merchant of Venice*.

or,

"Come, the song we had last night."

—*Twelfth Night*.

For an Entrance Hall:

"The ornaments of the house are the friends who frequent it."

Dining Room:

"We ha'e meat an' we can eat sae let the Lord be thankit." — *Burns, Selkirk Grace*.

A Bedroom:

"Sleep steal me awhile from mine own company."—*Midsummer Night's Dream*.

or,

"O soothest sleep if so it please thee close my willing eyes."—*Keats*.

The Den:

"I love old friends, old times, old manners, old books, old wine."—*Goldsmith*.

or,

"With pipe and book at close of day,
What can be better mortal say?"—*Le Gallienne*.

A block of letters, if designed in a posterous or picturesque way, may be quite as decorative as a pictured object. A couplet, a legend, or a text may be so designed as to please the eye, just as would, for instance a frieze of trees. A second glance adds the meaning of the legend to the beauty of the block of letters designed. The appeal is rather "bookish," perhaps, yet very quaint and delightful to those for whom it has an especial meaning. Such decoration is especially appropriate for the more intimate rooms of the house, for the fireplace where the family assembles, for the den, or for one's own rooms.

As We Like It

Mrs. J. Edward Buckingham

(Contributed by one of Keith's readers)



THE site chosen for "As We Like It" is a lot 100 ft. by 125 ft., near the top of a hill. The lot is terraced to the street on the north, and commands a good view of the harbor and a small mountain beyond.

The simple requirements of the owners led them to plan a house of the semi-bungalow type with many windows. The house is one and a half story, shingled, and has a full concrete basement. The interior is planned to utilize every inch of floor space to the best advantage.

The main entrance is strongly accented by a little pergola extending from a recessed porch.

The front door opens directly into the

house, for the music room, library, and dining room are thrown together by six and eight foot openings and are virtually one great room. Around the walls runs a six-foot panelled wainscot of fir stained a soft brown. All of the woodwork is fir stained brown, which treatment brings out the grain of the wood in an interesting manner.

Above the wainscot in the music room, which is also the living room, an imported scenic paper, in brown, blues, and yellows in faded tones portraying "Carot" trees is used, which harmonizes perfectly with the woodwork and gives an ideal background to the various musical instruments and upholstered furniture. A



The entrance is accented by the pergola porch.

pressed brick fireplace is the center of comfort. An old blue piece of pottery and a cushion of the same color add bits of color to the room and contrast with a Persian rug. Dull brass andirons and candlesticks are used.

In the library and dining room a soft brown paper is used above the wainscot and serves as a good wall on which to place a collection of water colors. The

half dozen blue plates. The quaint table which measures 20x40 inches, was specially designed from white oak and the top left unstained; it is on casters and can be moved at will to any part of the room. A bench to match fits under the table when not in use.

The hall and stairway was the real problem of the house, but the plan worked out and adopted is simplicity itself and



The music room with its frieze of "Corot" trees.

bookcases and china closet, also some seats are "built in." The furniture is fumed oak in Craftsman design and stained wicker. In the library is an old Sivas rug, thick and silky and bright, which together with the color in the bindings of the books, brightens up the room to a pleasing degree.

The kitchen is tiny and Dutch—everything within reach. Around the walls is a tiled paper with a frieze of little blue windmills and boats. A plate rail holds a

has proved satisfactory in the real test: that of constant usage. The music room, kitchen, and cellar doors all open into the hall beyond the music room, thus making a passageway between the two principal downstairs rooms from the cellar where the fuel is kept without passing through other rooms. The stairway is four feet wide and left open to the roof which is a good feature, as heavy pieces of furniture may be moved with ease up and down stairs. Rugs, bedding and curtains

may be taken downstairs, through the cellar way, and aired upon the lawn without the dust flying in other parts of the house.



"As We Like It."

On the second floor there are three bedrooms, a bathroom and a store-room.

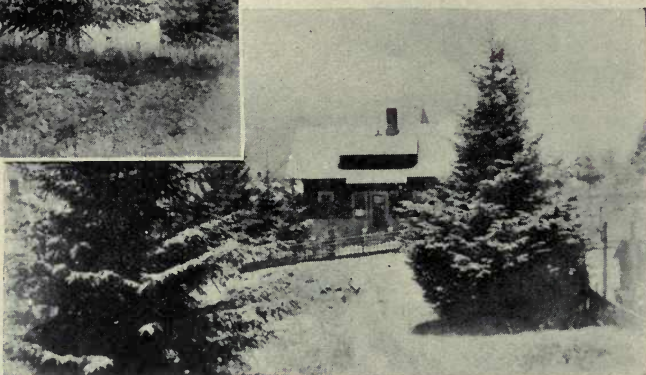
The owner's bedroom has large closets at either end. This room is finished in ivory enamel, and the plastered walls tinted. The furniture will be ivory enamel and wicker. At the casement windows are cretonne curtains in old blue and green. An old blue rug of Saxony is on the floor. Japanese block prints adorn the otherwise bare walls.

One room is furnished after the ideas of Gustav Stickly: a plain rug on the floor, coarse curtains at the windows, stained oak furniture, and on the rough plastered walls a few block prints as in the former room.

The basement is whitewashed and sunny, has a laundry, and places for gar-

den tools, vegetables, canned fruit, and fuel. The house is piped for steam heat.

An attractive setting for the house is a group of evergreens at the back of the lot and plantings of shrubs and flowers around the base. Altogether we enjoy our little home "As We Like It," many ideas and plans for which we gleaned from Keith's Magazine, and then wove them into a plan to



Evergreens give a setting.

suit our needs.

Below is a table of costs, as built in western Washington:

Excavating	\$13.00
Lumber and materials.....	460.00
Paint and stain	200.00
Wiring	50.00
Plumbing	235.00
Mason	500.00
Labor	550.00
Hardware	90.00
Paper	40.00
Millwork	180.00
	<hr/>
	\$2,318.00

To Grow Good Sweet Potatoes

The common sweet potato which finds a place on the table in the North is not considered good eating by Southerners, and this suggestion is made. Write now to some southern friend or nurseryman for roots, small enough to be sent by mail, of a variety of the sweet potato that stands for quality. Start these in a hot bed, take off the sprouts, root them and plant out of doors in sandy soil at the end of May.

A Fire-Safe House to Be Given Away



HE management of the Complete Building Show, which is held at Cleveland during February, has taken a novel way of demonstrating building materials. On the Lake Shore boulevard the house shown in the accompanying illustrations has been built in which a large number of materials have a practical demonstration. The Building Show is conducted by fifty prominent manufacturers and dealers, with the avowed purpose of an educational campaign. Equipment as well as materials are shown in the "Prize House" which, when it has served its purpose in the showing of materials, will be the award in a novel voting contest conducted during the progress of the show.

The house was designed by Edward A. Ruggles, architect of Cleveland, using as many different materials as could be

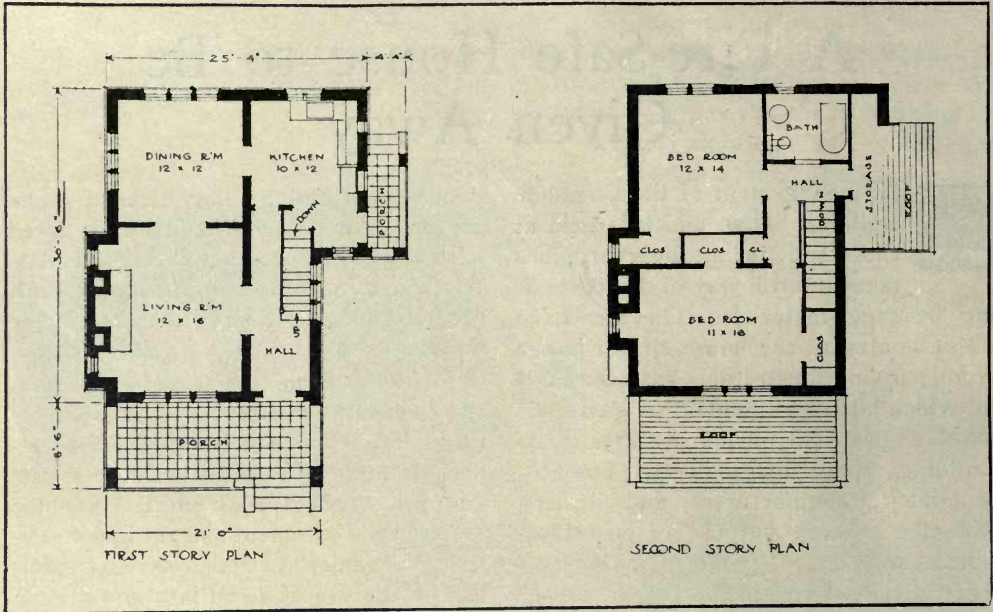
done consistently. The exterior walls are of hollow tile and the first story faced with brick. Above that the tile is plastered with cream white stucco. Both natural and cement stone are used in the building.

The floor of the first story is constructed of cement on a self-centered expanded metal lath, carried upon steel beams especially built up to provide lightness and strength. This gives an effective fire-stop between the basement and the upper stories. The stairways are protected against fire by the use of metal lath and plaster. Asbestos and gypsum are used in the walls where it could be done to advantage. The second story floor and roof framing are of wood with the usual construction. The roof is covered with red Spanish tile.

The housewife's convenience has been



The prize house was built to demonstrate building materials.



studied in the installation of various devices. The icebox is filled from the rear porch. Considerable annoyance has been eliminated by the installation of boxes to contain the gas, water and electric meters, all of which may be read from the outside of the building. A patent garbage receiver is installed making it unnecessary to leave the kitchen with each bit of garbage, and an incinerator has been installed in the basement to provide against the uncertainties of garbage collection in the suburbs. One of the new disappearing "door-beds" has been placed in one of the sleeping rooms, making it available

as a sitting room or den.

Visitors to the Building Show are asked to vote on the various materials and equipment exhibited. A careful study of the exhibit is necessary in order to vote intelligently. In this way the contest emphasizes the educational element underlying the enterprise.

This house will be given free to the winner of the voting contest after it has served for purposes of demonstration in connection with the Building Show. The award of the prize house in this way links the contest very directly with the exhibits.

Substantial Dignity in a Home

A BRICK house gives a feeling of substantial dignity. The home here illustrated has in addition, the accent of the entrance, with its carved verge board and timber treatment. Above the entrance is a great bay of windows, and the front gable overhanging so that it is

flush with the second story bay. The gable ends are half timber and stucco, and the verge boards of the roof and gables, while not carved, are all carefully detailed. A brick house always makes an excellent background for vines and English ivy, and the summer finds this home



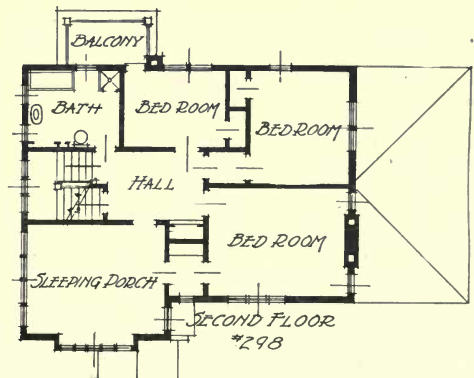
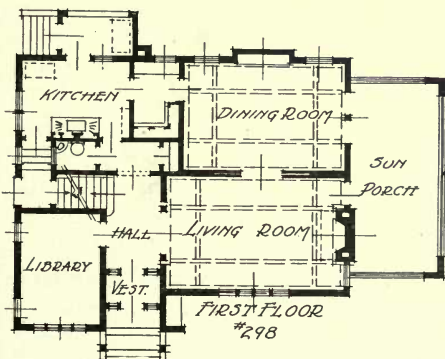
The entrance has especial interest.

Lindstrom & Almars, Archts.

a mass of greenery. A trellis has been built for vines which do not cling to the wall. An English motif, while not conspicuous, has been observed throughout the house.

The plan shows careful study and has achieved a very satisfactory arrangement. In our small private homes we are accustomed to accept the traditions of large establishments and to place the stairway in the most conspicuous place where it is seen first on entering the house. As a

matter of fact, in most homes where large entertaining is not an especial feature, the placing of the stairs is a matter of no moment to the entering guest. He is shown upstairs, if that is desired. Otherwise there is no necessity for the stairs to crowd the entrance space. In this case the stairs are set back, accessible but not obtrusive. Under the stairs is a lavatory on one side of the passage and a coat closet on the other, and beyond it a door to the kitchen. This gives easy access to



the front door from the kitchen. A portier may be so hung as to screen the passage way.

At the left of the hall on entering is a small library or den. A columned opening separates the living room from the hall on the right, with book cases on either side of the opening. The living room has a large fireplace at the farther end of the room with a recessed radiator under the window. The ceiling is beamed, and a group of windows breaks the side wall overlooking the street. The sun porch opens from both living and dining rooms with glass doors. Wide sliding doors connect the dining room with the living room. Opposite these doors is a handsome sideboard and china closet, with leaded glass. The walls are panelled with a plate shelf carried around the room.

Between the dining room and the kitchen is a butler's pantry, with a work table under the window and good cupboard space. The kitchen is lighted from two sides. A one-piece sink is in the kitchen, with enameled iron drain

boards on each side and wall cupboards over. The clothes chute opens from the bathroom on the second floor to the laundry in the basement, with a door from the kitchen. The refrigerator has a place on the rear porch. The basement stairs are under the main stairs. Four steps lead from the kitchen to the platform at the grade level where a door from the outside opens directly to the basement.

On the second floor there are three bed rooms and a sleeping porch, closets and a balcony opening from the rear bed room. In the bathroom a shower is installed beside the tub. The plumbing comes directly over that in the kitchen.

On the third floor is a servant's room, closet, and storage, beside a large amusement room. The basement has the usual accommodations.

The floors of the vestibule, porch and bathroom are of encaustic tile. The sun porch is ceiled with Washington fir.

The exterior walls are faced with vitrified brown brick, with English half timber work and cement stucco in the gables, and the roof is of green slate.

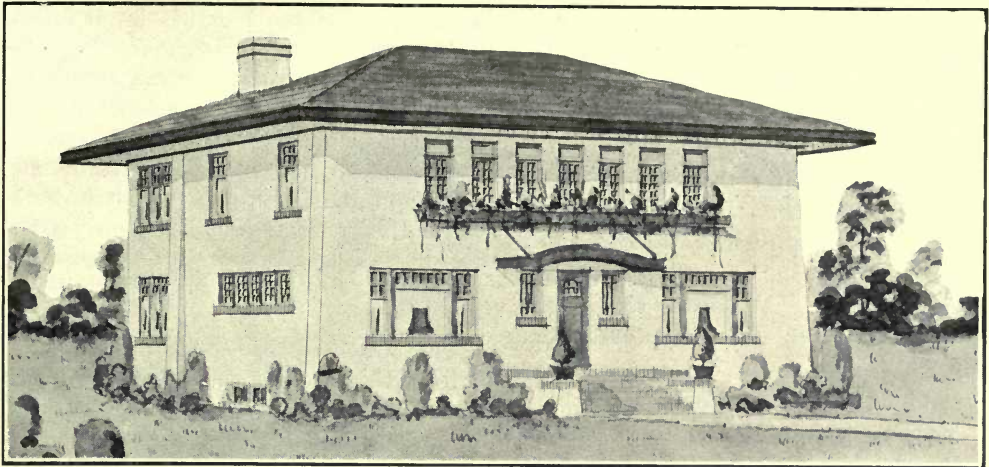
A Well-Planned Home of Hollow Tile

HERE is one architect's conception of an ideal home, well planned and well built. The construction is of hollow tile as a fire-resisting material which at the same time makes a building which is easy to heat. The lines are simple; the surfaces broken by well grouped windows which insure an abundance of light and air in the house with a wide overhang of the eaves.

The broad side of the house faces the street; the entrance with its protecting hood under the wide group of windows making the central feature. As this would indicate, the hall is the center of the interior arrangement. Wide openings

throw the main rooms of the first floor together giving an ideal arrangement for entertaining one's friends.

The living room is well proportioned and of good size. Its wall spaces have been well studied with reference to the furniture which is to be placed. The group of casement windows on the side wall are high enough to allow a davenport to be placed under them, while the group of windows overlooking the street are full length. The great fireplace extends to the ceiling, with the French door to the sun room beside it. In the sun room is a smaller fireplace which will make this also a cosy room in cool



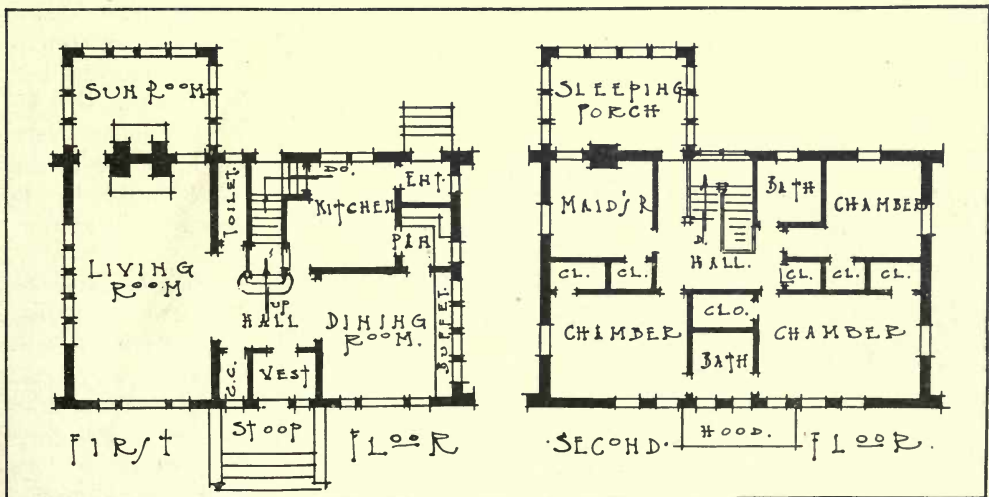
The lines of the house are simple, with a wide overhang of the eaves.

W. W. Purdy, Archt.

mornings and evenings, probably giving it the use of a den.

On the other side of the hall is the dining room with its simply designed buffet extending under the group of windows across the entire end of the room, providing drawers, ample for the storage of linen, silverware, etcetera. A small butler's pantry is between the dining room and kitchen, giving a good work table with bins and drawers under and ample cupboard space filling one side. In the kitchen the wall space has been arranged to accommodate a large sink

with its drain boards, the gas range, drop table, a clothes chute, and a small cupboard. The walls of the kitchen, entry and pantry are of hard plaster marked in a tile pattern. Linoleum is on the floor. The refrigerator is placed in the entry. The basement stairs are under the main stairs with an entrance at the grade level. Steps from the kitchen lead to this landing. The third step of the main stairs is a landing, which may be reached directly from the kitchen, while a door connects the kitchen with the front hall. Under the second run of the



main stairs is placed a toilet room. There is a coat closet beside the vestibule. On the second floor the chambers are all of good size, well lighted and with cross ventilation. The wall space has been carefully studied for the placing of the furniture. The two front chambers form a suite with a private bath connecting them, and a second closet opening from one of the rooms. All of the rooms have good closets with one opening from the hall. A second bath room is placed over the kitchen. The sleeping porch is reached by a short hall.

The floors and finish of the living and dining rooms are of quarter sawn white oak. The floors of the vestibule, sun room and toilet room are of tile, and the two baths on the second floor have tile wainscot and floors, with white enamel

trim. The second floor has birch finish stained mahogany, throughout.

The basement is so arranged as to have a good sized amusement room. It has the usual laundry, fruit and vegetable rooms and furnace room. The fuel rooms are under the sun room, which is both fire and dust proof. The basement rooms are all plastered and the amusement room has a wood floor and the walls are tinted.

The walls of the house are built of hollow tile covered with white cement plaster. The roof is covered with red tile. The architect estimates that the house would be built in his locality for \$8,000, and that the same design built with cement plaster over metal lath with shingle or slate roof, and omitting some of the interior details should be built for \$6,500.

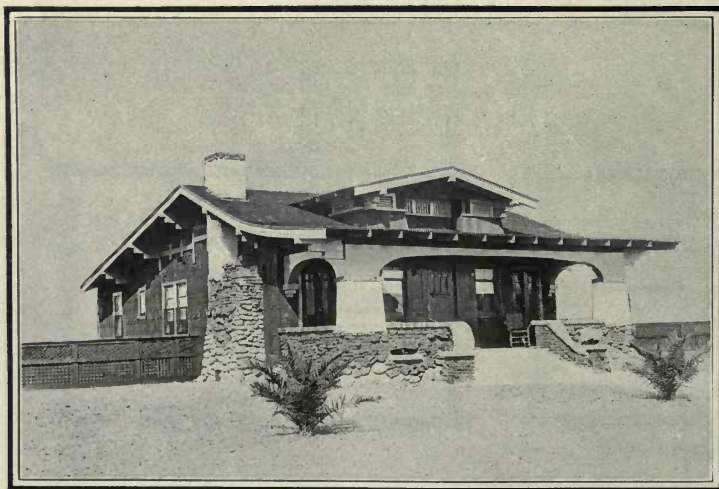
A Popular Bungalow Design

THE plan and photograph with this article represent an interesting creation in bungalow art. It is a picture which stimulates the desire for the bungalow home. The owner may well

ask: "In what type of home-building architecture are to be found more attractive, more interesting and more charming features than in the true bungalow type?"

Quality of design is very important and it need not be costly design. The clean-cut sweeping arch of the front is the key note in this composition and every other feature of the home must be in tune with its expression.

Attention may be called to the brackets under the arch at the house wall; also to the low sweep of the arch, the long line effect in the mass, the studied



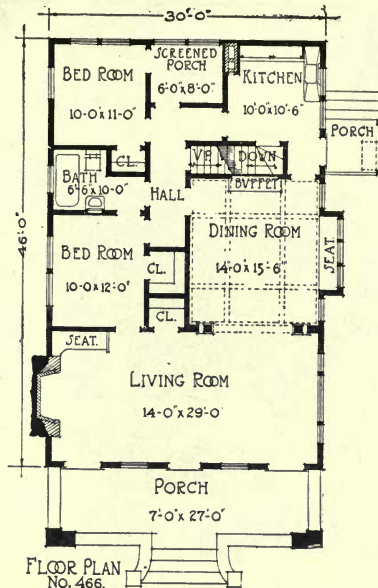
It stimulates the desire for a bungalow home.

Jud Yoho, Archt.

irregularity of the window positions. There is interest in the clinker balustrade, the clinker porch wall, and the clever porch design at the sides of the main door.

Speaking now of the interior. The floor plan embodied in the text herewith, illustrates a good example of the general type of bungalow plans. The living room is the "great room" stretching, as it does, clear across the width of the house and having dimensions of fourteen by twenty-nine feet. The dining room is large. The two bedrooms are separated by the bathroom. A communicating hall leads to bedrooms, dining room, rear porch, kitchen and attic stair. This hall is very well placed and gives a serving passage of excellent arrangement as will be seen on the plan.

There is ample closet provision; note



how even the bath room line is broken to provide for a closet, and yet this bath room is not cramped by this bit of scheming. The dining room is well placed, as it is closely related to every other part of the house. The kitchen has a stair directly down to the basement, which is a great convenience; the light is admitted on one side, and there is shown good cupboard space.

Fine bookcases, with leaded glass are built in between living room and dining room. There is plenty of light in both living room and dining room as indeed the window space is unusually large. All the interior finish is designed on simple lines, but effective and in keeping with the rest of the work.

Oak floors are laid in the two large rooms. It is designed to be heated by means of a hot air furnace.

Boulders and Stucco

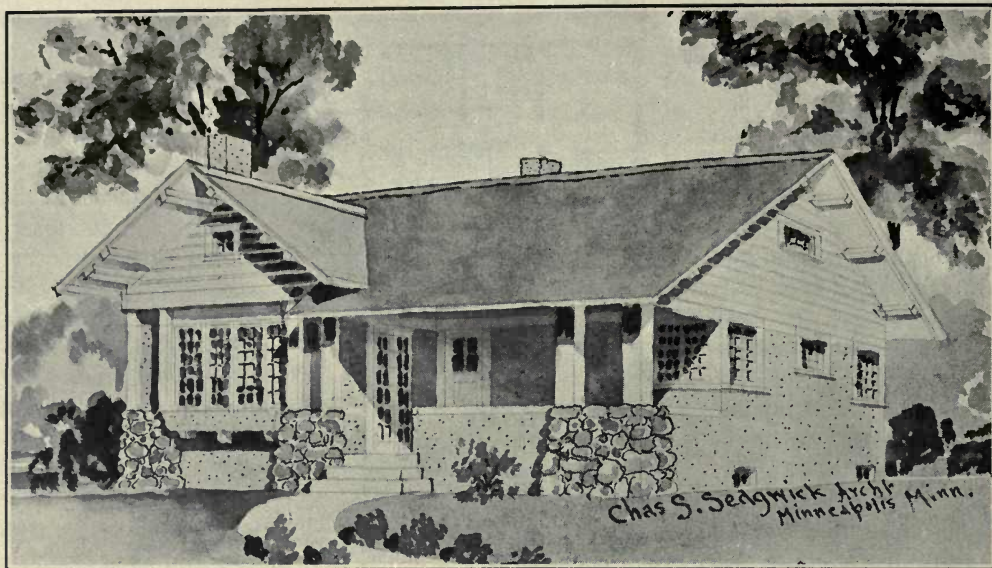
FIVE rooms and under thirty feet in width, makes a house suited to the width of a narrow city lot, and able to accommodate the so-called average family. This bungalow is 29 by 37 feet, with wide projecting eaves and exposed timbers supporting them.

Except in the gables the outside studing is ten feet. The outside walls are sheathed, covered with building paper, and cemented on metal lath from the line of the grade to the heads of the windows. Above this the walls are covered with a wide drop siding.

Square timber posts support the porch roof and rest on boulder piers. The combination of boulders and cement is always effective. The flower boxes and small panes of glass add to the picturesque effect.

The cement is very light in color and all of the outside trimmings are painted white or a very light cream color while the shingles of the roof are stained a dark red, giving an exceedingly attractive color scheme.

The entrance from the porch is into a small central hall, from which the living



The combination of boulders and stucco is always effective.

Chas. S. Sedgwick, Archt.

room is entered through a columned opening. The living room is 12 by 15 feet, a very satisfactory size. The fireplace is on one side of the room and a wide group

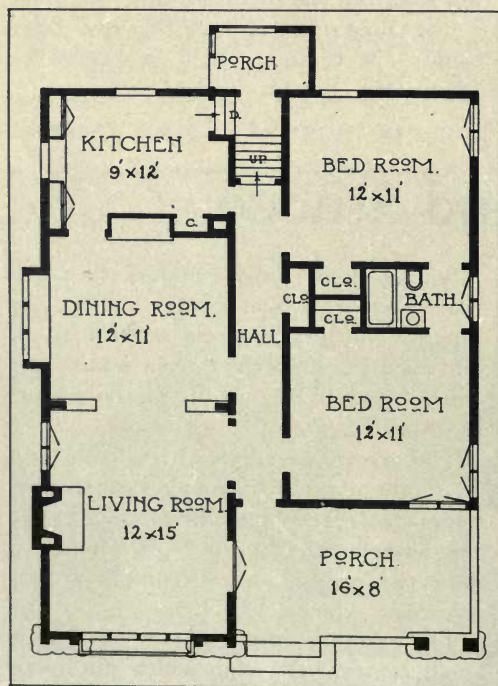
of windows at the front. The separation between the living room and dining room is indicated rather than actual. With the wide arched opening between, these two rooms are readily thrown together and used as one large room. The dining room has a group of windows in a bay and a built-in sideboard opposite the living room. Beyond is the kitchen with built-in cupboards and sink.

At the end of the mall, stairs lead up to the attic storage space. Under these are the basement stairs, with an entrance and porch at the grade level.

The other side of the house is devoted entirely to the sleeping rooms. Two bedrooms open off the central hall. Both rooms have access to the bath room. Each has a closet and both have cross ventilation. A good closet opens from the hall.

The main part of the house may be finished in Washington fir, yellow pine, or birch, with very little difference in the cost between them. The floors are all finished in natural oak.

There is a full basement under the



house with ample space for laundry, heating apparatus, fuel rooms, storage, etc. The architect estimates the cost of this house at from \$3,200 to \$3,500, exclusive of heating. The plumbing is included in this figure.

The construction is thorough and substantial, the outside walls being sheathed, papered and cemented on the outside, and back plastered for additional warmth. Drop siding fills the gables above the heads of the windows.

Advantages of a Story-and-a-Half House

A MODERN story-and-a-half house stands midway between the bungalow and the typical full two-story house. It is neither one nor the other, but combines the advantages of both.

In the story-and-a-half house, the second story rooms may or may not be full height, but in any event the rooms never should occupy the same area as the first floor. The ceiling height of the half-story rooms all depends upon the shape of the roof. If the house is longer than it is wide, and rafters span the full length from front to back, then of course, the greatest amount of usable floor space is obtained. That style of roofing makes

the attic or second story as high as possible in the center. The lines of a story-and-a-half often allows the architect to develop a more attractive house at less expense of building than he could in an ordinary two-story house.

Full advantage is taken of the story-and-a-half idea in the house which this article describes. It will be noticed that the main roof span covers the entire house—including the porch—from front to back. This shape is but little more expensive than roofing a one-story bungalow of equal ground floor area. One doesn't get all those attic rooms for nothing, however, for there is to be consid-



The attractive lines of the story-and-a-half house.

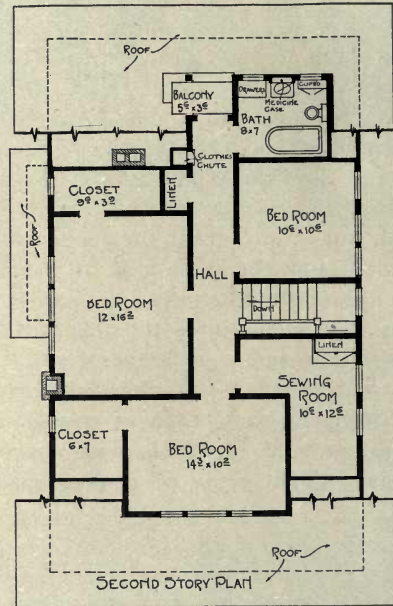
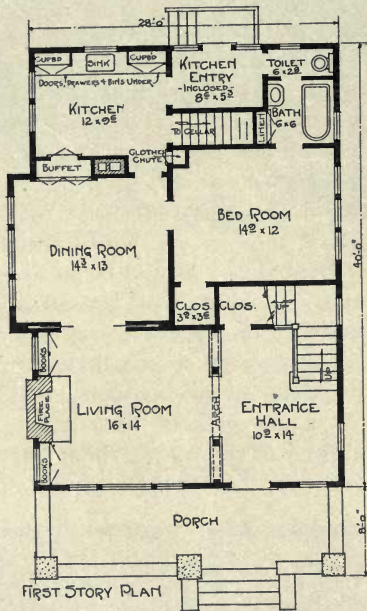
E. W. Stillwell Archt.

ered the cost of the stair hall, stairway, extra expense of handling materials on a second story level, etc.

While the floor plans of this house do not differ in a general way from hundreds of others, in details of arrangement and convenience it has been carefully worked out. On the first floor it has a permanently enclosed kitchen porch that is solidly walled up to high openings, de-

tion will stop the spread of contagion. An arrangement like this is expected to more than repay its cost in a saving of doctor's bills and possibly life itself.

The center bedrooms of the second story are full 8 feet high. In the front and rear, the slope of the rafters cuts the closet ceilings lower. Gables give the necessary height for the front bedroom, bath and balcony. There is a nice sew-



signed to be fitted with interchangeable sashes and screens, which makes the entry a comfortable work room at all seasons.

It has a bath room and toilet accessible from the kitchen and from bedroom. Few are willing to go to the unusual expense of two sets of sanitary equipment. This extra first story plumbing is not merely a convenience, but is arranged so that in case of severe sickness, a patient may be fully isolated. Under modern school conditions, children are exposed to contagious diseases and every family at some time has a serious illness in the house. All physicians agree that proper sanita-

ing room in a space that many builders would leave as a closet. This room is full height in its largest part, but the ceiling slopes in the "L" or alcove part. This sewing room is large enough for a small child's room, but if used in this way a door should be cut into the front bedroom.

In the rear, a large clothes chute connects with the first floor and basement laundry. Another uncommon convenience is the roofed-over balcony for airing clothes. Also, this bath room is particularly well equipped with the things everybody needs—linen drawers, soap cupboard, medicine case, etc.

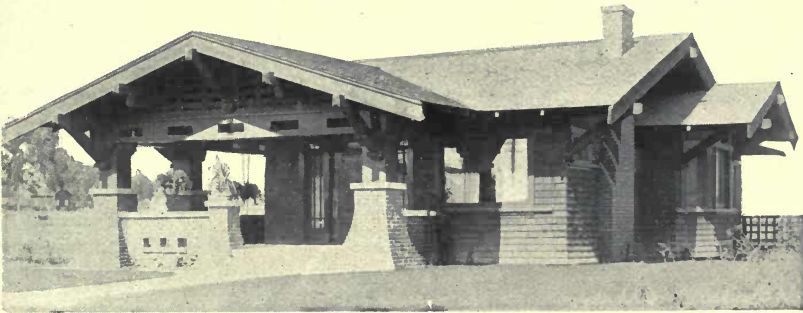
The basement is entirely excavated in the rear, back of the living room, concreted and divided into fuel and furnace rooms, fruit room and laundry.

The exposed masonry of the fireplace and porch is a beautiful brown tinted artificial stone. Exterior walls are of shingles oiled with a little color and left to weather.

The architect estimates that the entire cost of building, under average favorable conditions, should be about \$3,500. This will naturally vary according to prices of labor and materials prevailing in each locality and the owner's selections as to grades, qualities, etc. The cost of such

a building is less than the cost of a full two-story house of equal total first and second floor area. Both the plan and its manifestation in the exterior design require mature consideration if the home owner would have better than mediocre results. Therein lies the value of the experienced architect's service. To have the general plans supplemented and explained by copious details makes everything definite. It reduces rather than adds to the responsible contractor's bids and assures mutually satisfactory relations between the man who invests his money and the man whose greatest building business asset is good will.

Influence of Environment



This bungalow has called forth much admiration.

Bungalowcraft Co., Archts.

CHURCHES and schools do their part in influencing the young folks who are growing up, but the real influence that makes or mars the young life is the home. First, of course, is the child molded by the parental teaching, influence and example, but he is largely influenced by his environment in the house itself, its furnishings and its surroundings. To him as well as to his parents there is a comfortable feeling of pride when the towns people bring their friends and point out his home as the "prettiest house in town."

The house shown on this page is one which, without being expensive, has called forth much admiration, both for the design of the exterior and for the thoughtful planning of the interior.

The exterior is shingled which, with brick in the porch, chimney and foundation work, gives it an air of substantial solidity. The lines of the building are very good and the whole effect is very attractive. The long porch at the side of the house is an effective as well as a very convenient feature.

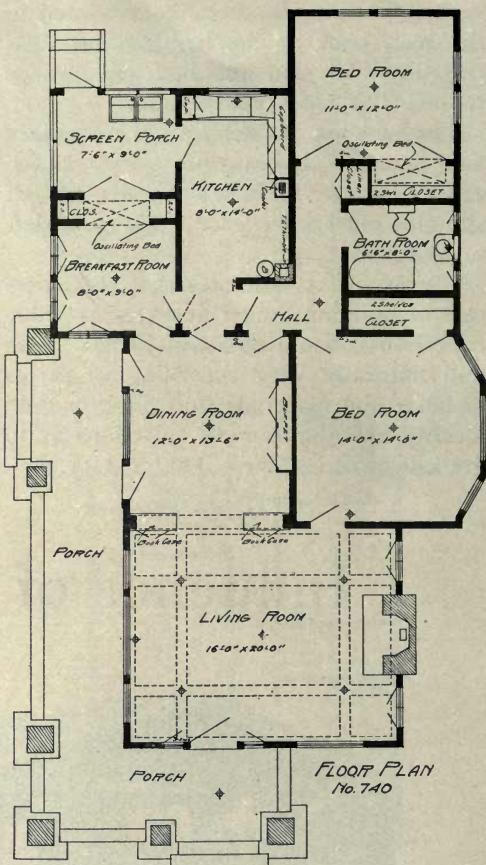
This house has been built as shown

here and has given great satisfaction. It has also been built from the same plan completely reversed to take the best advantage of a different location. If a house should be built on the other side of the street from that first intended the plan should generally be reversed to get the best exposure for sunshine and breeze.

The living room is a good room and well proportioned and both the dining room and bedroom opens from it, with the kitchen and service part of the house on one side and the sleeping suite on the other side.

The breakfast room and porch show rather a unique arrangement. A bed is built in between the two with doors so arranged that the bed may be opened into either. The breakfast room may be used as the extra room in this way, with the advantages of a sleeping porch. A disappearing bed is shown in the rear bedroom, but larger closet space is available if these beds are omitted.

The kitchen is fully equipped and is convenient either to the dining or breakfast room. The laundry tubs are placed on the screened porch.



Homes of Individuality

Selected by W. J. Keith, Architect

A Real Home

THERE is a pleasing contrast in this design, between the white stucco, brown trim, and reddish brown brick work splashed here and there with a purple touch. The brick foundation is most effective, and the terraced entrance porch of brick, leading to the vestibule, gives a very charming impression. The low pitched roof with its attractive dormer, together with the sun parlor and artistically grouped windows, lends to

the whole design a cheery, homelike, aspect.

Brick steps and terrace lead up to the entrance vestibule, which is really a small sunporch, as it is all enclosed in glass. This gives entrance into the living room, which opens to view in a most attractive way the main living rooms of the house, with the glass doors to the sunporch and the colonnade opposite.

In the living room we have an unusual and beautiful apartment. The end near

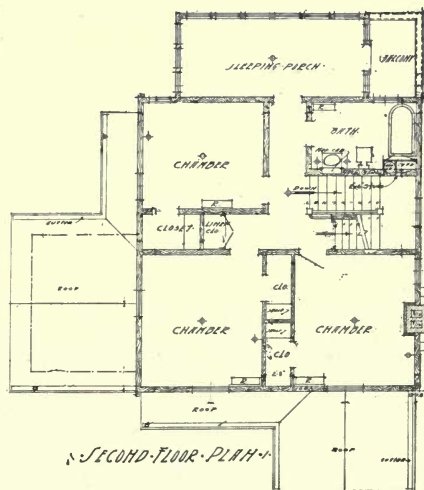
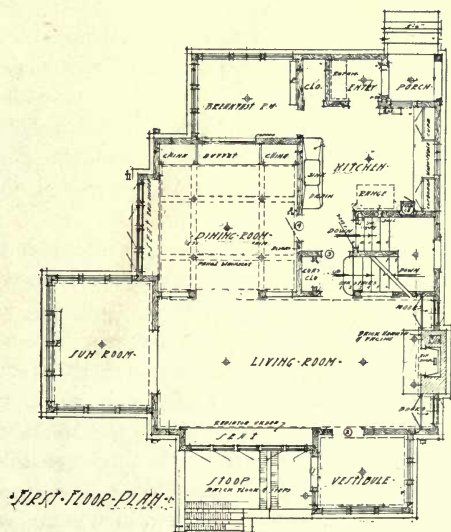


A pleasing contrast of stucco and timber.

the entrance is filled by the well designed fireplace, flanked on either side by built-in bookcases over which are high casement windows, while at the other end of the room a pair of French doors open to the sun parlor. Extending quite across one side of the living room is a sort of colonnade effect, through one end of

which leads to the dining room, the other screening the stairs. On the opposite side is a long bay of five casement windows containing an attractive seat beneath which the radiator is concealed. Beside this is the entrance door leading to the vestibule.

The dining room ceiling is beamed, the



posts of the colonnade carrying the beams in one direction which are crossed by beams similarly spaced. A beautiful built-in sideboard and china cupboards fill one side of the room. A bay of windows project on the other side, in which is a seat under which a radiator is placed. At best, radiators are not ornamental, and they are not less effective for being out of sight.

A double swinging door connects with the kitchen, which is quite completely equipped and has good cupboard space. The kitchen communicates directly with

second story is finished in white enamel.

There is a full basement under the entire house, containing the hot water heating plant, laundry, etc.

All on One Floor

To many people the house without stairs has a very strong attraction, especially when it is so planned that the sleeping apartments are set apart from the rest of the house.

With its great cement pillars this bungalow offers a very attractive approach. Its width would allow it to be readily



An attractive approach.

the living room and the front door for service. The landing of the stairs, going down, gives a grade entrance to the basement. Beyond the kitchen is an entry where the refrigerator is placed and a porch. Beside the entry is a closet and opening beyond that a small breakfast room, which is really the extra room of the house, being adaptable to many other uses. It may be used as a sleeping room or as children's room or as a servants' room.

On the second floor are three chambers, all having good closets, a large sleeping porch, from which an open balcony is reached, and a bath room of more than the usual size. The stairway to the attic is over the main stairs. The entire

built on a fifty foot lot, and still leave sufficient garden space on either side.

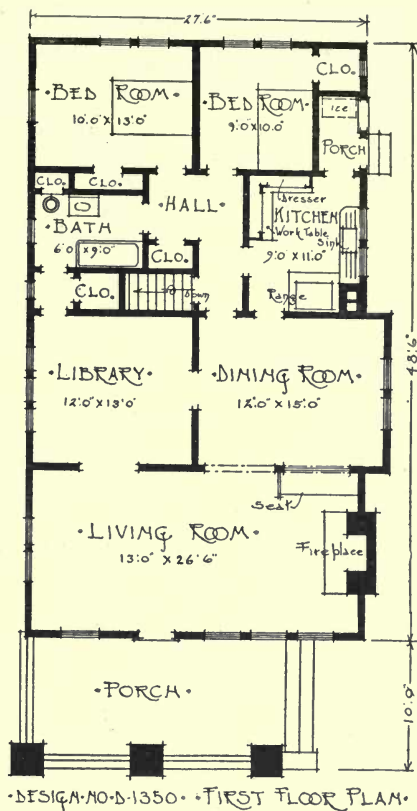
The roof, in keeping with this type of house, is of slight pitch and is covered with a composition roofing. Shingles are used for the side walls, and the porch posts are built up, and cemented on metal lath.

The floor plan shows a convenient layout of rooms with every modern convenience. Extending across the front is a generous living room, thirteen feet wide and twenty-six feet long. A great open fireplace is built in at the end and a wide seat is arranged against the post and panel screen, partly screening the dining room. A pair of glass doors open to the adjoining library. Three casement win-

dows light this room and a glass door allows for an effective vista through the dining room. Ample wall space is provided, which would permit this room to be used as a bedroom if desired. A passage on which opens a good closet connects the library with the bath room.

The dining room is large enough to accommodate a good sized dinner party. It connects directly with the "pantry kitchen," which has built-in cupboards and work table, and which is very compact in its arrangement. The icebox is placed in a recessed porch beyond. This porch may very readily be glassed in and be used as working space.

The basement stairs open beside the bedroom hall, which connects both bedrooms with the bath. The bedrooms are of a good size and have each a roomy closet; there is also a large closet in the hall. The plan of the bath room provides for a tiled floor and sanitary base, with side walls plastered with Keens' cement to a height of five feet and lined off to form tile. The low down water closet tank is built in the walls and above it is arranged a useful closet.

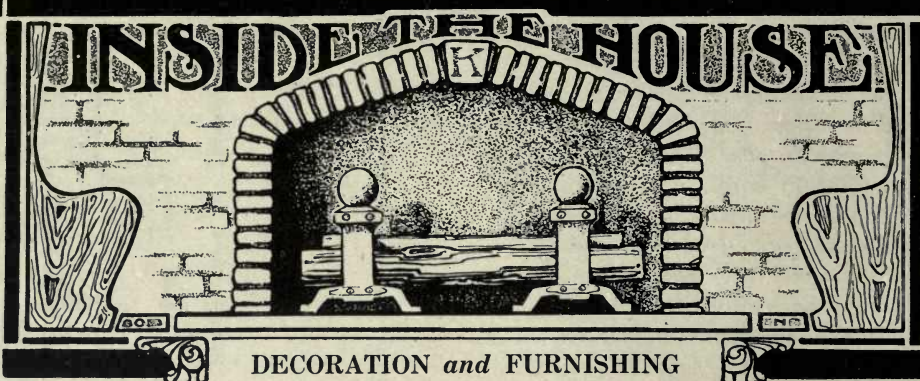


A "Lift" in the Home

THE popularity of the bungalow is in a certain degree due to the fact that it brings the home all on one floor. This same condition doubtless accounts for the desire of housewives to live in a flat or even in a tiny apartment. The trip up and down stairs every time the telephone or door bell rings or any one of a thousand other things may happen if figured in horse power for a day's time, would be a factor to be counted on in a man's business. But figured in woman power it is a negligible factor in the business of living. A dumb

waiter is installed in larger establishments, and in occasional instances an invalid elevator is placed in a home. But why should not a housewife have an elevator for her own use, one that could be operated by hand, much as a dumb waiter is operated.

The first cost is perhaps the reason that this subject has not been considered more seriously by builders and especially by home builders of moderate means. But what investment could yield a greater return in comfort and health.



The Tendency Toward Simplicity

THE decorating and furnishing of the home should be given serious thought and study; a knowledge of the combining of colors and harmony of design being a requisite. It is not necessary to spend a large amount of money to obtain pleasing and harmonious results. The application of

wall paper, paint and water color, is simple and so charmingly adaptable to our modern homes, and as the present tendency is toward simplicity, the average homebuilder with the exercise of a little taste and much thought, may imbue the most modest cottage with an atmosphere of harmony, beauty and comfort.



Interest centers around the fireplace with its fine soft color.

INSIDE THE HOUSE

The greatest transgression of the law of color and form is over elaboration and the use of antagonistic colors. Unfortunately, some of us having a craving for novelty, strive for a "rich and elegant" effect; something different from our friends and neighbors and the result is generally inartistic and incongruous.

The planning of a color scheme is a difficult problem to the average home-builder. In "laying out" colors, the entire floor plan must be studied as a whole and the relation of the rooms to one another; also, the finish of the wood trim and the exposure of the different rooms.

In selecting colors, the amount and quality of light entering the windows, must be taken into consideration. Rooms with a cold northern exposure having very little direct sunlight, should be treated in warm glowing colors, such as luminous yellows and buffs, golden and russet browns, or warm rose tones. Cool grays, blues and greens are admirable for rooms with a southern exposure. The temperature of a bleak north room done in a cool receding color, will seem ten degrees colder.

The Wall as a Background

Walls, with a few exceptions, should be considered simply as a background for a few good pictures and must be rather plain in treatment and not smothered with ornament. It is timely here to say

that three-fourths of the wall hangings now on the market are not worthy of consideration. Small interwoven designs in two-toned effects, grass-cloth papers, papers with a textile weave, or those perfectly plain, but with a good depth of color, will generally give a room a subtle impression of repose and cheerfulness.



The furniture is designed in the period of "William and Mary."

I have seen many beautifully proportioned rooms literally ruined by the use of wall paper partially or entirely covered with design. Take for example, the large patterned and exquisitely colored papers by such artists as Walter Crane, William Morris and Shand Kydd; beautiful wall hangings that may be justly considered works of art, but nevertheless papers that would be tiresome in the daily life of the usual home.

Color and design are not the only canons to be observed. In striving for "atmosphere" in the average living room, everything should be subordinated and

INSIDE THE HOUSE

no one article or group of furnishings should dominate. The wall hangings, draperies, floor coverings and furniture should be chosen with the idea of simplicity, suitability and proportion, producing an ensemble at once soothing and restful to the eye.

An ideal living room is shown in the accompanying photograph. Large and restful, entirely without formality, harmonious in treatment and thoroughly livable. This pleasant apartment is 20 by 30 feet in size, with the walls hung in a beautiful grass-cloth paper in soft gray and tan. The ceiling is treated in ivory with well proportioned oak beams traversing it. The wood trim is stained in fumed oak and waxed and has a beautiful gray undertone.

Light

A flood of soft natural light, tempered by sheer lace curtains, enters through six large casement windows in the west wall and through French doors in the east wall opening into the dining room.

For artificial light, a luminous alabaster bowl, equipped with small frosted globes and powerful tungsten lamps backed with reflectors, furnishes an agreeable and mellow light that is peculiarly soothing and restful to the eye. There are also two portable lamps equipped with long cords which may be attached to light plugs in the baseboard at convenient points. The table lamp with its carved stand is shaded with rose-colored silk. The shade has panels of Japanese silhouette lace backed with rose silk. A floor lamp is shaded with silk in a mulberry tone and lined with thin transparent silk in a champagne tint.

A well designed desk with chair to match, in Sugi treatment by the late John

Bradstreet, is conveniently placed between the windows and the mantel.

A small table also in Sugi finish is shown in the photo supporting a tall silver vase. The entire top of this table is covered with incised ornament in the pure Japanese style of treatment with the background deeply depressed.

A large, roomy overstuffed davenport, with soft loose cushions, covered with wool tapestry in a small Colonial pattern, is placed against the east wall.

The six casement windows grouped in one frame are hung with very sheer soft lace in a stripe effect which hangs straight to the sill, without interfering with the view. The overdraperies are made of a fine fifty-inch silk fabric in alternating two-inch stripes of mulberry and fawn, each stripe being edged with a narrow line of black. This material has a slightly watered or moire effect and is made up with a tan saten lining and caught back with bands of the same material. The laces are hung with rings, to slide on the rods which may be drawn to one side by transverse cords thereby allowing the windows to swing into the room. The overdraperies are hung in the same manner and operated with silk transverse cords allowing the silk curtains to be drawn across the windows at night and doing away with the opaque "shade" which is always an objectionable feature when applied to casement windows.

One of the finest products of the Persian looms that I have ever had the good fortune to see is the large Kermanshah rug which graces the floor of this room. The greatest attraction of this rug is its wonderful coloring, being fairly aglow with life and luster. The field of the medallion is in soft deep ivory outlined in



black, while the ground colors of the corners is rich deep rose relieved with small figures in tan, blue and black. Seven particularly well designed bands form the border of this masterpiece produced by the clumsy hand looms of the Far East.

Handicraft Tile

The feature of this room is its lovely mantel built of tiles made at the Handicraft Guild. Being handmade, no two tiles are exactly alike; even the glaze being applied by hand instead of being sprayed on as is customary in commercial work. The dull mat glaze of the tiles with their variations of shade and texture harmonizes beautifully with the walls and wood finish and frees the face of the mantel from the glittering reflections of the ordinary commercial tiles. In the making of these tiles straight edges and square corners are not emphasized and they are laid with a wide mortar joint. This shows a characteristic and pleasing variety of line as well as of color, giving a charming effect. Inset tiles in low flat relief in soft contrasting shades of orange and green are introduced, and the hearth is raised slightly above the level of the floor. The heavy mantel shelf extending the full width of the room and embracing the bookcases on either side shows a broad and generous treatment.

A view of the dining room and sun room adjoining is also shown. The dining room is finished in fumed oak, with the walls hung in a grass-cloth paper in dull old blue with a glint of gold showing here and there. The sideboard, table and chairs in the "William and Mary" treatment are finished to match the woodwork and the seats of the chairs are covered with Spanish leather in a dull reddish brown.

The sun room adjoining, with casement windows on three sides overlooking the lawn and garden, is charmingly executed in gray. The simple oak wood trim and furniture is done in Kaiser gray stain and waxed with the upholstering in gray, Spanish leather. The rough brick fireplace opposite the window carries this same gray tone and the walls are hung in a heavy embossed paper in linen texture in the same shade. The floor is gray Mosaic with touches of contrasting colors in the design.

This room has no draperies or laces except for a gorgeously colored English chintz in reds and wisteria attached to rollers in the form of shades. This charming room is very refreshing and with its blazing log fire offers an ideal loafing place to while away a winter afternoon.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given *free of charge*. Enclose stamp for reply.

THE feeling for black and white which has applied to wearing apparel and to decorations has become very pronounced in interior furnishings and accessories. Whether this style,

Austrian, Hungarian, or Venetian (they are all guilty), will prove lasting or not is a debatable question. When this "modern" style with its mournful black bands and startling splashes of color was

INSIDE THE HOUSE

introduced a short time ago, it was looked upon with amused interest as something fantastically pleasing, but we have noticed of late that some of our leading decorators have been quietly experimenting with this "domino" scheme of color and design with amazing but charming results.

Possibly on account of the lack of imported dye stuff, or possibly in anticipation of black and white becoming a popular fashion—it is very noticeable that the traveling representatives of the large importers and manufacturers are showing an immense variety of wall hangings and drapery fabrics in this ultra-modern decoration. Some of the eastern theaters and a few of the large New York millinery shops and fashionable cafes, always on the lookout for new and unusual decorative effects, have adopted this striking color scheme which for sheer smartness cannot be equalled.

Being somewhat timid as to the adaptability of this style of treatment in the average home, the home builder is a little cautious in the matter of applying this "latest decorative scheme" in her own home. For

the present this treatment is being confined mostly to rooms having white or ivory wood trim or very dark mahogany.

Wall papers suitable for a black and white treatment are not necessarily shown in a large variety of patterns. Papers in

narrow black vertical lines or a conventionalized floral stripe in black, rose and green with narrow floral borders in the same colors with black predominating are mostly in demand. These papers are printed on an ivory or white ground and well covered with a small set figure in a grayish white.

The furniture must necessarily be either black or white or a combination of both. Many beautiful pieces

of furniture suitable for a room of this character are being displayed in the shop windows, in a combination of ivory and mahogany and upholstered in black and white. Wicker furniture in old ivory with the raised ornamental reeds done in dull black enamel is quite the proper thing. For the more formal room in which the furniture is in some particular period, the background of the different pieces is in solid black while the relief is worked out



Wicker table, No. 6388, \$9.00; old ivory enamel; 27 in. high; top 18x24. Wicker lamp, No. 691, \$9.55; 22 in. high; shade 15 in. diameter; black and rose chintz lining. Cretonne on table, No. 64101; 31 in. wide; 90 yd.; black stripes with decoration in rose, green and blue. Wing chair, No. 44552, \$30; cane back and seat; ivory enamel with mahogany arms; loose pads in black and white linen. Fabric on chair, No. 2850, \$2.25 yd.; 31 in. wide; heavy pure linen, black and grey on white ground. Cretonne on extreme left, No. 26103, 60c yd.; 36 in. wide. Between papers, No. 20577, 60c yd.; 38 in. wide; perfect imitation of the original imported linen; a printed cotton in a coarse linen weave on a black ground with decoration in rose, orange and lavender. Wall paper on the left, No. 317, 50c single roll; black dots on flat white ground; floral stripe in blue, lavender, rose and green; border 10c yd.; black, rose and green on tan ground. Wall paper on right, No. 318, 50c single roll; background in white and ivory with white silk stripe; floral stripes in solid black; border 10c yd., in black, grey, pink and green. Rug, No. 17202, 8 ft. 3 in. by 10 ft. 6 in., \$47; field in mottled grey and black, conventionalized floral border in black.

INSIDE THE HOUSE

in white or ivory with possibly a suggestion of color taken from the decorations of the room.

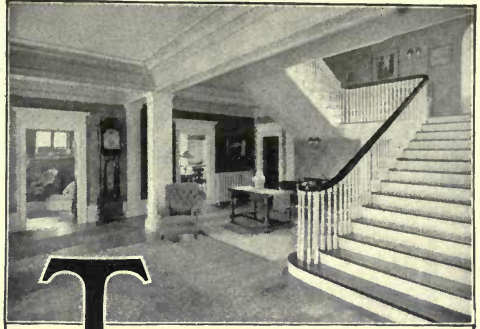
For the covering of the floors there is a wide range of materials to select from. The most popular material is the rug with a mottled gray and black center with the heavy black border showing sharp lines of yellow or orange.

As is naturally expected the feature of the room will be the gorgeously colored chintz or cretonne hangings, covered with curiously shaped parrots and birds of paradise perched on grotesque vines amid a tangle of glowing color. The variety of designs and color combinations is unlimited, both in the expensive hand block linens and the lower priced but artistic machine printed cottons.

The great demand for unusual effects has induced the foreign manufacturers to resurrect many of the long forgotten hand made wood block patterns and they are now printing them in all their original purity, on the finest quality of soft undyed linens, silks and even velvets.

To go to the other extreme domestic manufacturers are copying many of the imported fabrics on imitation linens so cleverly that it is almost impossible to tell the difference except upon close inspection and in some cases an actual comparison of the two fabrics must be made. Some of the shops are displaying many of these fabrics in thirty-six inch widths as low as fifty and seventy-five cents per yard, and in the imported machine prints there is to be found an immense selection of thirty-one inch fabrics as low as fifty cents per yard in color, pattern and texture that would please the most critical.

INSIDE THE HOUSE



THE real charm that changes four walls and a ceiling to a room that satisfies the artistic instincts of a home builder is created by the treatment of the woodwork.

Here are two of the leading Architectural Finishes. They are the perfected results of nearly 60 years in varnish making, and will satisfy the most critical:

LIQUID GRANITE for FLOORS

Lasting Waterproof Varnish

This builds up a solid permanently snow white finish that will not crack or chip, in either dull or gloss effects. It has great covering capacity, is durable and washable.

LUXEBERRY WHITE ENAMEL

Whitest White Stays White

This is also adapted for bathrooms, window sills and casings, and all interior work where great durability is desired. It makes a smooth satiny finish, is mar proof, and easily kept in perfect order.

Write our Architectural Department for interesting literature on wood finishing for the home builder.



BERRY BROTHERS

World's Largest Varnish Makers

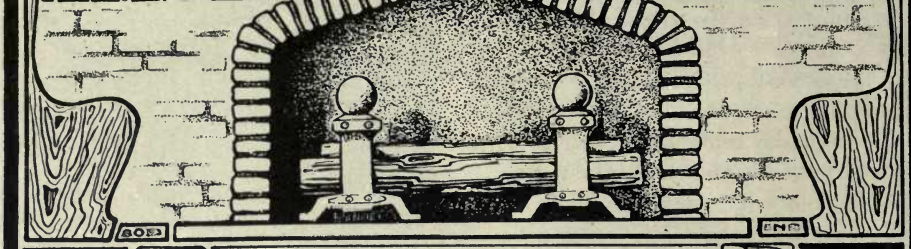
Established 1858

Factories: Detroit, Mich.; Walkerville, Ont.; San Francisco, Cal.
Branches in all principal cities of the world.

(216)

Square dealing by our advertisers is guaranteed.

INSIDE THE HOUSE



ANSWERS TO QUESTIONS ON INTERIOR DECORATION.

Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

Window Treatment.

C. C. M. I am sending designs of my windows, there are so many of them to decorate.

Shall I use net curtains in the windows above bookcases? Shall I use a valance in those windows? Shall I put the over-drapery next to the windows or on the casing of a projecting window in dining room whose ledge is eighteen inches wide? We are staining the woodwork a very light fumed oak and dull finish. I wish to have old rose and mulberry tones predominate.

I thank you for your efforts and wish to express sincere appreciation for the good work of "Keith's" and the "decorating department."

Ans. Yes, you seem to have many windows but it is not necessary to use a valance at all in living and dining rooms and it would save money and trouble to dispense with it. The net curtains are hung inside the casings, next the glass. The over-draperies are hung from a separate rod which is placed on the top casing and extends over on the side casings. In the little window with the deep sill, we would use only the mulberry Sunfast and set these inside the frame, near the glass. The windows over the bookcases need no net, only the Sunfast.

Cretonne can be used on a couple of wicker chairs stained light brown and the velvet on other furniture.

The Colonial Spirit.

E. A. G. I am interested in the Dutch Colonial house described in your August number. We expect to build our own

home later and hope to make it very like this one. Also would you give me some idea of what we should buy to furnish such a home. I want to buy a few things at a time and not have my house like every other house in town. I'll give you an idea of what we have on hand, as I probably could not furnish whole house new.

Ans. You have taken a fancy to a very attractive Colonial house and think you want one just like it. But you have not considered that the charm of this interior is the harmony between the furnishings and the style of the house. Both have the Colonial feeling. This would not be the case with your furnishings, except perhaps in the dining room.

If you wish to build this type of house we suggest that you dispose of the two heavy fumed oak chairs in den and furnish this or a similar room, a breakfast room perhaps, with your present living room pieces of brown wicker. Then put the mahogany bookcases in living room and you could also use there the small rush seated chairs you now have in den, getting some additional mahogany pieces for the living room and hall. Mahogany and antique cane would be good for one or two chairs, especially a Fireside chair. The fumed oak tea table can remain in living room; it will not conflict. You can follow the general ideas as described in the Dutch Colonial house.

An Interesting Floor Plan.

A. J. We are sending you blue-print of house we are building for our home. We want to ask your advice about color

Coal Bill \$40 Less

More Heat - Few Ashes - Healthful Air

Here's the Letter

"The UNDERFEED is giving the best of satisfaction, and it is with pleasure that I write you regarding it."

"We use soft coal costing \$4.50 per ton. Hard coal here is \$8.50. I estimate we saved \$40 on our coal last winter. Furnace is easy to manage. No waiting until 10 A. M. to get heat up as with our old top-feed. I remove ashes once or twice a week, and only a small quantity. Before we could not grow flowers on account of gas from other furnace. Now we can. To my mind, it is the best heating apparatus to be had. I am proud to be the owner of one."

(Signed) E. E. LORD, Peterboro, Canada



A Big House in a Cold Part of Canada



This Shows Cut-Out View of UNDERFEED

Saving of $\frac{1}{2}$ to $\frac{2}{3}$ Coal Cost Guaranteed the UNDERFEED Way

When a big, successful concern says to you: "We guarantee to cut your coal bills $\frac{1}{2}$ to $\frac{2}{3}$," you've simply got to listen.

And when on top of this saving you can have cleaner and better heat, it all means that you can not afford to let the opportunity go unnoticed.

For instance, read the letter shown to the left. It is from a cold part of Canada. It tells of more and better heat for less money the UNDERFEED way. And it is only one of thousands of just such others which we will send you for the asking.

Please don't ignore this, but sign and mail the attached coupon and get more money-saving facts about the Williamson UNDERFEED which today is saving money in 35,000 homes all over the country. You incur positively no expense or obligation in sending the coupon.

WILLIAMSON CUT
NEW-FEED
UNDERFEED
Furnaces and Boilers $\frac{1}{2}$ to $\frac{2}{3}$

The "Candle" Principle

Coal is fed from below in the New-Feed UNDERFEED. That means the clean, live coals are always on top—never smothered—but in direct contact all the time with the most effective heat-radiating surfaces.

No smoke, gas or dust, because these valuable heat elements must pass up through the fire and be converted into clean usable heat.

Easy to Operate

A boy of twelve can easily operate the UNDERFEED. No stooping. Everything wonderfully simple and effective. Adapted to warm air, hot water or steam. Because of its scientific feed principle the UNDERFEED will burn the cheaper grades of coal as effectively as the more expensive grades. That's a first great saving you're always sure of.

Send the coupon today—NOW. Remember, the saving of one-half to two-thirds coal cost is actually GUARANTEED the UNDERFEED way. The coupon also brings a very interesting book, "From Overfed to UNDERFEED," free, which pictures and describes it all.

THE WILLIAMSON HEATER COMPANY

36 West Fifth Avenue

CINCINNATI, OHIO

The Williamson Heater Co., 36 West Fifth Ave., Cincinnati, O.

Tell me how to cut my coal bills from $\frac{1}{2}$ to $\frac{2}{3}$ with a Williamson New-Feed. Warm Air.....Steam or Hot Water..... (Mark X after System interested in)

Name..... Address.....

My Dealer's Name is.....

DEALERS: Let us tell you about the New-Feed UNDERFEED and our 1916 proposition. Both are winners.



"Bungalows" or "Attractive Homes"

Send for a copy of one of our new plan books, either "Bungalows", containing 100 designs of moderate priced bungalows or "Attractive Homes" containing 100 designs of story-and-a-half and two-story houses.

Our designs are up-to-the-minute in detail and arrangement and incorporate the new features in home building such as, sleeping porches, sun rooms, built-in conveniences, etc. Either Book \$1. Postpaid-Both for \$1.50

LINDSTROM & ALMARS, Architects

260 Plymouth Building

Minneapolis, Minn.

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



Oak Flooring

"America's Best Flooring"

- ¶ In the majority of the finest residences where floors of **permanent** beauty are desired, **Oak** is specified and used. In moderate priced residences where the cost question is considered more closely, **Oak** is again the chosen material for floors.
- ¶ An **Oak Floor** needs no disguise. Its natural grain imparts an air of quiet refinement and is even more dignified than carpets or other floor coverings.
- ¶ **Oak Flooring** $\frac{3}{4}$ " thickness by $1\frac{1}{2}$ " or 2" faces can be laid over old floors in old homes or over cheap sub-floors in new homes at a very low cost. It is cheaper than carpets or pine flooring.
- ¶ A carpenter or handy man can lay **Oak Flooring** successfully. It offers a very profitable side line for carpenters in winter or during the slack season.
- ¶ The lady of the house wants **Oak Flooring** because it is capable of friendly harmony with all other furnishings.
- ¶ The landlord demands **Oak Flooring** because it commands better selling and rental values and assuring the highest class of tenants.

Write for booklet

The Oak Flooring Bureau

1348 Conway Bldg., Chicago

INSIDE THE HOUSE

scheme for living room, which is living room and dining room in one. (The bedrooms are to be white enamel with mahogany finished doors.)

Living room is to have oak floor and slash grain fir doors, trim and beams. The only colors fixed are the cream brick of the fireplace and buff tile for hearth. The house faces north. Our furniture is golden oak. What color would you suggest for walls, and for seats and table in breakfast room?

Ans. Your blue-print shows an unusual and interesting floor plan. The little breakfast alcove off the kitchen is very pretty and convenient if you do not find it too warm in summer. Perhaps the porch will take care of that. As this alcove has only indirect light, we would get an effect of sunlight by tinting the walls Colonial yellow, which will be good in kitchen also and pretty with the white woodwork. We would finish the kitchen wall four feet up from floor with hard cement, marked off in a large tile pattern and painted a light cigar brown. The seats and the table we would stain a very pale brown, using the dead-lac finish. Have yellow and pink cotton voile or muslin curtains at the windows and a pink shade over the light.

The living room shows many windows, but they are north and west, so you must keep it in warm tones. A light brown stain will probably be best for the woodwork with your golden oak furniture. Were it not for this furniture we would suggest silver gray for the woodwork, but it would not accord though it is so pretty. The brown tone will also look best with the cream brick. We think the walls must be a soft pale ecru with cream ceiling. The rugs and furnishings we would have principally deep rose tones or mulberry.

The grey wall will be very pretty with light green and rose cretonne curtains, and a wicker chair painted apple green and upholstered in the cretonne. Scarfs of Chinese toweling in the blue and white would be pretty on the table in the little breakfast room alcove and blue and white dishes.



*Woodwork—Mahogany Glaze over birch, varnished and rubbed.
 Floors—White oak natural, varnished.
 Walls—Mellotone ivory tint, Tiffany finish.
 Ceiling—Mellotone ivory tint. (Hall seen through French door finished same way).
 Furniture—Old brown mahogany.
 Draperies—Browns and red-browns predominating, with olive as a neutralizer.
 Rugs—Deep brown self-toned with border pattern in lighter tone of same color.
 Hardware—Center light, brushed brass.
 Shade on center light—Brown silk lined with cream silk.*

Send for this and 17 other views in colors

Ten interior views—eight exterior views—with specific suggestions for each house and room—together with a booklet full of ideas for getting best results in painting and decorating houses, woodwork, walls, etc., will be gladly sent on request.

Simply write today and ask for "The House Outside and Inside."

Lowe Brothers
 "Little Blue Flag"
VARNISHES

are famous among the best architects and painters for their great brilliancy, depth of lustre and long-wearing qualities. They assure the most beautiful effects, either gloss or rubbed.

There is a "Little Blue Flag" Varnish made for each specific purpose—one for your every need—sold by the Lowe Brothers' exclusive dealer, who also handles "High Standard" Liquid Paint, Varnish and Stains.

If you don't know the name of dealer nearest you, let us tell you his name.

The Lowe Brothers Co. 465 E. Third St.
 Dayton, Ohio
 Boston, Jersey City, Chicago, Kansas City, Minneapolis
 Lowe Brothers, Ltd., Toronto, Canada

USE BIRCH TRIM

*It looks better—
 It wears better—
 Its value is greater—
 Its cost is moderate—*

Birch Trim is the delight of the competent wood finisher. From varied experience with Birch and other woods he knows:

That birch is an ideal foundation for enamel,

That almost any commercial stain shows up well when applied in the right way to Birch,

That with Birch as the base, and with Birch only, can the new and wonderful silver gray effect be secured,

That—best of all—Birch finished "natural" possesses an elegance, a lustre, a depth of color, a beauty of design that please and satisfy the most critical.

In his conscientious way the expert wood finisher wants to give you the very best value that can be secured for the money you invest—whether the amount be great or small—and he, in turn—because he is proud of his workmanship—wants to make the very best possible showing for the time he puts in. He knows both results will be secured if Birch is used.

Birch Book K will aid you to plan your interior trim and woodwork. It is filled with illustrations showing the best work of some of our foremost architects.

If you want a concrete idea of the finishes Birch takes, send for finished samples. Send ten cents to cover mailing charges.

Northern Hemlock & Hardwood Manufacturers' Association

Oshkosh Wisconsin

Interiors Beautiful

200 VIEWS



IN PLANNING the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

PRICE \$1.00, POSTPAID

*With a Year's Subscription to
Keith's Magazine---\$2.00*

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

INSIDE THE HOUSE

Decorating a New House.

C. S. B. I am very much pleased with your suggestions, and hope to be able to follow them, but as actual building operations are just starting will not occupy house until December, and we are seriously considering allowing house to season before decorating. What would you advise?

Ans. We have had a wide experience in decorating immediately after building and find no trouble if the house is properly built. If it is poorly built, cracks, etc., will keep on coming no matter how long you wait.

Center Lighting.

J. W. Do you think Bog Oak for hall, living room and dining room, all opening together, a suitable color for a bungalow; rather, are the wood dyes being used now for interior work in preference to the old favorites of white, mahogany and oak?

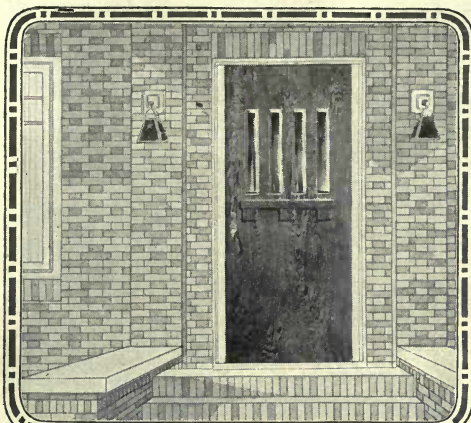
Is it a fact that center lighting is out of date and that bracket lights are more preferable?

Will you suggest a bungalow color for exterior work, where there is a street of yellows, grays and greens?

Ans. In reply to your questions: The choice of stains for your interior woodwork depends altogether on the character of the furnishings. With mahogany furniture we would never associate a Bog Oak stain. It is good for a den or a sun-parlor, but we would not choose it for either living or dining room. For the dining room, old ivory woodwork is always appropriate and attractive and combines with either fumed oak or mahogany.

As to center lighting, it is not out of date; the side lighting is used wherever practicable. In a larger living room it is rather necessary to have a center light and this is supplemented by two or more brackets. There is always a center light over the dining table. In other rooms side lighting is preferred.

We think a cigar brown for your bungalow, copper red roof and cream trim, would be a pleasant change from the rest of the street.



Select Doors That Give Lasting Satisfaction

Wise home-builders pick doors that are not only beautiful, but doors that give permanent, perfect service—in other words



Because of the *All White Pine Core*, Morgan doors do not shrink or swell. They give perfect service always, regardless of weather changes. They don't stick today and rattle tomorrow. No other door has this *All White Pine Core*.

There is a Morgan Door to conform with every architectural style. The veneers are selected for beauty of grain, and in such variety as to meet all tastes and requirements, whether for a modest home or mansion.

For your protection every Morgan Door is stamped "MORGAN" on the top rail—and is guaranteed perfect in materials and workmanship.

Send today for our free booklet "The Door Beautiful." It is full of suggestions for interiors and contains door facts every home-builder should know.

Morgan Sash & Door Company

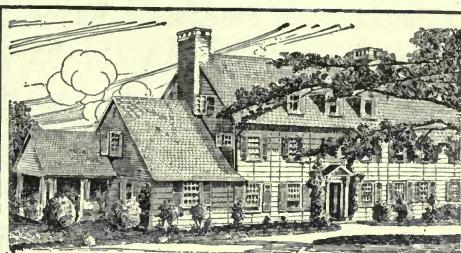
Dept. A-27 Chicago

Factory: Morgan Co., Oshkosh, Wis.; Eastern Branch: Morgan Millwork Co., Baltimore.

Displays: 6 E. 39th St., New York; 309 Palmer Building, Detroit.

Building Exhibits: Insurance Exchange, Chicago; Soo Line Bldg., Minneapolis.

If your dealer hasn't Morgan Doors, write us.



FOR harmonious interior decoration, no woodwork can be found of greater beauty, nor admitting of a wider selection of color effects than

ARKANSAS SOFT PINE

Besides taking stains and white enamel successfully, this readily obtainable interior trim has the additional advantage of

Moderate Cost

Due to an abundant supply.

Whether your choice be dark Mahogany, Flemish Oak, dainty Silver Gray, White Enamel, or other effects, Arkansas Soft Pine makes possible the exact finished tone you desire at a cost within easy reach.

Home Builders Book de luxe, White Enamel booklet, stained samples—any or all free on request. Address Dept. K.

Arkansas Soft Pine is trade marked and sold by dealers. If the one you patronize hasn't it, let us know.

Arkansas Soft Pine Bureau

Little Rock, Arkansas



A Sectional Clothes Drying Frame

NOW and where shall we dry our clothes after they are washed? If it is possible we want them to dry in the sunshine and in the open air, but in bad weather there must be an easy way of hanging them in the basement or attic. When the sun comes out unexpectedly, moving them outside is quite out of the question. When a sudden storm comes up it is hard to get them in quickly enough to avoid the rain.

Here is a sectional drying frame which may solve the problem for some housewives. It consists of a central standard which is dropped into an anchor block placed conveniently on the lawn. When the standard is removed a cover fits over the socket and nothing remains in sight. Four sections drop into brackets at the top of the standard. They also fit wall brackets which may

be fixed to the laundry or basement walls.

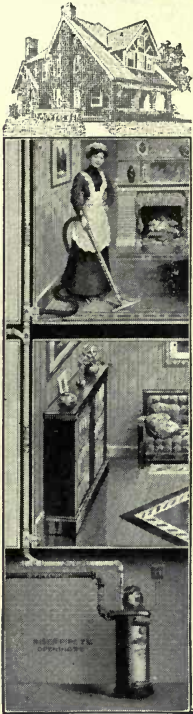
The clothes may be carefully and comfortably hung up while the section is on the wall of the laundry and then the whole section full of clothes taken out of doors and placed on the standard. Think of the comfort on a cold day of

hanging the clothes on the line in the laundry beside the tubs, saving the unpleasant task of standing out in the wind and cold to place the washing on the line. When the four sections are filled and in place on the standard the rigid bars are bolted together, looking not unlike the usual clothes reel. The top section of the standard containing the brackets is pivoted so that the reel responds to the motion of the wind and saves pressure on the clothes.

If a sudden shower comes up each section, filled with clothes, may be brought in and set



The standard is dropped into an anchor block.



This is the month in which to get ready for your *final* housecleaning!

HOUSECLEANING time begins with March. Don't punish yourself and your entire family with the whirlwind methods of the past. You can clean every nook and corner, every crack in the floors, every drapery and wall covering, every bed and mattress and radiator and register, silently, easily, quickly and thoroughly with a

TUEC STATIONARY CLEANER

For Health and Cleanliness

We can install it in your basement this month, connecting every room of your house with the powerful cleaning machine by means of 2½ inch piping concealed between the partition walls. An electric switch conveniently placed will give you command of the machine from any part of the house.

Connect the light-weight, large diameter hose with its big, aluminum tool, to the nearest opening and press the button. The TUEC does the rest. It will not only give your home a thorough housecleaning but thereafter it will keep the house so clean that the periodical housecleaning will never again be necessary.

Write today for the TUEC Home Book.
Literature and advice free.

THE UNITED ELECTRIC COMPANY

10 Hurford Street,

CANTON, OHIO

Given Grand Prize, the Highest Award at the San Francisco Exposition.



STILLWELL CALIFORNIA HOMES

Adapted to every climate. Stillwell homes are distinctive, comfortable, artistic, inexpensive to build and easy to sell. They combine all the advantages of the true Bungalow, with many special features that give pleasing individuality and charm. Waste spaces are eliminated as far as possible. Built-in conveniences and rooms easy of access save steps and make housekeeping a delight.



3 Practical Plan Books for \$1. Postpaid

Each book contains photos and full descriptions together with floor plans, costs, etc. The cream of California's best building ideas adapted to use in any climate. Moderate first cost and low up-keep are important features.

"Representative California Homes"

—a collection of 50 splendid one and two story homes costing \$2000 to \$6000. Price 50c.

"West Coast Bungalows"

—51 select homes of charming originality, costing \$1000 to \$2200. Price 50c.

"Little Bungalows"

—31 inexpensive homes of worth and character, costing \$300 to \$1700. Price 25c.

SPECIAL OFFER

All 3 books for \$1. postpaid.



For years we have specialized on the house beautiful—confining ourselves to the designing of homes costing \$10,000 or less. Our ready-to-build-from blue print plans, specifications, and material lists are complete and sold with a money back guarantee. They have been used from Coast to Coast as well as in foreign countries. Special plans to order.

E. W. STILLWELL & CO., Architects

419 HENNE BUILDING, LOS ANGELES, CALIFORNIA

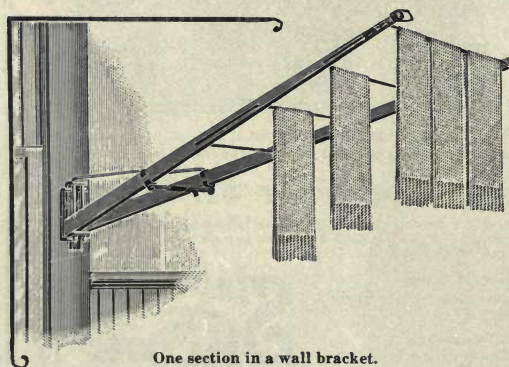
INSIDE THE HOUSE

in the wall brackets in the house. After the shower is passed they may be put out again without much effort.

Each section is composed of two metal arms which fold together, or spread in use. When put in place they are locked at the desired spread. The clothes line is threaded back and forth between these two arms. The line, even if filled with clothes, dropping slack when the arms are folded together to carry.

For hanging clothes indoors these sections set in wall brackets give more hanging space in small compass than can usually be arranged in other ways. The four sections out of doors may be drying while other sections are being filled indoors. Additional brackets may be set on the outside of the house if desired. The parts come separately and can be arranged to fit the individual need.

It is suggested that these sections are very convenient for tiny apartments where a bracket may be set on the outside casing of the window so that it can be reached and the section



One section in a wall bracket.

put in place from the inside of the window. One would be sorry to see our apartment houses so decorated, but there might be conditions where they would be admissible.

The standards may easily be set on the roof of apartment houses or even

on screened porches and used as they would be on the lawn. The anchor block may be set in such a way that the cover is flush with the floor when the socket



A section filled with clothes may be set into the standard.

is covered, so that it will not spoil the porch floor. A rug can be thrown over it so that it will not even arouse a question from the visitor.

An Adjustable Caster.

According to late reports a patent has been issued for a device which some millions of more or less exasperated householders have craved in vain. It is an adjustable caster, so made that it can be lengthened or shortened when the table or other piece of furniture will not stand firmly on an uneven floor. This will make it unnecessary to hunt for a chip or wedge to keep the table from tilting.

In the interest of the public such a patent should be immediately taken up by the manufacturers and put on the market, but we have not been able to find that this has been done, though the patent was reported some months ago. We should be glad to know if any one has found this device on the market.

The MINNEAPOLIS HEAT REGULATOR

"The Heart Of The Heating Plant"

THIS device, proven satisfactory in thousands of homes for nearly a third of a century, takes complete and accurate charge of the dampers of any style of heating plant burning coal or gas. Its accurate operation maintains a uniform temperature of any degree you wish. It acts and thinks for you every minute of the day and night and will automatically at any pre-determined hour raise or lower the temperature to any exact degree. We guarantee it to do all this to your entire satisfaction.

Every Architect—Every Builder Every Home Owner

should be fully informed of the comfort, convenience and economy obtained with the use of this device.

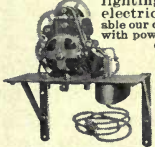
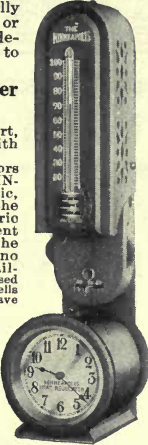
With our new non-winding electric motors (direct and alternating current) The MINNEAPOLIS is made entirely automatic, eliminating all winding and care of the regulator motor. For homes having electric current we supply our alternating current motor, the power being secured from the lighting circuit. Where no electric light current is available our direct current motor is used with power furnished by four cells of dry battery which have ample capacity to last a full year.

The "Minneapolis" is sold, installed and guaranteed by the leading trade everywhere. Our booklet shows models, explains details, gives prices.

Minneapolis Heat Regulator Co.

WM. R. SWEATT, PRES.

2725 Fourth Ave. S., Minneapolis, Minn.



This Book Means a Saving to YOU

This book may save you needless expense. Read how thousands of other home lovers are saving money and getting more beautiful interiors with

CAREY

Ceil-Board

SUPERSEDES PLASTER FOR WALLS AND CEILINGS

It eliminates the expense as well as the dirt, delay and dissatisfaction that attend the construction of plastered walls and ceilings. Sound proof, weather-proof, vermin-proof, sanitary, clean, fire-resisting, Carey Ceil-Board, in plain finish or natural hardwood grain is the ideal interior finish.

Write today for samples and copy of this book which will be sent free.

THE PHILIP CAREY CO

Gen'l Offices: 1024 Wayne Ave., Lockland, Cin., O.
Offices and Warehouses in Principal Cities.



Heat Your Garage Save Your Car

No frost damaged car—no cold knuckles in your garage—no discomfort or loss whatever when your garage is kept house-warm all winter long with the wonderfully effective



"REO" Garage Heater

38 inches high, 12 inches wide

\$14

Burns either natural or artificial gas. Gives utmost heat with smallest outlay. Compact and out of the way, yet a veritable heat-producing giant.

Guaranteed safe every way because of its wonderful burner construction and flame protector.

You'll be glad to pay the very low price asked for the "Reo" for the comfort and safety it insures. Send your order today. Complete—all ready to put in your garage, \$14. The comfort and safety it brings will make you glad you ordered NOW!



Own Your Own Garage

All Sizes—All Prices

An Edwards METAL Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and safe! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

\$6950

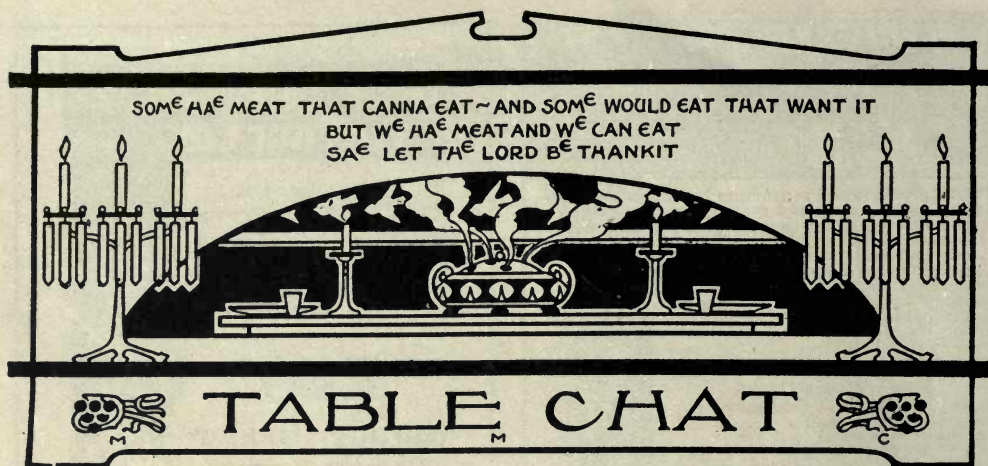
and up

Write today—right NOW!

The Edwards Manufacturing Co.

The World's Largest Makers of Metal Ceilings, Metal Shingles, Metal Roofing, Siding, Rolling Doors, etc.

521-541 Culvert St., Cincinnati, Ohio



The Perfect Cup of Coffee

GIVEN a percolator of the modern sort, good coffee is an easy matter, but how many people can make really good coffee without any special appliances?

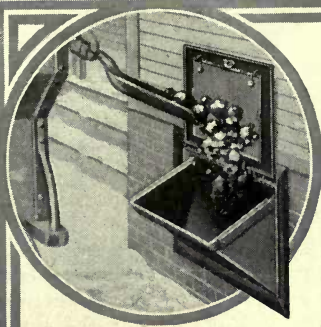
Two things are essential, good coffee and freshly boiled water. It must be rec-

ognized that drip coffee and boiled coffee are different things, each having its own flavor, some people preferring one, some the other. Boiled coffee is probably more economical than dripped coffee, as the boiling extracts the utmost possible flavor.

If you prefer boiled coffee, have the



Serving coffee.



Majestic Coal Chute

Protects Your House and Lawn

It prevents your house, lawn, walk, flowers and shrubs from being littered up and ruined with coal dust and stray lumps. It minimizes depreciation on your home. When the chute is not in use for coal, a glass door serves as a window, giving splendid light to the basement.

Locks from the inside and is absolutely burglar proof.

It is extra durable, has a heavy steel body—semi-steel door frame and boiler plate hopper. It will last as long as the building. Arrange for one when you build, or can be used in place of cellar window.

We make the Majestic in all types for houses, hotels, store and office buildings, apartments, etc. Sold by hardware and building material dealers.

Underground Garbage Receiver

The Only Sanitary Way to Keep Garbage

It can be placed close to the kitchen door with only the top and cover exposed, where it is convenient but never unsightly. It is water tight—snow and frost proof—emits no foul odors and keeps contents free from mice, dogs, cats. It is always closed, and the can easily lifts out for emptying. The dumping door opens with the foot lever. It closes itself.

Write for Catalog of Majestic Specialties

The Majestic Company, 606 Erie St., Huntington, Ind.

Manufacturers of Coal Chutes, Garbage Receivers, Milk and Package Receivers. All Metal Basement Windows, Rubbish Burners, Street and Park Refuse Cans, Metal Plant Boxes, Pipe and Pipeless Warm Air Furnaces, etc.



The Center of Comfort

in your home is the fireplace. Let your plans for it be well considered. Let us send you our illustrated literature about

"Lorenzen"

Fire Places Tiles Firesets Screens Grates Andirons Etc.

We are the largest exclusive Fire Place and Tile dealers in America. We save you approximately 50 per cent on everything you buy from us.

If you contemplate building write for Catalog No. 50 "Vogue in Fire Places," also booklet of Lorenzen Tiles and Mosaics.

We solicit inquiries from architects and contractors who seek the "unusual" at less than "usual" prices.

CHAS. F. LORENZEN & CO.
Established 1896

132 Reaper Block, CHICAGO, ILL.

Fixtures That Are Made to Light and to Last

"Gaugmer lighting everywhere follows the evening glow"



GAUMER LIGHTING FIXTURE GUARANTEED

Look for this Tag on every indoor fixture

BUILT to give service as long as your house shall stand—this is the aim of

GAUMER
Guaranteed

Lighting Fixtures

No loose joints or flimsy construction—every Gaumer Fixture must stand a rigid test for strength and careful construction before it leaves our shops. Designed by our own craftsmen, finished by a special electroplating process, it preserves its beautiful surface without corrosion or tarnish.

Tell your dealer you want the genuine Gaumer Fixtures. The Gaumer Guarantee Tag protects you.

Write us for advice and suitable designs, sending us an idea of your house or room plans. Address Dept. D.

BIDDLE-GAUMER COMPANY

3846-56 Lancaster Avenue

Philadelphia, Pa.

LIGHTING GAUMER FIXTURES

You are assured a square deal in Keith's.

berries finely ground, not pulverized. There is a good deal of nonsense talked about the importance of grinding coffee for each meal. The process adds to the difficulty of having breakfast on time and is seldom more than a rough breaking of the kernels, involving the use of a great deal more coffee than when it is granulated.

To insure the water being freshly boiled, heat it in the coffee pot, measuring the exact quantity required. When it is boiling rapidly, add the finely ground coffee in the proportion of a very heaping tablespoonful to each person. Tea should have the water poured over it, coffee should be stirred into the water. I do not know the reason but the fact remains. If you are making the coffee over gas, turn the burner down to its lowest point before you add the coffee. On a range, draw the pot to one side where it will boil very slowly, and let it do so for about five minutes. When it has boiled sufficiently add a little cold water to clear it and strain it off into the heated pot which you use on the table, taking great care to hold the pot steadily.

So much for boiled coffee. For dripped coffee the berries must be pulverized, if you are to get the full strength out of them. There are a good many earthenware French coffee pots to be had, costing usually about a dollar and very good looking indeed. The holes in the upper part are rather large and it is a good plan to keep a supply of circles of cheesecloth, and to lay one in the bottom of the percolator before you put in the coffee. Filtering paper answers the same purpose, but it takes rather longer for the water to pass through.

Boil the exact quantity of water required and allow an extra cup which will be absorbed by the grounds. Set the coffee pot on the side of the range, or on a gas burner turned very low, with an asbestos plate to protect it, and pour the water onto the coffee very slowly, letting it drip through into the lower part.

When it has all dripped through, take off the top and pour part of the dripped liquid into a small jug. Put on the top and drip the contents of the jug through the percolator. It is a good plan to let the coffee boil up after the top has been removed, as it is the weak point of dripped coffee that it is apt not to be very hot.

With one of the many varieties of French coffee pots in enamel or other metal, you have less trouble in keeping the coffee clear. You can buy in the shops aluminum percolators for coffee, perforated balls like a tea egg, and with these you can use a very finely granulated coffee, simply pouring the proper quantity of boiling water into the pot, dropping in the ball and letting it steep for a few minutes.

You can even make drip coffee with no more apparatus than a fine strainer fitting the top of a jug. Lay a bit of cheesecloth in the bottom of a strainer, then put in the coffee and pour the boiling water through it, covering it with a folded napkin while it drips. And you can easily make a single cup in the same way, covering the cup with its own saucer.

If you buy your coffee ready ground, as I have already said the best and most economical way, get it in small quantities not more than a half week's supply at once, and keep it in a glass preserve jar, with a screw top and a rubber ring, which will protect it perfectly from the air. Indeed a supply of fruit jars to hold dry groceries is almost essential to the well regulated kitchen. Supply each jar with a good sized label, with the name of its contents plainly written, and insist on paper bags and cartons being emptied the moment they come into the house.

In America we consider cream essential to coffee but Europeans drink it with hot, not boiled, milk, and it is probably If you have to go without cream you much more digestible than with cream. easily acquire the taste for hot milk.



SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
 Eighth Edition, 200 Selected Designs Cottages and Houses, Price.....1.00
 50 Design Book "Bungalows and Cottages," Price.....50
 One Large and One Small Book, Together \$1.25, Three Books.....2.00

Many pretty one-story Bungalows and Cottages, Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA



In this Elma, N. Y., bungalow the owner wanted as unique an effect inside as on the outside. He got it with Beaver Board.



BEAVER BOARD

Write our Buffalo office for free plans of this distinctive bungalow.

There's nothing like Beaver Board for bungalow and cottage walls and ceilings. It's not a substitute for lath and plaster—it's an improvement.

Sold by lumber, building material and hardware dealers. Be sure the Beaver trade mark is on the back of every panel.

The Beaver Board Companies

215 Beaver Road Buffalo, N. Y.

Branch Offices in Baltimore, Boston, Chicago, Cleveland, Detroit, Indianapolis, Kansas City, Mo., Minneapolis, New York City, Omaha, Philadelphia, San Francisco, Los Angeles.



*Design No. 524, by Jud Yoho
Estimated cost \$2800*

All About Bungalows

BUNGALOW BOOK
1916 De Luxe Edition

Contains the cream of 1000 practical and distinctive bungalows actually built for \$400 to \$4000, suited to any climate, with photos of exterior and interior views, plans, size of rooms, cost, etc. Also valuable suggestions on bungalow building written by an expert.

The Largest exclusive Bungalow Book published. 112 pages, Price **\$1.00** Postpaid

Worth many times its cost to any prospective builder. A smaller edition of same, only 50 cents. Send check, money-order or stamps. Money back if not satisfactory.

JUD YOH0, THE BUNGALOW CRAFTSMAN
461 Craftsman Bldg., Seattle, Wash.



Is Sewer Gas Leaking Into Your Bathroom? You Don't Know

Sewer gas, for all its potential danger, is odorless.

The connection of the average closet is sealed with putty. In time putty dries out, shrinks and crumbles and the joint is not tight. In most homes this means a sewer gas leak direct from the sewer main. To avoid this, see that the closet you buy is equipped with the Donovan Safety Flange.

Your plumber knows this flange and will explain it. It's a tell-tale device that exposes a leak instantly.

A quarter turn or a half turn given to a conveniently located screw, tightens the joint and stops every possibility of a leak of sewer gas.

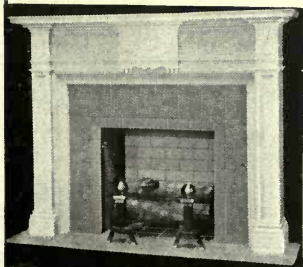
Write for a free, informing booklet, "The Dangers of Sewer Gas and How to Avoid Them."

Dept. "K".

The Trenton Potteries Company
Trenton, N. J.



IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

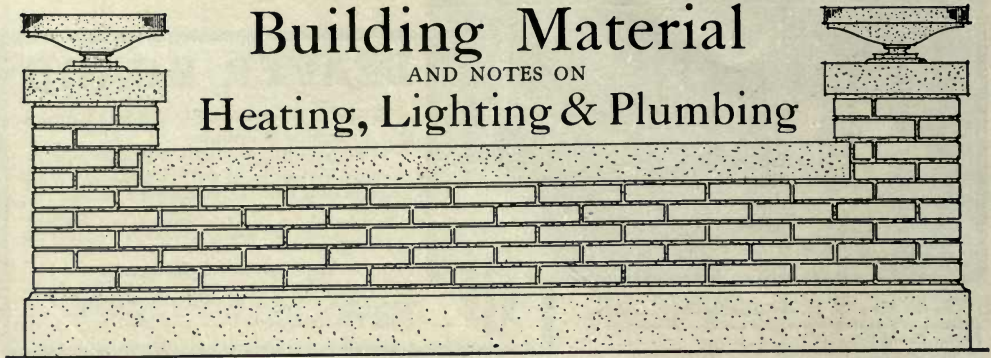
There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.



MASONRY.

John Upton.



STONE masonry is a matter of first importance to the builder, as its conditions must be studied whatever materials are eventually used in the foundation of the building under consideration.

Here are some notes on weights and strengths of materials, and methods of measurement in common use, which are valuable for reference.

Measurements.

Stone masonry is measured by two systems. Quarryman's and mason's measurements. By the quarryman's measurements, the actual contents are measured; that is, all openings are taken out and all corners are measured single. By mason's measurements all corners and piers are doubled. No allowance is made for openings less than three by five feet, and only half the amount of openings larger than this.

Range work and cut work is measured superficially and in addition to wall measurement. An average of six bushels of sand and cement is used per perch of rubble masonry. Stone walls are measured by the perch of $24\frac{3}{4}$ cubic feet, but in practice 25 cubic feet are considered a perch of masonry. Openings less than three feet wide are counted solid, but openings over three feet are deducted, although eighteen inches are added to the running measure for each jamb built.

Arches and Dimension Stone.

Arches are counted solid from their spring, corners of buildings are measured twice. It is customary to measure all foundations and dimension stone by the cubic foot. Water tables and base courses are

measured by lineal feet. All sills and lintels by superficial feet. Walls are never considered to be less than eighteen inches thick. The height of brick or stone piers should not exceed twelve times their thickness at the base.

Excavations.

Excavations are measured by the cubic yard and irregular depth or surfaces are generally averaged in practice. To find the number of perches in an ordinary job multiply together the length, height and thickness in feet and divide by 22.

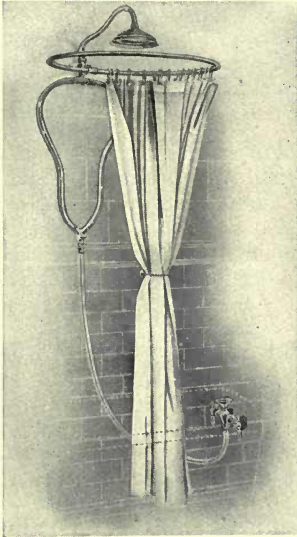
Concrete.

Concrete work is usually measured by the cubic yard of 27 cubic feet. One bushel of cement and two bushels of sand will cover three and one-half square yards one inch thick, and four and one-half square yards three-fourths of an inch thick.

Brick Work.

Brick work is generally measured by one thousand bricks laid in the wall. Bricks vary in size according to the locality and manufacture. An ordinary brick is $8\frac{1}{4} \times 4 \times 2$ and some are a little shorter, a little wider and a little thicker. In fact there is no standard size. A rough rule is to calculate 22 bricks, without considering the mortar, to the cubic foot. Another method of determining the number of brick is according to the square foot face of the wall. Eight common bricks to the foot in a four-inch wall, fourteen common bricks in a nine-inch wall, twenty-two bricks in a thirteen-inch wall and twenty-eight to thirty in an eighteen-inch wall. Walls of greater thickness in the same proportion.

One and one-eighth barrels of lime, five-eighths yard of sand will lay one thousand common brick. Corners are not measured



This Wolff Shower

one of the several Wolff models, will add an invigorating zest to the bath that will be a source of keen satisfaction throughout all the years it will be used. Wolff Showers, in common with other Wolff fixtures, are extra full value for the money. May be added to your initial bath equipment with little increase of cost, or at any time after fixtures have been installed.

Write for the Wolff Bath Book Now

and let appropriate fixtures be a part of your building plans. Wolff fixtures have long been known for their high standard of quality and are easily obtainable anywhere. Your plumber has our complete catalogue and will be glad to furnish them.

L. WOLFF MANUFACTURING CO.

"Makers of Plumbing Goods for 60 Years"

Pottery: Trenton, N. J.

601-627 West Lake St., CHICAGO, ILLINOIS



HESS HEATED HOMES ARE HEALTHFUL HOMES

The warm air is circulated evenly and thoroughly and penetrates to every corner. Ample moisture is added to the air, which is thus rendered normal, and in this respect, superior to the atmosphere from steam, hot water, stoves, or ordinary furnaces.

HESS WELDED STEEL FURNACES ARE HEALTH FURNACES

because every seam is welded tight, sealed with melted steel which never opens nor permits the leakage of gas and dust; because porous cast iron is not used as a radiator for direct contact with the air you breathe.

HESS PIPELESS FURNACES

are recommended for the smaller classes of houses, cottages, and bungalows. One register only is used, which supplies hot air through the center and returns cold air to the heater through the ends. No horizontal air ducts nor pipes are used, thus saving expense and space in the cellar. Less fuel is required than with stoves, and the circulation of heat is better than with stoves or radiators.

WE SELL DIRECT from factory to consumer. Easy payments if you wish. Write for booklet and estimate. Special terms to contractors.

HESS WARMING & VENTILATING CO., 1217 Tacoma Bldg., Chicago

Makers also of Hess White Steel Medicine Cabinets and Electric Family Dish Washers.

Do business with our advertisers, they make good.



What Happens to Your Stucco?

Sudden temperature changes are one of the causes of cracks in stucco. The reason?—because the stucco and the base on which it is laid do not expand or contract *proportionately*.

Kno-Burn

Expanded Metal Lath

has the same co-efficient of expansion and contraction as stucco. Sudden temperature changes have no tendency to break the bond between plaster and base—a bond that the mesh of “Kno-Burn” makes unbreakable under ordinary conditions.

If you are interested in building for *permanence*, let us send you “Practical Homebuilding”—a treatise on building the right way from sub-cellar to attic.

Send ten cents to cover cost of mailing and ask for booklet 659

North Western Expanded Metal Company

Manufacturers of all types of Expanded Metal

965 Old Colony Bldg.
Chicago, Ill.



twice as in stone work. Openings over two feet square are deducted. Arches are counted from the spring. Fancy work, counted one and a half bricks for one. Pillars are measured on their face only.

Mortar.

A cubic yard of mortar requires one cubic yard of sand and nine bushels of lime. It will fill thirty hods. One thousand bricks closely stacked occupy about 56 cubic feet. The same number of old brick cleaned and loosely stacked occupy about 72 cubic feet.

Chimneys.

In chimneys five courses of brick will lay one foot in height. Six bricks in a single course will make a flue opening four inches wide and twelve inches long and eight bricks in a single course will make a flue opening eight inches wide and sixteen inches long. Unless there is a flue lining the wall of a chimney should not be less than two bricks in thickness. The safe bearing load for brick work laid in lime mortar is estimated at one hundred pounds per square inch. Hard bricks laid in Portland cement mortar will support two hundred pounds per square inch. Granite squared in stone work, three hundred and fifty pounds, sand stone one hundred and seventy-five, rubble stone work laid in lime mortar, eighty pounds. The same laid in cement mortar, one hundred and fifty. Concrete laid one part cement, two of sand and five of broken stone, one hundred and fifty pounds. Limestone, squared stone work, 250 pounds.

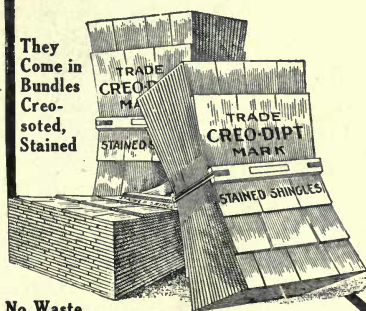
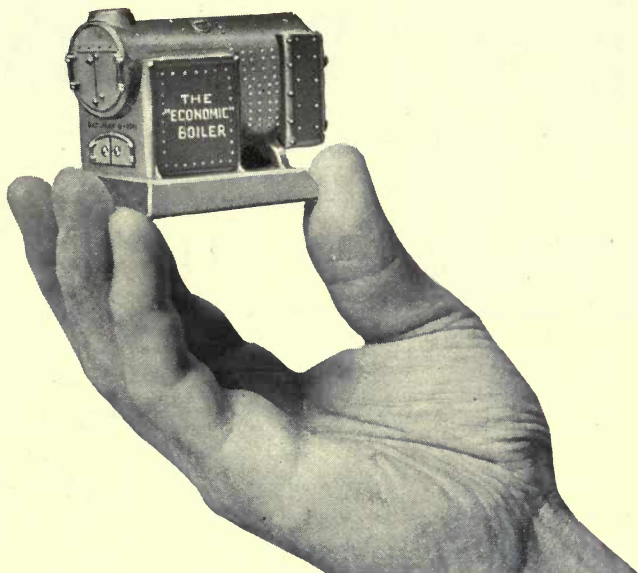
Bearing Load on the Soil.

However strong a wall may be there must be a sufficient support under it, so it is necessary to consider the bearing loads which it is safe to put on the foundation soil. The hardest rock in its native bed will support one hundred tons to the square foot. Rock equal to the best Ashlar masonry, twenty-five to thirty tons; rock that is equal to the best brick will carry fifteen to twenty tons. Clay, when it is in thick beds and always dry will carry from four to six tons to the square foot; clay moderately dry, two to four tons; soft clay, one to two tons. Gravel and coarse sand well cemented by nature will carry eight to ten tons; compact sand will carry four to six tons; sand which is clean and dry, two to four tons. Quick-sand and alluvial soils are allowed one-half to a ton per square foot.

An Easy Boiler To Handle

==
Most Efficient
For
Heating
==

Write to
"Economic" Dept.
Erie City Iron Works
Erie, Penna.



YOU cannot improve upon the value of "old-fashioned-quality" shingles preserved and stained by our new process.

"CREO DIPT" STAINED SHINGLES

17 GRADES 16, 18, 24-INCH 30 COLORS

Write for Book of Homes and
Sample Colors on Wood

Name of Architect and Lumber Dealer appreciated.

STANDARD STAINED SHINGLE COMPANY
1022 Oliver St., No. Tonawanda, N. Y.
Factory in Chicago for Western Trade

No Waste





KEWANEE PRIVATE UTILITIES



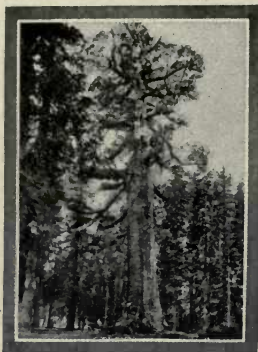
Give Water and Light Service Equal to the Best Public Utility Plants in Cities

The largest or smallest residence, no matter where located, can be equipped with all the comforts of the city home. The Kewanee is the original air pressure water system, supplying water under strong pressure for bathroom, kitchen, laundry, garden, garage, barns and stock. Excellent fire protection. No elevated tanks. Anybody can operate. The Kewanee is built as a complete and compact system in our factory and ready for a life-time of good service as soon as the shipping crate is taken off. Cost from \$15.00 up, according to capacity desired. Our dealers are high class mechanics and will install a Kewanee System, with our guarantee of success. KEWANEE PRIVATE UTILITIES give daily service and remove the last objections to comfortable country living.

Water Supply Systems—Sewage Disposal Plants—Electric Light Plants
Gasoline Engines—Gasoline Storage Plants—Vacuum Cleaning Systems

Send for illustrated bulletins on any or all the above

KEWANEE PRIVATE UTILITIES COMPANY, 123 South Franklin Street, KEWANEE, ILLINOIS
(Formerly, Kewanee Water Supply Company) : Branch Offices—50 Church Street, NEW YORK and 1212 Marquette Building, CHICAGO



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH's staff of wood experts.

This department is created for the benefit of KEITH's readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

Summer Homes in the National Forests.

Permits granted by the Forest Service.

FERM permits or leases may be obtained from the Forest Service, granting the use of five acres or less of national forest land for summer homes and other recreational purposes, the permits running for a period not to exceed thirty years. To put these permits on a business basis a fee is required ranging up from five (\$5) dollars a year, according to location of the land and the demand for it, and carry certain responsibilities as to the care of the land. District foresters are authorized to grant permits where the improvements are to cost less than \$1,000, and for a period not longer than fifteen years. Larger permits must be approved at Washington. These rules were issued in May, 1915, in order that those people using national forests might be secure in their tenure for a sufficient length of time to warrant more substantial improvements than had been practiced under the old rules.

Quarantine Against Dry-Rot.

Shipments of lumber should have a "clean bill of health" the same as is required in shipments of cattle from state to state. The Hardwood Record says:

"Decay in wood is a disease that may spread as smallpox spreads among the unvaccinated of the human race. No wood will decay unless the germs of decay are communicated to it from wood

or other vegetable substance already infected. Rot is not inherent in wood or in anything else. It is communicated from subject to subject by the spread of the germs from one to another.

"Decay in wood is caused by a plant growth that takes root among the fibers of the wood, and develops and spreads. The plant which does this is called a fungus. There are many species, some preferring one kind of wood, some another; some spread rapidly through the cells and fibers, producing rapid decay, others work slowly and do little harm. The germ which furnishes the means of spreading the rot from one piece of wood to another is called a spore. It is not exactly a seed, but it amounts to the same thing. When it falls on a piece of wood where the conditions of moisture and warmth are suitable, it grows like a seed, and sends roots into the wood and dissolves its substance, and that produces decay. The spores which do this are usually too small to be seen separately without a strong glass, but each microscopic speck may become a center of infection. Spores develop and fly away through the air in countless millions, and fall everywhere in the vicinity, spreading rot over the surface of sound lumber if sufficient moisture is present.

"Suggestions have been many times made that decaying lumber should not be shipped because of the probability that it will communicate its own disease to sound lumber along its journey or at

If You Have a Fireplace



You can secure four times the usual amount of heat by using a

JACKSON Ventilating Grate

These grates each heat two or more rooms on one or different floors in severest weather, and they will heat an entire residence with two-thirds the fuel of a furnace.

If You Have No Fireplace you can secure the effect of an ordinary open grate by the use of a *Mayflower Open Franklin*. Many people use them in preference to the ordinary open fireplace.

Catalog "K" shows the Ventilating Grate. Send for this, and also for catalogs of Mantels, Franklins, Andirons, or anything else you wish in the fireplace line.

EDWIN A. JACKSON & BRO.
25 Beekman Street New York

Beautiful tiled bathroom and kitchens are no longer a luxury. Even the most unpretentious homes can afford

UPSON

FIBRE-TILE

Looks like expensive tile. Lasts longer. Costs far less. Really artificial lumber with deeply indented tile pattern. Nail it over old plaster or to studding, and enamel. Send 2c stamp for sample and interesting booklet.

THE UPSON COMPANY 152 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.

We have issued a
Very Interesting
Catalogue on

"Pergolas"

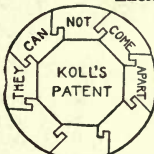
AND GARDEN ACCESSORIES

showing a series of new designs for Pergolas and Pergola Columns.

Hartmann-Sanders Co.

Exclusive Manufacturers of

**KOLL'S PATENT LOCK-JOINT
STAVE COLUMN.**



Pergola Album—"G28"—illustrates Pergolas, Garages, Lattice Fences, Veranda Treatments and Garden Accessories will be sent for 10c in stamps.

Catalogue—"G40"—containing very useful information about Exterior and Interior Columns, will be sent to those who want it for 10c in stamps.

Main Office and Factory: Elston and Webster Aves., Chicago, Ill.
Eastern Office: No. 6 E. 39th St., New York, N. Y.

1916 Advertising Message To Business America

By JOSEPH H. FINN

Hail to the New Year of New Business in the New America!

If ever a year was born under a bright star of commercial promise for the United States, it is 1916. The Home Market holds America's destiny as never before.

Every business barometer registers good times ahead. If there is one pessimist of your acquaintance—one man who fails to realize what this wonderful new era of American business pre-eminence means—go at him broadside with these staggering truths.

Figures may be dull—but these proclaim facts that are of tremendous import.

Most of all, remember that real solid and lasting prosperity in this country is based on the *Home Market*—and those who enjoy the biggest share of this prosperity will be they who realize what the Home Market means and who go most aggressively after it.

Let's go constructively after the Home Market—let's educate home buyers—let's do it with a vim—together! Let's use the power of the printed word. If you have goods to sell—let's advertise—and tell American consumers about them.

The way to accelerate prosperity in your direction is to seize upon this wonderful Home-Market Opportunity, *now*. Remember that the export business at best is an uncertain asset, resting upon the final solution of the International Credits problem—first, the establishment and then the protection of our own Merchant Marine.

What we have here at home, we *know* we've got. Our riches are here—in the soil—in the banks. And every day, as conditions better, there is a wider distribution of this national wealth.

Here is the Business New Year—yours to do with as you will.

America has the money. Here, people are thinking buying-thoughts.

With 1916 comes an epoch of unexampled prosperity—for the wise men of this business generation.

With this New Year, you stand on the threshold of Opportunity.

Are YOU going to enter?

It's up to you—*Advertise to the Home Market!*

Do business with our advertisers, they make good.

its destination. Without doubt such a thing often happens."

Howard B. Oakleaf, of the Forest Service, in a paper on the prevention of Dry-Rot says:

"A little care in handling the material in the yard will prevent the incipient stages of decay, which, when transferred to buildings, may develop into full-fledged cases of dry-rot or decay.

"The term 'infected wood' may be defined to cover wood which contains the roots of any fungi which can continue to grow under the conditions in which the wood is to be used.

"The sale or use of infected wood (that which contains fungi which can grow under the conditions of use) should be prohibited by law.

"Our building codes require that steel girders and beams in the downtown office buildings be covered with concrete to prevent collapse in case of fire. Why should we not have a similar requirement that timbered structures be erected in such a way that dry-rot infection is impossible, the code to be so worded that ventilation, heat or preservative treatment be provided for under given conditions?

"If the timber can be rapidly dried out and kept dry under the conditions of use, dry-rot cannot develop.

"When a building is framed the ends of the girders and posts are usually fitted so tight together that drying is exceedingly slow, and it is frequently further retarded by the side plates of the girder supports. This is one of the principal points where dry-rot starts, because all the surfaces of contact have been or are subject to infection. However, the

growth of dry-rot can be avoided by constructing these joints so that air can circulate around the heads of the sticks.

"Where drying is likely to be slow because of poor ventilation or absence of heat, a wood preservative should be applied to the surfaces of contact.

"Fortunately for the lumberman, fresh air—one of the cheapest things in the world—is the best preventive of dry-rot. Heat is also an excellent preventive as it aids in drying out the timbers.

Course on Lumber at University of Minnesota.

The general extension division of the University of Minnesota announces a new course in the general extension division, a correspondence study course of the subject of "Lumber and Its Uses." The course has been prepared for this work by one of the best authorities in this country and is planned to be of especial value to lumber dealers, contractors, carpenters and all others whose work relates to the use of this important material.

The topics treated in this course deal with the structure of wood and its physical properties, standard grades and sizes of lumber, the selection, seasoning and preservation of structural timbers, lumber prices, cost of wood construction, the specific uses of the various commercial woods, and the best methods of applying paints and stains to both exteriors and interiors.

Further details of the course, and the manner in which the instruction will be given can be obtained from Richard R. Price, director, General Extension Division, University of Minnesota, Minneapolis, Minn.

**IXL ROCK
MAPLE, BIRCH
AND BEECH
FLOORING**



"The Finest Milled
Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times **without after smoothing**, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.

HESS MEDICINE SANITARY LOCKER

**The Only Modern, Sanitary
STEEL Medicine Cabinet**

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free



The Recessed Steel
Medicine Cabinet

That Bungalow

which you intend to build next Spring
will need the soft, artistic tones of

Cabot's Creosote Stains

to make it complete and harmonious.

Paint doesn't suit bungalows. It forms a hard, shiny coat that is foreign to their character and "atmosphere." The Stains produce deep, rich and velvety colors that harmonize perfectly with the style of building and surroundings. They are 50 per cent cheaper than paint, and the Creosote thoroughly preserves the wood.

You can get Cabot's Stains all over the country. Send for free samples of stained wood and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists
Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



Stained with Cabot's Creosote Stains
Sidney Lovell, Architect, Chicago, Ill.

Building the House

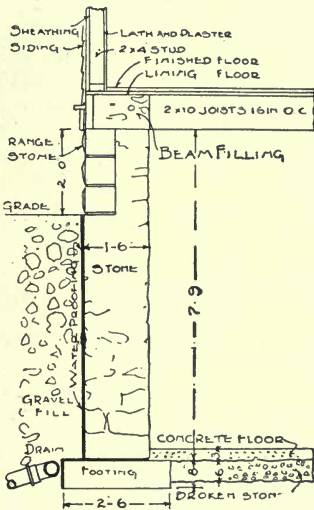
A Handbook Every Home-Builder Should Have

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised
Edition just off
the press

Price \$1.00



(Fig. 6)

SECTION THROUGH BASEMENT WALL

Published by

M. L. KEITH, McKnight Bldg., Minneapolis

BAYONNE
Used on All the
Porches
Gedney Farm Hotel, White Plains, N. Y.

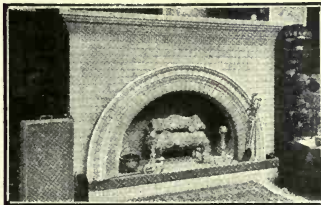
Builders and contractors give preference to BAYONNE where wearing qualities, clean finish and economy are essential.

BAYONNE
gives complete satisfaction where other prepared materials and even metal coverings fail.

It is the simplest covering to lay; tacked only on the edges after spreading on the dry boards (no setting in wet paint). Does not shrink, expand, buckle or crumble. It stays flat. Never leaks and stands any amount of hardest wear. One coat of paint is sufficient for ordinary uses.

Hundreds of letters from contractors all over the States prove BAYONNE's superiority. Write for Sample Book "C" giving prices and laying instructions. See Sweet's, Page 539.

JOHN BOYLE & CO., Inc.
112-114 Duane St.—70-72 Reade St., New York City
Branch House: 202-204 Market St., St. Louis



**Colonial
Fireplaces
ARE RIGHT**

Made to Order
from

\$20.00 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are economical both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

No advertising is accepted for "Keith's" that you can not trust.

YOU NEED THESE
OUR SELECT LINE
OF
AND IRONS

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc., will interest all who are building or improving their homes. We make only high grade goods but our prices are right.

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

Send in the Coupon and Get Our Catalog

STOVER MANUFACTURING CO.
704 EAST STREET FREEPORT, ILL.

Send me your Catalog No. 1525. I am especially interested

in.....
Name.....
City..... State.....

SPLINTERS AND SHAVINGS

A Strong Element in Values.



HE Minnesota State Art Commission contends that there is a "dollar and cents value" to "Art," and cites consular reports in proof of the statement. Every builder consciously or unconsciously proves the same thing. One house is a success. Why? The people like it; it is convenient; it is well arranged; it is good to look at and to live in. In other words it is well designed. It is a good piece of work, well conceived and well executed.

People have set up a shrouded form which they have called "art" and which they have sought to worship in art museums and picture galleries, neglecting the humble applications of this great power and thereby losing its dynamic force. Art is from the same Latin root as artisan. It means work that is well done; work so well done that like a perfectly cut jewel, you may look at it from any point of view and still find no flaw in it. It must be carefully thought out, logical and consistent; it must be so well done that it is always good to look at; it must fully and completely fit the need for which it is intended. The essential parts must be co-ordinated each to the other. It is not necessary to strive after certain effects. The "perfect piece of work" becomes a "work of art."

This "perfect piece of work," when he approximates it, is the chief asset of the builder and makes great architecture. It is the object toward which the home builder is working. Beauty has undoubtedly an economic value.

Beauty In Common Places.

At a luncheon of the School Art League in New York Dr. Hamilton Wright Mabie said: "You will never have an art age in America until you have art in the kitchen. The Japanese have the sublime art inspiration because they pay attention to the beauty of everyday utensils. In Japan every little farm and village rivals in beauty the national

palace and suggests in miniature that exquisite charm which gives us such pleasure. My plea is for more art in the common places."

Furniture.

"Good Furniture" asks the question: "Do the people who buy the vast quantity of polyglot furniture sold each year really do so because it is what they most desire, as a basis for making a livable home?" No one will honestly maintain that they do. We have a certain latitude of choice, but there is much economic waste in the badly designed furniture which is placed before people for their choice. An unfortunate thing about bad design of any kind is that at the first glimpse it often makes a popular appeal to the fancy, which it soon loses. A safe test of design, as with other things, is that one can live with it, with a growing rather than a lessening pleasure. To be a thing of beauty, it must be a constant joy. This is a test. There must be something true and good in any design which continues to give pleasure.

The Lincoln Highway.

The Lincoln Highway is a truly democratic memorial such as Lincoln would have commended. It is a great highway traversing the country from coast to coast, and from latest reports it is now completely marked from New York City to San Francisco. Where that was possible well traveled roads were included in the survey of the great national roadway. Each community took an interest in that part of the highway which affected them locally and yet worked toward the complete whole. Public aid has been given to the long stretches of little traveled country.

In Utah and Nevada, states of tremendous areas and sparse population, great effort has been put forth toward improvement of the Lincoln Highway by the ranchers living along its course. The aid of the counties has been given in as great a measure as possible.

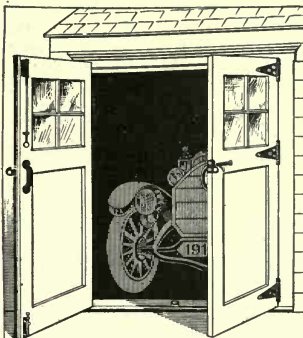
Special Subjects

Published in
KEITH'S in
1915

As long
as the file
lasts,
any single
number will
be furnished
at the
single copy
price, 20c
or three
copies for
50c

SUBJECT	Month
Investment Value of Forty-Foot Lot	December
Planning the Fireside Corner	"
A Complete Kitchen	"
Our Experience in Remodeling	"
The Ranch House	November
A Woman's Workshop—The Kitchen	"
Treatment of the Narrow Lot	"
Building Two-Family Houses	October
Home Building in California	"
Colonial Entrances	September
Willow Furniture	"
A Dutch Colonial House	August
The Breakfast Room	"
English Domestic Architecture	"
Use of the Pergola	"
Landscaping the Corner Lot	"
Remodeling a Country House	July
Bungalow Furnishings	"
Planning the Music Room	"
Rustic Fences and Gates	"
Furnishing with Willow	June
The Attic Bedroom	"
The California Bungalow	"
Planting Plan for a Forty-Foot Lot	"
Brick Colonial Homes	May
Arranging the Furniture	"
Picturesque Porches and Seats	"
Planting Scheme for Double Grounds	"
Everything About Bungalows	April
Remodeling An Old House	March
Fixing the Mantel	"
A Little House That Solved a Big Problem	"
Planting Plan for a Fifty-Foot Lot	"
The Newer Domestic Architecture	February
Sofas and How to Use Them	"
Decorative Wall Paneling	January
The Farmer's Cottage	"
A Talk on Woods—Oak	"

Send Orders to **M. L. KEITH, McKnight Building, Minneapolis, Minn.**



For Your New Garage—

Stanley's No. 1776-J1 Set contains complete Hardware 'Trim' for garage with double doors. Write for Circular "T."

THE
STANLEY WORKS
New Britain, Conn.

FREE BOOK

WAGNER
PARK
Flowers

at prices that will surprise you. We grow everything from little violets to sturdy oaks. Our roses are famous from coast to coast. Free delivery everywhere in U. S. We assist you in planning your grounds. Our years of experience at your service free. Our instructive catalog will guide you in creating the most artistic and attractive surroundings whether yours is but a small city lot or a vast estate. Write for free catalog 78.

Wagner Park Nursery Co., Box 851, Sidney, Ohio

Buy goods made in America.

The Breath of the Outdoors

THE gate is open and the path leads straight to the House & Garden of your dreams. How to plan your home, how to decorate and furnish it, how to plant a garden, how to care for it and enjoy it to the full—all these will be shown you by the experienced guide who meets you at the gate. ¶ This is the mission of House & Garden. It preaches the gospel of the ideal home. It offers, month by month, in wisely-chosen text and pleasing picture, a wealth of ideas and suggestions for the home-lover in search of the ideal house.

How to Plan and Furnish

House & Garden begins at the logical beginning—the planning of your house. It shows you the proper setting for every type of house—Colonial, English, Half-Timber, Cement, Tudor, Mission, Stucco, Italian, Mexican, Bungalow—even log cabins are not neglected. It tells you about the fire-places, stairways, windows, roofs and porches, advising with you upon every feature—so that when you call in the architect your problem is half solved, and his services are doubly efficient.

The house completed, new problems await you—and here again House & Garden comes as an experienced friend. It takes you into the homes of others, where varied schemes of decoration and furnishing have been employed. It shows you distinctive effects already achieved, and allows you to make a choice of the best. And, better still, it tells you just how to obtain these effects for yourself.

The Ideal Garden

No less important than the house is its setting of garden and grounds. The ideal home is the right house linked with the right grounds. If either is right in itself, but improperly joined—your ideal has vanished. Every kind of gardening comes in for attention—the raising of flowers and vegetables, winter and summer; growth of hot-house and hardy flowers; sowing vegetable seeds in season; the use of fertilizers; making hot-beds and cold-frames; pruning and grafting—all the hundred and one things the man with the hoe needs to know about. House & Garden constantly shows how harmony may be preserved. The best experts have aided to give this magazine the voice of authority. The wise gardener does not guess or take chances. He profits by the other fellow's mistakes and reduces his gardening to a science. House & Garden will aid you to be the wise kind of gardener!

The Breath of Outdoors

Best of all, House & Garden is not merely a magazine of utility and economy—it is also a vehicle of constant delight and inspiration. The breath of the broad outdoors blows through its pages, whispering the pleasures of country life—telling many of the interesting secrets of nature. Now it is about insect life; again about the habits of bees; again about the migratory birds. Always there are descriptive stories and clear, beautiful pictures about the trees, the plants and the flowers. For the nature-lover, House & Garden is also an intimate friend.

Furnishing Authority

Distinction in furnishing, is as you know, far more a matter of information and taste than of income. The readers whose tastes are above the commonplace, will always find in House & Garden, not simply timely information, but what is more, the nice touch of individuality and atmosphere that always distinguishes the carefully planned and executed home. Sooner or later you will be selecting furniture or hangings, or planning to refurnish or decorate, paying out hundreds of dollars for fabrics, finishings and furniture. You will want to know, authoritatively and beyond doubt, the essentials of interior decoration. You will find endless pleasure in searching out those things which have individuality of their own yet harmonize in the home and make it "liveable" and comfortable.

Question of Economy

If you intend to spend \$25, \$50, or \$100, in the beautifying of a single room this year, it will be true economy to get all the ideas possible on the subject beforehand. A mere fraction of this outlay for House & Garden will be worth far more than the entire cost, in the resulting satisfaction to you.

House & Garden for 1916

January.....	Annual Building Number
February.....	Garden Planning Number
March.....	Spring Gardening Guide
April.....	Spring Building Number
May.....	Summer Furnishing Number
June.....	Garden Furnishing Number
July.....	Small House Number
August.....	The Motor Number
September.....	Autumn Furnishing Number
October.....	Fall Planting Guide
November.....	House Planning Number
December.....	Christmas Gift Number

\$3 Invested in House & Garden may show you how to effect a saving of \$300 or even \$3,000 or more

You may have this excellent magazine for a whole year, twelve numbers in all, for \$3. Surely this is a good investment when you consider that \$3 spent (a tiny fraction of your loss on one ill-chosen chair) may save you \$300 to \$3,000 or even more, perhaps, uselessly spent on furnishings that do not harmonize, on gardening which does not please or on building which is not practical or useful.

Special Introductory Offer A whole year, 12 numbers, for \$3. Or, if you **Subscribe Now** beginning with the February Garden Planning Number you may take advantage of our six months' special introductory dollar offer, using the coupon below.

Do not even take time to write a letter. The coupon will do and is easier and quicker. With one stroke of the pen you can solve your building, furnishing and gardening problems, improve your home and its surroundings, make real savings, and bring to yourself some of the real joys of living.

House & Garden
With which is incorporated American Homes & Gardens

Condé Nast - Publisher
440 Fourth Ave. New York



"All Indoors and Out"

I accept your introductory offer. Send me five numbers of House & Garden, beginning with the February issue, and will remit \$5.00 on receipt of bill. OR—I enclose \$3 herewith, or which send me six numbers of House & Garden, beginning with the February issue.

Name.....
Street.....
City.....
State.....
K-2-16.

Mr. Condé Nast is the publisher of the successful magazines—Vogue and Vanity Fair. He has recently purchased House & Garden and more recently American Homes & Gardens, incorporating them into this new magazine.

House & Garden will occupy the same leadership in the field as Vogue and Vanity Fair hold in their respective fields.

Every resource that skill and experience can suggest is being turned to account to make House & Garden more complete, and more authoritative and more distinctive than ever before. Read about the remarkable forthcoming issues above.

Do business with our advertisers, they make good.

Make us responsible for your roof

by specifying

UNDERFELT ROOFING

RUBBER SURFACE

You take no chances with Underfelt. Your satisfaction is Guaranteed, no matter what kind of house, barn, shed or factory you roof.



DI-MACK WALL BOARD--ROCK BOARD

Beautiful Duplex Boards

Green and Buff Surface

Brown and White Surface

The Modern Wall and Ceiling Material. It is less expensive as it cost less than lath and plaster, is Warm, Strong, Artistic and Durable. Can be easily applied, painted or decorated. Is a Non-conductor of Heat and Cold.

Write for samples and prices

McCLELLAN PAPER COMPANY :- MINNEAPOLIS



BUY YOUR FURNACE \$10 DOWN \$10 A MONTH



Our monthly payment plan of selling direct saves you the dealer's profits and charges for installation. The

JAHANT FURNACE

with the patented "Down Draft System" is best for residences, schools, hotels, churches, etc., because it delivers plenty of heat whenever and whenever desired at a saving of one-third to one-half in fuel bills. Install the Jahant yourself. We send complete outfit, freight prepaid with special plans, detailed instructions and all necessary tools for installation. Satisfaction guaranteed or money refunded.

WRITE FOR FREE ILLUSTRATED BOOK

The Jahant Heating Co., 100 Steiner Ave.
Akron, Ohio

Save 1/3 to 1/2 on Fuel Bills

Build for All Time



Put real durability in your house, and at the same time secure a more artistic finish at a less building cost by using the modern siding corners-

KEES Metal Building Corners

They do away with corner boards, never break open, give mitre effect and are almost invisible when painted. Cheapest to buy, look the best and last the longest.

Write for free samples and pictures of homes finished this way.

F.D. KEES MFG. CO. BEATRICE, NEB.
Box 102

Special Offer to Contractors

EVERY building contractor will be interested in securing two of the best journals on building, together with a fine book of plans under my "Special Offer."

12 Big Monthly Numbers	KEITH'S	\$2.00
12 " "	" Nat'l Builder	1.50
1 " Book of Plans		1.00
		\$4.50

Special Price for all three \$3.00

Select Your Book From This List

Vol. 1-136 Designs	Bungalows	\$1.00
Vol. 2-100	Cottages	1.00
Vol. 3-125	costing below \$4,000.	1.00
Vol. 4-175	" " 5,000	1.00
Vol. 5-175	" " 6,000	1.00
Vol. 6-125	" " above 6,000	1.00
Vol. 7-100	Cement and Brick	1.00
Vol. 8-50	Garages	1.00
Vol. 11-40	Duplex and Plats	.50
Vol. 12-100	Artistic Homes	.50

Send all orders with remittance to

M. L. KEITH

828 McKnight Building

Minneapolis, Minn.

You will find "Keith's" Advertisers perfectly responsible.

"You Build for a Lite-

KEITH'S ^{BIG} OFFER

*A Year's Subscription to "KEITH'S" with a Copy***Your Choice**

FOR
\$2.

Vol. 1.	140 Bungalows and Cottages . .	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D-1321 from "KEITH'S"



Design D-1309 from "KEITH'S"

What You Get

From 250 to 300

DESIGNS

by leading architects

From 75 to 100

Practical Articles

on timely subjects of
Home-BuildingDecorative Schemes for
Your New HomeMany Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,
 Editor and Proprietor

Time---Do It RIGHT''

To The Homebuilder!

of the Big April Bungalow Number EXTRA and

of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" <small>A POCKET HANDBOOK ON CONSTRUCTION</small>	1.00
" 11.	40 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (\$3000 and Up)	.50

FOR
\$2.

for Two Dollars

12 Big House Building Numbers
of KEITH'S MAGAZINE, in-
cluding a copy of our recent
100-page

Special Bungalow Number

containing 25 plans of attractive
bungalows and authoritative
articles on bungalow building.

The service of our architectural
and designing departments in
in answering questions on con-
struction, design, interior plan-
ning, beautifying the grounds or
any subject pertaining to the in-
terests of home-building.



Design D-1305 from "KEITH'S"



Design D-1315 from "KEITH'S"

828 McKnight Bldg.
Minneapolis, Minn.

No Charge for Plans of Houses Like This



IN EVERY issue of *The National Builder* will be found complete working plans of an attractive bungalow, or a cottage, or a two-story residence, or a small flat building, together with photographs of the exterior and interior and estimated cost of erection.

The plan is on a large supplement, 24 by 36 inches in size, and is drawn to scale the same as a regular blue print. It gives front, rear and side elevations and floor plans and, most important, it describes a house that has actually been built; nothing theoretical at any point.

To get these plans you have simply to buy *The National Builder*. (Use the coupon.)

Besides the free plan feature, *The National Builder* is full of interesting information for builders. In each issue there are illustrations and descriptions of moderate priced residences erected in all sections of the country.

Edited by Fred T. Hodgson
Articles by the Country's Foremost Authorities

Mr. Fred T. Hodgson is editor and any builder will tell you he is the most prominent authority on building construction in the country. Then, the articles for the amateur carpenter, suggestions for the use of suitable material and interior use, price list of materials, etc., are points of interest to every man interested in the building or upkeep of residences, barns, etc.

Use the Coupon—Save One Dollar

The regular price of *The National Builder* is \$1.50 for 12 monthly issues. But if you use the coupon, it will be sent two years—24 issues—for only \$2.00. Eight issues for \$1.00

Porter-Hodgson Co., Publishers
1302 Ellsworth Building, Chicago

Enclosed find.....for which send

The National Builder for.....

Name.....

City.....State.....

(If you live in Canada, send \$2.00 for one year; \$3.00 for two years.)
Keith's Magazine.

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, mouldings, porchwork, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement machinery and interior woodwork—ALL AT WHOLESALE PRICES DIRECT TO YOU.

Don't plan to build, repair or overhaul until you see these two great books. Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

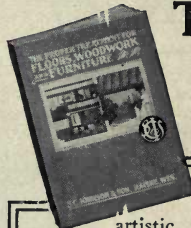
CHICAGO MILLWORK
SUPPLY CO.
1421 W. 37th St.
Chicago, Ill.

**Books
Are Free**

Catalog of
8000
Price
Bargains

Beautifully
Illustrated
PLAN BOOK

THIS BOOK ON HOME BEAUTIFYING SENT FREE



Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. If you wish we will also send FREE our beautiful colored dollar portfolio showing panels of all popular woods finished with Johnson's Wood Finishes. Take this ad to your dealer—or write Dep't K-E-2.
S. C. JOHNSON & SON, RACINE, WISCONSIN
"The Wood Finishing Authorities"

"HOMES NOT HOUSES"



In every number of this magazine you will find a picture of one of our Bungalows. The complete plans and specifications will be sent you for \$10.00. Or, send us \$1.00 for our book. The largest and best published. 128 pages selected from the many thousands of plans we have designed during the past 10 years. It costs no more to get the best. Sample pages free. Smaller Book showing 38 small Bungalows 25c.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

KEITH'S MAGAZINE

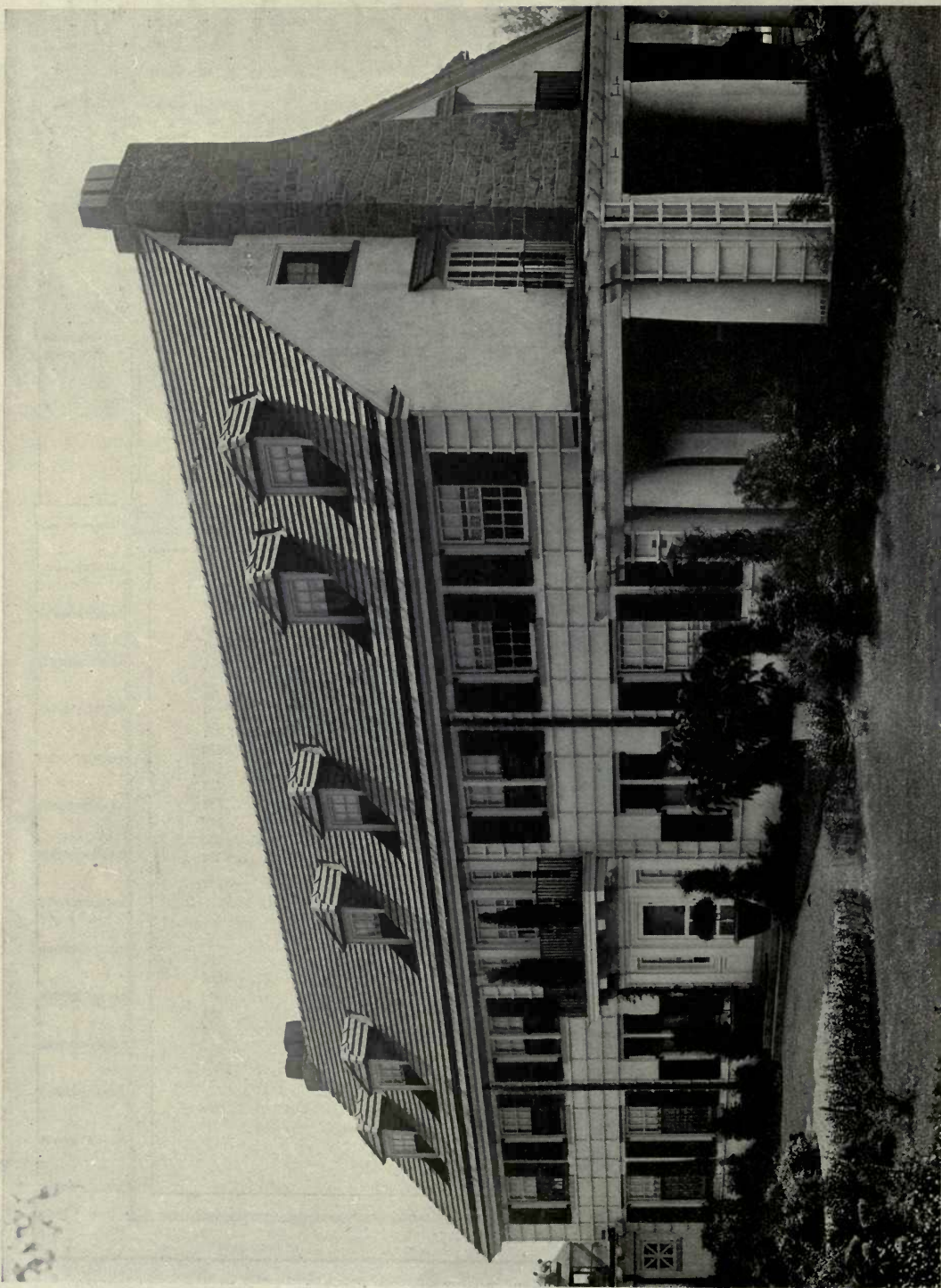
ON HOME BUILDING

CONTENTS FOR MARCH, 1916

Just a Word	158
A House, Charming in Its Environment	161
Window Boxes and Their Care— <i>Ida D. Bennett</i>	165
The Distribution of Cupboards and Drawers—Planned for Service— <i>Edith M. Jones</i>	171
Special Glass in the Dining Room	174
The Use of the Stencil— <i>John A. Knowles</i>	177
The House That Bob Built— <i>Ruth Fargo</i>	180
An Attractive House with Entrance at One Side	183
With the Dignity of the Colonial Home	185
A Solid Little Bungalow for Any Climate	187
A Dutch Colonial Home	188
A Re-designed California Brick Bungalow	190
Homes of Individuality	192

DEPARTMENTS

Inside the House—	
Decoration and Furnishing	196
Answers to Questions on Interior Decoration	202
Household Economics	208
Table Chat	212
Building Material and Notes on Heating, Lighting and Plumbing	218
Woods and How to Use Them	224
Splinters and Shavings	228



A charming country house.

Charles Barton Keen, Architect.

KEITH'S MAGAZINE

VOL. XXXV

MARCH, 1916

No. 3

A House, Charming in Its Environments

Charles Barton Keen, Architect



HARM is an old Anglo Saxon word which still retains the sense of enchantment; of magic power which it carried in its early meaning.

Even with our loose usage of terms, a "charming house" means to us something more than simply a house that pleases us. We feel the touch of a something which we cannot explain nor exactly express; something which satisfies the eye in line, form and color; which satisfies the mind as to general fitness; and co-ordinating

all into a whole are the architectural details, which have been called "the spirit of genius made manifest."

There is a surprisingly long list of architects, on the east coast, on the west coast, and in the middle country whose work shows this touch of genius. Among them is Charles Barton Keen, an architect whose work stands for that peculiar quality which, for lack of a better term, we call charm. The house illustrated is an interesting example of his work.



The breakfast room is also a sun room.



The walls are paneled to the ceiling.

This house gives the effect of being low, rambling and unpretentious. It is built of stucco with the eaves crowning the second story windows. The stone chimneys, with their chimney pots, satisfactorily cap the

gable ends, each with French windows opening on a railed balcony beside it.

The main dining room is beautiful in its white treatment with the walls wainscoted to the ceiling, the cornice with its charac-



The white dining room makes a setting for mahogany furniture.

teristic colonial treatment, the panelled walls and the fireplace with its paneled chimney breast. The room makes a beautiful setting for mahogany furniture. Wide window openings give an outlook on the surrounding garden. The breakfast room, which is also a sun room, bespeaks cheer for the early part of the day. It is simple, almost severe in its treatment. The library is the formal book room, with shelves the

A notable architect in a recent publication asks the question: Can the mind grasp the possibilities of an art that shall be truly American; when the artist conceives America,—not in its superficial, commercial crust, but its true inner life; when the craftsman works, not to gain favor with a public of questionable taste, nor to express the vagaries of his own fancy, but in the love of his craft and the sincerity of his purpose?



A pleasing contrast of materials and treatment.

full height of the room, enclosed behind glass. The living room is also paneled to the ceiling. Less formal books in open shelves add to the livable qualities of the room.

The whole house has a strong colonial feeling but without emphasis being placed on classic details. Nothing could be simpler than the lines of the house itself and of the entrance. It has the pleasing formality which relates it to the best examples of colonial work. It has the simple dignity fitting to the country house, combined with the livableness of the simple home.

The mind may not be able to grasp such a possibility, but there are architects, not a few in number, who have sensed just this thing, and who have brought forth tangible results shown in country houses in many parts of the country. This is a country of great commercial enterprises. It is also a country of homes. It has built a few great buildings, worthy monuments of great business, but the homes which make a worthy setting for a beautiful home life are scattered all over the country, on the great estate, and on the tiny city lot, should-er to shoulder with their rivals, the apart-



The living room is dignified.

ment houses and the "ready to use" homes. The studied use and combination of building materials is one of the characteristic elements in these successful houses, and is a distinguishing feature of the one illustrated. The color scheme is simple; the

contrasts between stucco and interesting stone work, together with the roof treatment give individuality to the house. The trellis treatment which covers the face of the building is very effective with its accent in the dark window blinds.



The library has a stately fireplace.

Window Boxes and Their Care

Ida D. Bennett



THE old, weather beaten house may be made spick and span and prosperous looking by the use of paint, but never beautiful and picturesque. But when draped with clamoring vine and blooming masses of flowers the humblest, unpainted house becomes artistic and beautiful.

By filling boxes with soil and placing them in the cellar and planting early in January bulbs of tulips and hyacinths, later those of crocus and narcissi, one may have these popular bulbs blooming in the windows at about the time other people are having them in their gardens. This is especially of interest to the dwell-



The porch flower box.

The invalid or shut-in will find in the window garden a most fascinating form of gardening and by the use of a succession of boxes may follow the season around from the blooming of the first crocus until the fall frosts cut down the summer florescence, when, if one cares, the hardy evergreens and hollies may be substituted to gladden the more sombre days of winter.

er in a city flat whose gardening must, perforce, be that of the window box or garden.

While the tulips and other bulbs are flaunting gaily in the spring sunshine other boxes may be prepared to take the place; these may be planted with any flowers preferred, greenhouse plants or seedling annuals, or one's supply of house plants may furnish the nucleus of a suc-

cessful window box, with vines added. If, however, it is not convenient to have two sets of boxes one may sow seeds of annuals among the bulbs and the latter, lifted when through blooming, make room for the annuals. The large flowered and fringed petunias are always charming in window boxes, as are also the double varieties. Sweet allysum, candy tuft, phlox Drummondii, ageratum, lobelia and a host of other bright things may be depended upon to give good results and will succeed in almost any situation, but one should avoid planting things which make a tall growth in either window or porch boxes unless a screen for privacy is desired.

Plants which do not grow above a foot in height or can be kept back to that height are preferable for windows; from a foot to eighteen inches will do admirably for porch boxes. In either box, trailing vines should always appear and where desired climbers also can be used. For the window boxes climbers of a graceful delicate nature are usually to be preferred, and there is nothing more delicate and graceful than the *maurandia* vine, which clings by twisting the leaf petiole about a support and will cling to the window screen or any slight projection; its lavender, pink or white tube shaped flowers are borne in profusion and are an added attraction. The scarlet *manetta* vine is another graceful climber and when combined with the

white *solanum* is charming indeed, less delicate but equally charming is the *thunbergia* with its felt-like leaves and disc shaped flowers of white or orange and dark-eyed orange. For positions where a taller climber is desired, one which may be run on cords or wires to a

second story, the new cardinal climber is a delightful, graceful thing, easily grown from seed which should be started in glass in the house or hot bed and planted out when danger of frost is past. *Cobaea scandens* is another most excellent climber which blooms persistently from base to tip of the plant, its large, bell-shaped blossoms — which open a greenish cream and change through all the shades of lavender and mauve to a deep wine—are very conspicuous and beautiful



In any box trailing vines should appear.

and valuable for cutting. Most of the passion vines are desirable window box climbers, especially the tri-colored Southern Beauty with its large, showy flowers of pink, white and blue, nearly five inches across and borne in profusion all summer. This last should be purchased for a dime at the greenhouse and will usually be showing buds when purchased.

All these vines are rather addicted to sunny east, west, southern or western positions, but *Cobaea* and the cardinal creeper will do well even on a north exposure if a modicum of sunshine is possible at some time in the day.

The *Passifloras*, *Cobaeas*, and the larger growing *solanums* are especially desirable for porch boxes where they can be twined about the pillars. Nasturtiums, which are trailers and not climbers, are especially happy when grown in boxes where they can follow their natural bent. For growing these to perfection not too rich soil should be used as this encourages a rank growth of leaves at the expense of flowers, and a careful selection of colors should be made. The hybrids of Madam Gunther are the most desirable mixed sorts, but choose of these the darkest and clearest reds.

Trailing *vinca* is always popular but should have the ends of the sprays pinched back to encourage a fuller growth. Ivy leaved geranium, especially the silver leaved, is always good and some of the better flowering varieties especially good with boxes made up of greenhouse plants. Corden's Glory, a bright scarlet double flower, and Mme. Thibaut, a lovely shade of clear rose pink, are two

of the best, giving large trusses of flowers all summer. The trailing fuchsia is charming in north and east window boxes early in the season, as also the trailing *abutilon*.

One should always plan to grow something fragrant in the window boxes and for this there is nothing sweeter than the heliotrope, especially under bedroom windows. This plant loves sunshine and so can be used in any sunny exposure.

As a number of plants are to be crowded in a comparatively small space the quality of the soil is of moment; preferably it should consist of good fibrous loam,—that from the under side of sod being best, a little black leaf mould and old, thoroughly rotted manure thoroughly incorporated with the soil. The boxes should be filled quite full, pressing the earth firmly about the plants, as the soil, even when well pressed, settles much more than one would expect.

Abundant water is necessary and this, fortunately, is available by the use of the



One should always plan to grow something fragrant in the window boxes.

The following list of classified plants are suggestive rather than exhaustive and will be of assistance in deciding what to plant.

Trailing Plants.

Nasturtiums.
Vincas.
Fuchsias—Trailing Queen.
Begonia—Marjorie Daw.
Glaucophila Scandens.
Abutilon.
Ivy Leaved Geranium—Souvenir
Chas. Turner, Caesar, Francke,
August Hardy and Jeanne d'Arc.
Weeping Lantana.
Glechoma.
Wandering Jew.
Lobelia.
Asparagus Sprengeri.

Climbers.

Maurandia.
Cypress Vine, white or scarlet.

Cardinal Climber.
Cobaea Scandens.
Mina Lobata.
Mina Wanguinea.
Thunbergia.
Dolichos.
Scarlet Runner Bean.
Alleghany Vine.
Wild Cucumber.
Japanese Morning Glory.
Centrosemas.
Smilax.
Solanum Jasminoides.

Blue Flowers

Ageratums.
Lobelias.
Ipomea—dwarf morning glory
Plumbago.

Weeping Lantana.
Cobaea Scandens.
Maurandia vine.
Browalia.
Heliotrope.

White Flowers.

Candy Tuft.
Sweet Alyssum.
Petunias.
Verbenas.
Phlox Drummond.
Camphor Geraniums.
Geraniums.
Antarrhinums.
Stock.
Lobelia.
Tuberous Begonias.
Schizanthus.

Among the plants which may be successfully grown in boxes may be mentioned the following:

For East or South Exposure.

Tuberous Begonias.
Fancy Leaved Caladiums.
Gloxinias.
Most Flowering Begonias.
Fuchsias.
Heliotropes.
Abutilons.
Petunias.
Verbenas.
Plumbago.
Phlox.
Browalias.
Geraniums.
Ivy Geraniums.
Wandering Jew.

Candy Tuft.
Camphor Geraniums.
Anterrhinums.
Ten Weeks Stock.
Vincas.
Lobelia.
Cobaea Scandens.
Morning Glories.
Solanums.
Maurandias.
Thunbergias.
Passifloras.
Manettia Vine.
Bougainvilleas.
Coleus.
Crotons.

For Northern Exposures.

Nearly all varieties of Begonias.
The various Asparagus Ferns.
All the harder fancy Ferns, Boston
and the like.
Dracenas.
Farfugiums.
Impatiens Sultanas in var.
Trailing and Erect Fuchsias.
Abutilons.
Manettia Vine.
Sanseverias.
Panicum Excurrens.
Wandering Jew.
Maurandia.

Suggestions for filling boxes:

North Boxes.

I.		
Begonia-Otto Gecker	Dracena	Otto Gecker
Farfugium		Farfugium
Manettia Vine	Asparagus Sprengeri	Manettia
II.		
Begonia Angel's Wing	Boston Fern	Rubra Begonia
Impatiens Sultana		Impatiens Sultana
Trailing Fuchsia	Wandering Jew	Trailing Fuchsia
III.		
Aspidistra	Boston Fern	Aspidistra
	Bougainvillea	
Maurandia		Maurandia
IV.		
Asparagus Plumosus Nanna		Asparagus P. N.
	Panicum Excurrens	
Nasturtiums—dark red and scarlet		

East Window Boxes

I.		
Pink Justitia	Pink Justitia	Pink Justitia

White Double Petunia	White Double Petunia
Ivy Geranium Mrs. Fink	Ivy Ger. Souv. de Turner
Trailing Vinca	

II.		
Pink Geranium	Pink Geranium	Pink Geranium
Heliotrope		Heliotrope
Weeping Lantana	Ivy Ger. Mrs. Fink	Weeping Lant.

III.		
Scarlet Geranium	Scarlet Ger.	Scarlet Geranium
White Anterphium		White Anterphium
Manettia Vine	Solanum Jasmancides	Manettia Vine

IV.		
Yellow Tuberous Begonia	do.	do.
White Tuberous Begonia		do
White Thunbergia	Yellow Thunbergia	White Thun.

V.		
White Candytuft	White Candytuft	White Candytuft
Scarlet Phlox Drummond		Scarlet Phlox Drum.
White Verbena	Scarlet Verbena	White Verbena
Nepeta Glechoma		Nepeta Glechoma

proper kind of window boxes. It must be remembered that boxes on the sunny side of the house are under fire, as it were, a great part of the day, much more than plants growing in the ground, and if the windows above them are closed they may be said to be between two fires and it will make much for the comfort and success of the planting if the windows are allowed to remain open during the hottest weather.

During the early days of fall when the nights bring frost the open window back of the box is a great protection. Often a killing frost will be rendered harmless by the simple expedient of leaving a window open and screening the box with a shawl suspended from the bottom of the top sash, or an umbrella thrust through the open window over the box will preserve its beauties for the fine



No one who cared for architectural traditions could have placed this box.

days which are sure to follow early frosts.

The lists shown on the opposite page are merely suggestive and are arranged for boxes under ordinary width windows. In arranging larger boxes it will only be necessary to increase the number of plants. For an ordinary box nine plants, planted in three rows—the plants alternating—is about right. Plants received by mail from the florists should not be planted directly in window boxes but potted in small pots, placed away from direct sunshine for a few days and allowed to start into growing before being transferred to the boxes. Then a hole the size of the pot should be made in the soil and the ball of earth slipped into it without breaking it or in any way disturbing the roots. It is better, too, for boxes to be kept in the shade a few days after planting before placing in a trying sunny position.

North window boxes will always be a delight to the owner as there is no other position in which plants do so well. Nearly all house and greenhouse plants may be grown to perfection there, especially the ferns and begonias, and many of what are known as sun loving plants will do admirably if they receive the morning



Plants can be kept back to the desired height.

or late afternoon sun. Where no trees or porches intervene almost anything may be attempted.

In boxes of pink petunias and like soft colored flowers the wild cucumber is excellent during the better part of the season but should be removed as soon as it shows signs of growing shabby and something else planted in its place; if one takes the precaution to have ready some potted vine which can be slipped into its place the change will not be noticeable, except for the fresher appearance of the box.

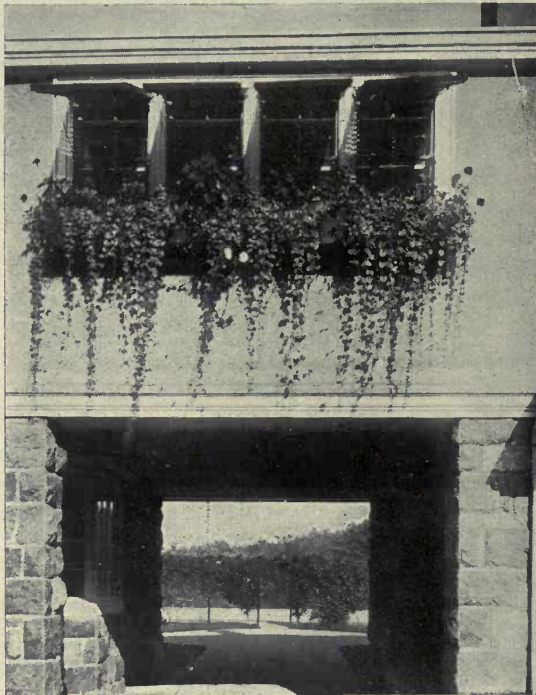
Japanese morning glories do finely in window and porch boxes and may be trained on cords to go to a second story window—as they are plants of soaring ambition and seldom find anything high enough for their desires.

They do not require as much root room as most climbers but must have an abundance of water to produce the immense flowers for which they are famous.

This is the beautiful part of the window box idea, that it is simple and inexpensive, adapted to the mansion or the humblest cottage; that one does not need the expensive products of the greenhouse to evolve a successful color scheme, for the simplest garden flowers will be quite as beautiful from the road—possibly more so, than many exotics, and may be had for the labor of planting and caring for

them. Just a few boxes of proper size and construction, a little earth of the right sort, a few flowers adapted to the location, and a reasonable amount of good taste in selection; for not all flowers, though beautiful in themselves, are at their best in any and all positions and circumstances. One must study the exposure, whether an east, west, south or north

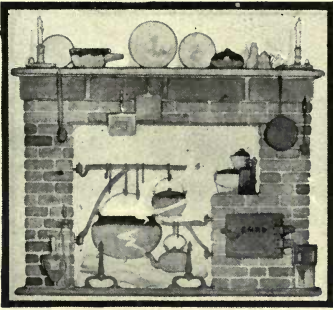
one; the amount of shade; the color and material of the house and any other circumstance affecting results. The red house, perhaps, of all colors, presents the most difficult problem in color harmony. Usually preponderance of green brightened with a very dark red, as that of the S. A. Nutt geranium and the darker shades of nasturtiums will work out satisfactorily and many of the foliage



Over the porte cochere.

plants can be used to advantage. Considerable white is always safe to use. On a yellow house one has more latitude and most shades of blue, of mauve and of heliotrope may be indulged in. Soft pinks and white are also satisfactory. White houses may be brightened with all sorts of bright colors and are really delightful backgrounds to work out a color scheme upon, as also is gray and the natural weathered color of the wood.

Cement houses especially crave the presence of flowers growing under windows and along porch and balconies.



THE KITCHEN



The Distribution of Cupboards and Drawers— Planned for Service

Edith M. Jones

(Copyright, 1916, by Edith M. Jones)

THE kitchen of the future is going to be very much like the operating room of a hospital, being furnished with materials and equipment that are absolutely clean and sterile.

Useless cupboards, drawers, utensils, etc., must be eliminated. A careful selection of every necessary tool and a definite place planned for every utensil in relation to the other equipment will do much to save time and unnecessary motions and steps.

In order to accomplish the best results drawers, shelves and cupboards should be distributed about the kitchen in such a way that the utensils and materials contained in them shall be within reach when needed.

For instance, the cupboard for spices should be very near

the flour, sugar bins and pastry slab. The drawers for baking spoons, egg-beater, rolling pin, etc., should also be in close relation to the cupboard and bins.

On the other hand the chest of drawers for towels and the dish-washing outfit should be near the sink. The sink should be near the range and the pan closet near

the sink. And so we may go on until in the end we realize that the work of the kitchen is easily divided in half though this careful distribution of the question of storage.

Factories all over the country under the advice of efficiency men are facing problems of change and rearrangement. One factory under my personal observation that has been in operation over thirty years, engaged the



A pot closet with metal equipment.

services of a corps of efficiency men with the result that changes costing ten thousand dollars were made. This cost was entirely made up at the end of the second year and the dividends have been since then steadily increasing. The superintendent told me that moving one piece of machinery saved the work of five men.

An efficiency man was asked to give a report on an office I know and when his recommendations were adopted the force of men was cut down and this force has taken care of a rapidly increasing business with far better results in every way. The president of the company told me this was accomplished through a perfected system and a better distribution of files, etc.

What is true in outside business is certainly true in the business centers of our homes. We need to look after our systems of carrying on this home-making business and re-arrange our workshops to gain greater efficiency, and to

conserve the housewife's time and strength.

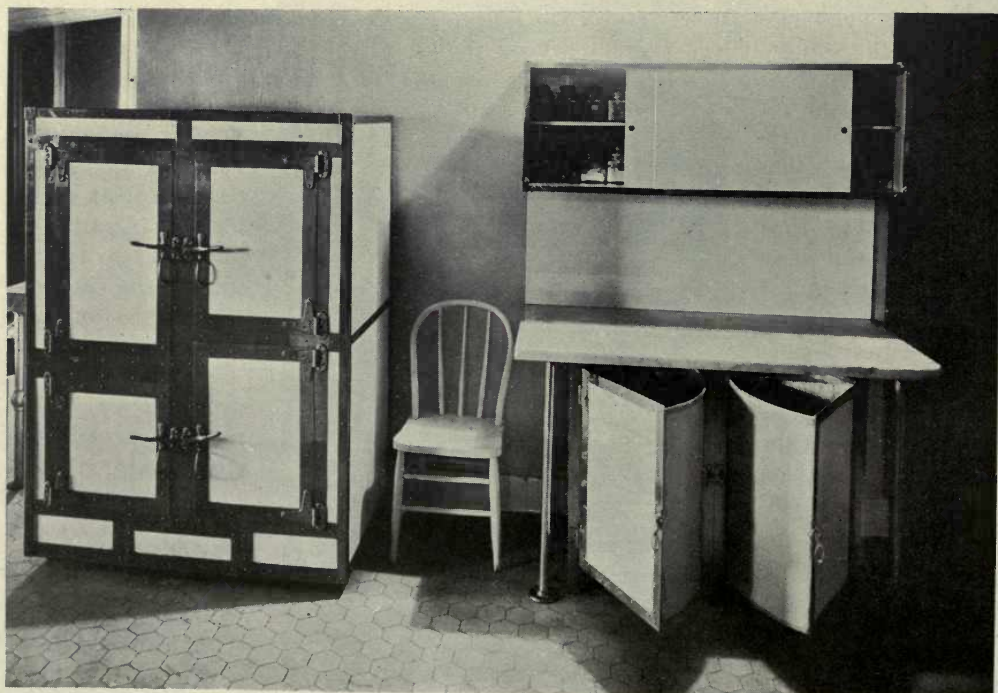
A shelf where there is a need—a drawer to hold a tool where it is to do duty—is of great service. But an unnecessary shelf is a “catch all” for dust, etc., and an unused drawer or cupboard is an added care to keep clean and in order.

A glance into the hospital laboratory reveals the fact that no instruments remain exposed when not in use.

The same should be true of our kitchens. No cooking utensils should be hung about the kitchen exposed to dust, etc. Drawers should be provided for small utensils, and pots and pans should be hung in a pan closet. This insures them from dust and does away with much needless handling.

The Cupboard-Sanitary

The illustration shows a large pan closet with metal shelving and metal vegetable bins. This metal shelving is made with a nicked and iron frame, and loose



A kitchen showing harmony of materials.—Bins and cupboards open.

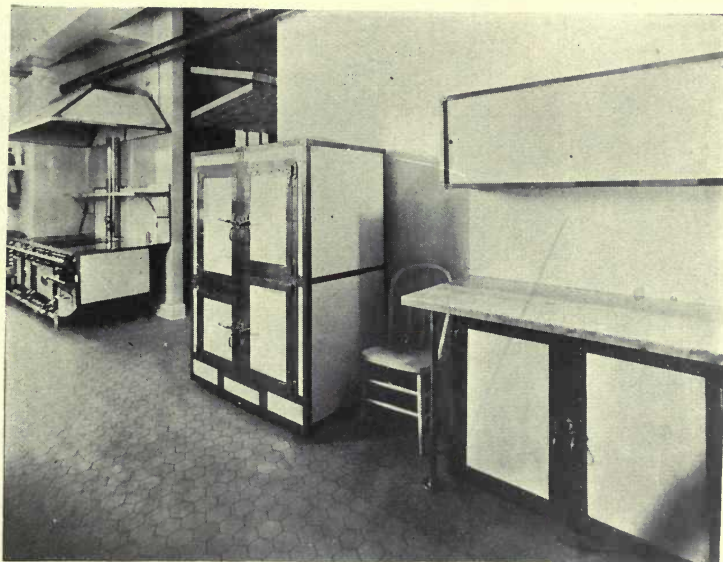
metal shelving which in housecleaning times can be taken apart and thus is insured against dust and insects of any kind.

Vitrolite, a comparatively new material in this western market, finds a welcome home in the kitchens of the more advanced types. It lends itself to many uses as its perfect whiteness and smooth, hard finish are most desirable. It makes ideal side walls, because it comes in large slabs and so has the fewest number of seams. Vitrolite, as well as plate glass, can both be used very nicely for shelving and the work of cleaning is much simplified, and cupboards kept in immaculate condition. The sanitary kitchen should exemplify pleasure in work, not fearsome drudgery.

Whenever possible it is very attractive to have the materials of the kitchen equipment harmonize. We do this in every other part of the house, why not in the kitchen.

In the kitchen shown, which is of the larger type, the nickel and vitrolite covered refrigerator, the flour and sugar bins, pastry slab and spice closet are all made to correspond. These bins shown are of the newest and best type which the market affords. They are entirely made of metal and are absolutely vermin and dust proof. The frame is made of nickeled angle iron. The bins are made of heavy vat tin, hung on hinges and supplemented by

rollers. The face of bins is of vitrolite which matches the shelving in the rest of the kitchen. The spice closet is entirely vitrolite with the angle iron frame. The shelves of all the cupboards are vitrolite with nickel supports. The pastry slab is white marble and matches other working tops in kitchen. This slab is supported by nickeled pipe-legs which are fastened securely to the floor. The bins however, are movable so that it is an easy



The white kitchen—with bins and spice cupboards closed.

matter to clean them both inside and outside. The handles not only are used to open and close but lock the bins as well.

The cook who has worked in this kitchen for over two years told me the other day she never wanted to work anywhere else. "Everything is so easily kept clean and so pretty," were her very words. And as I looked at her in her striped gown and cook's cap, and then at the shining whiteness of her workshop I felt indeed this kitchen had the requirements of a laboratory of the highest standard.

Special Glass in the Dining Room



NO CRAFT is of greater importance to the architect, nor perhaps to the home builder than that of the glass worker. People are demanding more color in their living, and are putting in their living accessories more color than

his own feeling in the matter if he is to have a real pleasure in his home. Glass, like a picture, should be such that one can live with it, with a constant or a growing pleasure. If the lines are involved and carry the eye on and back endlessly follow-



The windows are stained glass pictures set in leaded borders.

their forebears dreamed were possible. Special glass makes one of the most charming accessories in the home, one of which the home builder avails himself most frequently, and one in which he needs especially to exercise his judgment and good taste, or to get advice from those who know the subject,—yet the final test must come in

ing the design with no place to rest, it will become a daily associate which is worse than a night-mare. If the colors are very pleasing but excite the mind too highly they will become fatiguing and the eye will long for a plain surface or a flat tone.

The accompanying photographs show special glass used in the dining room in a

very effective way, and in different conditions. In the first dining room it is used in the windows in connection with an extremely interesting built-in sideboard with cupboards on each side, which are of themselves quite unusual in that the upper shelf has glass on three sides, including the window behind, and the shelves themselves are of glass. The center windows are in a curved bay



Stained glass fitting into the color scheme.

above the line of narrow drawers and are stained glass pictures set in heavily-lead-ed borders.

The second photograph shows an entirely different treatment. The cupboard doors are filled with a translucent picture done in glass, fitting into the color scheme and decoration of the room as would a fresco or a mural decoration, and adding a pleasing and distinctive note to



The glass is subordinated.

the room, which carries the eye back again and again, to catch the color in its varying moods or to follow the line.

In the third photograph, glass is used not for its intrinsic beauty of color and line, but simply as a spot which should carry some light and fill in the decoration of the wall surface. It gains its chief value

thinking the problem simple, have not attained such charming results.

The last photograph shows an interesting treatment of china cupboards in a projecting bay, with the wood muntins of the doors corresponding with those of the case-ment sash, making a decorative feature.

To only a comparatively small number of



An interesting treatment for china cupboard.

in the decorative scheme by its more or less successful grouping of the lines of the composition. Wonderfully effective things can be accomplished in plain glass, simply with the lines of the copper setting and occasional bands of translucent glass, by the varied groupings of the lines and spaces. This type of composition has been so successfully handled by a group of artists that their work has inspired others, who

people is given the responsibility of creative work. To the majority of people, and especially to the home builder, selective power is the only artistic ability which he is expected to exercise. If he has been surrounded from his youth with the conditions of aesthetic health, the acquisition of good taste, like correct speech, is easy because half or perhaps all of the work is unconsciously done.



(Fig. 3)



Frieze in blue and white.



(Fig. 3)

The Use of the Stencil

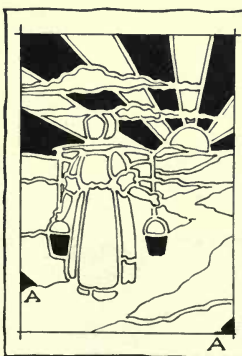
Part I—Wall Treatment

John A. Knowles

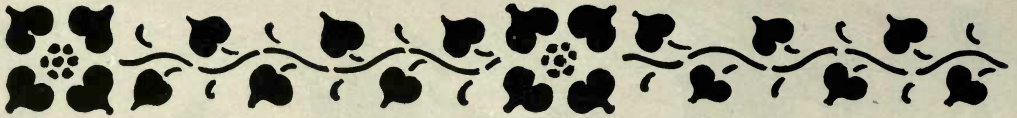


N order to illustrate the practical part of the decoration of a room we will suppose that it is intended to undertake the dining room of the house, with a simple frieze; and plain walls with a border around in order to obtain a panel effect; and that the prevailing tones are to be blues and white to harmonize with the tableware used at meals; the case-ment curtains to be white, stencilled with a delft blue border in agreement with the general scheme. There is also to be a plate shelf at junction of frieze and wall, which is to be finished in flat white enamel, on which willow pattern blue and white plates are to be placed at intervals, the doors and door casings will also be finished in flat white. For the frieze, seeing that the prevailing tones are to be blue and white, a design of ships in full sail would carry

out the white parts required in the scheme, whilst the sky and sea would give two tones of blue broken here and there with white sea gulls and wave crests respectively. But there is no need to confine ourselves to this *motif* if another design would be preferred, as many other schemes will suggest themselves in which the required color scheme could be carried out, as for instance, a design of Dutch boys in blue, driving geese, and Dutch girls with white pinafores. We will, however, consider for the purposes of practical demonstration, that the frieze of ships illustrated has been chosen. The first thing to do is to paint the wall with the flat ground tints, upon which the stencilling will afterwards be applied. For this, by far the best of material, especially for the amateur, is one of the sanitary washable water paints which can



A set of stencils. (Fig. M.)



Border. (Fig. 2.)

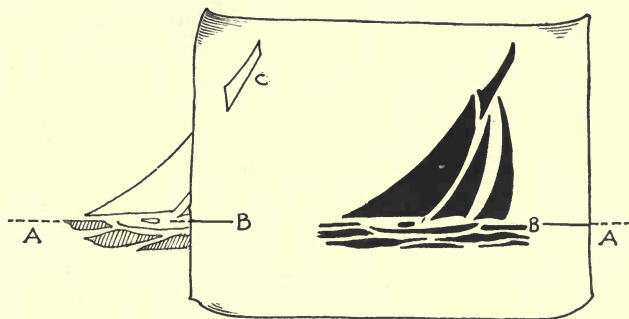
be bought both cheaply and in a great variety of different tints. They have no objectionable smell, go perfectly dead, and therefore do not require stippling or expert handling in order to obtain a perfectly flat and non-shiny surface, and after some time become water-proof so that they can be washed if required, provided ordinary care be taken. As these paints vary in composition, no definite rules can be laid down for mixing them, but as each packet or tin has the instructions for this printed upon it, if these are carefully followed there should be no difficulty in making a perfectly satisfactory job, as it is to the interest of the different manufacturers that they give the fullest possible particulars in order to prevent disappointment with their products, and as they know the composition of each and what it will do they are best able to advise. Moreover, they supply pattern books, showing the actual tints applied to paper, which can be chosen from at home and judged by being held against the wall in the situation in which they are to be used, and so mistakes are not likely to occur as might be the case if the tints had to be chosen in a shop a mile or more away. Remember that most tints look lighter in a large surface than in a small pattern, but this is an advantage rather than otherwise, as it is better to have the walls too light rather than too dark. For the walls of our dining room a neutral blue will be best, allowing the blue of the sea in the frieze to tell, so as to form a band of colors around the room above the plate rail which will

in turn be blended into the ceiling by the band of paler blue of the sky above it. In painting the walls, work from left to right, and if your paint begins to run short, stop at a corner and start with a fresh lot of paint from there, as then any slight difference in tint will not show. We will suppose that the main tint of walls has been applied and also the ground tint for the frieze. The next thing to do is to strike lines on the wall for a guide in setting the stencil borders at the bottom, in order to have them perfectly straight. To do this get a piece of thin string about twelve feet long and tie a loop on one end to slip over a convenient hook or nail, then, walking backwards, rub the string well with a lump of white chalk, turning the string in the fingers as you rub it. For light grounds on which a dark line is required, use a piece of charcoal instead of the white chalk. The correct distance where the border is required having been measured from the edge of wall, stretch the string tightly, holding it close against the wall with the thumb, at one end; whilst another person holds the other in a similar manner. If the string be now pulled away from the wall a distance of three or four inches and allowed to rebound smartly against the wall, a good and perfectly straight line will be produced, which may be dusted off with a clean rag when the work is finished. We must now set about preparing the stencils, and if the worker has never cut a stencil before, it would be perhaps best at first to buy these ready cut, as the experience gained in see-

Border. (Fig. 2¹)

ing what parts are cut away and where ties are left to hold it together will be invaluable later on when it is necessary to cut a stencil oneself, so for this reason most of the stencils shown here can be obtained ready cut. As, however, later on, the amateur may wish to cut his own stencils from, for instance, a drawing in flat tints in a child's book of nursery rhymes, we will describe how to go about it. The easiest way to enlarge a design such as this to the required size is to have an enlarged photo known as a "Solar Print," made from it by one of the firms such as are to be found in every large city, who make these enlargements, and which generally cost only a few cents. The enlargement is then pinned down with thumb tacks upon a sheet of thick "cartridge" drawing paper or manilla paper on a drawing board or smooth table top, and a piece of blue transfer paper, such as can be bought at any artist's color store, placed face downwards between the enlargement and drawing paper. The outlines are then carefully traced through with a hard lead pencil. If it is required to make a design say of an owl, for instance, face in the opposite direction the transfer paper must be placed *face* upwards *beneath* the sheet onto which it is to be transferred and the lines gone over as before. The drawing having been transferred, it is then carefully gone over and the "stops," as the little pieces of paper, which must be left in order to hold the stencil together, are called, put in. It is a good plan to shade with the lead pencil all parts which have to be cut out, as this will show whether any stops have been accidentally omitted, as otherwise the design would not hold together. Also at the same time a guide hole must be provided at the left-hand side of the design to show the correct distance at which

it is intended that the design shall repeat. The two borders shown here (Fig. 2) will illustrate this. It will be noticed that the top one (which is the one we propose to use for our border on walls) shows two repeats, the bottom one, three repeats and a little bit of another at A. The little piece is used as a guide to be placed so as to fit over the end rose of the last portion of the design stencilled, which will show through the hole in the stencil when it has been correctly placed. Without this, the paper left at the end of the stencil for holding it against the wall would cover up part of the design just applied on the wall and the new portion would come too near or too far



Stencil applied to the wall. (Fig. 4.)

away from the last done, and so not form a continuous running pattern. The top border has been shown for the sake of illustration with no guide hole in order to make this perfectly plain. These guide holes are to be transferred to the cartridge or manilla paper with tracing paper, a portion of the right-hand of the design being traced and transferred across to the left hand side in the same way. The paper is then rubbed over with a rag dipped in raw linseed oil, which makes the paper like parchment and enables it to be cut cleanly and easily, the pieces are then cut out with a sharp knife on a sheet of glass and the stencil allowed to dry. If the stencil is large it is better to tack it to a light wooden frame, to support it whilst the work is being done upon the wall. It is also best

to give it a coat of spirit varnish, as then the water in the paint does not soak into the paper and make it limp.

On either side of the ships are the brushes or tools, as they are called, used for stencilling. Two sizes, half-inch and one-inch in diameter, will be best, and two of each size sufficient. It is most important that the paint be not mixed too thin, as then it would work under the edges of the paper and cause blurred lines; if this occurs the stencil must be at once laid face downwards on an old newspaper and carefully wiped with a rag. Sufficient of the paint should be mixed and kept in a small tin; it is then taken out as required onto a slab or palette made of any odd piece of wood, tin or glass; the tool is then worked into this and membered that the tool is stamped against stamped on the palette to see that it is not giving too much paint. It should be re-the stencil applied to the wall and not brushed across it. Fig. 4 shows a stencil being applied to the wall, the dotted line AA is the chalk line struck with the chalked string on the wall to give a straight line to work by. BB, a pencil line ruled on the stencil to set it on straight by the chalk line on wall. C, a guide hole made by utilizing the top sail of the yacht as a guide for setting each impression of the stencil exactly the same distance from the last one. This stencil would be a simple one to cut and apply, but sometimes it is required to

carry out a design which is so complicated that if the whole of the parts were cut out of one sheet of paper, the stencil would be so flimsy as to be unworkable, besides which the different colors would work over the strips of paper, separating the different tints and work into the color in another division, destroying the effect of clean-cut masses of different tints. To obviate this, it is better to use two, three or more, different plates, some of the parts being cut away from one and some for another so that when all have been superimposed, the stencilled impressions of the three, one upon another, show the complete design. This method, therefore, is somewhat analogous to color printing such as is used for posters. Fig. M will illustrate this, the first drawing shows the design transferred with the bars and stops and parts to be cut out, one of these being at the bottom in order to facilitate the setting on of the succeeding plates by the use of guide holes. Another plate is prepared with other parts cut away and two guide holes AA for fitting the stencil on over the impression of the first. Similarly a third shows the remaining parts which are left to be done after the first two plates have been applied, with the exception of the apron, bib and turned-up sleeves of the old woman and the road, which are to be left white or the color of the ground on which the design is to be applied.

The House That Bob Built

Ruth Fargo

A Building Experience by One of Keith's Readers



OB and I built five houses during the first dozen years of our married life. Then we built a sixth, in which we now live. Bob has laughingly dubbed it the "Try-try-again House," because from it we have eliminated all the mistakes of the other five. And we

believe it to be about as nearly perfect as a seven-room, modest-priced cottage-bungalow may be.

On the outside it delights the eye; on the inside it delights the heart; a most livable, convenient, homey house, noted for its compactness (no waste space or unnec-

essary roof, always items of expense); a home where one gets the most for his money. It cost us \$2,000. Bob and I did our own designing, and superintended the building. The house is built and finished throughout (except for cedar shingles) with Oregon fir, even to the floors, which are rug-covered.

The main part of the building, exclusive of porches, is 26x28 feet, a desirable size

for breathing space with so many vistas.

From the hall a stairway leads to the chambers above. Two high diamond-latticed windows, one opening east and one north, are at the lower landing. A built-in seat at the foot of the stairs has a removable top, the inner space, cut into compartments, being utilized for a number of things. Also, a low closet under the stairs opens into the den; this is fitted with shelves and forms a



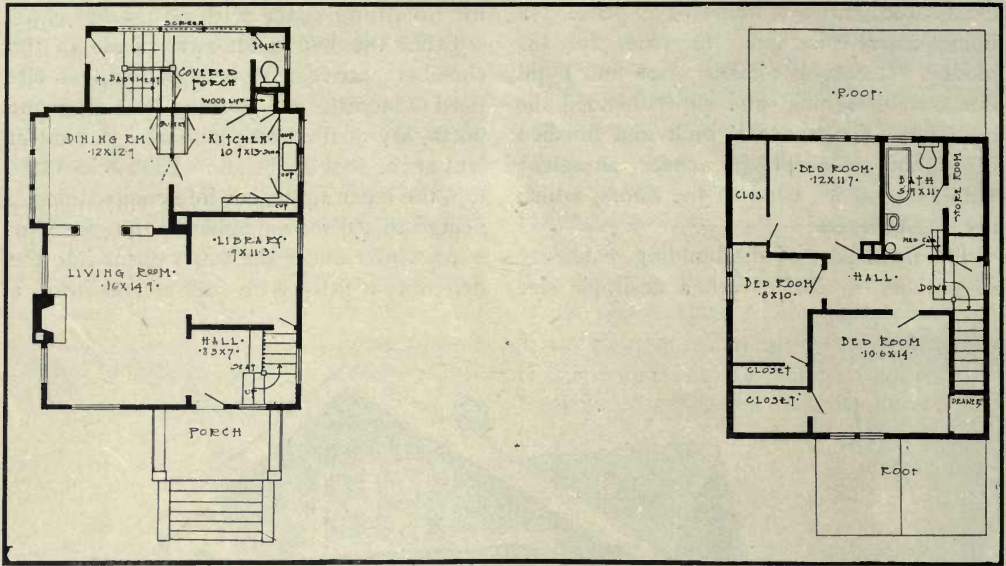
The front porch is the joy of the housewife.

for a small lot, ours being 50x125 feet. It leaves room for a good lawn, a shrubbery border and a garden at the back. The house faces east. Hence, the front porch, small but unusually artistic, is the joy of the housewife who spends a good bit of time in the swing-seat on sunny afternoons.

From the porch one enters a hall which connects with the living room by a large open archway and gives the effect of space, as does also the columned opening into the dining room, and the open (portiered) archway into the den. The arrangement makes the interior appear much larger than it really is,—one cannot feel cramped

magazine cupboard,—my magazines are, thereby, always in order, always at hand, never cluttering up unnecessary space. You see, absolutely no space is wasted, all is utilized; and these extra “places to put things” prove a never-failing joy.

One thing, and one thing only is shown on the plans which is as yet a “future hope,”—a fireplace. It was not put in when the house was built; if added, its cost must be added to price of house. Two high casement windows are so placed that they come on either side of our (future) mantel. Cornering in all four rooms on the first floor is a large double flue extending down to the basement floor, arranged for



furnace connection (furnace not included in cost); also so built that stoves may be placed in any first floor room, if desired,—the double flue doing away with any possibility of smoking draughts.

The south side of the dining room is one long, large basket-window with a shelf underneath along its full length. This room is light and cheery on even the dullest day in winter. It connects directly with the kitchen by a two-way swinging door. The buffet indicated is built double, opening into both kitchen and dining room, a pass shelf dividing a china closet above from a set of six drawers below, the bottom one being especially designed to hold table cloths. A like number of drawers opens on the kitchen side.

In the kitchen the large cupboard is built clear to the ceiling, shutting off a common catch-all for dust—the top of the cupboard. The lower part is well fitted with flour and sugar bins, moulding boards, drawers, etc. And the sink (after a “scrap” with the plumber) was placed high enough that I wash dishes *and yet stand erect*; too many back-aching days have I spent due to the half-hitch demanded by a too low sink.

The casement windows above the sink afford free ventilation; though the kitchen, being on the north side of the house, is seldom hot to work in.

On the screened back porch (which catches the westerly sea breeze every afternoon) is located the cooling cupboard, without which a western Oregon home would not be considered complete. Through the perforated bottom and top and slat shelves the cool draughts continually circulate. Here, excepting a few of the very hottest days in summer, I easily keep butter and milk without ice. This cupboard also holds my fresh vegetables (such as are not stored in the cool basement) and cooked food.

Note that the stairs leading to the basement are also a part of the back porch, thus being under cover, an item of comfort during the heat of summer and the storm of winter. The basement itself extends under all the main part of the house. It forms a storeroom for fuel, a place for wash trays and a rainy-day clothes line, a furnace room, etc. Near the head of the stairs on the back porch is located an extra toilet. This is an added expense, but we decided to have it put in.

On the second floor are located three bedrooms and bath. These rooms are tucked in under the roof, the house being but one and one-half stories high, but due to the large gables on both north and south sides, the rooms are of convenient and comfortable size. Note that the low places under the roof have been utilized for closet space, the one over the stairs at the northeast corner being fitted with drawers, and one opening off the bathroom being made into a storeroom for trunks, etc. The back of the corner closets on the south side of the house are fitted with shelves where bedding, etc., may be stored away. The large closet in the front chamber, however, is high enough and large enough to form a comfortable dressing room.

From the second landing in the stairway opens the linen closet, two steps below the hall floor. It is tall and large and fitted with plenty of shelves—that item dear to a housewife's heart. To the right of the door opening into the bathroom is located the medicine closet, and behind the door at the left is the hot water tank, the pipes extending directly to this from the kitchen range immediately below it on the first floor. This tank of hot water takes the "chill" from the bathroom at all times of the year—for which purpose it was so located. Note that the plumbing is so arranged as

to demand a minimum amount of piping—always an expensive item, the bathroom being immediately above the kitchen.

The exterior of the house is finished in narrow weather-boarding; (the wide weather-boarding, being apt to warp and split, is less economical in the long run) painted a tobacco brown with a trim of light buff. The gables are shingled and stained brown, the roof stained moss-green.

Note, also, the manner of finishing the front porch,—the heavy decorated beam with the rounded arching below sloping down to the "collars" surrounding the square solid-looking posts. This rounded arch finishes the porch at the sides as well as in front. Do not make the mistake of painting it all one color, as we first did, or it will seem much too heavy, top-heavy; but broken by the brown of the house (as illustrated) it is a thing of beauty.

"The House That Bob Built," to parody the achievements of Jack in the famous old nursery rhyme, is proving itself very satisfactory. As it stands today it has been copied a number of times. No better house, we believe, can be built for the money. It brings forth continually favorable comment, both from builders and from the casual observer. By the way, "Bob" is a college professor, with a hobby for house building.

An Attractive Home with Entrance at One Side

ONE of the problems which the architects of modest homes are trying to solve is a way of giving the living room an unbroken exposure across the front and presumably the most desirable part of the house, without subordinating the entrance to the point of losing its necessary importance. The home shown gives a satisfactory solution. The steps and porch are recessed enough to give a

sense of protection from rain or sun, yet mark a chief feature of the house.

The vestibule entrance is wide and low, coming as it does under the stair landing. The living room is entered from the rear through a columned opening, which adds seeming width to the hall. Windows on three sides make an unusual feature of the living room, with a recessed bay across the front and a wide fireplace at



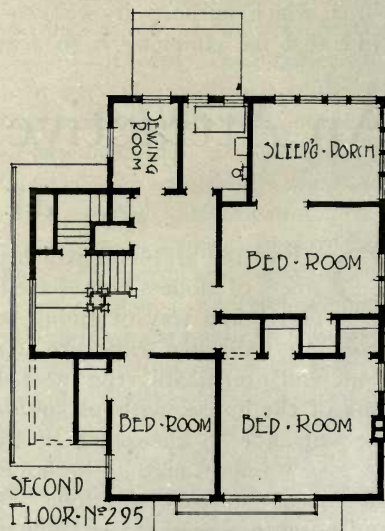
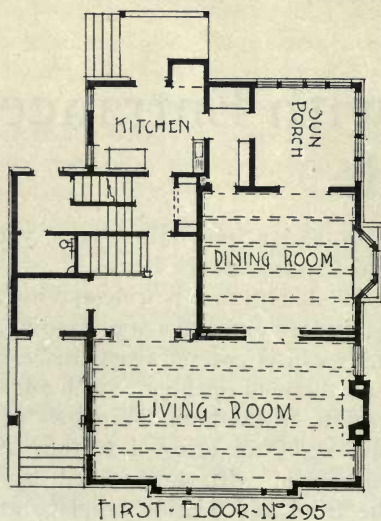
A simple house is often most pleasing.

Lindstrom & Almars, Archts.

one end. Folding doors separate the dining room from the living room, both have beamed ceilings. The dining room has a small bay on the side which brings sunshine into a side room in a way that could

not be done otherwise, and opens onto a sun porch at the rear.

A butler's pantry between the kitchen and dining room gives good cupboard space and a work shelf under the window.



A refrigerator niche is built from the kitchen, which allows it to be iced from the outside and also relieves it from the heat of the kitchen.

The arrangement of the stairs is particularly good. A short flight of stairs from the hall near the kitchen door meets the landing of the main stairs. A shallow closet which may be used for coats opens from this passageway. Down four steps on the way to the basement is the grade entrance and on this landing is placed a lavatory, convenient to the "man of the house" or the children, on entering.

On the second floor are three bedrooms and a bathroom, a small sewing room, and a sleeping porch opening from one of the sleeping rooms. The larger of the front rooms has the luxury of two closets, while the other front room has a wide closet under the roof. The linen closet opens from the hall while a small cup-

board is beside it. A similar cupboard opens from the bathroom, in a very convenient way. The bathroom is so located that the plumbing pipes are direct from the basement.

The main rooms of the house are finished in Circassian walnut. The kitchen is finished in birch, which is used also on the second floor. The bedrooms are finished in white enamel. Birch floors are used throughout the house, except for the kitchen and bathroom, both of which have tile floors, and tile wainscoting in the bathroom.

The exterior of the house is simple, yet pleasing, perhaps more pleasing for that reason. The trellis is made a feature of interest as a spot of decoration for itself. The brick work of the foundation is carried up to the sills of the windows, and as a buttress for the steps. The tile of the roof adds an attractive note of color.

With the Dignity of the Colonial Home

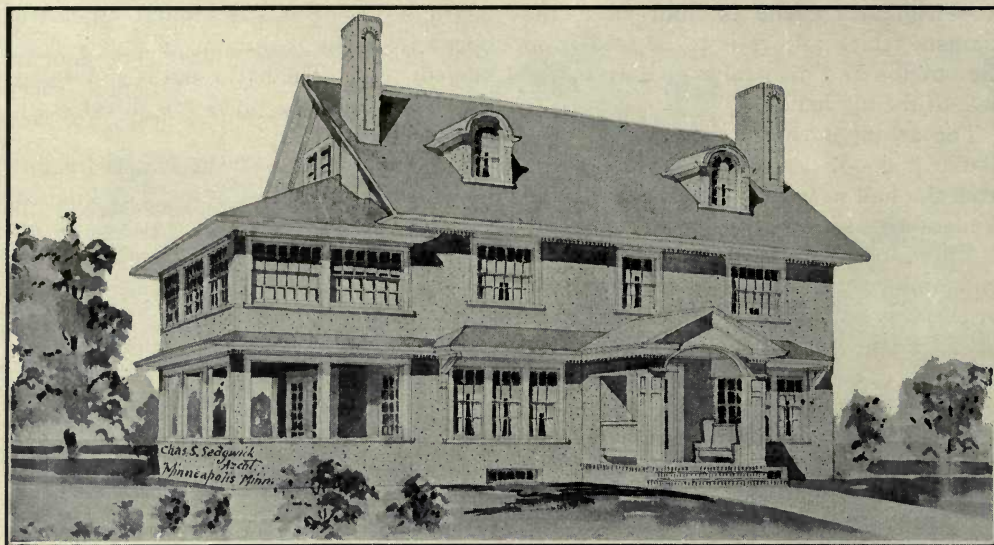
HERE is a strictly up-to-date modern home built on colonial lines and with a plain exterior. It is of frame construction, finished with cement stucco. The facade is simple and dignified and, including the piazza, is 48 feet in length. The depth of the house is 34 feet, exclusive of the rear piazza which adds 10 feet.

The treatment of the main facade is symmetrical, with a central porch and vestibule opening into a living room. There are closets convenient for coats and wraps on either side of the vestibule. On the right is the library with a wide cased opening. Both rooms have wide fireplaces with projecting chimneys which are features of the gable ends.

Beyond the living room and opening from it by French doors is the piazza. French doors connect it also with the

dining room. Sliding doors separate the living and dining rooms. The dining room connects with the kitchen through the butler's pantry, which has good cupboard and shelf room. Beyond the kitchen is a wide piazza. The refrigerator may stand on this piazza or place may be built for it in the pantry, with outside ice door. In the pantry and near to the kitchen door is, perhaps, the best possible place for the refrigerator, for it is then convenient both to the dining room and the kitchen.

The main stairway is carried up from the living room opposite the entrance. In addition there is a rear stairway opening from the kitchen which extends to the attic, under which is the stairs to the basement, also opening from the kitchen. There is a full basement under the house



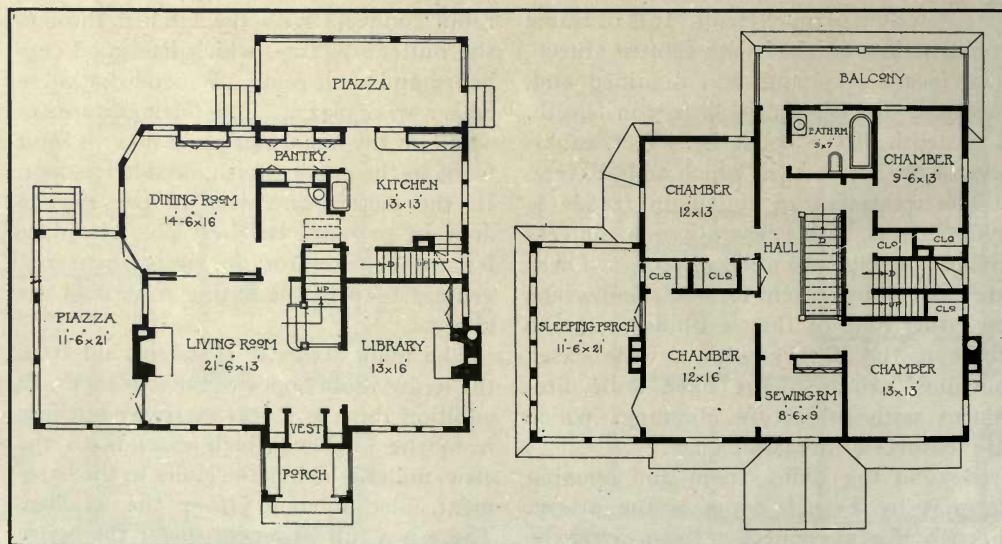
A modern home on Colonial lines.

Chas. S. Sedgwick, Archt.

completely equipped in the usual way. The principal rooms of the first story are finished in oak with a dark mission stain. The floors are of oak.

The second story has four good chambers, with a sleeping porch over the piazza, opening from the main chamber. A convenient room, which may be used as a sewing room, is located between the front chambers, opening from the hall and

from the main chamber. A good bathroom opens from the rear hall. It is over the kitchen and the plumbing is direct and very compact. A balcony over the kitchen porch is reached from this rear hall. All of the bedrooms have good closets with a linen closet and an extra hall closet, and special shelves in the sewing room. This story is finished throughout in white enamel with birch floors.



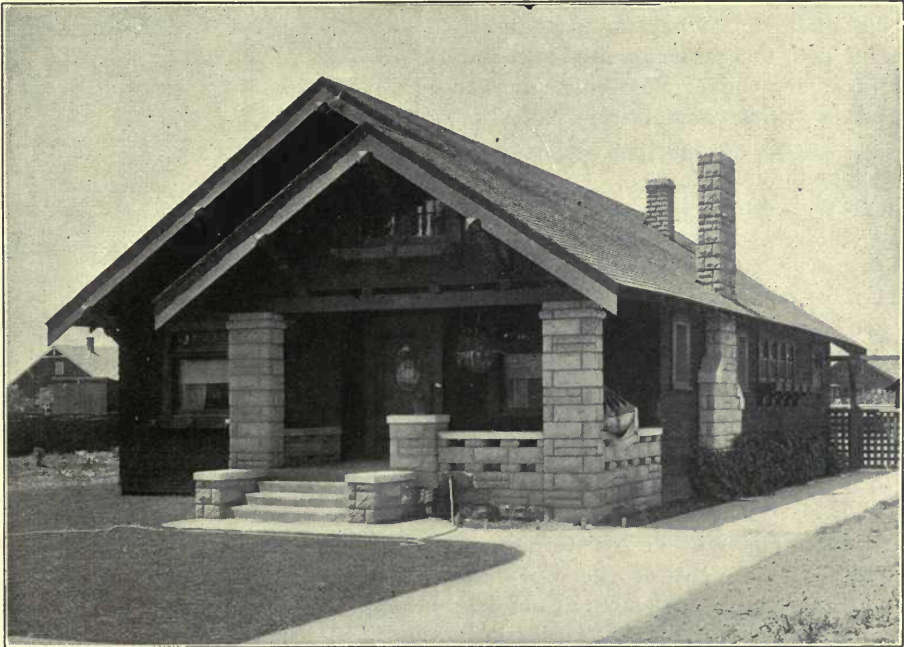
Under the gable roof is ample room for a third story to be finished if desired. The dormer windows give good light and together with the windows in the gable ends completely light the space.

The sleeping porch is glazed and adds to the completeness and comfort of the house. The shingles of the roofs, including the porches, are stained moss green with creosote stain. All of the outside

trimmings, cornices, casings, etc., are painted old Virginia white. The floor of the entrance porch is of Oriental brick, and there is an attractive seat on either side.

According to the architect's estimate, this house could be built, exclusive of the plumbing and the heating, for from \$7,000 to \$7,500. It has been planned to make a good home.

A Solid Little Bungalow for Any Climate



A bungalow of re-sawed weather-boarding and stone.

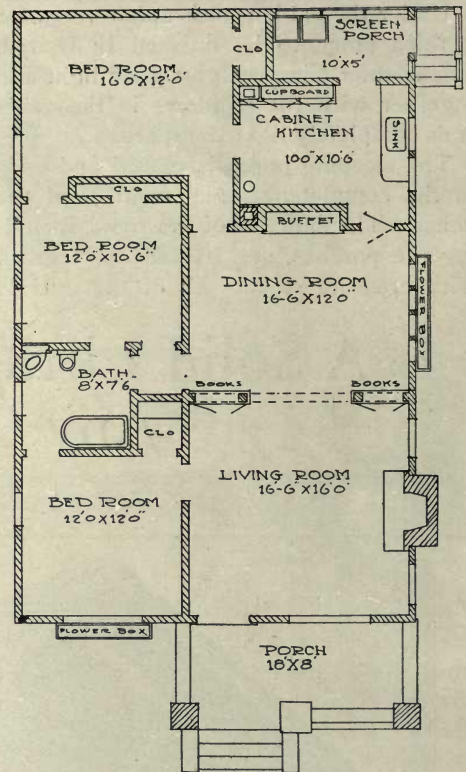
Bungalowcraft Co., Archts.

YES, it is a bungalow,—built on the so-called pure bungalow lines with its overhanging eaves and gables and with the inside convenience that has made the modern bungalow so popular,—and yet it is as solid as a house can be built and will stand up against wind, storm, cyclone, snow or flood as staunchly as the most timid could desire.

Brick or field stones may be used in the porch and chimney work if desired, instead of artificial stone, without detracting from the general attractiveness of the building. The exterior is of re-sawed weather-boarding, stained. The roof is covered with cedar shingles also stained. The cut of floor plan shows the inside arrangement very clearly and it

should be observed that when unexpected company comes to the front door, madam can scoot to her room to "doll up" without showing herself. Strange how comforting some of these small conveniences are at times. The house is 30 ft. by 46 ft., exclusive of porches. There are no "jogs" or irregularities in its outline and all this means the most possible house for the least possible money. The living room is about 16 ft. square with fireplace and a pleasing, but not elaborate mantel. It has plastered, tinted walls, good lighting and opens into the dining room by a colonnade arch with built-in bookcases. This room has paneled wainscoting, plate rail, built-in buffet, etc., and opens by a double swinging door to a perfect gem of a kitchen, with every convenience built in and finished in white enamel from floor to ceiling. There are plenty of closets throughout the house.

The rear bedroom is large—evidently for the children. If not required so large, enough space could be utilized for a cozy Pullman breakfast nook at the end of the hall and still leave a bedroom about 10 ft. by 12 ft. The inside trim is of pine, stained and finished, and the walls are of



hard plaster, either tinted or papered. Tinting, if renewed every two years or so is by far the most sanitary wall finish.

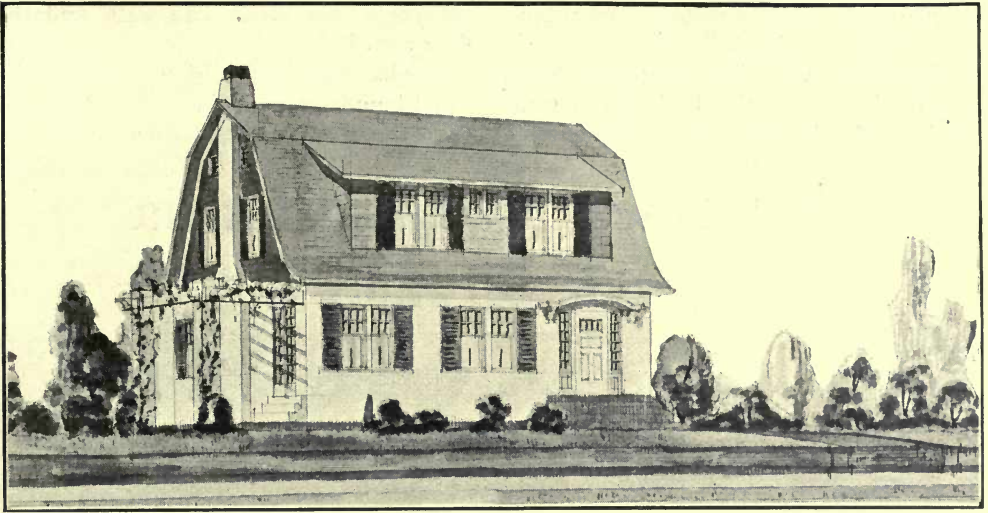
A Dutch Colonial Home

IN the accompanying design we have a modified treatment of the Colonial house, namely, a Dutch Colonial Home. This type of house, originating with the Dutch colonists, chiefly in New York state, has been built for a number of years in our eastern states, and in recent years is becoming very popular in our northern and western states.

The exterior walls are of frame covered with galvanized lath over which white stucco has been applied. The bright-red brick base course together with the green shingled roof gives a touch of color to the exterior.

The pergola is to be covered with climbing vines, thus forming a shelter from the heat of the afternoon sun. The floor of this is of bright-red brick laid herringbone, while a seat is constructed across the farther end.

The interior plan has many popular and attractive features. The long living room with its good fireplace, colonial in treatment, as well as the colonial stairway are both exceedingly attractive features that meet the eye of the visitor on entering. The large chimney is so constructed as to provide for the corner fireplace in the sun room, which is reached from the



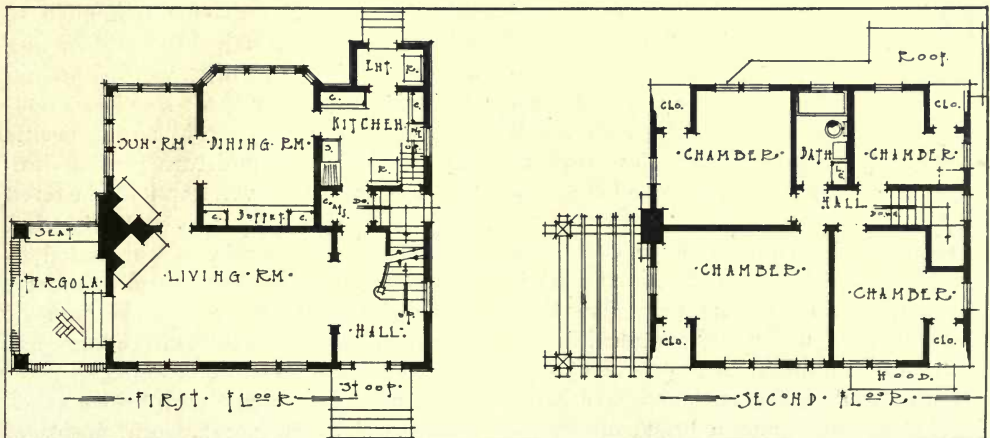
A home with Dutch Colonial treatment.

W. W. Purdy, Archt.

living room through a French door. This large chimney also plays an important part in the treatment of the end gable. The end of the dining room is a bay entirely filled with windows. This room is reached from the sun room by a pair of French doors. With this arrangement an extra amount of wall space is provided in the living room to accommodate a baby grand piano and a large davenport. The combination stairway is exceedingly attractive as well as convenient. The stairs

to the basement have a platform under the main stairs which provides for a grade entrance. The kitchen is very complete with built-in cupboards, work table and so forth, while the rear entry provides space for the refrigerator. The floors throughout the first floor, except the kitchen, are of birch with pine in the kitchen for linoleum. The finish is of birch, either natural or stained mahogany, with some white enamel.

On the second floor are four well ar-

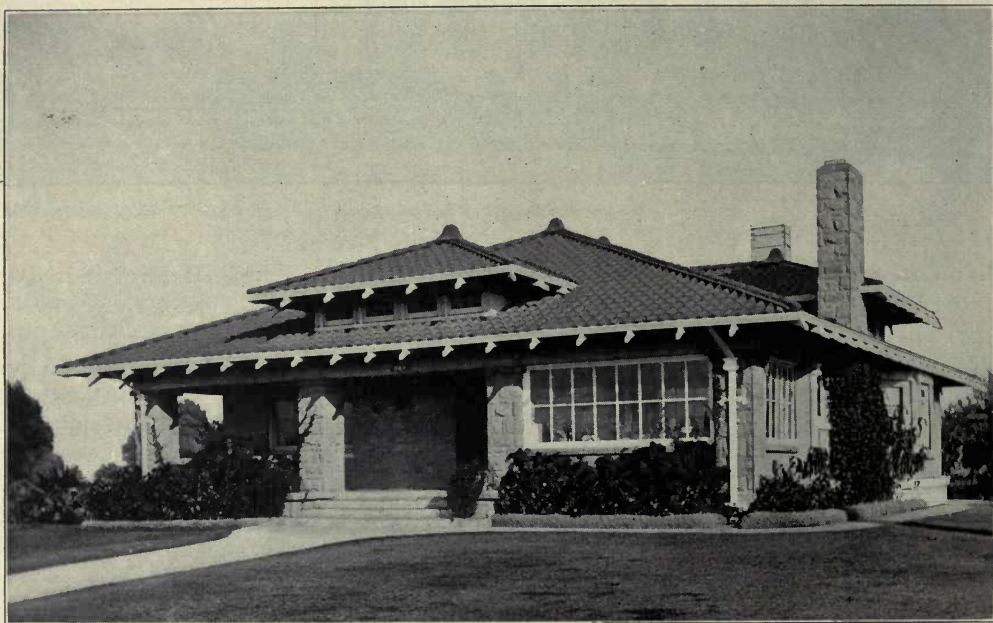


ranged, well lighted chambers opening off a small center hall. These are finished in white enamel with birch mahogany doors, and birch floors. The bath has a good grade of plumbing fixtures with a built-in

tub across the end. The walls and the floor are of tile.

The basement is partitioned off with the usual laundry and drying room, fruit and vegetable room, and boiler and fuel room.

A Re-designed California Brick Bungalow



A brick bungalow with stone trimmings.

E. W. Stillwell, Archt.

BRICK is one of the most ancient and enduring of all building materials.

Of later years there has been a revival of its popularity—notably in homes of moderate cost. Yet we don't see much of it used in the true bungalow type of architecture, except in porch and chimney work.

Here is a bungalow built in California that, with a slight alteration in the original exterior and in the new plan here illustrated, would make an ideal home under any conditions or in any climate.

Outer walls are glazed buff face brick bonded to the common brick, making a

solid 9-inch wall. Plaster is applied to wood lath which is nailed to wood furring set against the rough brick work. Furring-out forms a dead-air space which is a non-conductor of heat or cold and prevents any possibility of moisture getting into the plaster. However, even if plastered direct to the brick, it is unlikely that enough moisture could be conducted to the rooms to make them damp or musty, for this bungalow has a roof overhang of three and one-half feet and ceilings are only nine and one-half feet high.

The brick is trimmed with brown sandstone, used in the porch work, fireplace,

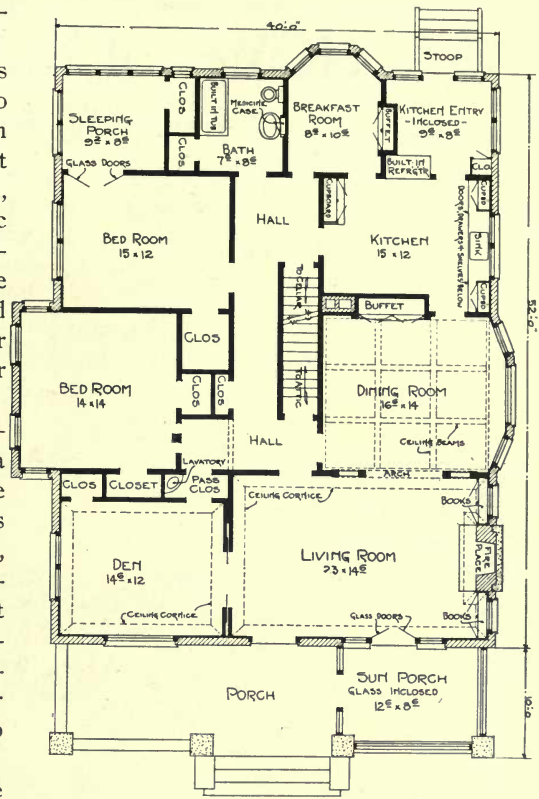
etc. The roof is red Spanish tile. Dormers are set low.

The roof pitch of the original as shown in the photograph is perhaps too flat for other localities than southern California, and the new plans correct this fault. As the pitch is increased, it automatically provides a better attic space, and gives height enough for full-height rooms. In the new plans, the dormers are set higher on the roof and are wide enough for rooms, two or three of which might be bedrooms or sleeping porches.

The plan provides for every convenience that can be arranged for in a house of this size. Notice how well the idea of accessibility of the rooms has been carried out. By correct planning, one can largely solve the servant problem. To save steps is to save time; it makes housekeeping a pleasure to mistress and maid. A compact arrangement enables the owner to get more for less money in the beginning. It also saves some expense in furnishings.

In the original house, one end of the porch was glassed in as an afterthought. The front living room window was intended to be a stationary sash of broad plate glass, like the one in the den. At no greater expense in the new plan, French windows are provided for an indoors connection with the living room. Instead of leaving one side of the porch open, a glass partition makes it a room. So now we have a real sun room instead of an open porch corner.

All the interior built-in woodwork is designed up to the minute—leaded glass bookcase doors, adjustable shelving; columned and buttressed arch; a six-foot buffet with large and small, long and short drawers; a beveled French plate mirror recessed; leaded glass doors. The kitchen sink extends across the room, with doors, drawers, etc., under and cupboards above, clear to the ceiling. There



is a vent for the range; outside icing for the refrigerator; a broom closet on the enclosed cement-floored entry; a dainty little buffet for the breakfast room; in the bathroom, a medicine case built into the wall; closets—lots of them—eight, besides all the storage space in the attic.

The architect estimates that the cost under Middle West conditions might be kept as low as \$4,500. If one selects expensive finish, plumbing fixtures, heating system, etc., it might run to \$6,000.

In beauty and home comfort, such a house is more desirable than many we see, perhaps larger, all of them costing a great deal more. None can excite more favorable comment nor better advertise the owners as people of dignified and discriminating, artistic judgment. We are known largely by the homes we live in.

Homes of Individuality

Selected by W. J. Keith, Architect

With a Motiff from Old English Work.

WE seek to catch the charm of the old English houses in our modern homes and at the same time to embody in them all the comfort and convenience available according to the most advanced ideas of modern thought. Stucco and timber work are excellent materials

living room. The stairs lead up from the end of the living room near the entrance, with a door also on the kitchen side, making it convenient from both parts of the house. A door under the stairs gives access to the basement stairs and a lavatory from both living room and kitchen as well as direct communication between the two.



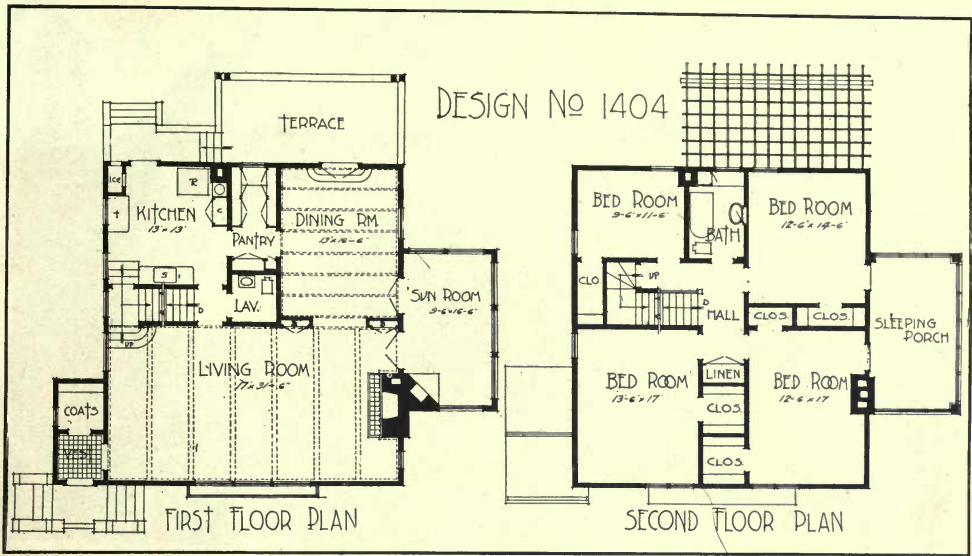
Stucco and timber work have interesting possibilities.

of which to build a house. At the same time they have possibilities, in their contrast of color and surface, and in their adaptability, which makes for the picturesque.

Here is a design capable of making a charming as well as a most livable home. The entrance at one end of the living room makes a note of interest on the exterior, and gives a satisfactory entrance to the

The fireplace at the opposite end of the living room is backed by a corner fireplace on the sun porch, French doors beside them connecting the living room with the sun porch. Similar doors connecting the dining room allows the sun porch to be used as a most charming and cosy dining porch, with the advantages both of sunshine and an open fire.

A large butler's pantry is placed be-



tween the dining room and kitchen, with well arranged cupboards and work table. The kitchen is lighted on two sides. The refrigerator may be iced from the outside.

Change of level of the ground in this especial design allows the garage to be built on the basement level, its roof making a terrace, reached from the French doors in the dining room, which is pergola covered.

On the second floor are four bedrooms and bath. Each is well supplied with closets. A sleeping porch may be used from either or both of the chambers connecting.

The house is suitable either for a city residence, or a home on a country estate, the white stucco and dark stained trim of the exterior will blend well with any artistic surroundings, and give an air of distinction to the house.

The interior is complete in every respect, from the vestibule floored with red promenade tile, to the garage in the rear portion of the basement. The attractive living room, cozy, inviting sun porch, and spacious dining room, lend a cheerful, home-like atmosphere to the design.

A Cottage Whose Size Proves Surprising.

When some of the rooms are under the roof one may be greatly surprised at the amount of space in a house which does not appear to be large. The cottage here shown has a living room seventeen by twenty, a good dining room and kitchen, and three bedrooms and a bath on the first floor. Under the roof three good sleeping rooms are finished, the dormers and gables giving good light and air.

It is suggested that the owner may have a private suite on the first floor with bath and dressing room, leaving the second floor for family and guest rooms, and for maid's room.

A beautiful apartment can be made by taking all the space of the two front rooms for this purpose, leaving bath as it is, and using rear left hand corner bedroom for dressing room. This could well be done with the three very nice bed chambers on the second floor; by putting a little dormer in the rear roof, the room marked for "storage" would make a splendid bathroom for the second floor.

The house is very compactly arranged, with the entry and hall effectually separ-



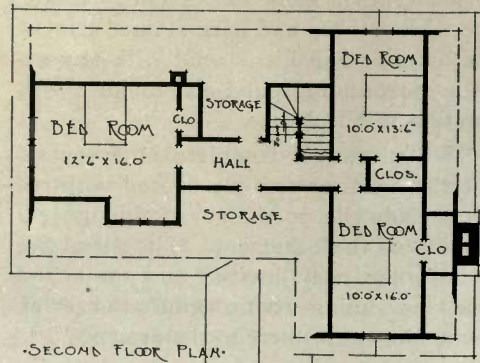
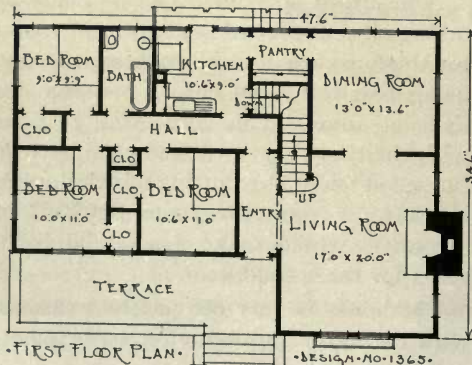
Ivy grown chimney and gables are features of the English cottage.

ating the sleeping rooms from the other part of the house. The living room is of good size and seems larger on account of the cased opening to the hall. The stairs are convenient to both, while the door at the farther end of the entry leads to the sleeping part of the house, with a door to the kitchen. As suggested by the big outside chimney there is a good fireplace centering one side of the living room with windows on either side.

Beyond the living room is the dining room. A butler's pantry of good size separates it from the kitchen, containing convenient cupboard and serving room. The kitchen is equipped with the usual con-

veniences. The range is particularly well lighted and the cupboard over the sink is conveniently placed. The door to the basement is near the hall, easy of access from either part of the house.

The exterior of the house is stucco, but cobblestones have been used in most effective fashion for the porch railing and massive outside chimney; with the magnificent ivy clambering up its walls, being almost always a distinctive feature of the English cottage. The gray plaster of the exterior, framed by a brown oak stained wood and a soft moss green or dull faded red for the roof shingles make a most effective combination.



Our \$10,000 Plan Books Have at Least One Plan That Will Exactly Suit You!

Send For Them Today—Free!

The houses illustrated in this advertisement are but three out of over 300 shown in our two big \$10,000 Plan Books. Full details—photographs—floor plans—color schemes—wholesale prices. Despite the cost, we will send these books **Free** to home builders. Get your copies. Contain hundreds of ideas, space saving plans, new wrinkles, home suggestions that a woman will appreciate, and all facts about our famous "factory-direct-to-you" selling plans.

**Buy Your Home at Factory Prices
Save \$200 to \$800 or More**

You take **no risk**; 100,000 customers vouch for us. Ask your Bank about us. Each house built hundreds of times—in every state. Every house bought by mail. Highest quality. Wholesale prices. Guaranteed figures—no "extras"—no "come-backs." Either

Ready-cut Homes or Standard Material!

Buy on the method you prefer. **Ready-Cut Homes**—all material cut to fit—"we saw them; you nail them!" **Standard Homes**—material in the standard way. All at **factory prices!** Save enough to buy your lot.

Shipped Anywhere—Satisfaction or Money Back

Safe, prompt delivery guaranteed no matter where you live. Freight paid both ways if you are not satisfied. Send coupon now for 2 big books of 300 plans, photos, color schemes, exact prices! Houses \$425 up. Also 156 page illustrated catalog of 5000 Building Material Bargains. All Wholesale. See all these books before building. Write today!

Gordon-Van Tine Co.

802 Federal Street, Davenport, Iowa
Established Half a Century

3 BIG BOOKS FREE !

GORDON-VAN TINE COMPANY, 802 Federal St., Davenport, Iowa

Please send me **Free** the books checked.

- | | | |
|--|---|---|
| <input type="checkbox"/> Standard Home Plan Book | <input type="checkbox"/> Ready-Cut Plan Book | <input type="checkbox"/> 5000 Building Material Bargain Catalog |
| <input type="checkbox"/> Garages—Portable or Ready-Cut | <input type="checkbox"/> Hot Beds and Greenhouses for the Home Grower | <input type="checkbox"/> Summer Cottages |

Name.....

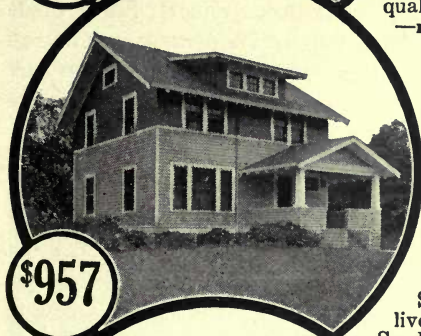
Street No.....

City.....State.....

Square dealing by our advertisers is guaranteed.



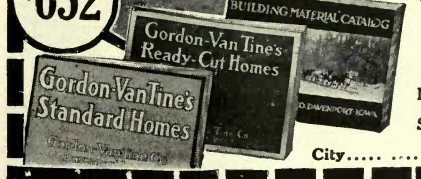
\$837

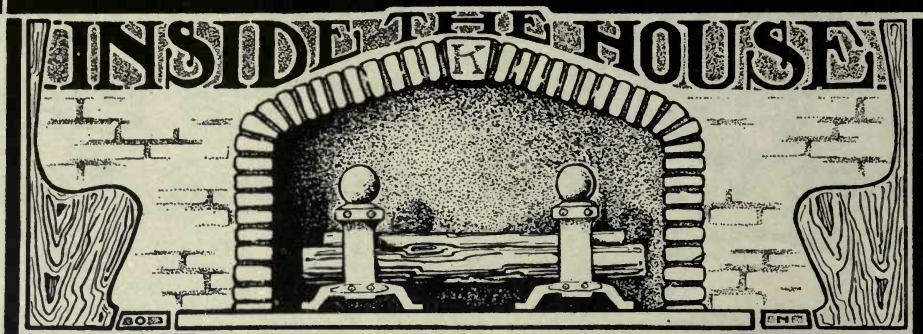


\$957



\$652





DECORATION *and* FURNISHING

Conducted by Chas. Burdick, Decorator.

Treatment for Sleeping Rooms



THE decorating and furnishing of a sleeping room in a simple and charming manner is looked upon by the average home builder as a very ordinary problem. Yet, not one person in ten can approach this interesting

task in a thoroughly practical manner.

We are prone to think of the details and not of the completed effect. Some of us are blessed with a vivid imagination and can see the completed chamber in our mind's eye, while others not so fortunate



Sleeping room furnished in "Colonial" mahogany.

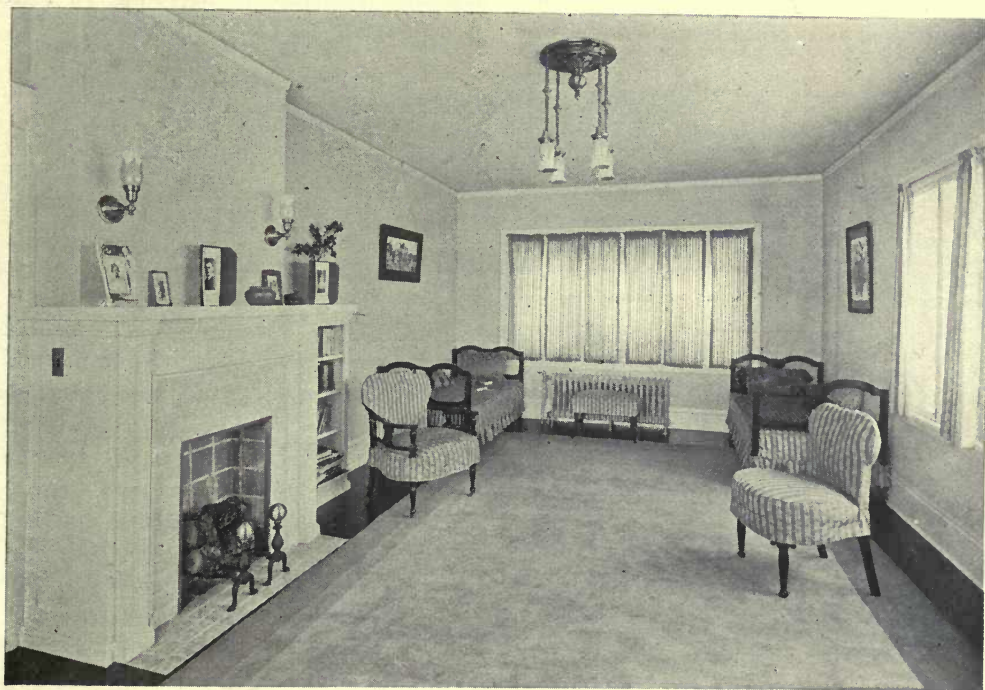
INSIDE THE HOUSE

look upon the four bare walls more from a utility standpoint, one space suggesting the place for the bed, another a table, and between the windows the place for the dresser. The wall paper, window hangings and floor coverings are very often the last consideration.

with a touch of old rose, the floor well covered with a deep pile rug in shades of buff and warm golden brown with the colonial four poster, dresser and chairs in deep rich mahogany.

For Bright Sunlight.

For the bedroom where the bright sun-



The sleeping porch with its "day beds."

Color Scheme.

For North Light.

In determining what color to use in a chamber the principal factor should be careful consideration of the quantity and quality of sunlight available. The guest room as a rule is not given the choicest location and generally has a bleak and cheerless exposure. Imagine how cozy and delightful this room would be if the walls were treated in corn color, relieved

light must be tempered, a good gray green or a pure French gray would be cool and refreshing. In contrast to the plain walls, a soft shadow taffeta for the bed spread, hangings and slip covers will make an ideal treatment as its many shades of rose, greens and blues on a cream ground are unusually attractive, yet not too decorative. A little touch of color in the form of a border next to the picture moulding would make a pleasant note.

INSIDE THE HOUSE

Woodwork.

As regards the treatment of the woodwork, nothing can approach ivory enamel, with the doors, tops of window seats and mantel board in a beautiful mahogany finish and all brought down to a dull rubbed effect.

The accompanying photos are views of chambers in a beautiful Kenwood home in

The overdraperies are made of old rose silk poplin with a flat stiff lambrequin, embellished with pipe pleats and dull gold gagoon. Soft voile curtains hanging straight to the sill, admit plenty of sunlight and air. It is furnished in mahogany of a colonial type, with four-post beds. A beautiful Kermanshah rug, with old rose predominating completes the room.

Sleeping Porch.

Through French doors at the right, but not shown in the picture, is given access to an open air sleeping porch, with nine pairs of casement windows, permitting a splendid view of a private garden and beautiful Lake of the Isles. The walls are in rough sand finish, treated in oil in a soft creamy tan.

The draperies and slip covers are made of a sunfast silk stripe, in green and



"Daughter's room" in gray enamel.

Minneapolis; the owner's suite with sleeping porch adjoining and the daughter's room; all handled in a delightful manner.

Owner's Chamber.

The owner's chamber has ivory wood trim with mahogany doors, rubbed to a dull finish. The walls are hung in a silver gray grass cloth carrying an undertone of rose with floral decorations executed by hand in soft red, rose and wisteria, while the ceiling is in a soft ivory.

gray with a small floral design in embroidery effect. The unlined draperies are hung in pinch pleats and arranged on traverse rings and cords to permit the opening of the windows.

The features of this room are the beautiful mahogany "day beds" equipped with the necessary springs and mattresses and concealed by the silk slip covers. A pretty fireplace in cream colored tile and ivory enamel with its crackling log fire will give this delightful room a cheerful



atmosphere. A deep tufted chenille rug almost covers the floor.

Red Roses and Blue Birds.

The daughter's chamber, is, as one of her young friends expressed it, "simply adorable"; the wood trim being in old ivory with the walls hung in a simple gray jasper stripe paper, treated over the doors and windows with clusters of pink and red roses and blue birds, and executed by hand in a very sketchy manner.

The overdraperies are of English chintz in rose and blue on a cream ground, showing flying bluebirds in the foliage. The theme for the wall decorations was taken from this chintz.

Grey Enamel Furniture.

The furniture is in gray enamel with the background of the carved flutings brought out in dull olive. A pretty floral motif is painted on a few of the prominent panels in a delightfully restrained manner. This room is unusually attractive with the cozy desk space enclosed by the built-in closets and the recessed window offering a splendid view of lake and garden.

The alabaster ceiling light and side lights are mounted on antique silver while the floor is nearly covered with a plain deep pile chenille rug in three shades of soft rose.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given free of charge. Enclose stamp for reply.

A Room in Apple Green.

THE writer had the pleasure of inspecting a most unusual and beautiful chamber, recently completed by a prominent western decorator and while it was a decided novelty it nevertheless had an atmosphere of simplicity and comfort. The wood trim was finished in dull hand rubbed enamel in a delightful shade of apple green, with the walls hung with canvas to guard against cracks and painted in a flat tone of paint in soft old ivory without any decorations whatever.

Portieres for Closets.

The closet doors were removed and to guard against dust the portieres were hung with flat brass discs to a grooved track secured to the under side of the casing and operated with a traverse cord. The door and window hangings were made of

a gorgeously colored hand block linen printed in green, rose and mauve over a ground work of black and white stripes, each stripe being about an inch wide. This material was fifty inches wide, one width being hung in each closet door, allowing plenty of fullness and lined with sateen in apple green.

Window Hangings.

The window hangings consisted of a pair of half width side curtains with a flat lambrequin across the top. This lambrequin or flat valance was made up plain over heavy buckram, the lower edge cut in a graceful outline and finished with a fringe made up in the same colors as the linen but with the black strongly predominating. Rosettes with the cords and tassels made to match the linen were gracefully arranged on the face of the

INSIDE THE HOUSE

valance. An old fashioned six-inch picture moulding dating back "before de wah" was dug up somewhere and made into a cornice with a return at each end. This moulding was ornamented with crudely shaped garlands of roses in high relief, either carved by hand or of a pressed composition, and after being decorated was placed at the tops of the windows with the draperies hanging firmly underneath.

Furniture.

The furniture is built on straight, simple lines with reed panels in the head and foot board of the bed. The straight-backed but comfortable chairs with their rush seats and ladder backs, carried a suggestion of the colonial days. All of the furniture is finished in soft lustrous brownish black (not pure black), the rush chair seats being left in their natural color. A charming feature of this adorable sleeping room is found in the little festoons of flowers painted on the furniture. The color and design of this decoration are the same theme as in the draperies except that to the furniture it is applied in miniature but with the apple green predominating. Small garlands of roses are applied to the wood panels on

each side of the cane panels in head and foot of the bed; likewise on the drawers of the dresser, chiffonier, and writing desk. Each slat of the ladder back chairs carries a cluster of three little roses tapered off on each side with a little spray of leaves in apple green. The crudely carved garland of roses on the window cornices already mentioned are treated in the same way as the furniture; the background being in black while the high relief work is treated in polychrome.

Floor Covering.

The floor covering is a seamless chenille rug with deep soft pile. The center or field of the rug is a soft creamy tan with two bands of apple green in slightly different shades. Taken as a whole, the treatment, though somewhat unusual, has a quality of permanent charm and repose.

Glass and Draw-Curtains.

Very dainty Swiss muslin curtains are hung close to the glass and drop straight to the sill. This material is very sheer and does not interfere with the light or ventilation. Draw curtains made of soft casement cloth in a delicate ivory shade are hung between the glass curtains and overdraperies and are arranged to draw back and forth.

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price..... 1.00
50 Design Book "Bungalows and Cottages," Price..... .50
One Large and One Small Book, Together \$1.25, Three Books..... 2.00

Many pretty one-story Bungalows and Cottages, Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA



Oak Flooring

BEAUTIFUL -:- ECONOMICAL
DURABLE

Three Vital Qualities

THE woman of today wants OAK FLOORING because it will harmonize with any kind of furniture or color decoration, and is susceptible to any kind of finish. In color it is RICH and CHEERFUL and imparts an air of REFINEMENT and ELEGANCE to a home.

The owner demands OAK FLOORING because it increases the selling and renting values.

OAK FLOORING is made in 13-16 in. and $\frac{3}{4}$ in. thicknesses in different grades. $\frac{3}{4}$ in. can be used very economically over old floors in old homes or over cheap sub-floors in new homes. It is cheaper than carpets or pine flooring.

Any carpenter or handy man can lay OAK FLOORING successfully, and during the slack season it makes a very profitable line for any carpenter.

There is a solid satisfaction and lasting pleasure in the substantial and dignified appearance of OAK FLOORING.

Write for Booklet.

"America's Best Flooring"

The Oak Flooring Bureau

1348 Conway Bldg., Chicago



THE friendly attitude of the architect and painter toward Berry Brothers' architectural finishes is of long standing and is based on a knowledge of their quality and dependability.

The appearance of an interior can be ruined by the use of poor or unsuitable varnish or enamel so that the right choice of finishes is an important matter for the home builder.

The endorsement of the architect and painter should mean much to the thoughtful varnish buyer.

The label of Berry Brothers is a guarantee of quality and a sure protection against inferior varnish.

Here are two of the best and most widely used finishes made:

LUXEBERRY WHITE ENAMEL
Whitest White Stays White

This produces a rich permanent snow white finish in either dull or gloss effects. It is durable, sanitary and washable.

LIQUID GRANITE for FLOORS
Lasting Waterproof Varnish

Makes a smooth satiny finish that is mar proof and easily kept in perfect order with a floor mop. Also adapted for all interior work where great durability is desired.

We would like to send you some interesting literature on wood finishing for the home builder. Write our architectural department for it.

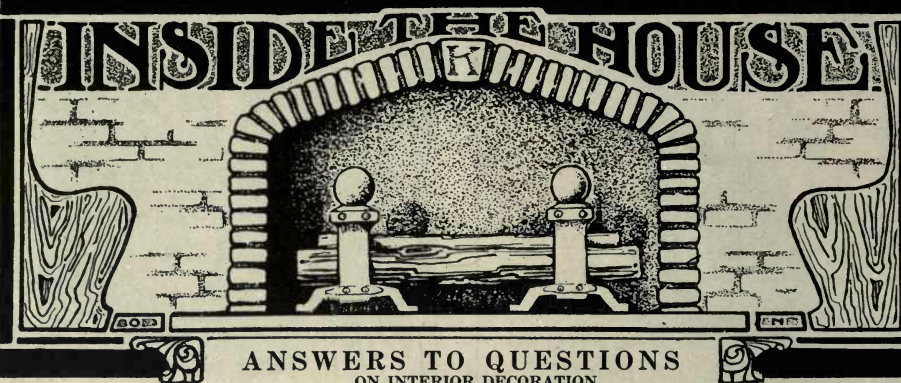
BERRY BROTHERS
INCORPORATED
World's Largest Varnish Makers

Established 1858

Factories: Detroit, Mich.; Walkerville, Ont.; San Francisco, Cal.

Branches in principal cities of the world.

(238)



Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

Treatment for An Old House.

H. W. W. I have noted that in the pages of your magazine you are of a great deal of assistance to a great many doubtful "home builders," and I am therefore taking the liberty to write you and ask for a few of your valuable ideas, knowing that they will help me a great deal in my present dilemma.

We have recently come into possession of a large house and are planning to occupy it in a few months. I have drawn, in rather an amateurish way, a plan of the house, showing the location of the doors, windows, closets, etc., and giving a general idea of the size of the various rooms.

The house faces the southeast, and is on a corner of two main streets. Our first predicament has been the floors. They are the old-fashioned pine floors, and at present are carpeted.

The parlor has two large side windows and four windows in the bay. It has a marble mantel and fireplace which has been obstructed by radiators, over which hangs a large gilt framed mirror. We have a few odd pieces of mahogany furniture, no period, which we shall probably use in this room. At present the floor is covered with a gray carpet with a red figure.

The stairway is white, with walnut rail.

Living room is an unusually cheerful room in its outlook. The space above the mantel is filled with a large mirror, black walnut frame, and here also a radiator is

placed under the mantel. There is no real fireplace in the room. We intend to use this as a living room, with fumed oak (Craftsman) furniture. It has a brown carpet with a darker figure. Would you advise dyeing the carpet? From this room leads the alcove, which we shall probably fill with book shelves.

The porch in front of the dining room takes the light from this room, so that it is really the only dark room with which we have to deal. It was finished in walnut stain, but we are having it repainted white; the chair rail we are in doubt about. If we furnish the room in mahogany, and the doors and all woodwork white, should we paint the rail white, or stain it mahogany? Would like suggestions as to whether it would be advisable to carry this room out in Colonial style. It has a large open fireplace, and our furniture is on Colonial lines.

Ans. We are pleased to offer some general suggestions on remodeling your interior.

Regarding the floors: the only thing to do in our judgment, is to lay a thin $\frac{3}{8}$ -inch hardwood floor over the old ones and have the carpets woven into rugs. The grey carpet with red figure would work up into a very pretty rug for the living room, though you would need something different on the parlor floor with mahogany. Failing in this, your suggestion of dyeing the carpets is the best thing to be done.

The mantels are good features, provided you remove the radiators to another



BEAVER BOARD

*If it hasn't this
trade-mark it isn't
Beaver Board.*

Let Us Help You Plan

If you're planning to build or remodel anything from an attic bedroom to a \$20,000 house, the free Beaver Board Design and Decoration Service will help you.

Incidentally, we will show you the kind of walls and ceilings you can get with Beaver Boards—more durable than lath and plaster, more beautiful, more sanitary. Warmer in winter, cooler in summer. Easiest of any wall and ceiling material to apply.

Ask us about this free service.



The Beaver Board Companies
216 Beaver Road, Buffalo, N. Y.
Branches in Principal Cities.



Many styles of grate and mantels to choose from.

This Grate Does Double Duty

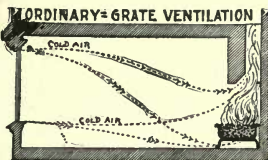
**It Combines Perfect
Ventilation with Eco-
nomical Heating**

and, with the same amount of fuel, burning any kind, will pay for itself in three years in increased heating efficiency. Heats the house in Fall or Spring better than a furnace and takes about half the fuel.

The Jackson Ventilating Grate

is as beautiful as the most artistic ordinary grate and affords the same sense of coziness and cheer; but it ventilates, not dangerously, with air drawn across the room from door and window cracks, cold, but healthfully with air drawn in from outside thru a fresh air duct, circulated around the fire and sent into the room thru the register over the arch, fresh but warmed. Gain comfort and save money by investigating. Any mason can set it up from our *Complete Plans Furnished Free*.

Send for Free Catalog of our wood mantels, andirons, and all kinds of fireplace fixtures, as well as ventilating grates, with explanations, illustrations, full information and prices; also reference to users in your region.



SHUTS OUT COLD AIR CURRENTS

EDWIN A. JACKSON & BRO., Manufacturers
25 Beekman Street, New York

USE BIRCH TRIM

*It looks better—
It wears better—
Its value is greater—
Its cost is moderate—*

Birch Trim is the delight of the competent wood finisher. From varied experience with Birch and other woods he knows:

That birch is an ideal foundation for enamel,

That almost any commercial stain shows up well when applied in the right way to Birch,

That with Birch as the base, and with Birch only, can the new and wonderful silver gray effect be secured,

That—best of all—Birch finished “natural” possesses an elegance, a lustre, a depth of color, a beauty of design that please and satisfy the most critical.

In his conscientious way the expert wood finisher wants to give you the very best value that can be secured for the money you invest—whether the amount be great or small—and he, in turn—because he is proud of his workmanship—wants to make the very best possible showing for the time he puts in. He knows both results will be secured if Birch is used.

Birch Book K will aid you to plan your interior trim and woodwork. It is filled with illustrations showing the best work of some of our foremost architects.

If you want a concrete idea of the finishes Birch takes, send for finished samples. Send ten cents to cover mailing charges.

Northern Hemlock & Hardwood Manufacturers' Association

Oshkosh Wisconsin



place in the room. This is easily done at no great expense. Such vandalism as placing them there is almost incredible. In the living room by all means have a grate and at least a gas log under the mantel.

In the dining room the chair rail should be ivory white like the other woodwork. The walls should have a very light treatment, as the room is so dark. One of the Colonial landscape papers in soft grays with hints of rose coming through, would make this room very charming with the white woodwork and Colonial mahogany. Ceiling white also, and soft rose over-draperies at windows. The gray woven rug would work in admirably with this scheme as the red figure would give the right touch of color.

To Furnish a Dining Room.

C. A. M. I am about to buy a dining room set and wish to get some information regarding the kind of wood to select. Have a large house; dining room opens into parlor and sitting hall. Parlor is furnished in mahogany in Colonial design. Woodwork in dining room of oak. I do not care for mahogany for dining room.

What wood would you suggest, oak or American walnut? Will the latter stay in style as long as the oak? I want to use the William and Mary design because of its simple lines.

Ans. Replying to your letter of inquiry concerning dining room furniture, the American walnut is a very satisfactory wood and takes a beautiful finish, nor is there any fear that it would not permanently remain in style. We doubt very much, however, if you will as readily find the special style you wish in the walnut, as in the oak. The William and Mary furniture comes in oak in what is called the "Jacobean" finish, which is darker than fumed oak and richer, but softer than Early English. It would harmonize well with your Colonial mahogany in living room and be very handsome.

You probably know that it is expensive. A dining room set of this furniture would

cost about \$75.00 for the table, \$125.00 for the sideboard and \$15.00 apiece for the chairs. Those having insets of antique cane in the chair backs are desirable.

Help With Draperies.

E. W. J. I am sending a sketch of my house. Will you help me with the draperies, etc.? I have a brown rug, with a tiny bit of green and tan in small figures; brown leather furniture,—two chairs, a long leather seat, and table to match the wood; some wicker furniture; a small grand piano. My living room is so narrow—can you help me plan my furniture? Must I use over-draperies? What color would you suggest for the living room? I have a blue rug for dining room; had thought to use tan burlap between the panels, with blue tapestry border.

Ans. Your house does not seem difficult. We are sending you, direct, sketches with pencil lines showing our idea of placement of the principal pieces of living room furniture. The brown rug with touch of green will be very good in the northwest living room and could be supplemented with a small one, say 6x9, at one end.

Make the wall a soft ecru and the ceiling between the beams a paler shade. Over-draperies at the windows are not at all necessary, but we should advise hangings in the arch between living and dining rooms. These could be a pretty brown. You are really compelled to use brown and creams in this room by the leather upholstery of furniture and the brown rug, but you can light it up with some green pillows on the leather seat and green mixed with dull reds in cretonne to upholster the wicker chairs and for cushions on the seats each side of fireplace.

Your dining room on the north must have yellow tones to use the blue rug with. Some of the blue and yellow Chinese crepes would be pretty at the windows with an old gold wall.

Exterior Woodwork.

W. F. P. We wrote you last year for information concerning our new house



Make Your Attic and Cellar Livable!

Make THEM regular rooms instead of so much storage space. You will be surprised how much use and pleasure you can secure from them when the walls and ceilings are covered with

CAREY

Ceil-Board
SUPERSEDES PLASTER FOR WALLS AND CEILINGS

Ceil-Board makes a dainty bedroom or a cozy den of the unsightly attic. Ceil-Board in hard wood finish makes a club-like billiard or smoking room of the gloomy cellar.

Ceil-Board can be painted, papered or left plain. It keeps out heat and cold, is vermin-proof, sanitary, fire-retarding, strong, durable, permanent.

You can apply Ceil-Board yourself or anybody can put it up for you in a fraction of the time required for plastering. Just a hammer and a few nails—no dirt, no muss, no delays.

Choice of five different finishes—grey, tan, golden oak, mission oak, Circassian Walnut.

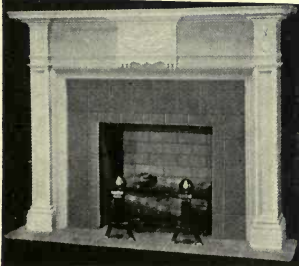
Write today for booklet, samples and complete information.



THE PHILIP CAREY COMPANY, 1024 Wayne St., Lockland, Cincinnati, O.

BRANCHES IN ALL PRINCIPAL CITIES

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.



"Bungalows" or "Attractive Homes"

Send for a copy of one of our new plan books, either "Bungalows", containing 100 designs of moderate priced bungalows or "Attractive Homes" containing 100 designs of story-and-a-half and two-story houses.

Our designs are up-to-the-minute in detail and arrangement and incorporate the new features in home building such as, sleeping porches, sun rooms, built-in conveniences, etc. **Either Book \$1. Postpaid-Both for \$1.50**

LINDSTROM & ALMARS, Architects

261 Plymouth Building

Minneapolis, Minn.



SIGN THE COUPON

and we will send you, without obligation, our new catalog showing

OUR SELECT LINE OF AND IRONS

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc. These will interest all who are building or improving their homes.

We Make Only High Grade Goods, But Our Prices Are Right

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

STOVER MANUFACTURING CO.

704 East Street, Freeport, Ill.

Send me your Catalog No. 1525. I am

especially interested in.....

Name

City.....

State.....

Do business with our advertisers, they make good.

INSIDE THE HOUSE

which we have about ready for the roof. Would be pleased to have your opinion on the following questions:

The side wall from ground to second story is seal-brown brick; second story the timber-work dark brown and perhaps also the window frames in the brick. Now the front door and sidelights are in oak frames. Should the outside of the oak door and frames be stained to correspond with the other outside woodwork or be golden oak to correspond with the inside woodwork?

Should hot water heating pipes be left exposed or built into the wall?

There are two windows on the street side on first floor, each 10 feet wide, having one mullion and filled with casement sash. What color should the sash be to correspond with the light or dark brown creosote-stained wood, brown brick, gray stucco and red roof?

Ans. In reply to your questions, first, regarding finish of front door and side-light frames, a creosote stain is not proper to be used on these. The front door should receive very careful treatment. We would advise an English brown interior stain for outside of door and side-light frames; then two or three coats of the best varnish. Even then, the front door will need frequent doing over if exposed. As yours is sheltered by the porch, it will probably stand very well.

The outside window frames can be stained like the timber work; but the sash should be painted cream white. Otherwise, you will have a very gloomy looking house. Inside, the sash and frames should correspond to the finish of the other woodwork. The French doors the same.

We would not use a golden oak stain on the interior woodwork. Fumed oak is much softer and will blend with golden oak furniture if this is to be used.

In regard to exposing the risers of your hot water plant, our own practice is to cover them in the wall.

If your casements swing out, you will need some kind of casement fixture to

open them without opening the screens. Two mullions and narrower casements would have been much better in a 10-foot opening; it will be difficult to make such wide casements weather-proof and difficult to operate them.

Window Shades.

G. N. W.—We have three windows in our house all in line together, just separated by the casing. Would you suggest a window shade for each window or one shade for all three windows. We also have French windows and doors. Would you hang shades on these and if so, would you hang them on the doors and windows or on the casing. The frames are very narrow. What color of window shade would you use for gray stucco house?

Ans.—It is very rare to use one shade for a group of windows. We think each window should have its own shade. They are often made as narrow as 15 inches.

If the French doors open on a porch, it is not necessary to use shades on them; simply veil them with thin net or mulle, shirred slightly on small rods, set top and bottom of the sash.

A medium green shade is always correct with gray stucco, especially if there is a green roof.

To Curtain the Front Door.

C. E. C.—I have built my house after one of your plans. Please give me some advice about it.

It faces the southeast. There is a small plate glass window in dining room over the buffet. Will it be necessary to use special draperies for that as it is higher than the other windows? It is about 3 by 4 feet. The front door has a long oval glass. How shall I treat that?

Ans.—In regard to windows over the buffet, it should be treated the same as the other windows. The best way to screen the oval glass of front door is to cut a piece of heavy lace, Arabian, to fit it, allowing enough to turn an edge all around and tack it over the glass with small tacks.

Avoid Sewer-Gas Dangers

The ordinary closet connection is sealed by a ring of putty between the end of the closet pipe and the waste pipe that sticks up through the bathroom floor.

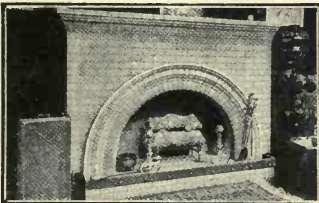
The drying out of the putty, the constant shifting of weight on the closet itself, eventually works this joint loose enough to permit sewer-gas to leak into the house.

How the Donovan Safety Flange on your closet, prevents sewer-gas dangers is told in a **free booklet** which will be gladly sent on request. Ask for the booklet, "The Dangers of Sewer-Gas."

Dept. K
The Trenton Potteries Company
Trenton, N. J.



The Dangers
Sewer Gas
and
How to Avoid
Them



Colonial Fireplaces ARE RIGHT

Made to Order
from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

We have issued a
Very Interesting
Catalogue on

"Pergolas"

AND GARDEN ACCESSORIES

showing a series of new designs for Pergolas and Pergola Columns.

Hartmann-Sanders Co.

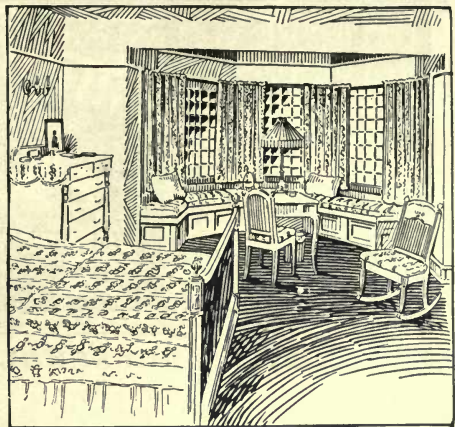
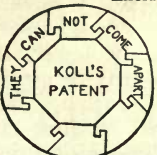
Exclusive Manufacturers of

**KOLL'S PATENT LOCK-JOINT
STAVE COLUMN.**

Pergola Album—"G28"—illustrates Pergolas, Garages, Lattice Fences, Veranda Treatments and Garden Accessories will be sent for 10c in stamps.

Catalogue—"G40"—containing very useful information about Exterior and Interior Columns, will be sent to those who want it for 10c in stamps.

Main Office and Factory: Elston and Webster Aves., Chicago, Ill.
Eastern Office: No. 6 E. 39th St., New York, N. Y.



Cretonnes and Chintz Hangings

of the upstairs "rooms" are daintier when contrasted with White Enameled Woodwork. Few homes these days but have at least one bed chamber done in

White Enamel

The success of this treatment depends on the kind of wood beneath the paint.

ARKANSAS SOFT PINE

has proven its adaptability to white enamel, due to perfect absorbing qualities and the certainty that it will not stain the white surface from underneath. Moreover this wood has the decided advantage of

Moderate Cost

Due to an abundant supply.

Our interesting little white enamel booklet contains full information, including formula. Prospective builders should have our new book on home building as well as stained samples. Any of the above will be sent complimentary on request to Dept. K.

Arkansas Soft Pine is trade marked and sold by dealers. If the one you patronize hasn't it, let us know promptly.

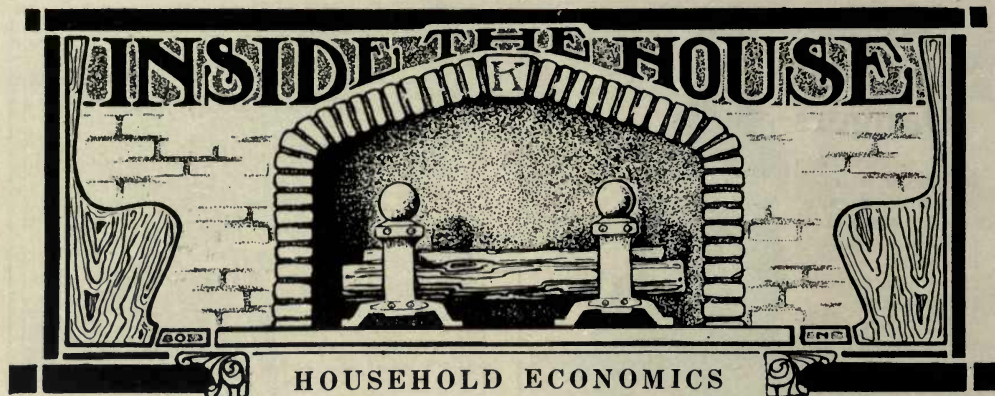
Arkansas Soft Pine Bureau

LITTLE ROCK, ARKANSAS

Satin-like



Interior Trim



Sanitation, Efficiency and Dish Washing

EVERY one is familiar with the housekeeper's wail: "I wouldn't mind anything, if it were not for the washing of the dishes." Cooking is easy, entertaining is a pleasure, if only it were not for the dishes. They ruin both hands and dispositions. They are the drudgery of housework and the "bugbear" of the housekeeper. With all our up-to-date ideas on sanitation we still permit the "dish rag" to reign in the kitchen, with its not less unsanitary compatriot, the "tea towel," both of which plot treason to my lady's hands, as well as absorb her time and energy.

While a child can do it, yet washing the dishes is really quite a complicated operation and it has not been easy to work out a mechanical process which will accomplish it, and quite as serious a difficulty perhaps lies in the fact that when a machine has been manufactured its cost is a deterrent if not a prohibitive feature. In general the people who can afford to buy a dish-

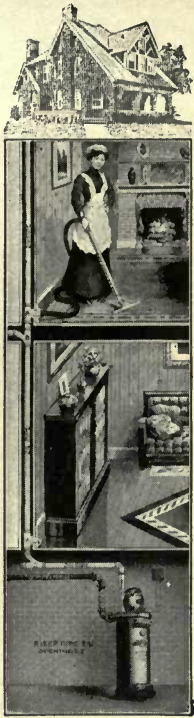
washer are those who employ a maid who "may just as well do the dishes in the old way." Now that women are demanding efficiency in housekeeping as well as in other forms of business, several practical dishwashers have been put upon the market, at an expense which is not beyond the reach of the usual household.

The dishwasher here illustrated has been just put on the market. The most practical dishwashers of the simpler form are operated on much the same principles as the one here shown, that of throwing a spray of water against the dishes with sufficient force to thoroughly cleanse them first, and later to rinse them in such hot water that they dry quickly in the air; when they are ready to set from the trays into the cupboard.

If used where there is not running water connection in the house, the dish water may be poured into the machine, and when the dishes are washed, drained off into a pail. With a water sys-



Dish washer—with silver baskets, knife racks and cover.



Keep Your House Always New

Dirt begins to do the work of destruction the first day the new home is occupied. With ordinary cleaning devices you can remove only the coarser particles of dirt. The rest escapes from your brooms, dusters and portables and settles in the fabrics of your rugs and draperies and on your walls and furnishings. It is this unseen dust that cuts the nap of floor coverings and makes the house and its equipment look old.

TUEC STATIONARY CLEANER

"For Health and Cleanliness"

Removes all the dirt—fine as well as coarse. It cleans as no other cleaner can ever clean because it removes a larger volume of air. It renovates the home and purifies the very atmosphere, making it sweet and pure and free from the microbes of infection.

Out of sight in the basement, with 2½-inch piping connecting it with every part of the house, the TUEC is even more essential to clean and healthful living and the conservation of household economy than the stationary heating, plumbing or lighting system. The cost of TUEC Service is surprisingly moderate,—well within your means.

Write today for the TUEC BOOKLET. It is FREE

The United Electric Company

10 Hurford Street

Canton, Ohio



Design No. 524, by Jud Yoho
Estimated cost \$2800

All About Bungalows

BUNGALOW BOOK
1916 De Luxe Edition

Contains the cream of 1000 practical and distinctive bungalows actually built for \$400 to \$4000, suited to any climate, with photos of exterior and interior views, plans, size of rooms, cost, etc. Also valuable suggestions on bungalow building written by an expert.

The Largest exclusive Bungalow Book published. 112 pages, Price **\$1.00** Postpaid

Worth many times its cost to any prospective builder. A smaller edition of same, only 50 cents. Send check, money-order or stamps. Money back if not satisfactory.

JUD YOH0, THE BUNGALOW CRAFTSMAN

462 Craftsman Bldg., Seattle, Wash.

Most dependable board made in America



You secure all the beauty and durability of the most expensive materials, without paying their expensive price—when you line walls and ceilings with Upson PROCESSED Board. Upson Board is better than plaster in every way. Can never crack, chip or fall.

It gives a washable, sanitary surface that can be kept spotlessly clean. It does away with dirty, unsanitary wall paper and the constant cost of re-papering.

Those of Keith's readers who have Upsonized, will tell you

UPSON PROCESSED BOARD

is the nearest perfect lining for complete, lasting satisfaction and economy.

But do not confuse Upson PROCESSED Board with other wall boards. There isn't a *dollar's* difference between DEPENDABLE Upson Board and the cheapest board, for the average room—and this slight difference is saved many times over in the lower cost of painting Upson Board.

Upson Board is hard, stiff and woodlike—KILN CURED, WATER-PROOFED and SURFACE FILLED. Easier to handle than soft, spongy boards. Not affected by ordinary leaks. And promotes house comfort the year around.



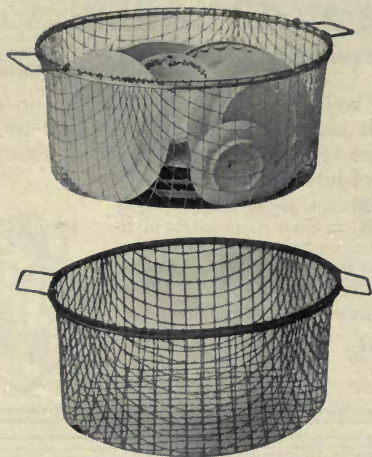
Let us send you a handsomely painted sample of Upson PROCESSED Board and tell you of practical tests you can make to prove Upson superiority over plaster, steel or other wall boards. We also have an interesting book on Beautiful Interiors which shows how any kind of room or building can be Upsonized—send 2c stamp to cover postage.

THE UPSON COMPANY, Fibre Board Authorities
153 Upson Point, Lockport, N. Y.

LOOK FOR THE BLUE CENTER—TRADE-MARKED

INSIDE THE HOUSE

tem in the house both supply and drain may be connected directly with the plumbing pipes so that after the dishes are stacked in the baskets, set in place and the cover put on, the water is turned on from the faucet, with a water gauge to show the proper



Baskets—one partly packed.

amount and the water drained off by turning a lever. The machine may be operated by hand by means of the crank attached,—only a few turns being necessary to complete the operation,—or it may have a motor attached and be operated by electricity.

The view of the interior of the machine shows the principle on which it is operated. The paddle seen in the bottom revolves with

a considerable power, either by hand with a high geared crank, or by means of the motor. This throws a spray up through the dishes. The plates seen on the side carry the spray up to the under side of the cover from which it again strikes the dishes as a return spray, in this way getting a double action from the water, direct from the paddle and returned from the cover.

The dishes are prepared for the machine in the same way as for the dish pan, the careful housekeeper clearing them of food particles, preferably with a rubber scraper. They should be placed in the basket loosely so the water can get to every part of the surfaces. About four quarts of boiling water are required in the tub and a little soap or soap powder put into the water. The basket is then set in, being held in place by the projecting rim, the tub is covered, the paddle is revolved for about a minute, and the dishes are washed.

The revolving of the paddle throws the water against the sides of the tub and against the baffle plates, from which it rebounds in myriads of streams, shooting over and between and against the dishes, cleansing them completely. The soapy water is drained out, fresh hot water poured into the tub, and a few turns of the paddle completely rinses the dishes. Take the basket out, set it in the sink or on the drain-board, and in two minutes the dishes are ready to be put away.

STILLWELL ALL-CLIMATE BUNGALOWS

3 BIG PLAN Books
For \$1. Postpaid

—containing photos, plans, descriptions, costs.

Stillwell Homes are reproduced from original California designs—combining beauty, individuality, comfort and economy—and can be built substantially and economically in any climate.

"REPRESENTATIVE CALIFORNIA HOMES"

50 ideal homes, \$2,000 to \$6,000—Price 50c

"WEST COAST BUNGALOWS"

51 inexpensive homes, \$1000 to \$2000—Price 50c

"LITTLE BUNGALOWS"

31 perfect little homes, \$300 to \$1700—Price 25c

WE SELL BOOKS & BLUE PRINTS ON A MONEY-BACK GUARANTEE

E. W. STILLWELL & CO., ARCHITECTS

450 HENNE BLDG., LOS ANGELES

ALL 3 BOOKS FOR \$1 (Postpaid)

THIS BOOK ON HOME BEAUTIFYING SENT FREE



Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. If you wish we will also send FREE our beautiful colored dollar portfolio showing panels of all popular woods finished with Johnson's Wood Finishes. Take this ad to your dealer—or write Dep't K-E-3. S. C. JOHNSON & SON, RACINE, WISCONSIN "The Wood Finishing Authorities"



KEWANEE

ELECTRIC LIGHT PLANTS

Install one of these convenient, reasonable priced plants in your home. Furnishes plenty of current for lighting entire house, barns and grounds. Enjoy the wonderful convenience and comfort of electric light.

Also operates flatirons, washing machines, toasters and other household appliances. An effective prevention of fire. Little or no attention required and costs only a few cents per day to operate.

Absolutely guaranteed and shipped ready to run when crate is taken off. The installation of Kewanee Plant only requires attaching of seven wires that are properly tagged.

For durability, freedom from repairs and long, steady service, install

KEWANEE Private Utilities

Water Supply Systems	Gasoline Engines
Sewage Disposal Plants	Gasoline Storage Plants
Electric Light Plants	Vacuum Cleaning Systems

Write for our advice on best grouping of your home power plant so you will get the most service out of your equipment—We give you a plan to work by.

Send for illustrated bulletins on any or all of the above

Kewanee Private Utilities Company

(Formerly Kewanee Water Supply Co.)

123 South Franklin St.
Kewanee, Illinois

BRANCH OFFICES:
 50 Church Street, New York
 1212 Marquette Bldg., Chicago




BAYONNE

Makes Happy Home Owners Because

it is so far superior to other prepared roof and deck coverings, to tar and even metal roofings.

BAYONNE

is above all absolutely waterproof—it never leaks. Does not contract or expand with changing temperature as metals do, consequently it cannot bulge or warp. Can be sluiced with water without corroding or crumbling.

Laid on the dry boards, tacked only on the edges, and requiring only one coat of paint, BAYONNE is more economical than others and the hardest and most constant use cannot wear it out.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's, Page 539.

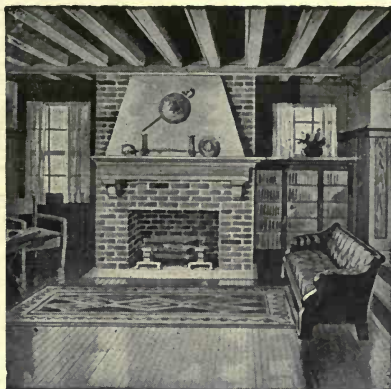
JOHN BOYLE & CO., Inc.

112-114 Duane Street—70-72 Reade Street, New York City
 Branch House: 202-204 Market St., St. Louis



Interiors Beautiful

200 VIEWS



IN PLANNING the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents

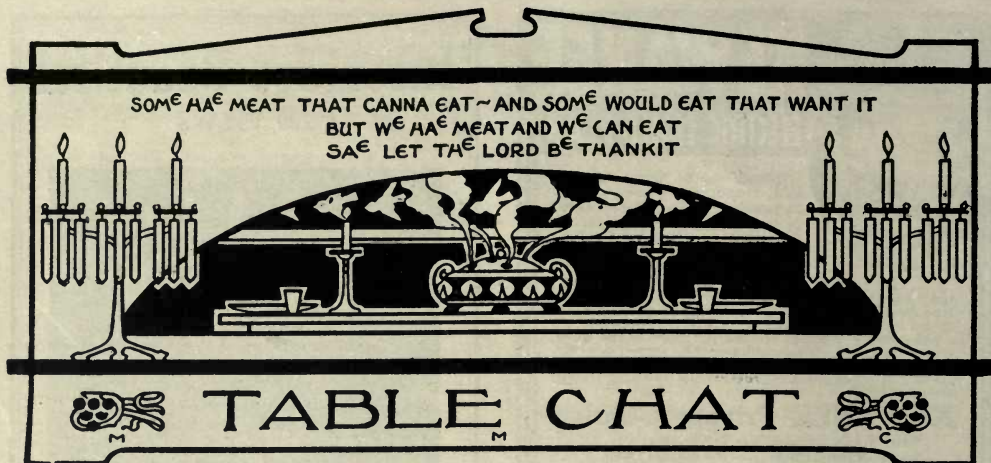
Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

PRICE \$1.00, POSTPAID

*With a Year's Subscription to
 Keith's Magazine---\$2.00*

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.



Lenten Fare

THE beginning of Lent affects a great many people whose interest is not in the least a religious one, as the practices of servants and other dependents must be considered. Aside from any religious motive it is a good thing from the culinary standpoint to keep Lent. Most families do not eat enough fish, which is a really valuable article of food for brain workers as well as for people suffering from nervous troubles. Moreover, some sorts of fish food are ex-



Creamed fish in pastry shells.



Heats Big House for only \$35.

Coal Bills GUARANTEED
Reduced $\frac{1}{2}$ to $\frac{3}{4}$ the
Williamson UNDERFEED Way

They have cold winters in Wisconsin. Zero and the mercury are on friendly terms all winter long. So that when you read of an eight room house being heated for \$35, and the coal bill reduced 45% the UNDERFEED Way, you owe it to yourself and your pocketbook to consider carefully what is said.

Let the letter speak for itself: "The UNDERFEED was installed in my house about two years ago, and will say that I am perfectly satisfied. House has 8 rooms and bath, and not small rooms at that. The first year I used about \$37 worth of coal, and this last year about \$35 worth. The entire house was kept warm. In the last two years I saved not less than forty-five per cent of my fuel bill with every room warm."

(Signed) SAMUEL ISELY, Monroe, Wis.

We can show you thousands of such letters that indicate how you can save $\frac{1}{2}$ to $\frac{3}{4}$ of your coal cost the New-Feed UNDERFEED Way, GUARANTEED, mind you, and have your home heated comfortably from top to bottom all winter long as well.

WILLIAMSON CUT
NEW-FEED COAL
UNDERFEED BILLS
Furnaces and Boilers $\frac{1}{2}$ to $\frac{3}{4}$

The New-Feed UNDERFEED burns coal on the "candle" principle. The fuel supply is always *below* the fire. No heat is wasted because the fire does not have to fight its way up.

Save Before You Spend

Because of its scientific feeding principle, the New-feed UNDERFEED burns the cheaper grades of coal as effectively as others burn the expensive grades. Thus you are sure of a great saving of real money *before* you order your coal. In the UNDERFEED, coal is fed from below, so that the clean live fire is always on top, where it will do the most good. Fire is never smothered by fresh coal being dumped on. It is never chilled by opening of top-feed doors. There is no smoke, soot, or gas, because these valuable heat elements must pass up *through* the fire, and thus be transformed into heat and every particle of coal is burned to a clean white ash. No clinkers. No partly burned coals.

A Boy Can Run It

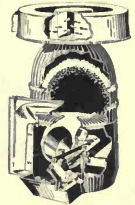
There is no tiresome stooping with the New-Feed UNDERFEED. A few easy strokes of the handy lever and the firepot is full. The operation throughout is simplicity itself.

Mail the attached coupon today and we will send you, free, the interesting book, "From Overfed to Underfed," which pictures and describes it all. You will be glad to own this book. It solves many a heating problem. Some day it will save you real money. No obligation in asking for it. Send the coupon today—NOW.

The Williamson Heater Co.

176 Fifth Avenue

Cincinnati, Ohio



The Williamson Heater Co. 176 West Fifth Ave. Cincinnati, O.

Tell me how to cut my coal bills from $\frac{1}{2}$ to $\frac{3}{4}$ with a Williamson New-Feed. Warm Air.... Steam or Hot Water.... (Mark X after system interested in)

Name..... Address.....

My Dealer's Name is.....

DEALERS: Let us tell you about the New-Feed UNDERFEED and our new proposition. Both are winners.

For All Kinds of Houses

from bungalows and camps to suburban residences and country mansions, the deep, rich colors of

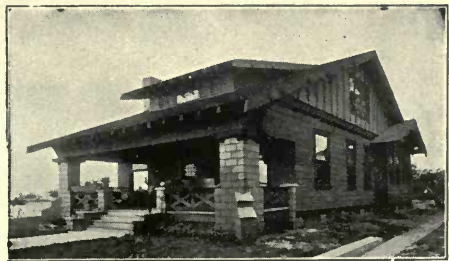
Cabot's Creosote Stains

are most beautiful and appropriate for the shingles, siding or timbers. The colors are clear and transparent and bring out the beauty of the grain of the wood instead of covering it as paint does. They cost only half as much as paint, can be put on twice as fast, the colors are lasting, and the Creosote "is the best wood preservative known."

You can get Cabot's Stains all over the country. Send for stained wood samples and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists
Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



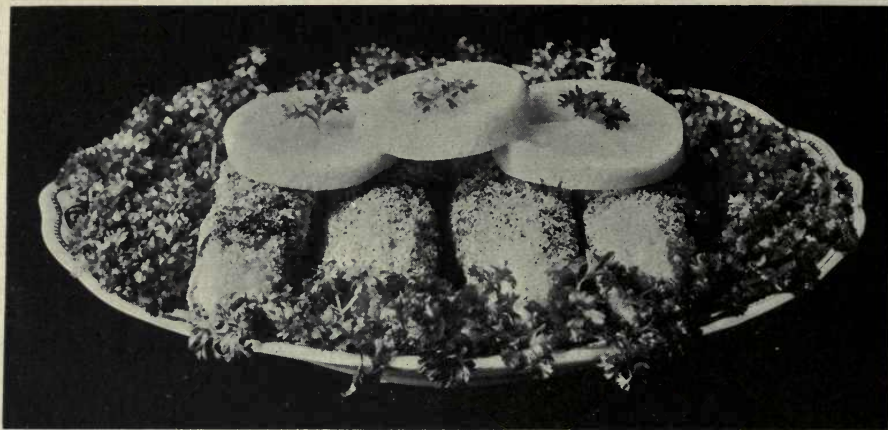
Bonfoey & Elliott, Architects, Tampa, Fla.
Stained with Cabot's Creosote Stains.

You are assured a square deal in Keith's.

tremely cheap, a consideration of importance in these days of high prices and reduced incomes.

In the coast cities of the United States we have accessible a very great variety of salt and fresh water fish, varying in flavor, in price and in size, but all equally acceptable to people who like fish. Those of firm flesh and fine flavor lend themselves best to broiling, the mode par excellence of cooking a fine fish. Such are mackerel, blue fish, shad and trout, with others of

delivered at the last moment. If this is not practicable, sprinkle it thoroughly with salt, when it comes from the market and keep it in a cold place till it can be cooked. A large piece to be baked or boiled can be cooked as soon as it comes from the market and be heated through before serving. If it is kept covered closely in the interval the flavor will not be affected. On the other hand, pan or broiling fish should be cooked at the last minute and served immediately. If you pos-



Fish croquettes, garnished with celery and lemon.

more local reputation. White fleshed fishes generally can be either baked or boiled, their goodness in the latter case depending very much upon their sauce. The various sorts of small fish are usually fried.

It is essential that fish should be very thoroughly cooked, although the time required is not long, ten minutes to the pound at the outside for a boiled or baked fish. The simplest test is to penetrate to the backbone with a silver fork. If the fish separates from the bone readily it is cooked. A single appearance of underdone fish is generally sufficient to create a permanent distaste for anything with fins and scales, so it is well to be on one's guard. Uncooked fish deteriorates very quickly and should be

possess a metal dish cover by all means use it when you serve fish, which depends much for its goodness on its temperature.

Technically fish appears at the dinner table only as a single course, just after the soup, but practically it is the main dish at dinner in modest families. For this purpose it is well to have a large cut boiled or baked, serving the smaller fish at breakfast or luncheon. But these smaller fish may be served as an entree at a formal dinner. Sole, a small fish, whose equivalent with us is a filleted flounder, is the popular fish course in England. Some sort of creamed fish in ramekins can also be served for the fish course.

But, after all, everyone knows about the ordinary ways of cooking fish. It is in the making of various made dishes that one

Entirely Automatic

THIS device, proven satisfactory in thousands of homes for nearly a third of a century, takes complete and accurate charge of the dampers of any style of heating plant burning coal or gas. Its accurate operation maintains a uniform temperature of any degree you wish. It acts and thinks for you every minute of the day and night, and will automatically, at any pre-determined hour, raise or lower the temperature to any exact degree. We guarantee it to do all this to your entire satisfaction.

With our new non-winding electric motors (direct and alternating current)

The "MINNEAPOLIS" HEAT REGULATOR

"THE HEART OF THE HEATING PLANT"



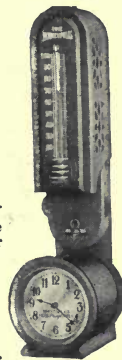
is made entirely automatic, eliminating all winding and care of the regulator motor. For homes having electric current we supply our alternating current motor, the power being secured from the lighting circuit. Where no electric current is available our direct current motor is used, with power furnished by four cells of dry battery which have ample capacity to last a full year.

The "Minneapolis" is sold, installed and guaranteed by the heating trade everywhere. Our booklet shows models, explains details and gives prices.

Minneapolis Heat Regulator Co.

Wm. R. Sweatt, President

2725 Fourth Ave. So., Minneapolis, Minn.



Solve Your Roofing Problems
with

UNDERFELT ROOFING

RUBBER OR SILVER FINISH

It is a moderate priced Roofing that can be used for any purpose. Underfelt is made of the very best materials possible at the price and is unexcelled in wearing qualities. We eliminate All Risk on your part by our absolute—

GUARANTEE ON { 1 Ply—5 Years
2 Ply—10 Years
3 Ply—15 Years

DI-MACK WALL BOARD

Colors in Cream, Brown, Green or Buff

The Modern Wall and Ceiling Finish. It is less expensive than lath or plaster, *Warmer, Stronger, Artistic, more Durable.* It is a non-conductor of heat and cold.

Write for Samples and Prices

McCLELLAN PAPER CO., MINNEAPOLIS



achieves economy, because one can use cheap pieces which are not available for cooking whole, as well as left-overs from another meal. The pieces which are left at the head and tail of a large fish like cod or halibut, when it is cut into steaks, are sold very cheaply as compared with the rest of the fish, and are of exactly as good quality. Thoroughly cooked in boiling, salted water and freed from skin and bone they are ready to be flaked up and can be used in a number of ways.

Creamed Fish.

Creamed fish is a very common dish and is very seldom good, for the reason that very few people know how to make a good cream sauce. Toast cream is not cream sauce, although cream toast made with cream sauce is a very delicate article indeed. The process is a very simple one, and never varies. In a clean saucepan you melt a rounded tablespoonful of butter; into the melted butter you stir a rounded tablespoonful of flour and you cook them two or three minutes, stirring all the time. By slow degrees, still stirring, you add half a pint of hot, not boiling, milk. Pepper, salt and another tablespoonful of butter and the sauce is done. Add the flaked fish, set the saucepan aside closely covered and dish at the last minute. You can make it richer by adding cream to the milk, or you can do the same thing with evaporated or unsweetened condensed milk.

The Cheapest Form of Proteid.

Sometime within the year statistics were published by one of the New York papers, showing the cheapest form of proteid, giving the most nourishment for the least money, to be the grade of salmon known as Pink Alaska, selling at from eight to ten cents for a pound can. It is what is known in Alaska as chinook salmon, and is wholesome and palatable. It is less oily and not so firm as the red Alaska and so needs to be cooked. The most economical way of preparing

it is to drain off the oil and free the fish from skin and bone, flaking it into rather large pieces. In a small saucepan bring the oil to the boiling point and stir in a rounded tablespoonful of flour, cooking for two or three minutes. Add slowly, stirring constantly, a cup of hot water and when it is thick and perfectly smooth a seasoning of pepper, salt, a little lemon juice and half a tablespoonful of butter. Heat the flaked fish in this and pour the mixture over triangles of buttered toast in a casserole.

Fish Croquettes.

Extremely good croquettes can be made from this pink salmon. Flake the fish very fine and mix it with a cupful of potato mashed very smooth. Make the sauce with half the quantity of water and no lemon juice so that it will be very stiff, and stir the fish and potato into it. Taste the mixture, add more seasoning if necessary and pack it closely into a buttered soup plate. Let it get very cold and form it into cylindrical croquettes, dipping in egg and cracker dust. Chill them again and fry them in deep fat. Serve them on a bed of celery or watercress and garnish them with slices of lemon. Any other sort of fish can be made into croquettes, using butter instead of the oil from the salmon.

Using Up Odds and Ends.

Inconsiderable bits of fish, such as are left after a meal of pan fish, can be freed from skin and bone and used for patties. Plan to make the shells when you are making pies or lay away a bit of paste in a corner of the refrigerator, as it will keep several days. Or you may buy pastry shells of the baker. They are seldom as good, however, as the homemade ones. Make a little cream sauce, stir in the flaked fish, piecing out with a few cooked oysters cut fine, if you have not very much, and fill the shells, heating them thoroughly in the oven. Always serve sliced lemon with any preparation of fish.

For Simplest and Grandest Homes



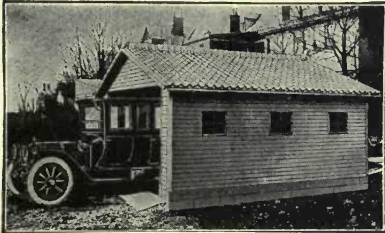
EDWARDS Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of **Metal Spanish Tile** is yours for the asking. A postal will bring it.



Own Your Own Garage All Sizes—All Prices

An Edwards **METAL** Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and *safe!* Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

\$69⁵⁰
and up

Write today—right NOW!

The Edwards Manufacturing Co.

*The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.*

521-541 Culvert St., Cincinnati, Ohio



*Far more
attractive—
weather
proof—
worth more*

—transformed by "High Standard" Paint

"High Standard" Paint will make the same improvement in the appearance of *your* home—give you renewed pride in its ownership—win the greater respect of your neighbors—*increase the value of your property many dollars—*

And, in addition, every gallon of the paint will pay for itself in protection and the saving of repairs.

Lowe Brothers
HIGH STANDARD
LIQUID PAINT

is scientifically made from quality-proved materials, which the test of service has demonstrated best. Experience shows it withstands sun, wind and wet for years—keeps its color—wears away gradually and evenly—and leaves a good surface for repainting.

FREE Booklet and Color Plates of Attractive Homes

Write for "The House Inside and Outside," with 18 color plates illustrating different uses of Lowe Brothers paints, varnishes, stains and enamels in the natural colors, with description of rugs, carpets, furniture, etc. An accompanying booklet gives valuable and interesting information about paint and painting.

In writing, ask for the dealer's name, if you don't know him.

The Lowe Brothers Company

465 E. Third St., Dayton, Ohio
Boston New York Jersey City Chicago
Kansas City Minneapolis
Lowe Brothers, Ltd., Toronto, Canada

Building Material

AND NOTES ON

Heating, Lighting & Plumbing

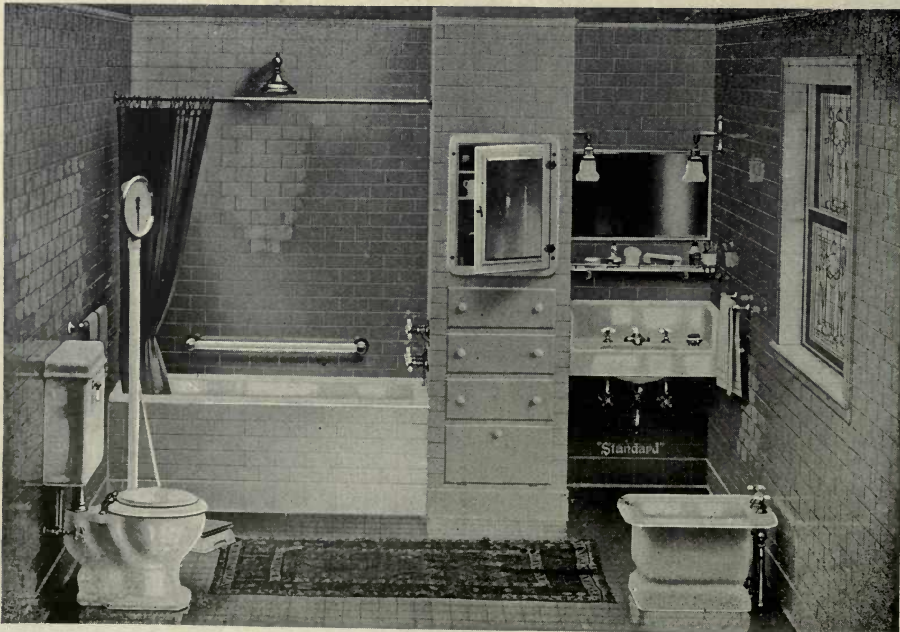
Concerning Plumbing Fixtures.



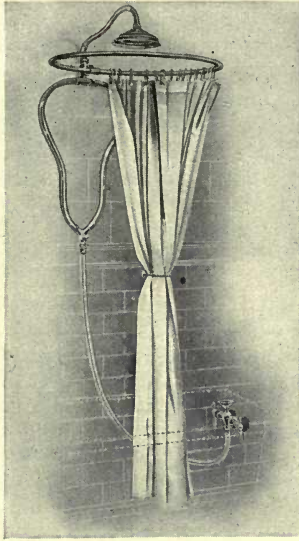
WHEN the home builder contemplates the estimates which the contractor presents to him as the necessary cost of the home which he hopes to build, the plumbing bid is perhaps the greatest mystery. He can understand the carpenter's bill. He thinks he knows a good piece of timber from one full of knots, and he knows something about good workmanship. He may refuse the lowest bid and he knows why he does it. But when it comes to the plumbing, what does the uninitiated know? When estimates differ widely,—“it is a different

class of goods,” he is told, or, “it requires a more expensive installation.” He can only hope that the most expensive is the best.

Plumbing fixtures are manufactured from vastly different materials, with a wide difference in cost, each with definite qualities, and with definite advantages. There are many especial patents on the valves and peculiarities of the fixtures which add to the cost. The models which are widely used, because of the immense number made from the same pattern, are cheaper,—out of all proportion to the difference of construction,—from models



A complete and sanitary bathroom.



This Wolff Shower

one of the several Wolff models, will add an invigorating zest to the bath that will be a source of keen satisfaction throughout all the years it will be used. Wolff Showers, in common with other Wolff fixtures, are extra full value for the money. May be added to your initial bath equipment with little increase of cost, or at any time after fixtures have been installed.

Write for the Wolff Bath Book Now

and let appropriate fixtures be a part of your building plans. Wolff fixtures have long been known for their high standard of quality and are easily obtainable anywhere. Your plumber has our complete catalogue and will be glad to furnish them.

L. WOLFF MANUFACTURING CO.

"Makers of Plumbing Goods for 60 Years"

Potttery: Trenton, N. J.

601-627 West Lake St., CHICAGO, ILLINOIS

Special Offer to Contractors

EVERY building contractor will be interested in securing two of the best journals on building, together with a fine book of plans under my "Special Offer."

12 Big Monthly Numbers KEITH'S \$2.00
12 " " " Nat'l Builder 1.50
1 " Book of Plans 1.00
\$4.50

Special Price for all three \$3.00

Select Your Book From This List

Vol. 1-136 Designs Bungalows.....	\$1.00
Vol. 2-100 " Cottages.....	1.00
Vol. 3-125 " costing below \$4,000.....	1.00
Vol. 4-175 " " 5,000.....	1.00
Vol. 5-175 " " 6,000.....	1.00
Vol. 6-125 " " above 6,000.....	1.00
Vol. 7-100 " Cement and Brick.....	1.00
Vol. 8-50 " Garages.....	1.00
Vol. 11-40 " Duplex and Flats.....	.50
Vol. 12-100 " Artistic Homes.....	.50

Send all orders with remittance to

M. L. KEITH

828 McKnight Building

Minneapolis, Minn.



Residence of William Finch, Esq., Cos Cob., Conn.
B. E. Shubert, Greenwich, Conn., Builder.
Roofed with Green Hudson Asphalt Shingles.

There's the Roof You Need Right Now

HUDSON SHINGLES

Slate-Surfaced in Red and Green Beautify the Home

Their cost is reasonable. They need no paint or stain and make a permanent, leakproof, fadeless and fire-resisting roof. Send for book—describing some functions of the roof you may not have heard of—also

How to Apply Asphalt Shingles
to get the most artistic and durable effect by the Boston Hip and other methods.

Send for "Shingling Aids" 52
ASPHALT READY ROOFING CO.
Room 479, 9 Church Street, New York, N. Y.
Hudson Asphalt Roofing Products

less widely used and not manufactured in such quantities.

When you are selecting plumbing fixtures you are shown "enameled" fixtures at a very moderate cost, then you are shown "porcelain enameled" fixtures at a much higher price. They are better looking, and the fittings are perhaps heavier and better designed and finished. They are better grade fixtures you are told, which accounts for the difference in price. Then you are shown specially high grade fixtures of "vitreous china" at a still higher price, which are certainly beautiful in their modeling and finish. Any housekeeper knows the difference between enameled ware, porcelain, and china when she is buying dishes, and she buys accordingly. She understands readily why a large platter or covered vegetable dish or fine china is so expensive, while an "enameled ware" dish is not.

"Enameled" fixtures are made of cast iron, the exposed surface is heavily enameled, and the enamel is fired to give as fine a finish as is possible where the surface is not an intrinsic part of the constructive material. The plumber does not consider this a "perfect" material for his goods, so he has devised the "higher grade" fixtures. It is possible, we are told, though an instance has never come to our attention, yet it is possible under unnecessarily hard usage that the enamel finish may be chipped off and the iron underneath allowed to rust. It is also possible that by the use of powerful acids in cleaning the fixtures, that the surface of the enamel may be made rough and so defeat its intended purpose as a highly polished surface which will not hold dirt. If you put your hand under the rim of such a lavatory you will feel the rough surface of the iron. As a matter of fact, even under most severe tests these enameled iron fixtures have proven extremely satisfactory. Each piece generally carries a guarantee, which while it does not repay the cost of resetting, shows that the manufacturer stands ready to back his goods.

When economy is not an especial matter of consideration, the higher grade of fixtures make a beautiful bathroom. In a house where fine china and solid silver are always in use for the family service, vitreous china fixtures in the bathroom will be in keeping with the rest of the house.

Porcelain enameled fixtures, as the name implies, are made of porcelain like a great dish, and the surface enameled and fired in the kiln, where the enamel and the porcelain combine under the heat.

Vitreous chinaware is made from a finer grade of materials than porcelain, and is heated to a very much higher temperature in the kiln, giving it the vitreous qualities, and also giving it a most remarkable amount of strength. As a test, fixtures of vitreous china, and also of porcelain, have been hammered with metal pipe until the pipe bent without showing the slightest damage to the fixture or to its surface. Such fixtures are necessarily expensive, and, if one can afford them, worth all the money they cost.

The plumbing in a house can not be entirely satisfactory unless the fittings are first class. The supply and waste pipe should be ample, and of sufficient weight. The design of the valves and fittings are worth looking to carefully. A faucet which soon becomes leaky is very annoying. The mechanism by which the water is kept in the lavatory and the arrangement of the overflow are of especial importance. The most unsanitary thing in the usual bathroom is the overflow basin back of the ordinary lavatory, with the openings so small that it is impossible to clean it in any way. A device which is very new arranges for flushing the overflow, by forcing back the stream of water. Some types of the ideal waste seem to provide a simpler solution by arranging for the overflow within the pipes themselves and allowing the cylinder which shuts off the water to be entirely removed. The extreme simplicity of this fitting is its greatest merit. There is no plug in the basin to be inadvertently removed at the wrong time, and the unsanitary small openings into the waste basin are entirely omitted. This is a matter to be considered in the selection of fixtures.

The design of the faucet is another important feature. Do you know the satisfaction of a faucet which will not leak? Half a dozen trips of a plumber to fix a leaky faucet would pay for the most expensive type that is made, so a cheap faucet is not an economy.

The many types of closets on the market have gradually been growing simpler in construction and eliminating the defects of the earlier types. The noisy flush-



See What *The National Builder* Provides for Its Readers Every Month

"I find that I can save time and get more practical ideas on building, by using your Magazine as a 'Consulting Engineer' than by trying to work out my own problems."

Of course, he does—that's what *The National Builder* is for. Every issue shows the photograph and complete bill of materials for a house, or a bungalow, or a cottage. You can substitute the prices in your town and get the exact cost of construction.

Each month, we send as a supplement to the magazine, a full working plan of the building, 2 ft. x 3 ft., and drawn to scale, just like an architect's blueprint. It shows front, side and rear elevations, and floor plans—always of a house that has actually been built.

Construction Details of all kinds of buildings—such articles as "Economizing Space," "Wall Board and Its Uses," "Sanitary Features of the Home," and many others on interesting topics for the builder appear every month in *The National Builder*—it's full of information.

Edited by Fred T. Hodgson

Mr. Fred T. Hodgson is editor, and any builder will tell you he is the most prominent authority on building construction in the country.

Use the Coupon—Save One Dollar

The regular price of *The National Builder* is \$1.50 for 12 monthly issues. But if you use the coupon, it will be sent two years—24 issues—for only \$2.00. Eight issues for \$1.00.

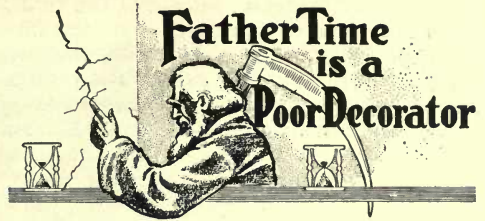
PORTER-HODGSON CO., Publishers,
1303 Ellsworth Building, Chicago.

Enclosed find.....for which send
The National Builder for.....years

Name.....

City.....State.....

(For Canada, 1 year \$2.00; 2 years \$3.00.)



Plaster Your Walls for Permanence

Don't be sorry when the cracks come in the walls of the living room that you were so proud of when your house was new.

Be sure of walls of permanent smoothness by insisting that

Kno-Burn Expanded Metal Lath

goes under the plaster.

Plaster won't crack if it forms a perfect bond with the base it is laid over and the fine mesh of "Kno-Burn" always imbeds itself so firmly in the plaster that it can never come loose.

"Practical Homebuilding," our book on building in general, gives you comparative cost figures and a dozen more reasons why "Kno-Burn" makes the plaster stick.

Send 10c to cover cost of mailing
and ask for booklet 659

North Western Expanded Metal Co.

Manufacturers of all kinds of Expanded Metal
965 Old Colony Bldg., Chicago, Ill.



No advertising is accepted for "Keith's" that you can not trust.

ing valve, or rather the noise of the refill, has been largely eliminated. In the latest type the tank has been done away with entirely, by the substitution of a larger supply pipe and a new flushing valve, which if desired, may be set out of sight. Some authorities say that an inch supply pipe will give a proper flush, whereas a half-inch supply is used with a tank closet, while other authorities say, "Do not allow yourself to be persuaded to use less than an inch and a quarter supply pipe." This closet is so new to the market that we are not able to find a bathroom photograph with this type installed.

The complete bathroom here shown has the simplest type of fixtures. The tub is set in a tiled niche and with a shower fixture and curtain makes a complete shower equipment. The fixtures are set in the wall of the cabinet at the end of the tub, so that while the tub is completely tiled in, the fixtures are in an open construction. Cleaning around and behind the tub, and keeping it clean has always been one of the bugbears of the

housekeeper. The newer tubs get away from this difficulty in a number of ways. They are made to set directly on the floor, sometimes before the tile floor is laid, some standing eighteen instead of twenty-two inches from the floor.

Tile is a satisfactory material for floors and walls in a bathroom. Some non-porous wall surface is necessary where a shower is installed, and a wainscot of such material is certainly desirable. This may be of tile, marble, vitralite or only a hard cement painted in white enamel. The wall above the wainscot may be canvassed and painted or finished with a decoration in oil colors, or it may be finished with some of the glazed papers or wall coverings on the market.

In a certain sense the bathroom is the key to the house. Here the homebuilder and his family plan for their own convenience, comfort, and even a moderate luxury, yet knowing that they are adding actual value to their home. If they ever wish to sell a most important question is, "What kind of plumbing have you installed?"



Protect Your House and Lawn

Keep the careless coal man from marring and scarring the sides of your house every time he delivers coal. Save your lawn, walk, flowers and shrubs from being ruined by coal dust and stray lumps. Install the

Majestic Coal Chute

Easily put in a new home or one that is already built. The Majestic when closed sets flush with the foundation. It has a glass door which serves as a window when chute is not in use for receiving coal and gives splendid light to the basement. The glass is protected when chute is in use by special iron plate. The Majestic is more than just a coal chute. It's a cellar window as well. **Burglar Proof—Strong—Durable.** The Majestic locks from the inside securely and is absolutely burglar proof. It is extra durable, and will outlast the building. It has a heavy steel body—cast-iron door frame and boiler plate hopper. When open the hopper comes out automatically, catching all the coal, without waste or dirt. Thousands of owners of homes, hotels, stores, apartments, etc., have installed Majestic Coal Chutes in their buildings. Architects and Contractors endorse them and specify their use in all the new modern structures.

Write for Catalog of Majestic Specialties

THE MAJESTIC CO., 517 Erie St., Huntington, Ind.

Manufacturers of Coal Chutes, Garbage Receivers, Milk and Package Receivers, All Metal Basement Windows, Rubbish Burners, Street and Park Refuse Cans, Metal Plant Boxes, Pipe and Pipeless Warm Air Furnaces, Hose Reels, etc.

NEATER CORNERS

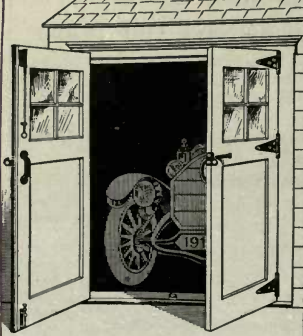
than the old-time kind can be made by using

KEES Metal Building Corners

They give the popular mitred effect without the slow work of beveling the siding. Save time and money and are more durable than wood. Hold paint like wood.

Write today for samples and pictures of buildings finished this way.

F.D. KEES ^{MFG.} **CO. BEATRICE, NEB.**
Box 102.



For Your New Garage—

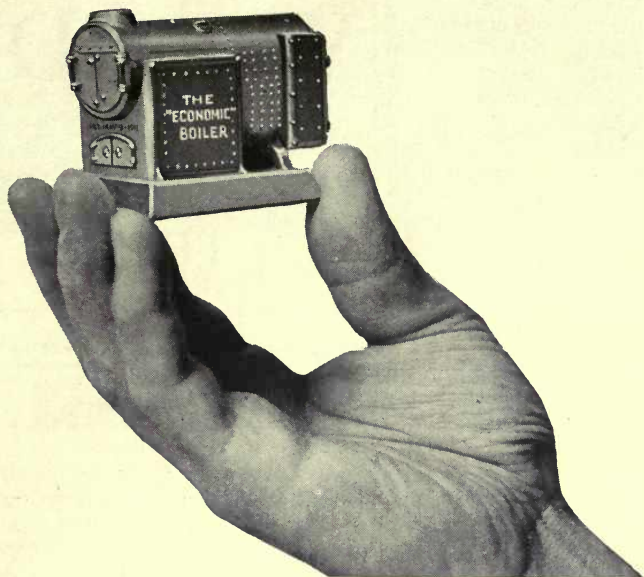
Stanley's No. 1776-J1 Set contains complete Hardware 'Trim' for garage with double doors. Write for Circular "T."

THE STANLEY WORKS
New Britain, Conn.

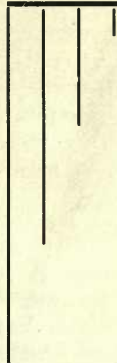
**An
Easy Boiler
To
Handle**

==
**Most Efficient
For
Heating**
==

Write to
"Economic" Dept.
Erie City Iron Works
Erie, Penna.



Keith's April
Bungalow
Number



KEITH'S
April
Bungalow Number
20 cents

—
The next issue, April, will be devoted to the ever popular Bungalow. It will be "*All Bungalows*" and will be one of the biggest issues of Keith's Magazine ever published.

—
At News-stands, 20 cents



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH'S staff of wood experts.

This department is created for the benefit of KEITH'S readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.



NEW density rule for yellow pine timber has been adopted and copyrighted by the American Society for testing materials and approved and adopted by the Southern Pine Association.

"It has been recognized for a good many years by both the manufacturers and consumers of southern yellow pine, that a constructive and simple method for classifying various classes of southern yellow pine for structural purposes, would find wide application and fill a long-required need. The three botanical species of yellow pine, namely, longleaf, shortleaf and loblolly, frequently intergrade, so far as their destiny is concerned, and much misunderstanding has resulted from time to time because of the lack of a practical method for determining whether any particular class of yellow pine was adapted for the purpose intended. Realizing this condition, the Southern Pine Association has actively co-operated with the United States Forest Service and the American Society for Testing Materials for the purpose of finding some such method for distinguishing the various classes of pine for structural purposes. The American Society for Testing Materials made a preliminary suggestion for grading the southern pines in their report for 1909. The rule proposed was based on the number of rings per inch. This rule was widely used but was found too indefinite for final adoption.

"As a result of careful study of many

trees of all species, a method has been devised during the past year by the United States Forest Service, which was adopted by the Southern Pine Association in January, 1915, and which was presented in detail to the American Society for Testing Materials at their annual convention and subsequently adopted by the society as standard in August, 1915.

"Based on the density rule, a new classification for structural yellow pine timbers has been established which eliminated the names 'longleaf,' 'shortleaf' and 'loblolly' pines. The new rule provided two classes: Dense Southern Yellow Pine and Sound Southern Yellow Pine. Dense Southern Yellow Pine includes the best pieces of what has hitherto been known as longleaf pine, and excludes the occasional pieces of inferior quality, for structural purposes. It also includes those pieces of shortleaf pine, Cuban pine and loblolly pine which, because of their density and strength, are in every way equal to high-grade longleaf pine, as shown from numerous tests by the United States Forest Service and many other well-known authorities."—*Mississippi Valley Lumberman.*

White Pine Blister Rust.

The Secretary of Agriculture has determined that there exists in Europe, Asia, the Dominion of Canada and New Foundland a dangerous pine disease known as the White Pine Blister Rust, new to and not heretofore widely prevalent or dis-



THREE DISTINCTIVE "CREO-DIPT" HOMES IN ALBANY, N. Y., BY ARCHITECT W. H. VAN GUYSLING. EACH HOME HAS A DIFFERENT COMBINATION OF COLORS ON ROOF AND SIDE WALLS. ARCHITECTURAL BEAUTY AND CONTRAST ARE THEREBY SECURED.

Many architects, contractors, builders and realty companies have found that no other building material and no other method of shingling secures such satisfactory results. Owners are not only pleased with colors but are more than satisfied with the saving in painting, staining and repairing.

"CREO DIPT" STAINED SHINGLES

17 Grades

16, 18, 24-inch

30 Colors

Write today for sample colors on wood and book that explains why we creosote against dry-rot, worms and weather decay!—Why we get better cedar shingles than the open market offers!—Why we use only earth pigments ground in pure linseed oil.

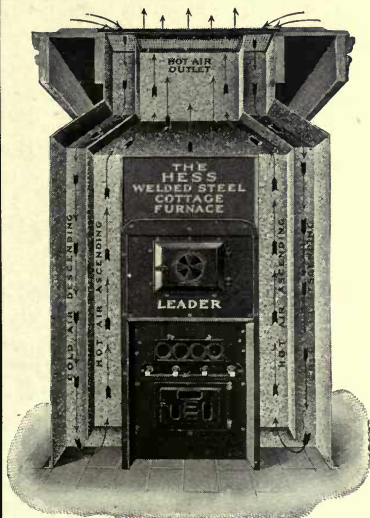
Give us name of lumber dealer and ask him to carry standard colors for general work. Special Colors, "Dixie White" and "Thatched Roof" Effect on order.

STANDARD STAINED SHINGLE CO., 1022 Oliver Street, N. Tonawanda, N. Y.

Factory in Chicago for Western Trade



THE PIPELESS FURNACE



Not a successor---but a *mate* for our
Regular Hess Welded Furnace

The Pipeless Furnace heats with one big register, and the cold air returns to the furnace through the ends of the same register. It warms by circulation, better than stoves or radiators, with less fuel, and at less cost for installation. It insures a healthful atmosphere, for moisture is added to the air, and leakage of gas and dust are impossible, for **every seam** is welded, and is always tight. Suitable for bungalows, cottages, stores, churches, etc.

Our regular furnace heats with separate pipes and registers, and will distribute heat to a larger number of rooms than the pipeless.

Tell us your needs. We sell direct from **factory to consumer**, and can save you money, no matter where you are. We sell on easy payments also, if desired.

Hess Warming & Ventilating Co., 1217 Tacoma Building, **Chicago, Ill.**

HESS Electric Family Dish Washers save time, hands and dishes.

Do business with our advertisers, they make good.

tributed in the United States and that it may be necessary to forbid the importation into the United States of all species and varieties known to be carriers of this dangerous pine disease.

White pine is too valuable an asset of the country to allow it to be subjected to such devastation as has followed the chestnut, if government intervention can prevent it.

Wood May Become a Food Substitute.

According to London dispatches, German scientists have been carrying on experiments to determine food values not now in use. The experiments show food properties in wood pulp; fat oil and albumen in abundance in the branches of lime trees. The scientist states that "by boiling wood with dilute acids, including organic acids such as lactic acid, a more perfect separation of cellulose parts is induced and the whole mass becomes appetizing and highly nutritious."

* * *

A prominent western shingle manufacturer believes that the secret of making shingle roofs everlasting lies in the liberal use of oil. It will prevent the shingle from rotting the nails and the nails from rotting the shingles, and it is an excellent preservative for the shingles as well.

Woods Suitable for Flooring.

J. W. Y. We would like to get a list of all the woods suitable for flooring where rugs, not carpets, are to be used; and the woods best adapted for woodwork on which wax can be satisfactorily used as a finish, together with a few descriptive points about each of these kinds of woods, whether it is "figured," etc.

Ans. Manufacturers offer end matched, polished hardwood flooring made of four kinds of wood: oak, birch, maple and beech. The two commercial varieties of oak, white oak and red oak, are available. There is considerable variation in the character of either variety, due to the fact that there are many kinds of "white oak" and "red oak."

Oak Floors: Oak is one of the most popular of all woods, either for floors or for finish. It has a very handsome grain especially when quarter sawed. It makes

a very durable as well as a beautiful floor. As it is an open grained wood a filler is used before finishing. White oak is more durable than red oak.

Maple flooring has long been preferred by the building trade for all manner of business structures, such as office buildings, skating rinks, hotels, clubs, schools, churches, libraries, apartment houses, department stores and similar buildings, because of its superior wearing qualities. In late years attention has been given to the decorative value of maple floors for residence use. The wood when properly finished shows considerable variation in color; sufficient to satisfy the most exacting, and develops an attractive golden color.

Birch Floors: The beauty and uses of birch as a finish wood are well known. Birch makes an admirable floor for residence work. The wood takes stain better than almost any other hardwood and is one of the best woods for all interior work. Birch floors may be given almost any color desired.

Beech Floors: Beech is very similar to birch and will take similar treatment.

For the northern portions of the country it would seem that nature had provided these dense, durable woods, giving them attractive light color, to offset the long dreary winter days.

All woods darken or "color" when exposed to the light, even though protected by wax or varnish. Lovers of this will endeavor in every way to conserve the natural beauty of wood employed for floors or trim. For that reason colored fillers and stains should be used sparingly.

Edge-grain on quarter sawed yellow pine and Douglas fir flooring are also used in the same way as hardwood flooring. Cypress is sometimes used, especially for work more or less exposed to the weather. These softer woods are also used for the finish in many of the less expensive houses.

The "figure" in most woods depends on the way the grain is cut, in sawing the lumber. Slash or flat grain lumber generally shows more "figure" but is not suitable for floors, vertical grained floors being less liable to splinter.

Furnace

Comfort and Retail Stove Cost

WRITE at once for low factory price on the Kalamazoo Pipeless Furnace.

One register—no pipes to fit except smoke pipe. Save big money in buying—save work in setting up furnace—save fuel—yet heat every room. Simple—economical—top-notch quality throughout. Write for offer on



Free Plans

For Pipe Furnace
If you want a pipe furnace, we shall be glad to draw up plans FREE and quote prices. Write for catalog.

Free Trial—Cash or Easy Payments

Set it up in your basement. Easy as setting up a big stove. Do it in a jiffy—no experience needed. We pay freight and ship within 24 hours. \$100,000 money-back guaranty.

Write today and ask for Pipeless Furnace Catalog No. 1006.

KALAMAZOO STOVE CO., Mfrs.

Kalamazoo, Mich.

300,000 families using Kalamazoo Stoves, Ranges, Gas Stoves, Furnaces, White Enameled Metal Kitchen Cabinets and Tables. 4 catalogs—say which you want.



"A Kalamazoo"
Trade Mark Registered **Direct to You**

Building the House

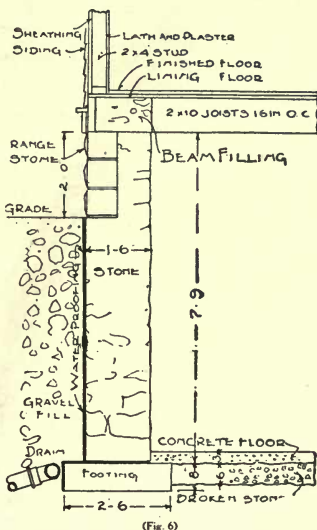
A Handbook Every Home-Builder Should Have

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition just off the press

Price \$1.00



SECTION THROUGH BASEMENT WALL

Published by

M. L. KEITH, McKnight Bldg., Minneapolis

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, moldings, porchwork, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement machinery and interior woodwork—ALL AT WHOLESALE PRICES DIRECT TO YOU.

Don't plan to build, repair or overhaul until you see these two great books. Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

CHICAGO MILLWORK
SUPPLY CO.
1421 W. 37th St.
Chicago, Ill.

Books
Are Free

Catalog of 8000 Price Bargains

Beautifully Illustrated PLAN BOOK



Material Complete for Houses from \$375.00 up

SPLINTERS AND SHAVINGS

In Case of Fire.



LITTLE forethought is somewhat like the ounce of prevention, which is so much more valuable than the pound of cure, if it is available at the crucial moment. To the householder who has no near neighbors, the too-common tragedy, if it comes must often be met alone; there is no time for consultation. Here is some advice and warning given by Helen R. Albee in the *House Beautiful* which may help one to prepare for such an emergency.

A Decision on the Instant.

"When a fire is discovered you must decide instantly whether you can fight it successfully or not. Unless you have plenty of help and water at hand, take no chances. If it is under way to any degree do not waste a moment in futile effort, but begin at once to save what you prize most. Remember that flames, even if started in a separate building, spread with incredible rapidity in frame houses, and leap across spaces. This I learned to my bitter cost in a recent fire which started in a detached barn, then swept across a wide space to the main buildings, and swiftly ate its way through a house of eighty foot frontage; in less than two hours not a vestige of my home remained—only a few charred beams and a waste of ashes. Impress this fact upon your mind and be prepared to act instantly."

Close Doors and Windows.

"First of all close every window and all doors between connecting rooms. This is imperative, as it pens up the fire and delays its spread."

Get Tubs, Baskets, Sheets and a Broom.

"Do not fail to gather up tubs, baskets, or other large receptacles which will hold many armloads, and save trips. Be sure to get brooms, for they may be necessary later. Begin to dismantle the room nearest the fire; use force where articles resist; tear them down, take them bodily; When a receptacle is full take it at least

twenty feet from the house and dump the contents on the ground, if possible on sheets spread out to hold them. Chests of drawers and heavy pieces of furniture cannot be moved rapidly; leave them until later; but take out any drawers packed with linen or silver, and carry them out. Fill pillow cases with books and small articles, but not crockery—that should be placed in tubs. (I failed at this point and lost a most valuable collection of old blue china and glassware for want of tubs that had been overlooked.) Bulky things like pillows, blankets and bed linen can be thrown out of windows. If possible drop a mattress over a balcony upon which chairs and small pieces of furniture can be lowered without much injury if held so as to fall straight down. Spread sheets and counterpanes on the floor to receive the contents of drawers and closets; but be sure to tie the corners of sheets together, else the contents will drop out and be left behind, or be strewn on the lawn and burned by falling cinders. Work as long as you can on the upper floors, keeping ever in mind your means of escape. If you find yourself cut off from a staircase, do not lose your head. Tear up sheets or counterpanes, tie the strips together, and fasten to the bed, and lower yourself down from a window. But you should take no such risk. It wastes time that should be used elsewhere.

"As you leave each room be sure to close the door behind you; this precaution may give you fifteen minutes extra time. When working in upper rooms station some one outside to drag away what is thrown out of windows; this saves needless trips up and down stairs. If you take a mirror or a clock, see that it is placed in safety before you leave it.

"Under excitement one does strange things and fails to do the most important; but make a great effort to keep as clear a head as possible; much depends upon your judgment. Do not try to grab at any and everything; estimate quickly relative values; choose necessary things rather

Special Subjects

Published in
KEITH'S in
1915

As long
as the file
lasts,
any single
number will
be furnished
at the
single copy
price, 20c
or three
copies for
50c

SUBJECT	Month
Investment Value of Forty-Foot Lot	December
Planning the Fireside Corner	"
A Complete Kitchen	"
Our Experience in Remodeling	"
The Ranch House	November
A Woman's Workshop—The Kitchen	"
Treatment of the Narrow Lot	"
Building Two-Family Houses	October
Home Building in California	"
Colonial Entrances	September
Willow Furniture	"
A Dutch Colonial House	August
The Breakfast Room	"
English Domestic Architecture	"
Use of the Pergola	"
Landscaping the Corner Lot	"
Remodeling a Country House	July
Bungalow Furnishings	"
Planning the Music Room	"
Rustic Fences and Gates	"
Furnishing with Willow	June
The Attic Bedroom	"
The California Bungalow	"
Planting Plan for a Forty-Foot Lot	"
Brick Colonial Homes	May
Arranging the Furniture	"
Picturesque Porches and Seats	"
Planting Scheme for Double Grounds	"
Everything About Bungalows	April
Remodeling An Old House	March
Fixing the Mantel	"
A Little House That Solved a Big Problem	"
Planting Plan for a Fifty-Foot Lot	"
The Newer Domestic Architecture	February
Sofas and How to Use Them	"
Decorative Wall Paneling	January
The Farmer's Cottage	"
A Talk on Woods—Oak	"

Send Orders to **M. L. KEITH, McKnight Building, Minneapolis, Minn.**

**IXL ROCK
MAPLE, BIRCH
AND BEECH
FLOORING**



"The Finest Milled
Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

**Wisconsin Land & Lumber Co.
Hermansville, Mich.**

HESS MEDICINE SANITARY CABINET LOCKER



The Recessed Steel
Medicine Cabinet

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

**HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free**

You will find "Keith's" Advertisers perfectly responsible.

"You Build for a Life-

KEITH'S BIG OFFER

A Year's Subscription to "KEITH'S" with a Copy

Your Choice

FOR
\$2.

Vol. 1.	140 Bungalows and Cottages . .	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D-1321 from "KEITH'S"



Design D-1309 from "KEITH'S"

What You Get

From 250 to 300

DESIGNS

by leading architects

From 75 to 100

Practical Articles

on timely subjects of
Home-Building

Decorative Schemes for
Your New Home

Many Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,
Editor and Proprietor

Time---Do It *RIGHT*"

To The Homebuilder!

of the Big April Bungalow Number EXTRA and

of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" A POCKET HANDBOOK ON CONSTRUCTION	1.00
" 11.	40 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (\$3000 and Up)	.50

FOR

\$2.

for Two Dollars

12 Big House Building Numbers
of KEITH'S MAGAZINE, in-
cluding a copy of our recent
100-page

Special Bungalow Number

containing 25 plans of attractive
bungalows and authoritative
articles on bungalow building.

The service of our architectural
and designing departments in
in answering questions on con-
struction, design, interior plan-
ning, beautifying the grounds or
any subject pertaining to the in-
terests of home-building.



Design D-1305 from "KEITH'S"



Design D-1315 from "KEITH'S"

828 McKnight Bldg.
Minneapolis, Minn.

than costly ones. Clothing and flannels come first; blankets, linen, and bedding next; then silver and money on hand, and certainly medicines if there is an invalid in the home. Put medicines or bottles in a waste basket; otherwise corks may fall out and the contents run over articles near them. Try if possible to keep various parts of things together. One may as well lose an article as to leave some necessary portion behind."

Preparedness.

There is a distinct difference between "hunting for trouble," picturing possible disaster as a "worry center" and calmly giving a thought to preparedness in case of fire.

"In view of my own sudden eviction without a moment's warning, I can see the necessity of every householder's re-viewing his possessions and deciding what is most prized if he had to choose under pressure. Not only choose beforehand, but keep your valuables in such shape and of such easy access that they can be gathered up quickly. You will have no time to search for treasures, and remember that with a locked trunk heavily packed the chances are that trunk and all will be lost.

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure. Fifth edition "HOMES, not HOUSES," 123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

**BUY YOUR FURNACE
\$10 DOWN \$10 A MONTH**



Our monthly payment plan of selling direct saves you the dealer's profits and charges for installation. The

JAHANT FURNACE

with the patented "Down Draft System" is best for residences, schools, hotels, churches, etc., because it delivers plenty of heat wherever and whenever desired at a saving of one-third to one-half in fuel bills. Install the Jahant yourself. We send complete outfit, freight prepaid with special plans, detailed instructions and all necessary tools for installation. Satisfaction guaranteed or money refunded.

WRITE FOR FREE ILLUSTRATED BOOK

The Jahant Heating Co., 100 Steiner Ave.
Akron, Ohio

Save $\frac{1}{3}$ to $\frac{1}{2}$ on Fuel Bills

Insurance.

"I hope you have been insured in some reliable company, and that long ago you have made an inventory in duplicate of your effects, and that a duplicate copy has been placed in safe keeping. Companies demand proof of loss, and it is not easy to furnish from memory an accurate inventory after such a shock.

Inventory of Your Belongings.

An inventory of the attic or store room is an excellent thing in any case, especially if accompanied by a note locating the piece. Such lists tacked on cupboard doors and drawers are invaluable.

If you have no such list after a fire "begin one at once as soon as you find shelter, adding every item as you recall your losses. Have it ready when the adjuster comes. Also make a list of salvage, for insurance companies demand both. Do not pack up your goods in boxes or barrels until the adjuster sees what you have saved. If an article is damaged, call his attention to it. My experience was that many things that I thought were in good condition were found on examination to be ruined; for example, two small holes in a velvet coat made a whole suit unavailable. Be perfectly frank and straightforward; it pays. Do not run up the value of goods lost, and cut on things saved. Companies are accustomed to general averages, and can quickly detect inequalities."

Why She Didn't Sleep.

They gave the lady the only unoccupied room in the hotel—one with a private bath adjoining. The next morning when the guest was ready to leave, the clerk asked: "Well, did you have a good night's rest, madam?"

"No, I didn't," rejoined the lady, emphatically. "I was afraid some one would want to take a bath, and the only way to it was through my room."

Speaking of splinters, if you get a splinter of wood in your hand always take it out immediately. Some kinds of wood are especially poisonous in some people. California red wood is mentioned as one of these. It is far more economical in the long run for a man to dig out a splinter than to have him favoring a sore hand for four or five days.

KEITH'S MAGAZINE

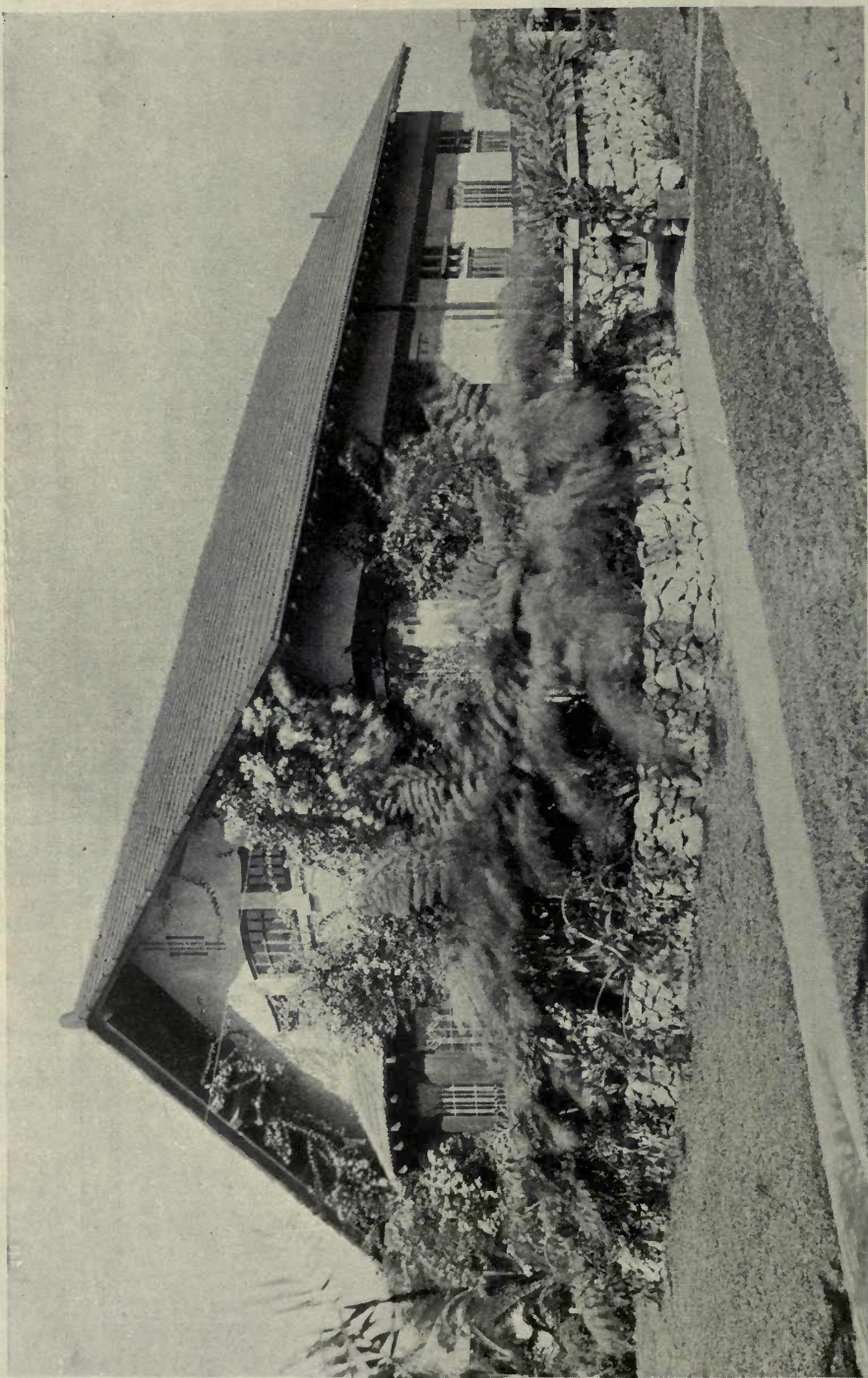
ON HOME BUILDING

CONTENTS FOR APRIL, 1916

Just a Word	238
Concrete Bungalows in Porto Rico— <i>Earl K. Burton</i>	241
"Rain-on-the-Roof"—A Summer Bungalow— <i>Marion Alice Parker</i>	247
The Bungalow Fireplace— <i>Anthony Woodruff</i>	250
The Adaptability of the Bungalow— <i>Kate Randall</i>	253
The Bungalow Kitchen with a Breakfast Alcove— <i>Edith M. Jones</i>	256
The Bungalow Dining Room— <i>Charles Alma Byers</i>	259
Soil Tilth for the Bungalow Garden— <i>M. Roberts Conover</i>	263
Building a Bungalow— <i>A. R. Rollins</i>	265
Variety of Design in Bungalow Building	268
What Is a Genuine Bungalow?	273
A Group of Northern Bungalows	276
Some Practical Bungalows	280
Modern Stucco Bungalows	284
A Unique Bungalow	287
A Snug Little Bungalow	288
Homes of Individuality	289

DEPARTMENTS

Inside the House—	
Decoration and Furnishing	292
Answers to Questions on Interior Decoration	298
Household Economics	304
Table Chat	308
Building Material and Notes on Heating, Lighting and Plumbing	312
Woods and How to Use Them	224
Legislation	322
Splinters and Shavings	326
New Booklets and Trade Notes	330



A Porto Rican Bungalow.

KEITH'S MAGAZINE

VOL. XXXV

APRIL, 1916

No. 4

Concrete Bungalows in Porto Rico

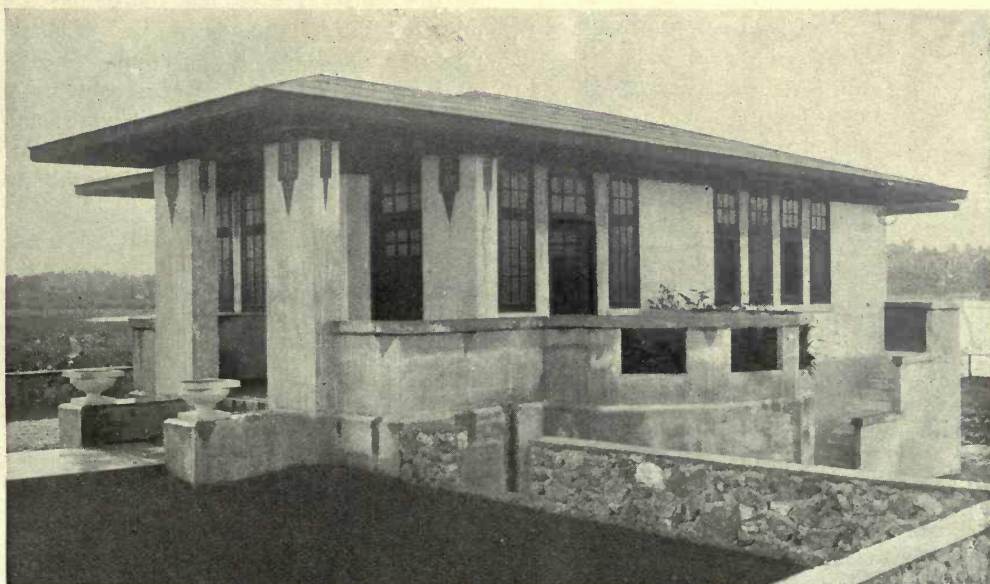
Earl K. Burton

Those who know something of Spanish architecture and who are familiar with the Spanish building of Mexico and California during the Mission period will be interested in modern work in Porto Rico, dominated as it is by Spanish feeling. Though the work is similar to American treatment, a wider and altogether logical use of tile may be noted. The Spanish architect and the Spanish people have long been familiar with the use and the possibilities of a plastic building material and are accustomed to its use as an architectural material. They take advantage of their peculiar environ-

ment and build small bungalows with a four-inch reinforced wall, which would not be possible with larger houses and in a more strenuous climate. It is also to be noted that they reinforce their footings and ten-inch footing walls.



SINCE the inauguration of reinforced concrete residences of the bungalow type in Porto Rico some five years ago, they have gained much favor among Porto Ricans and American residents of the island. This type, which is exemplified in the accompanying illustrations, is the stand-



Faience tile panels are inserted in the outside walls.



A bungalow at El Condado.

called "raft" foundation. A footing wall 10" thick extends from the footing to the floor line and is offset here to form a belt course around the building on the

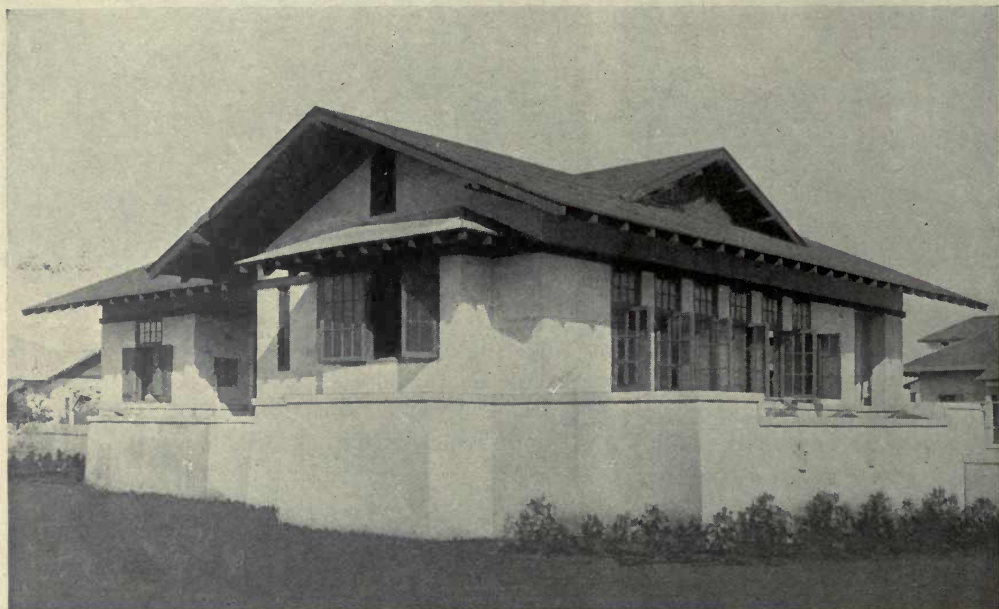
outside and a bearing for the floor joists on the inside. For one-story structures the wall above the floor has been constructed of reinforced concrete 4" thick



The tile inset and a larger house.

or of metal lath and plaster on studs. In the latter, the wall is 6" thick. The footing and footing wall concrete is mixed in the proportions of 1:3:6, using American brands of Portland cement, river sand, if possible, but usually sea sand, and broken stone (a blue trap-rock of excellent quality), ranging in size from $\frac{1}{2}$ " to 1". The footing and footing wall are poured monolithic around the entire building and the former is reinforced with

are the hard trap-rock mentioned above and range in size from $\frac{1}{4}$ " to the smallest particle. This mixture gives a very smooth wall and little additional work is necessary after the removal of the forms. While such a wall is durable, yet its compressive strength is rather low, but experience has shown that it is amply strong to support a roof of ordinary wood construction, the type which is ordinarily used. As an added factor of



The windows are an important factor.

from three to five $\frac{3}{4}$ -in. bars longitudinally and $\frac{1}{2}$ -in. bars transversely, spaced 24 inches. The footing wall is reinforced with $\frac{1}{2}$ -in. bars spaced 12" horizontally and 24" vertically. The 4-in. concrete wall has the same reinforcement as the footing wall. Four inches may appear thin for a wall supporting a roof and it would seem that it would be hard to pour so as to obtain a smooth surface and to eliminate the "honeycombs." The latter objection is overcome by the use of a mixture of Portland cement and screenings mixed 1:5. The screenings

safety, and to prevent cracks that have occasionally appeared in the 4-inch walls, specifications that call for a solid concrete wall have been changed to a 6-in. wall.

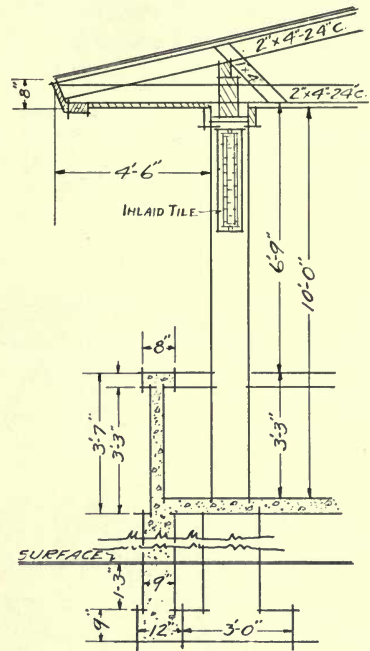
The chief advantage of the use of screenings is the pleasing texture of the finished surface.

The concrete is mixed by hand to a wet consistency and the wall is poured in courses 3' high around the entire outside. The forms are removed 24 hours after pouring the concrete and the wall, while still "green," is rubbed down with a wooden float. In this way the rough

spots are eliminated without discoloring the surface. For such a thin wall special care is exercised in placing and bracing the forms to keep them true and plumb.

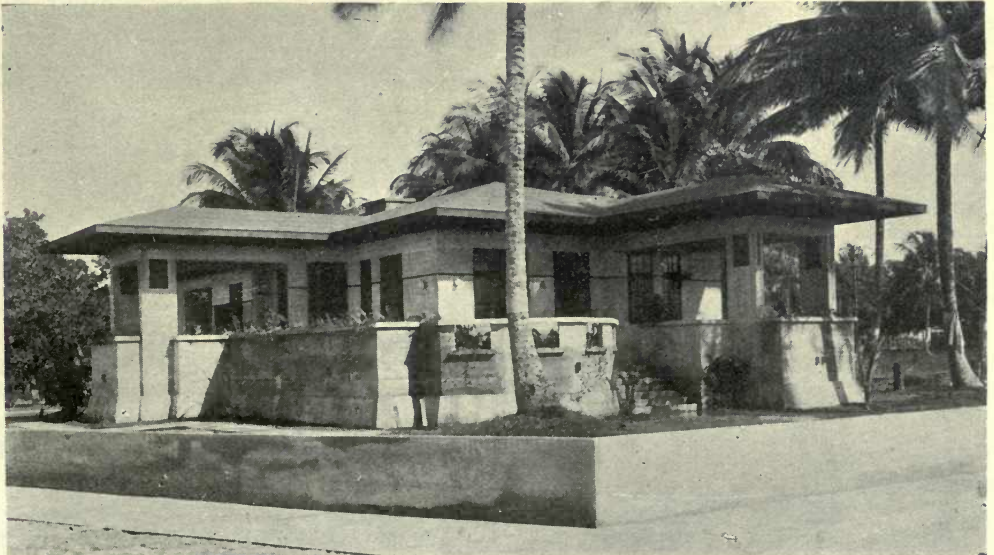
Tile floors are laid on a concrete base over well packed earth fill. The floors of the bath room and of the kitchen are generally of tile and concrete respectively. The top surface of all concrete floors is treated with a hardener to prevent wearing and dusting.

All interior partitions are constructed of a metal ribbed wire mesh, plastered both sides, except where a center support is necessary for the roof joists, in which case the center longitudinal wall is of solid concrete. The partitions are 3" thick and are laid directly upon the wood floor, the floor joists being doubled under the partition. They are reinforced at the corners and at the sides and the top of door openings with 1½-in. structural channels vertically, and ¼-in. round rods, attached to the ribbed wire mesh, horizontally. The mortar applied to these partitions consists of 1 part of Portland cement, 3 parts of sand and a small



amount of lime, usually 10 per cent of the cement. Interior walls are plastered.

All concrete and plaster are water-proofed with an integral waterproofing, as well as all concrete floors that are laid on the ground.



The modern reinforced concrete dwelling is in marked contrast to the older type.

The roofing material used depends upon the fancy of the owner and is of asphaltic paper, metal tile, Spanish clay or vitrified tile.

The tendency of the Porto Rican is toward rather bright colors, and panels of faience tile are inserted in certain parts of the outside wall, usually on the sides of columns and at the lower corners of

is no sewerage system. Sanitation, therefore, requires that each residence must dispose of its sewage. The system consists of two tanks placed well under ground, one of them constructed of concrete and practically air-tight. The second tank is constructed of loose stones through which the sewage water percolates. The solids are retained in the first



The composition of the concrete gives a pleasing texture to the finished surface.

windows. The windows are a very important factor in these dwellings, as it is imperative to obtain the maximum ventilation and, on the other hand, not admit too much sunlight. As before mentioned, this is ordinarily accomplished by the use of shutter windows. These windows are also generally placed in groups so that when they are open the room will practically be converted into a veranda.

These residences contain nearly all of the conveniences of a modern suburban American home, such as water service, electricity, gas, etc. However, except in the business district of San Juan, there

tank and the fluid is drained into the second, where it seeps out through the ground. The air-tight tank will require cleaning about once a year and the outlet tank, if constructed properly, will never require any attention.

These dwellings were designed by Mr. Antonin Nechodoma, architect, of San Juan.

The accompanying illustrations and the description of the work by Mr. Burton, resident engineer in San Juan, Porto Rico, are given through the courtesy of Concrete Cement Age. They show the Porto Rican Bungalow, and how it differs from its American prototype.

"Rain-on-the-Roof"

A Summer Bungalow

Marion Alice Parker



AVE you ever lain under the flat roof of a summer cottage and heard the rain of a summer shower descend like a torrent just over your head; then as the storm passed on heard the pitter-patter, pitter-patter of the rain drops and finally, like the refrain of a lullaby, the tinkle, tinkle of one drop after another as they fell into the rain barrel?

That was how the name, Rain-on-the-Roof came to the cottage.

It started out by being a "shack" on a little oasis made by a knoll of oak trees, surrounded on two sides by swampy land. It was far within the city limits of the growing western city, but the swamp kept the streets from being "cut thru,"

so the neighbors stayed on the other side of the swamp and after you had wound your way over the little woodsy path to reach the place you felt far from the maddening city throng.

At first it was a big room with a screened porch in front and with tar paper and warm fires it sheltered through a winter or two the young couple who were dreaming of and gradually bringing to reality the real house next door. When that was finally ready to be occupied the "shack" was deserted and then came the tired business woman who saw in it such a fine place to rest and withal such an easy place to reach after the rush and worry of a busy summer's day work. Then it was that the shack became trans-



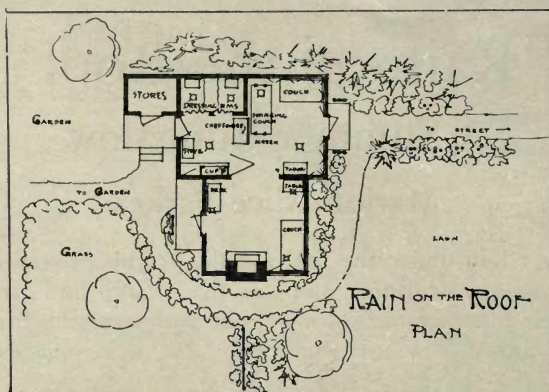
"Rain-on-the-Roof."

formed, another room with a fireplace made it roomier and provided for a bit of heat on early fall mornings or rainy summer evenings.

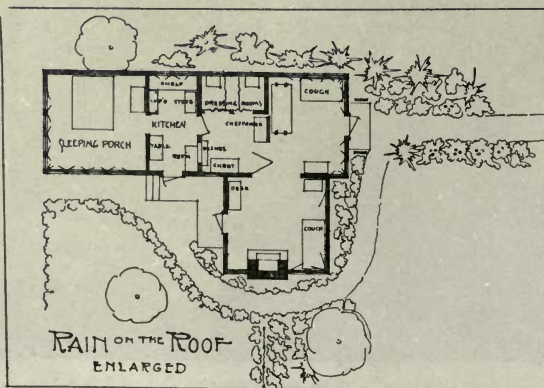
The screened porch was fitted with casement windows, a hanging couch was placed, books tucked on shelves where they could be put, a few of the treasures of the city home put on a mantel shelf and writing desk, and one could settle down.

The two rooms were parlor, porch, dining room, kitchen and sleeping rooms. The big double door, when it was turned back, made a screen for the kitchen corner, three feet of board partition and some curtains with the judicious placing of a chiffonier make a roomy dressing room and hanging space.

A little triangular space where the two roofs joined made an attic which really could store many things.



A walk bordered with blooming things.



The bedding was in the chest under the hanging couch and you do not need many dishes if you plan to live simply.

As time went on the demand for entertaining was so constant—for if you came to the

place once the charm was sure to lure you again—that another roomy sleeping porch was added and the lean-to shed turned into a roomier kitchen and now the place could take care of four or five persons easily. Unless you have tried it you can not imagine how tightly, yet how conveniently, you can live in such a place.

It was such a low squatty little house and the roof so low

that if you were a very tall person you ducked your head or took off your hat when you entered the doorway. But within, the roof boards were the ceiling and the slope was just enough to be pleasing within

and useful without. Tar paper made a serviceable roof.

It had its own individuality—this little house—as every house as well as every person should.

One of its charms was being able to see how it was put together, for it was all of wood and simple in its construction. The studs were set flatwise with the boards outside and the panels made by the window panes, fireplace, and corners given a finished look by a square moulding run around in each panel. Then all, roof, floor and walls, were stained a warm red-brown and the outside as well.

The big double door was just a wide batten door of (3½) three and one-half inch stuff and in the outside doors the screen of the panel could have a glass frame buttoned behind it, but in summer weather a curtain was enough.

The curtains were not made to fit each window though in several parts, but were made with wide hems with a wire the full length of the window openings run through at top and bottom. One window or all could thus be shielded. The making of these curtains is a story in itself for can you see the triangles and circles and squares that were put on any old place? They are



A shelf for books over the fireplace.

just scraps of bright colored silk which relieve the monotony of life and of these intense blue curtains in particular. The couch covers are common white bedspreads also dyed this same intense blue, which color also you find in the larkspur growing by the path to the door.

The book shelves, the china shelves, and the kitchen shelves are all part of an old plain bookcase which was cut up both horizontally

and vertically and then placed right side up or upside down as the case might demand. The china shelves were placed in the wall so that they were available from the kitchen side or the other room side if the meals were served in there. One of the charms of the place was that



The sleeping porch.

if it was cool you ate in front of the fireplace, if warm where you saw the flowers nodding at you through open doors, or if you were quite lazy, on the kitchen table.

Electric contrivances made easy house-keeping and an electric wire can follow you across a swamp even if a water main can not. But if you have your house low to the ground and then depend on a rain barrel for a large amount of your water, it only brings you closer to nature, as the lady says.

And though the little nest is charming in itself, a haven to the weary in its peace and quietness, its real every-day-in-

the-summer interest is the garden and the growing things all about.

If you own your own front door you can have a walk up to it bordered with blooming things for every month of the summer and a small patch of earth can supply you with fresh lettuce for your salad and other vegetables which are never so good as when just picked. Then if you border your garden plot with sweet smelling flowers you can open your casement windows in a little low house like this and let the wind waft in to you sweet smells which make you enjoy warm summer days as well as summer showers in Rain-on-the-Roof.

The Bungalow Fireplace

Anthony Woodruff

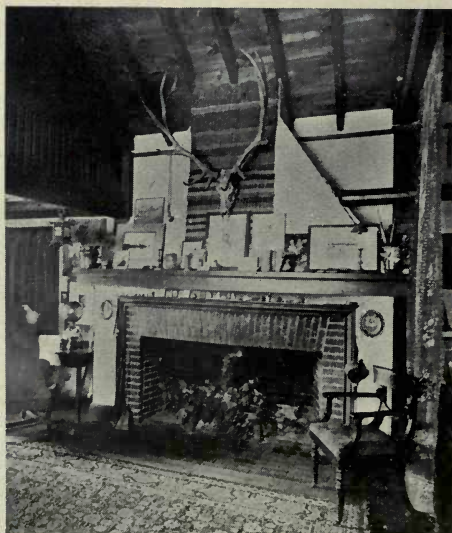


HE cheer of the open fire is a pleasure in itself. The

The soft crackle of burning logs appeals to a primitive instinct and gives forth a pervading sense of pleasure and of comfort. So strong is this sense, even in our furnace heated civilization, that no house is quite complete, the installed heating plant notwithstanding, unless there are one or two

fireplaces in the house. In the cool days of spring and autumn we crave the cheer as well as the warmth of the open fire, even if it is supplied by a gas log.

With the bungalow, perhaps more than in other types of homes, the fireplace is



Fireplace with a balcony overlooking it.

instinctively made the key to the interior treatment. Its generous breadth of chimney breast sets the scale, whose simple treatment requires an equal simplicity in other details of the room. The materials used in the fireplace fix the color scheme for the finishing and furnishing of the room.

A chief merit of the bungalow, and one which is an underlying element of

its popularity, is its simplicity. In the early stages of its development this simplicity was often exaggerated into a crudeness not in keeping with other general conditions, but which made it especially adaptable to summer lodges, hunt-

ing camps and lake and seaside life. Later development allows the greatest refinement in the details. It is not uncommon to find the bungalow with Colonial details, not only for the exterior but for the interior finish of the rooms.

In the first illustration shown the living room extends up under the rafters, with a balcony which arouses one's interest. The plaster of the chimney breast relieves the dark finish of the woodwork, with a touch of color in the brick around the fireplace opening, which is outlined by a simple moulding. The chimney breast carries the lines of the flue as it is drawn to the center, while the heavy wood shelf is in keeping with the other woodwork of the room.

"At Journey's End" is also ceiled by the rafter boards, with exposed roof trusses. The fire place is built of native boulders, with a metal hood. Boulders have great possibilities in the way of color, and the varying form and size often gives an irregularity which is very pleasing in effect, especially for the less formal types of building. For that reason a boulder fireplace is so often found in a bungalow.



"At Journey's End."

Split boulders give charming color effects and variety in the shape and size of the stone while giving a flush surface to the chimney breast, which adapts itself to the more usual interior finish.

The brick fireplace is always popular as it lends itself to all sorts of conditions. The variety of surface and of color is practically inexhaustible. It is a material which is always easy to obtain and convenient to handle, yet is adaptable to practically any form of design. The brick fireplace here shown is of the simplest type. It has ample shelf room and is in keeping with the open construction of the interior, but would



The brick fireplace is always popular.

be equally in keeping with a plastered finish, especially if one wished the deep shelf space; otherwise the wide chimney breast could be carried to the ceiling.

The Colonial fireplace finds admirers everywhere and it has become quite at home in the bungalow, taking with it the simple white treatment used so generally in the early days. The white fireplace here shown is very restful and attractive. It seems to carry one back to childish visits to "grandfather's" at Christmas or Thanksgiving time. The simple lines of the mouldings relieve the severity of the design.

Have you ever longed for an outdoor fireplace, where as the leaves begin to



An outdoor fireplace.

color in the autumn and the air carries the thought of frost you can sit out in nature's great art gallery and, in comfort, feast your eyes on the panorama? Or in the first warm days of spring when everything is aglow with life? Or in the exhilarating chill of frost and snow? The outdoor fireplace can give this to you. It would be charming with a rustic pergola and vines about it, giving a little protection from sun and wind. For the veranda of the summer

resort which is open late and early, or even for the city roof garden it is unique.

When people get to the "shut in day" nothing stays with them more persistently than such a reminiscence.



A white fireplace.

The Adaptability of the Bungalow

Kate Randall

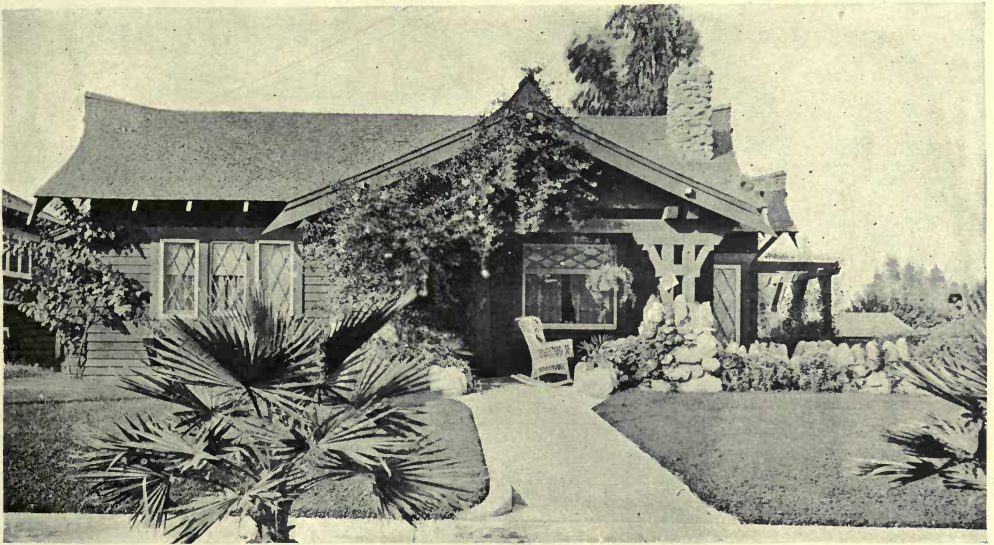


HE small house, whether we call it a bungalow, or simply a cottage, is always in demand and any new ideas always welcome. For the young housekeeper, who has no maid, for an old couple, or for ladies alone, these small houses are ideal.

of house could be so adaptable. The houses illustrated are among the newest examples of these popular homes.

The first bungalow shown is particularly attractive in the quaint Japanese swing of its roof and the good stone work.

The rough siding is stained a dark



The Japanese swing of the roof.

They are exceedingly deceptive, and though seemingly small, they may spread and spread around a green court; have doors of glass and windows so wide, that one practically lives in his garden, and sleeps with the birds. If one has had a long dream of jasmine and orange trees, in a garden of roses, about the home he hoped to have, or if one thinks more of firs and pines and big fires, a bungalow exactly fitted for the place can be furnished at once. Certainly no other style

green with white trimmings. The interior is very simple, the living and dining rooms are furnished alike—as they open together—in a soft leather brown, the woodwork with an oil stain and the rough plaster, above the plate rail, is tinted, but below the rail burlap is used, the natural shade being tinted at the same time as the walls. The fireplace, like the chimney, is of boulders, with a high shelf of wood. Gay chintz hangings make these rooms very home-like.



One of the newer bungalows.

The woodwork in all the other rooms is white, the walls of kitchen and bath painted a light blue, and the bedrooms papered with pretty flowered papers. One wall of the rear bedroom is almost entirely of glass. A large glass door and wide windows open on a charming little garden.

In the second bungalow the shingled siding is simply oiled. The chimney, all on the exterior, is plastered. Inside it is flush with the walls and is finished in dull green tiles about eight inches square and the wide hearth is of the same tiles. The woodwork is as flat as possible and in the living and dining rooms is stained chestnut, with a trace of green rub-

bed in, this tint of green appearing again in the draperies and wall paper. The kitchen and bath are tiled to the height of five feet. The kitchen range stands back in a little alcove. Over it a hood is built which carries off all the fumes of

the cooking. Across the whole end of the bathroom there is a bay about two feet deep. This is filled with a toilet table, with drawers to the floor. The wall at the back is half filled with a mirror and casement windows on each side, and again at right angles to these windows are small ones, the depth of the bay. The effect is very good. The same "little bay" idea is used in the china closet for drawers and bins and again



The slope of the hillside.

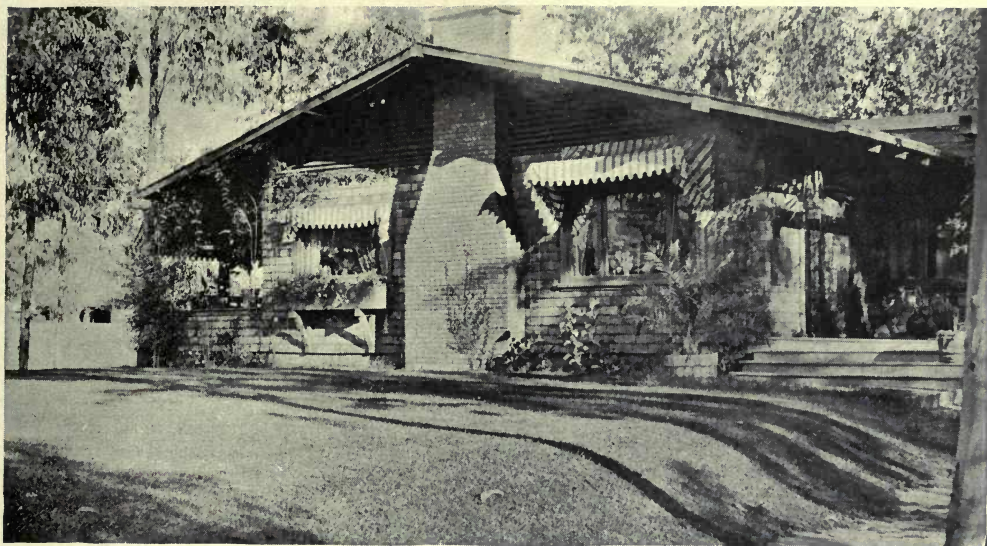
in the dining room for the built-in side-board.

The peculiar sloping lot on which the third bungalow is built, makes it almost the most attractive of all. The steep hillside has been very cleverly utilized, and the bedrooms, which are really on the first floor, are practically second story

ination of bungalow, drives and hillside and trees is quite charming.

The last photograph shows the side view of a similar bungalow.

There is a door from the kitchen on to the large side porch, which is used, in summer, as a living room and for informal summer gatherings, and the door is



Almost a bungalow type.

rooms, a great comfort to timid people.

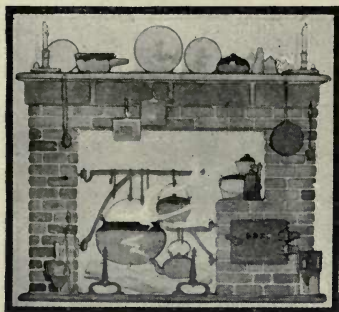
A drive winds down the hill one each side of the house, and the high basement is utilized as a garage. Above this is a wonderfully airy living porch, and still higher, above this porch, there is a sleeping porch, among the very tops of the hillside trees. A small dressing room connects with this sleeping porch, the only room on the second floor. The com-

a great convenience in serving. The whole interior is a scheme in gray, silvery tinted woodwork, and gray papers, only the gay chintzes giving color and life to the different rooms. One is a tangle of wild roses, while another has wistaria flowers and strange purple birds. The living room is more subdued, the draperies being of East India cottons in dull shades of red and blue.

Holes in the Lawn.

Fill in the holes in the lawn in April with good mellow loam if you want it to appear well in the summer. Then seed it over as you would for a new lawn. Scratch the entire surface of the grass with a sharp steel rake and scatter seed lightly if the grass is sparse. Top dress with a suitable fertilizer.

Immediately after sowing the seed roll the entire lawn with a heavy roller. Go over the ground just once. After this the lawn should be gone over about twice a week. If there are any plantains, dandelions or daisies in the plot, dig them out now.—*F. H. Sweet.*



THE KITCHEN



The Bungalow Kitchen with a Breakfast Alcove

Edith M. Jones

(Copyright, 1916, by Edith M. Jones)



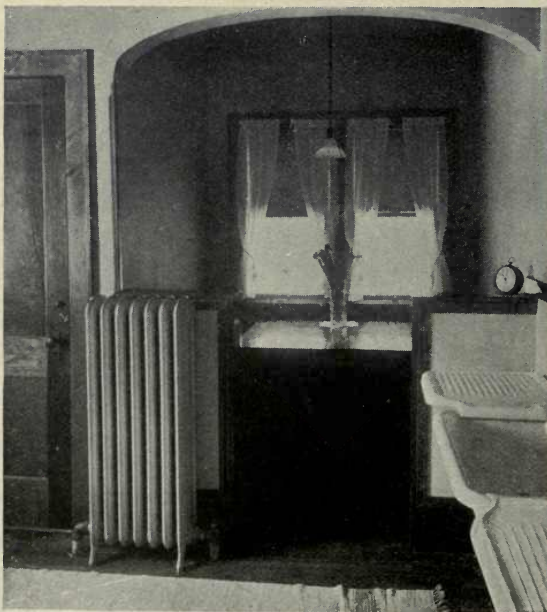
HE bungalow has come to fill a long felt need. Its compactness makes an especial appeal to the busy housekeeper.

Modern conveniences and a call for greater simplicity along other lines have indeed done much to lessen the work in the home. We all know it requires a well-rounded system to keep up every part of a well-kept home—but women are learning that house-keeping, like every other line of business, yields returns in proportion to its systematic management. It has not been the work itself so much as the ceaseless useless, unrelated, time - absorbing

activities which have shut women up in their homes and made house work seem so hard and monotonous. But at last the modern watchword "efficiency" has invaded home architecture and the compact bungalow type has come to eliminate their many useless steps. The progress-

ive women of today are finding there is a way to carry on the home and have outside interests as well.

As the main part of the household tasks have to be performed in the kitchen, it is obvious that every daily step saved in this part of the home saves untold energy through a lifetime of occupation in domestic duty.



A cozy alcove off the kitchen.

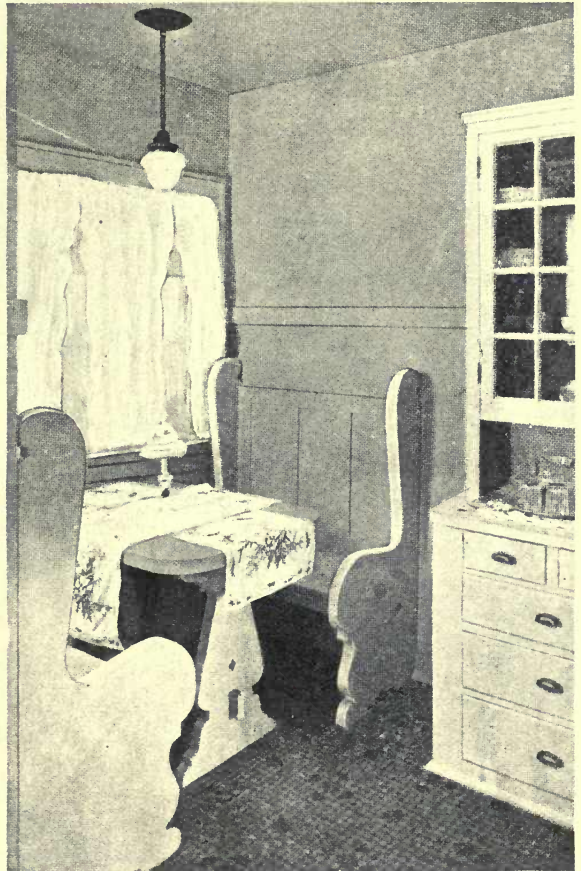
The English custom of a breakfast room has always been an attractive one. This informal morning meal seems far more comfortable in the snugness and warmth of a small room rather than the formal dining room of greater pretension. The bungalow, however, rarely affords enough space for this extra room but this cozy, sunny, little alcove off the kitchen has come in its place. The "breakfast nook" is just the thing to save steps and at the same time insure prompt service in the usual morning hustle.

I have always been very much opposed to the careless serving of any meal. I think nothing is more destructive to the table manners and conversation of the family than a meal served on the kitchen table with all the confusion and odors of the preparation of the meal. But this alcove with the table and seats planned for the purpose is quite different. The breakfasts now-a-days are so simple that little service seems necessary to so informal a meal. In many homes the occupations and school hours of the several members of the family make it necessary to serve the morning meal at different times. This can be done with far greater ease and much less waste of the housekeeper's time if some arrangement of this sort can be provided in the kitchen. Between waits for instance, the dessert or the vegetables for the next meal can be prepared or some of the many other things which absorb this precious morning hour can be accomplished at this time.

The "breakfast nook" shown in the photograph is unusually attractive as it looks out on a bit of garden and has the morning sunshine. It is 6 feet by 4 feet inside measurements. It has a radiator

under the table to insure a comfortable warmth. The table is 4 feet by 3 feet 6 inches, and this table overhangs the seats on either side $4\frac{1}{2}$ inches. The seats are each 19 inches from the floor and $17\frac{1}{2}$ inches wide.

There are many things which could be



A breakfast nook.

added to this already charming little corner. For instance, a floor connection for the electric toaster is a great convenience—for every one who likes hot, crispy toast enjoys making it on a toaster at the table "while you wait."

A small cupboard for the breakfast dishes and drawers for the silver, doilies and napkins—in close relation to the al-

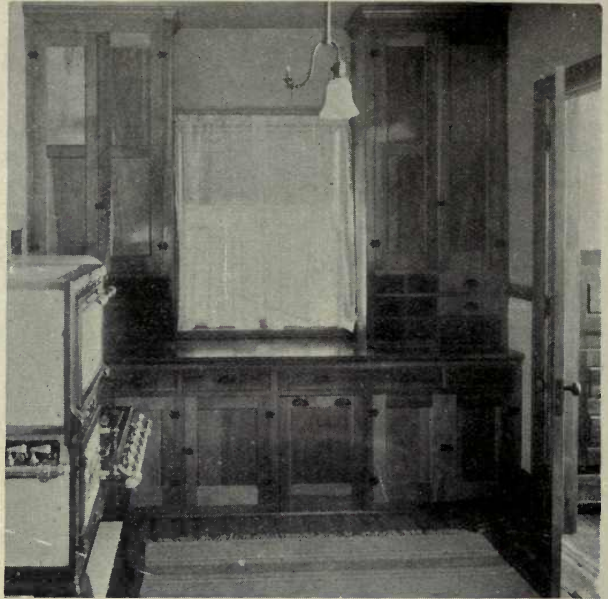
cove and sink—would save many, many steps.

Another little cupboard could be added to this alcove for the cook books and account books. And a filing cabinet for necessary papers, bills, etc., would make the checking up of monthly statements less irksome and more accurate. The housewife who has had some business training can often best appreciate the advantages of the systematic order and business principles applied to housekeeping. But all housekeepers would find their work more interesting if they thought more seriously of the business they were engaged in and made less of the so-called drudgery.

A radiator with a warming closet could be used to advantage in the kitchen for the late breakfast arrival. It could be placed near the table so that foods could be served from it without loss of time or temperature.

There are several types of radiators on the market which have warm compartments embodied in the radiator itself. These have metal cupboards with shelves set in the center of the upper half of the radiator, with several sections of the radiator on either side of the cupboard which are the full cupboard height. Metal doors close the cupboard tightly so that food may be dished ready for the table and kept hot in this cupboard until ready to serve. This closed metal compartment, with heat applied to three sides, will keep food hot for a considerable length of time, especially if served in hot dishes.

Radiators of this description, by the way, were originally designed for use in the dining room but the newer scheme is to place them in the butler's pantry, in case there is one. The compartment is thor-



One end of the kitchen.

oughly useful, occupying as it does about half the cubic space of the entire radiator. There are shelves inside, so that foods, plates, etc., can be kept warm at the same time. Another decided advantage of this useful addition to the pantry is a marble shelf which may be placed over the top of the radiator. This can be quite broad, and as marble retains the heat it serves as a most convenient resting place for dishes that must be kept hot after they are taken from kitchen.

There is something magical in the way work of any kind begins to yield pleasure as system, organization and personal interest take the place of confusion and indifference. And how true it is when we put the same enthusiasm into home-making and the same amount of study and preparation into mastering its difficulties, that other professions require,—housekeepers become masters of their work and the sense of drudgery is lost in the great aim and art of the work which so closely affects the lives and welfare of the whole race.

The Bungalow Dining Room

Charles Alma Byers

EVEN in the small home, the dining room should be made one of the most attractive features of the house's interior. Such is usually the case with the bungalow home, with the special attention given to details. The dining room should be well lighted by windows, tastily finished and attractively furnished, so that it may be cheery, comfortable and inviting. In the belief that the housewife is always looking for new ideas which may help her in this direction, we are here showing photographs of several different kinds of dining room arrangements which have proven particularly satisfactory to their owners.

Since the well planned dining room should receive considerable natural light, the matter of windows perhaps should have first consideration. A row of three or more windows in one outside wall always constitutes a very satisfactory arrangement, although, if the plan will permit, windows on two sides will be found even more desirable. A flood of morning sunlight will cause the room to be the more cheerful for the morning meal, and therefore this matter must be considered at the time of building. In many cases it is discovered too late that the dining room has been so

placed as to always remain dark and gloomy, whereas this room should be, by all means, invariably light and cheery.

Individual taste will, naturally, largely govern the selection of electric lighting fixtures for the room. It might be well, however, to here remind the householder



The buffet is built into a niche.

that these fixtures should be chosen with the view to aiding in the carrying out of the particular decorative scheme employed, for it is possible, through this medium, to either spoil or greatly enhance the room's general effect. For instance, if the fixture possess colored art glass, the colors of this glass should, at least to a degree, blend in with the predominating colors of the decorating. The indirect lighting type of fixtures, or inverted dome, is much favored for the dining room, and the accompanying



The buffet is charming with its well designed glass.

photographs show a very attractive design for indirect lighting, as well as a number of various kinds of the more common direct lighting type.

The dining room of the small home of today is quite commonly equipped with the so-called built-in buffet, which also

backs the counter-shelf, and the cupboards will probably possess glass doors, of either plain or art type. The illustrations should be carefully studied in this connection, for they show a number of very attractive features of this kind. Being naturally a part of the room, the

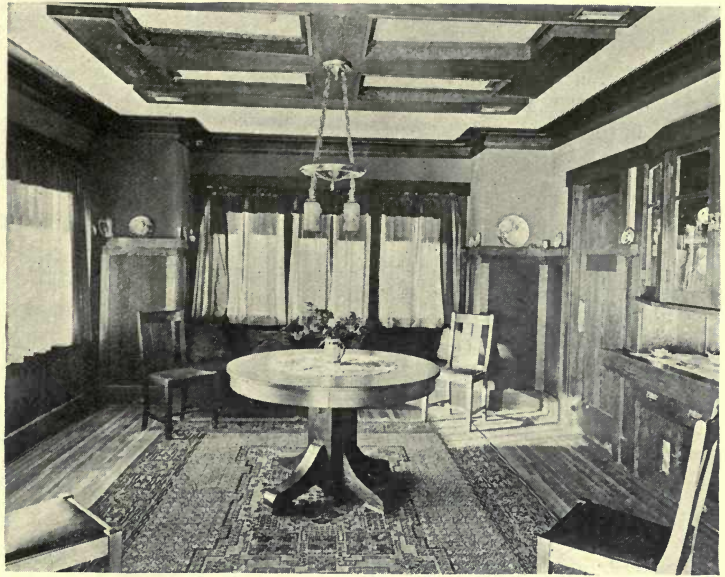
built-in buffet will always correspond with the other woodwork, an important point in its favor, and when built with its face flush with the wall, as is commonly done, it does not obtrude, to interfere with the general contour of the room. Size and conveniences considered, the built-in buffet is considerably cheaper than the ordinary purchasable cupboard and sideboard arrangement, and



A white dining room.

will also invariably help create a more attractive interior, especially for the small room.

A window seat often constitutes a very desirable dining room accessory. Three of the illustrations may be referred to as showing seats, either cushioned or with other treatment. Where one wall of the room contains two, three or more windows, a seat of this kind may be made to extend the full width of such wall, and not only will it prove very convenient but also invariably adds to the appearance of the room. Even if it is not used as a seat at all, it will be found to afford a particularly delightful bench for potted plants, for it will enable these plants to be placed in the sunlight, where they will form a very enhancing decoration. A box seat of this kind is frequently constructed with its top hinged so that it may act as a cover to the receptacle which is naturally provided underneath. This long box-like arrangement will prove most convenient as a place in which to keep the table linen or the space under the seat may be filled with linen drawers.



A dining room with well-grouped windows.

In the matter of furnishing, in order to produce the most satisfactory effect, the table and chairs should be selected to harmonize with the woodwork of the room. Of course, where the woodwork is enameled, the furniture may be chosen to afford contrast, mahogany in such



Old gold brick is used in the buffet.

cases being especially suitable. Wicker furniture is always delightful for the dining room, and it may be used entirely without regard to the finish of the room as it harmonizes with any woodwork. It is peculiarly adaptable and may be used with almost any interior scheme.



Somewhat heavy in treatment.

The first illustration shows a long, deep window seat on which potted plants as well as pillows are placed, under the casement windows. The buffet is built into a niche in the wall, and has glass doors in the cupboards under the serving shelf. It has a long beveled mirror back of the counter shelf. Another illustration portrays a dining room so designed that an outside window is a feature of the buffet. It will be observed that the buffet is constructed largely of old-gold brick, making it especially distinctive.

The second illustration shows a dining room with both a buffet and a long, cushioned window seat. The buffet is

unusually attractive, though very simple in design, and very effective. The design of the glass is of particular interest. It is very nicely worked out and gives a charming effect, with the long lines emphasized in the side cupboards, and the design carried through the upper cupboard doors. The woodwork of the room is oak finished like old Flemish work. The lighting fixture is an inverted dome of artistic pattern, of the semi-indirect type.

Another photograph shows a room in which the woodwork is enameled white, and the buffet, with its beveled glass doors, occupies the larger part of one of the side walls. The tall china closets at either side of the counter-shaft make a charming display of the china and cut-glass, and back of the shelf is set a long mirror, which produces delightful reflections. At each end of the buffet is a wall light, of artistic design, and the center lighting fixture is composed of five globes of similar pattern. The walls of the room are covered with a glass cloth effect, of mahogany hue, which matches the side window drapes in color, and the furniture is of mahogany. A plate rail extends entirely around the room.

Another illustration shows charming window groups, with a recessed window seat under one group. The buffet, which is only partly shown in the photograph, has an interesting treatment.

The last illustration shows an unusual buffet with a very heavy and somewhat elaborate treatment. As a suggestion it may be of especial interest.

Soil Tilth for the Bungalow Garden

M. Roberts Conover

LOOK over the garden's surface before the sun is high on some spring morning when there has been no recent rain. Notice the difference in the spaces firmed down over the seeded parts and those between rows where the soil is loose. The firm soil appears wet; the loose soil, dry. This is because the moisture from below gets up to the very surface where there is no layer of loose soil to prevent it. When once the earth particles have settled together in this way they lift water to the dried particles above and the soil does not so readily receive the moisture; neither does it receive as much of the water during a pelting rain as it would if the surface were mellow. This will result in the root zone having but a limited amount of moisture in dry weather.

The great essential is to have the soil mellow in the beginning; that is, to have it plowed to a good depth. The gardener's problem is to keep it mellow throughout the season.

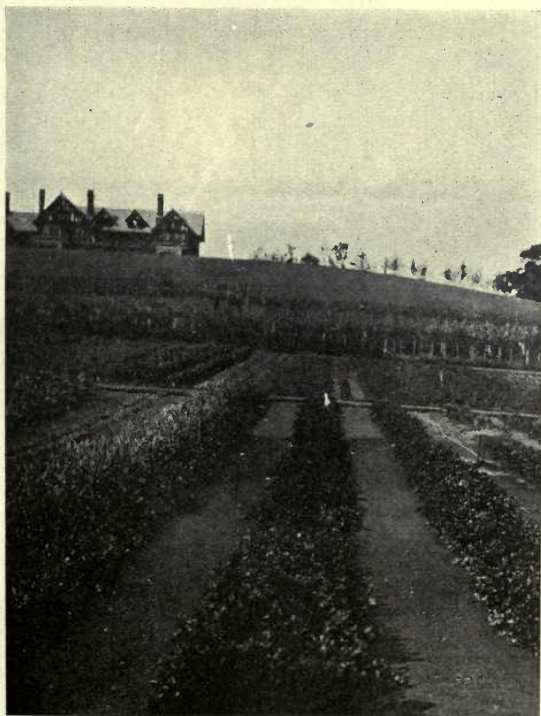
Tight, hard,

compact soil means tough vegetables, slow of growth and poor in yield.

The farmer often suffers severely from dry weather, but in the two gardens where each depends upon tilth only—using no artificial irrigation and having the same soil texture, the vegetables in the cultivated open field will endure a dry spell longer than those in the hand-worked garden. Now, why is this? Just because the farmer works his soil to a greater depth. The cultivator he uses goes a little deeper than the average garden tool which is safe, considering that his rows are farther apart and the tool

does not disturb the roots. But it is this wide, cultivated strip between rows that saves his crops.

If the gardener begins with very shallow cultivation and continues it throughout the season, he will find that the packed soil which he does not disturb will encroach upon his worked surface, for as the mulch of loose soil becomes lighter through evaporation it is very easy to be



Space between the rows.

deceived as to its real depth. This is especially true where a hoe is used. A light scurfing of the soil or a drawing of loose earth is all that can be done right around the plants, but between rows, the work should go deeper so as to break apart the harder layer beneath.

Plants will much better stand dry weather if the rows are not too close. There is less root competition and there is room for more thorough soil working.

In a dry situation the rows should be thirty inches apart. Cultivation with the average horse cultivator under average conditions is from $2\frac{1}{2}$ to 3 inches deep. In the average garden it may not go



In a dry situation rows should be wide apart

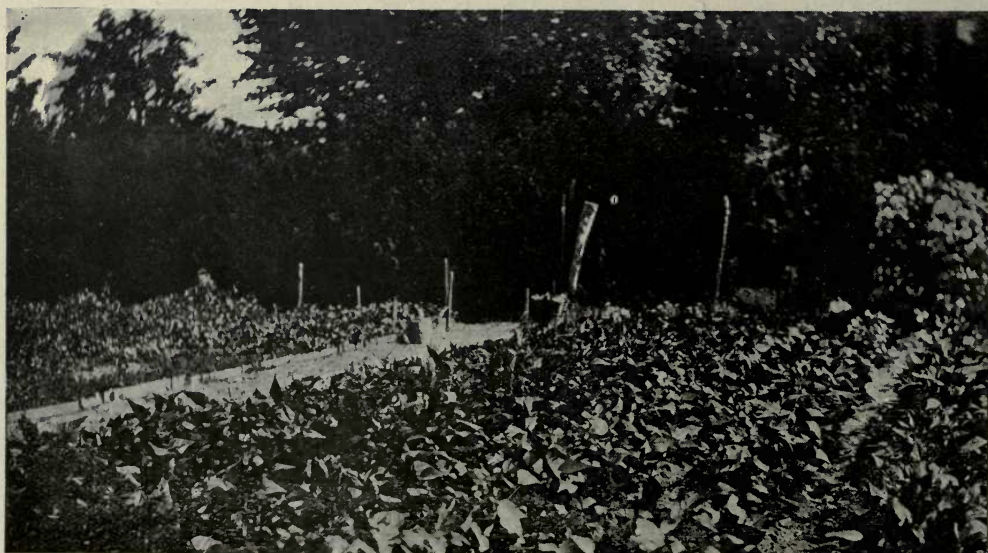
deeper than $1\frac{1}{2}$ inches unless special pains is taken to see that it does.

In the first photo the soil is so soft and spongy from deep working that it sinks beneath the tread.

Notice the ample space between rows in this garden located on a slope.

For want of space these beans shown were planted in close rows less than 24 inches apart. They were promising until the weather became dry. Several rows

were planted wider apart and these were able to withstand the dry weather much better. The two outer rows most plainly seen in the picture were planted farther apart and gave a better yield. The gardner may well take advantage of these conditions for both the yield and quality.



The outer rows gave a better yield.

Building a Bungalow

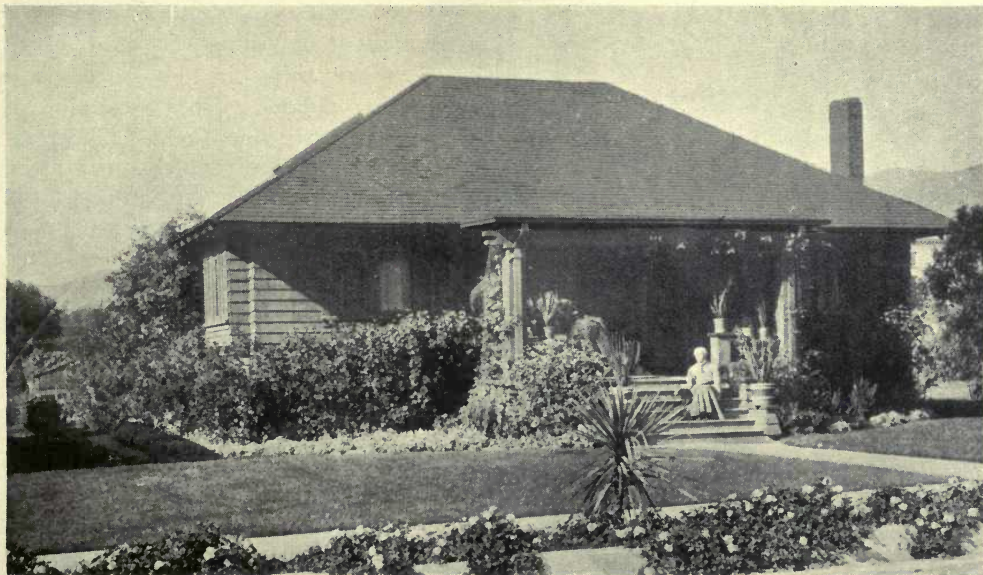
A. R. Rollins



At some time in his life, every one carries in his mind the ideal little home he hopes to build—some day.

The man of great wealth longs for the simple home life with its freedom from responsibilities and cares, and the man of small means—who finds it hard to

At such times we could see no beauty in the straight up and down lines of the old house, with its tall and narrow windows, the small panes of glass all of the same pattern; neither did we like the windows arranged at even distances from the outside instead of being arranged for the convenience of the inside. In the house



Our bungalow.

breast the current of life—thinks of the little home of his own he would like to build for the dear ones.

With the writer it was the novelty of a brand new house. We, of the present generation, had no remembrance of other than the old colonial homestead, neither had the mother. And while the associations of such a home become part of the life of a family, yet there were times when all had longed for a house with all the beautiful and attractive modern features.

were high, grim-looking mantels, and the walls had long since been given over to the paper-hanger to show off the changing styles of wall paper in as arbitrary a manner as any fashion in dress. Even the white china door-knobs did not particularly appeal to us. We felt a lack of coziness, too, in the big, square rooms, the long, narrow halls with high stretches of walls impossible to reach without a ladder.

Coming to Southern California we were



A place for china.

at once charmed with the many cozy bungalows we saw. It was not long before we met, casually, a real estate man. (You always meet real estate men, casually, here.) From the result of the meeting it was evident we had been exposed and were in fact already in the first stages of a malady peculiar to this part of the country and known as "the bungalow fever."

In the first stage of the disease you are possessed with the idea of buying a lot. You do not go about purchasing that lot in a quiet, unhurried, calculating manner, oh, no! You race madly over the city in the real estate man's auto (they all have autos irrespective of the fact that their office may consist of only a desk in some big office) to see divers lots before some one else finds out they are for sale. For think what a calamity it would

be if all the lots were sold before you had a chance to get one!

The second stage you are in the throes of the disease and straightway you talk, dream and see nothing but bungalows. Here the symptoms are easily discernible, once you have passed through them yourself. People who have the disease look and act as if they had found the most engrossing and the most interesting thing in the world. With a faraway look in their eyes they gaze at you in a commiserating sort of way. It is useless to try to talk to them about anything else, for every other thing in the world is a closed book. The fascination of

planning overwhelms them. They arrange and rearrange rooms, consider the turn of an alcove, or the lighting of a room with the view considered, plan nooks, corners and built-in conveniences until the architect calls a halt. He has reached a limit in patience.

So did we plan; we inspected many bungalows; held consultations as to sizes of rooms; studied color schemes and woods and their grains; looked at lighting fixtures and hardware—all delightful to us because new experiences.



A big living room.

Then began the actual planning of the bungalow. The Presiding Genius had said we younger people could plan it as we pleased, the only thing she asked was closets having vents or small outside windows where practical, so they might be well ventilated. Big Brother wanted a light and quiet place to shave. The Artist wanted a bedroom to be decorated with cretonnes and arranged like some of the pictures of girl's rooms in the magazines. The Impatient One wanted a big living room through which she could walk without hitting against furniture, for she was never known to have time enough to walk slowly or carefully. She also wanted a wainscoting all the way around the living room and dining room, so she could have a place for the china and bric-a-brac that had been collecting so long.

A plan was finally drawn that embodied nearly all we wanted, though not all,—the pocket-book called a halt. We wondered if any one ever did get all they would like to have had in building a house.

A large, airy living room, a fireplace in one end, with plenty of book shelves, and the casement windows which we had always wanted, came first. The dining room was in the southeast corner to get the early morning sunshine. The kitchen was our special pride and was to be light and airy, facing the south, with a convenient screen porch adjoining. The bedrooms were arranged for convenience and there was a sleeping porch for those who wished to sleep out of doors.

Our lot faced the east and on it were twelve orange trees. When it came time to prepare the lot and stake out the house, we stayed away altogether for we did not want to see those trees cut down; we knew it must be but preferred to stay away until the sacrifice was complete.

We watched the building with great pleasure. Even the bright, fresh smelling lumber had an attraction for us. Then it was such fun to see the rooms and the different little built-in parts fashioned. We found our eye for size sadly untaught, they looked so different from the plan.

At last it was finished, even to the final polishing of the floor. Then came the problem. How were we to move in and get everything set to rights without mar-



Wainscoted rooms.

ring the floors or scratching the woodwork or walls? It was all so beautifully fresh and clean, and new, that we felt it would be desecrating for even a scratch to appear. We recognized, however, that we were unduly sensitive, and that to the movers it was probably just an everyday occurrence. Our feeling must have communicated itself to the men, for they seemed unusually careful and left no noticeable traces.

We found when we began to arrange things in their places that our color scheme had worked out beautifully. The warm browns and tans we had selected for woodwork and walls made a most

excellent background for the soft toned oriental rugs. A brighter tone was easily given now and then by some cushion or window drapery. The pictures, and particularly the bric-a-brac—which had never had a proper background—gave all the color needed to the room.

Like children we joyed in arranging our belongings, it was such a pleasure to hang a picture or place a vase in just the right place. Then, when the book shelves were filled—not shut up behind closed doors in some dark corner where

it was almost impossible to see what was there,—but open shelves out in the light where one could turn any time and pick out what he wanted—and when the large, roomy table with reading lamp at hand was in its place, close beside the books, when all was finished and in place we sat down and looked it all over. While it was not a mansion, it was cozy and comfortable and gave the real home feeling, than which there is no greater sense of satisfaction, for is heaven itself not home?

Variety of Design in Bungalow Building



The first impression leads one to expect pleasant surprises.



It is a curious fact that you can take a group of well designed bungalows which may have several strongly marked features in common and yet find an infinite variety among them. The group of bungalows here pre-

sented have the distinctive bungalow features. They are all of them low and rather wide spreading, having wide projecting eaves, low pitch of roof and generally exposed timber work, yet without a sameness, and each of the group has its own



Flower boxes in the boulder wall.

peculiar charm and attractiveness.

There are two points of view from which a house makes its appeal; first, in its relation to the landscape and the surrounding houses and its general environment, and

again as it impresses one from the approach and on entering the house. First impressions are very potent and follow one through the house and often for a considerable space of time. It is hard to over-



The light and shadow of the clinker brick gives texture to the wall.



The planting brings out the especial interest.

come the impression given by a mean or crowded entrance, while the anticipation of a beautiful interior in itself adds to that beauty. This is true of a bungalow, perhaps more than with another type of a house, because the entire building itself does not extend far above the reach of the eye on entering.

The first bungalow shown loses the sense of being a small low building when one stands between the great cement piers at the entrance to the porch. Instead, a spacious house spreads out before one. The glass filled space between the great piers invites one inside. The whole treatment shows the individuality of the owner and

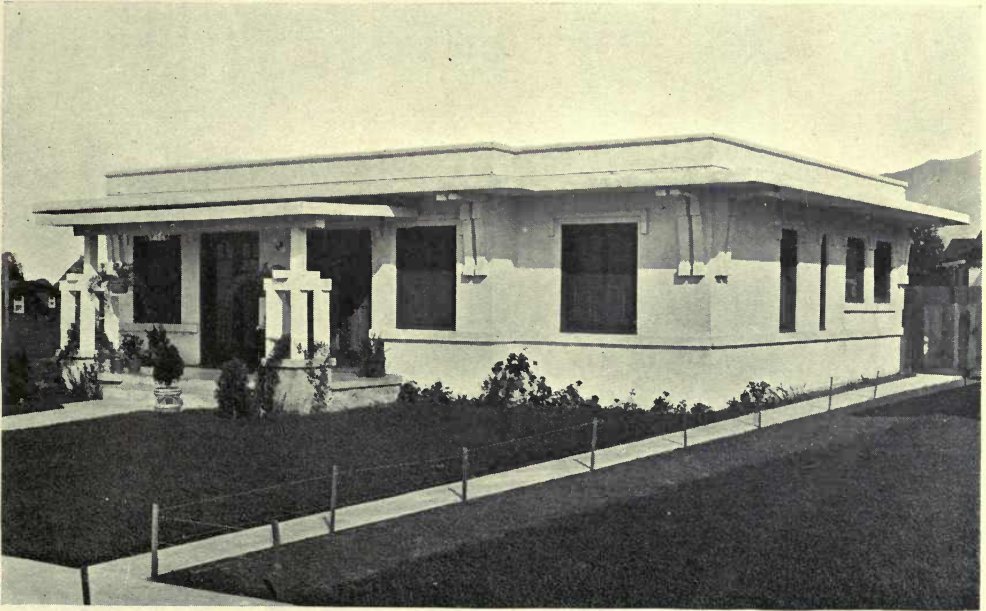


With unusual timber treatment.

leads one to expect pleasant surprises in the more intimate parts of the house. The louvre treatment under the roof is an example. It makes a pleasing spot of decoration while performing the very prosaic role of giving a free circulation of air under the low roof and keeping the rooms cool notwithstanding heat of the sunshine.

Cobble stones or boulders, to speak more exactly, have been made a feature of the

With the growing appreciation of cement it is being more largely adapted to the uses of the bungalow builder, and its peculiar adaptability made an integral part of the design. It is used merely as a stucco surface which may replace any wood surface, siding, shingles, shiplap, etc. In a somewhat different type of house it is plastered on hollow tile, making a warm, fire resisting, and not very expensive mode of build-



The flat roof is a logical treatment for a concrete bungalow.

second bungalow. This is a building material which gives all kinds of advantages in its possibilities of picturesque treatment, and in the facility with which it combines with practically any material which it is desired to use with it. Here again the openings for ventilation under the ridge of the roof have received a studied treatment.

In California much has been made of clinker brick, with its uneven and often vitrified surfaces, its varied texture and sometimes exaggerated contour. In the brilliant sunshine the shadows, when not too pronounced, often give a very interesting texture to the whole surface.

There are great possibilities in poured concrete, with or without reinforcement, as well as in stucco, especially for the one-story bungalow, and these possibilities have scarcely been touched upon as yet in a practical way. A plastic substance like concrete is, or may, be developed into a truly architectural building material, but this will not be accomplished by imitating other materials, nor by following the forms which have been found best adapted to the treatment of these very different materials which are being imitated. When cement is moulded to look something like stone, as for instance in "rock face cement blocks" it is

simply a rank imposition. It lacks the good qualities of both materials without a commensurate gain.

The pleasing surface of stucco makes it adaptable. It may be used with a timber or a half-timber treatment. It makes a particularly good background for planting, and especially for vines. Oftentimes the planting tends to bring out the especially

with either cement or stucco are almost without limit, both as to texture and color or tone, rather, for fortunately we hardly dare use color directly. The introduction of bits of color and texture by means of tile let into the surface, or panels of form in low relief, or even of terra cotta, embodying both, is often very successfully carried out. This treatment, however,



The shingle treatment is interesting.

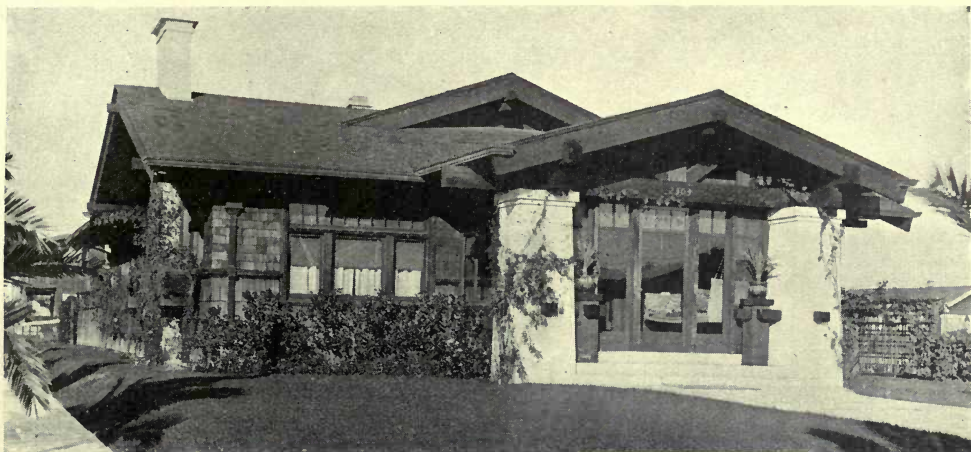
attractive features of a house, attracting the eye directly to a pleasing line or a nice detail.

A flat roof, with a low parapet, is a logical treatment for the concrete bungalow, the circulation of the air under the roof being taken care of in a different way. The details of a concrete building depend on the practical building of the forms in which they are poured, which tends to a simplicity of line and uniformity of surface.

The possibilities of surface treatment

has wide possibilities not yet touched.

Shingles always make a satisfactory outside finish for almost any type of a house. An excellent surface is given by laying the shingles alternately with a larger and a smaller surface to the weather. In this way the shadow line at the edges gives the effect of a double line, which relieves the monotony of the usual shingled surface. Another advantage lies in the fact that the stained surface of the shingle is so much softer than a painted surface.



What Is a Genuine Bungalow?

E. W. Stillwell, Architect

IN a restricted sense, the bungalow is a style in architecture; in the broad sense it has also to do with the arrangement of rooms and the in-building of much of the interior finish and labor-saving equipment. To understand this new style in home architecture, we must study its origin and the reasons for its development. To study styles in anything we look to the

source. Therefore we look to California, the original home of the American bungalow, for the finest specimens of bungalows.

It takes a kindly climate and a beautiful land to produce original architecture. Witness the history of ancient Greece and Rome whose architectural forms still rule the world after two thousand years. The



A fine type of California Bungalow. (Floor plan on page 276.)



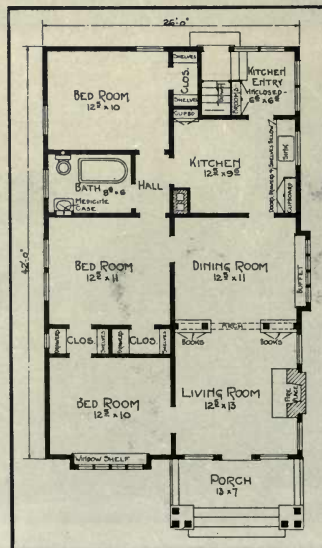
A bungalow should be a compact one story house.

bungalow architecture of California is a natural product of the Pacific Coast and in addition, countless examples of other styles are represented here. Out of the steady stream of tourists who go to California for one reason or another, there are many who remain to add their energy and wealth to the upbuilding of cities and suburbs. California—especially Southern California—has drawn upon the wealth and brains of all of North America because the climate and the soil furnish ideal conditions for ideal homes. Irrigated by this human element and the product of accumulated labor, the State has produced, in its homes, results as wonderful as the proverbial little drops of water on the thirsty land.

The bungalow has all the good points of the American cottage type and borrows from every style that

exists today. Strictly speaking, a bungalow should be a compact one-story house, but it may have an attic or second half-story, if large enough in first floor area to permit of roofing in such a manner that it is recognizable on the whole as a one-story house. Others, going further, consent to an obviously roomy second story if the roofing scheme is carried out with an overgrown, or outgrown, or upgrown effect, but in California this is called just a "house," as a rule.

The roof of the true bungalow should not be too steeply pitched and it should have a wide projection—thirty inches to as high as forty-four. The over-hang finishes with a heavy barge or verge board supported by brackets or by massive timbers that run back to second rafters. The over-hang is well calculated to protect side





The overhang of the roof protects from the vertical summer heat.

walls from the vertical summer heat and yet this is so high that, as the sun declines in winter, the warmth of his rays is not shut off from the windows. The roof of the bungalow is its most distinctive feature.

Every building material on the market enters into the exterior construction of bungalows, but since the spirit of the bungalow is simplicity itself, only combinations of a few—like siding and shingles, or cement plaster with shingled gables — are permissible. Rough or smooth siding is used but all finish pieces are generally surfaced. Most bungalows are stained instead of painted (except for trimmings) and stain takes best on rough siding.

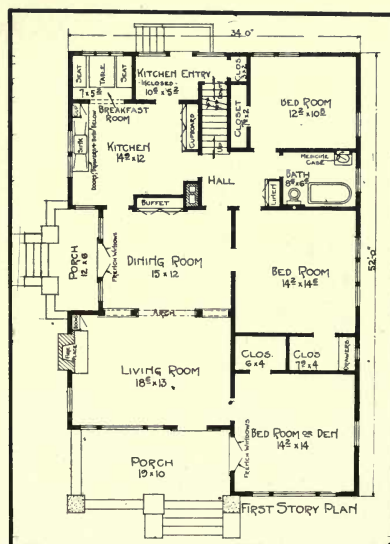
The real bungalow

eliminates hall space by a grouping of rooms around an inter-communicating pass hall. The reception hall is cut out, as a rule.

Few genuine bungalows have pantries. The cabinet kitchen of the bungalow eliminates the objections of the pantryless

kitchen of former days. The kitchen cupboards have drawers, bins, wood paneled doors, sink under the windows for light, and all arranged within easy reach of the range: All finished in sanitary white enamel.

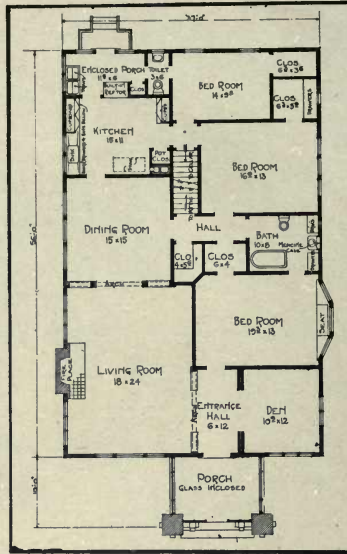
The beamed ceiling seems to be going out of style and a molded coved wooden cornice taking its place, at least in the living room where indirect lighting is employed. Most every bungalow, for interior



effect, has one fireplace of simple design but the best homes, even in California, are equipped with an efficient warm-air furnace or other heating system.

The walls are made clean and sanitary by laying off smooth polished plaster to a height of door tops, marking off in squares like tile and enameling like the wood work.

The screened-in kitchen porch is one of the bungalow essentials. This porch is really a small room, for it is framed up and finished outside and plastered or ceiled up inside like the kitchen. The screened openings are high above the floor and very often fitted with sashes for weather protection. The screen porch is really a semi-detached



work room or entry, usually containing a broom closet, a hinged ironing board, the refrigerator, and often laundry tubs except in coldest climates.

Bungalows have more windows than other houses. Casements of all types are used extensively, but most generally only for the smaller size openings. Many of these are special shapes and designs, but simple stock sizes are obtainable in the west. Eastern mills are not yet making all the stock size windows that are most suitable

for bungalows.

Many minor features are found in bungalows that go far toward beautifying the home and making life easier and happier for everybody.

A Group of Northern Bungalows

Lindstrom & Almars, Architects

THE spell of the bungalow has overspread the land. A native development of Southern California, the returning tide of tourists has spread its fame and popularity far and wide. The name has carried farther, perhaps, than the direct influence of the type of building itself, and its details have been appropriated and applied to every type of building. The name "bungalow" has become so closely associated with the compact, well planned small house which is homelike and attractive, with wide projecting eaves on the outside and many built-in conveniences made a feature of the interiors that the term has been loosely applied in many parts of the country; all of which goes to show the dominance

of an idea over the form in which it is embodied. In California the bungalow clings to the ground and draws its roof closely over itself, emphasizing the low horizontal lines. It does not require the protection of a basement underneath, which must have light, nor of the air space over, which the extremes of heat and cold make necessary in other climates.

In the bungalow which has snow about it, one looks for the high basement which gives space for basement windows. When the cost of the basement is to be considered the small, inexpensive house can not be spread out on the ground floor and the roof must be high enough to give space and light for sleeping room under



A snow-clad bungalow.

the roof. Also the sun and sleeping porches are glassed in as closely as the rest of the house.

Here are a group of snow-clad bungalows which bespeak comfort in the bracing northern air. In the first design the glazed sunporch becomes also a bright, protected entry. The living room extends the full width of the house with a fireplace at one end and a recessed window opposite. Beyond is the dining room through a wide cased opening. A recessed bay on one side is filled with a built-in buffet under the windows. A cabinet kitchen opens from the dining room.

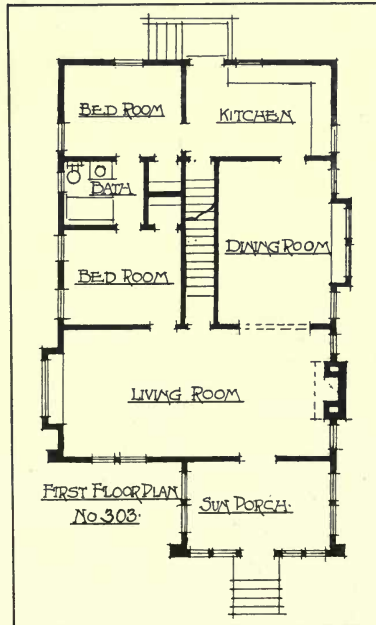
From the other side of the living room a door opens into the bedroom suite formed by the bedrooms, bath and closets,

and the intercommunication between them, which is very convenient for family rooms. Another door opening from the living room leads to the stairs and the bedrooms which may be finished under the roof. Stairs to the basement lead down from a door in the kitchen.

The main living rooms are finished in birch with birch floors. The bedrooms are finished in pine and enamelled. The bath room floor is tiled.

A full basement under the house makes place for the laundry, vegetable and fruit closets, as well as for the heating plant, fuel bins, and storage space.

The exterior of the house is stuccoed. The timber work is all stained brown and the sash painted white. The



flower boxes which during the summer make the house gay with color and fragrance, are built permanently in the wall, resting on brackets.

A similar arrangement of floor plan for the living rooms provides for only one bedroom down stairs in the smaller home. The porch is open and the living room is practically the same size as in the larger design, with the dining room beyond. The buffet is recessed and built

The third home shown in this group, has a glazed entry as well as a sun porch. Glass enclosure for all porches and openings, is one of the marks of the northern bungalow. During the warm weather they open freely and are screened, but during the cold season they are all enclosed with sash or even double glazed.

Beyond the entry is the living room on one side and the bedroom suite on the other. The long side of the living room



A small, compact home.

in under a wide window, opposite the cased opening to the living room. The stairs lead up from the dining room and down from a closet or passage way beside the kitchen. These rooms are finished in hardwood.

One end of the kitchen is filled with a long working shelf under the window, with drawers and bins under. There is also good storage space.

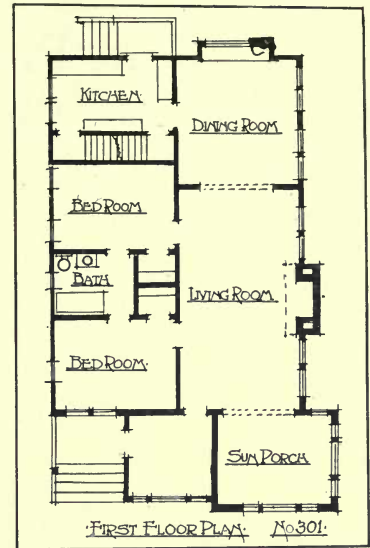
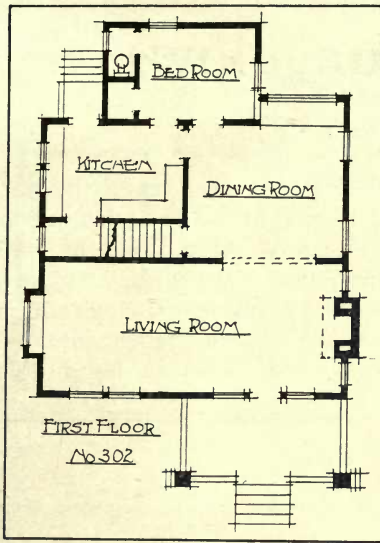
The bedroom opens from both the kitchen and the dining room so as to be assessible from either.

The basement has the usual accommodation for heating plant, laundry, etc.

is on the exposed outside wall and is filled with windows on each side of the fireplace. The sun porch is at the front with a wide cased opening connecting it with the living room.

The dining room is beyond the living room with another wide opening between. The vista is closed by the recessed side-board under a wide window. Windows fill the side of the dining room as well.

The cabinet kitchen opens from the dining room and is fitted with working shelves and cupboards. Stairs to the attic space and to the basement lead from the kitchen.

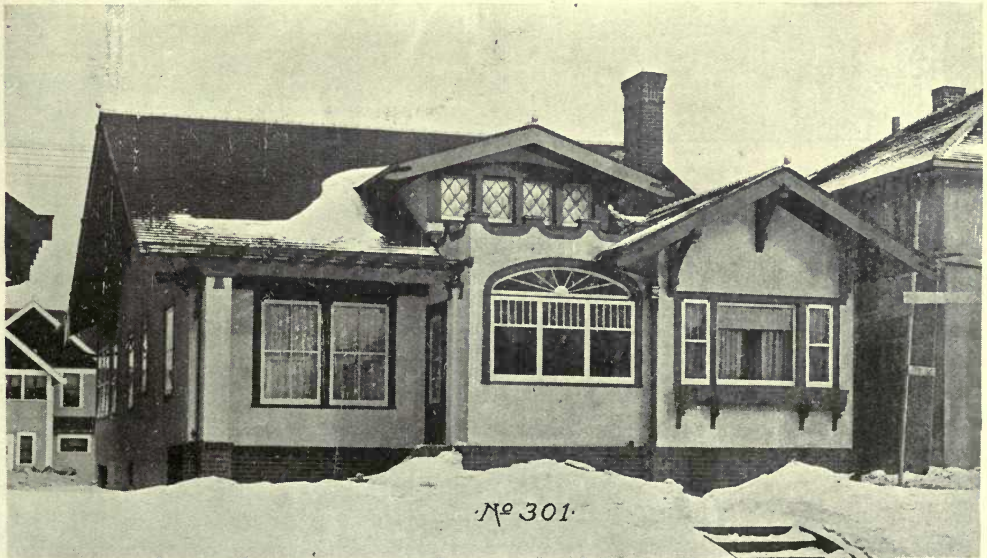


The bedroom arrangement is very compact. Each bedroom opens from the living room and has a good closet. The bath room communicates with both bedrooms.

The main rooms of the house are finished in birch and the other rooms are finished in white enamel. The bath room

has a tile floor, all other floors are of birch.

The exterior surface of the house is stuccoed to the grade line with brick used for the terrace and sun porches. The eaves have a wide overhang and all of the timber work is stained, while the sash is painted white.



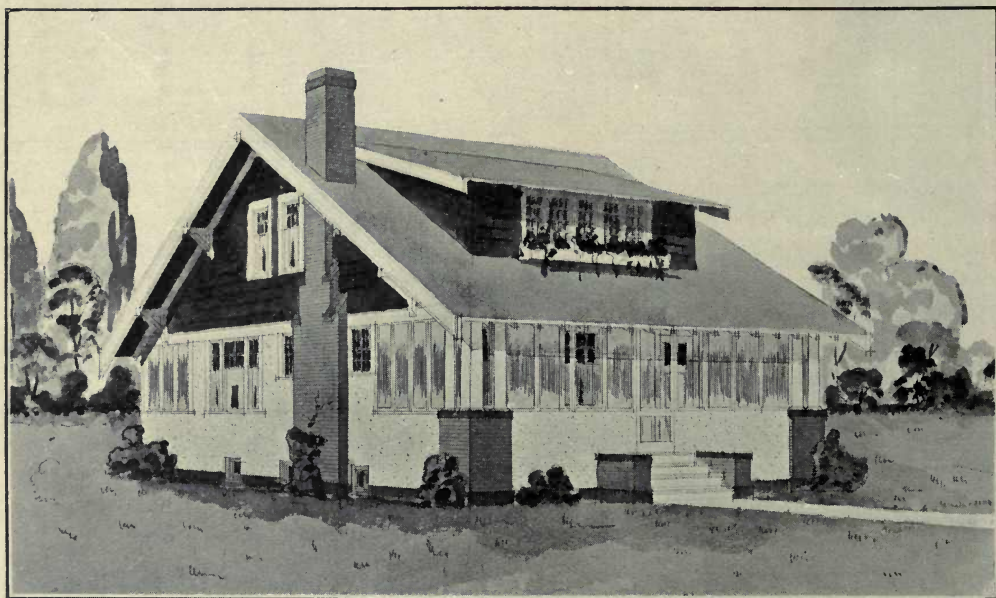
The porches are glazed.

Some Practical Bungalows

W. W. Purdy, Architect

THE bungalow is being demonstrated in all parts of the country and is proving itself as a practical solution of some of the problems of the home builder as it can be arranged to give him what he wants at a cost that is not beyond his means.

well sheltered from the heat of the sun, or from driving rains. The large rear porch is also screened and may be used as a dining porch in the summer months. In the cool fall evenings the visitor is ushered from the living porch, into the large living room, where a log fire is

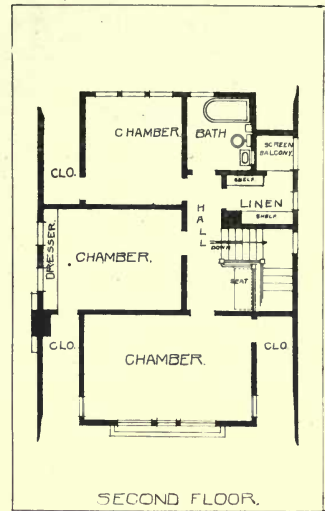
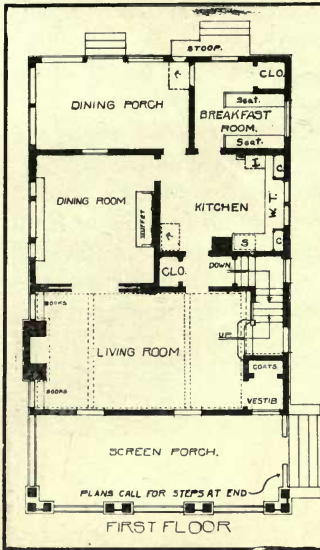


Planned for a lake cottage but used all-year-round.

In the first illustration is shown a type of bungalow or story-and-a-half cottage which is very popular in our northern states. This home was planned for a small family, to be built near a small lake some ten miles from the city limits. While a lake cottage, the owner contemplates living in it the year round; it is therefore complete in all details in regard to water supply, septic tank, gas or electric light plants.

The large screened-in porch across the entire front, makes an ideal living porch

burning in the large boulder fireplace. The ceiling in this room is broken by two massive beams through the center; bookcases flank the fireplace on either side. From the living room one gets a glimpse of the attractive dining room, with its built-in buffet, through French sliding doors. The extended window stool is to provide a ledge for plants. A French door leads from the dining room on to the rear dining porch. The kitchen is not only complete in its equipment, but very convenient, there being a place for



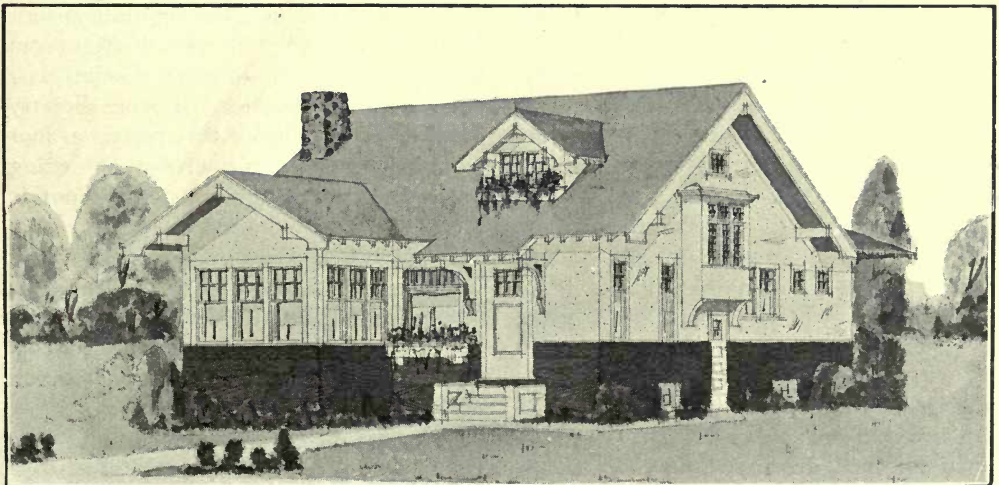
everything and to be sure, everything is in its place. Note the compactness of the same, the range, sink, china cupboards, work table under the windows, an additional drop table, the clothes chute. A breakfast room adjoins the kitchen, where built-in seats and table are constructed. The ice box is on the dining porch, is iced from the rear stoop, and opens into the breakfast room.

The floors in the living room and dining

room are of birch, with linoleum over a pine floor in the kitchen and breakfast room. There is a coat closet off the vestibule and an extra closet on the first floor, also a closet in the rear entry, to be used as a storage place for table leaves, brooms, etc.

The finish for the rooms on the first floor is fir, with pine white enameled in the kitchen and breakfast room.

The second floor contains three well

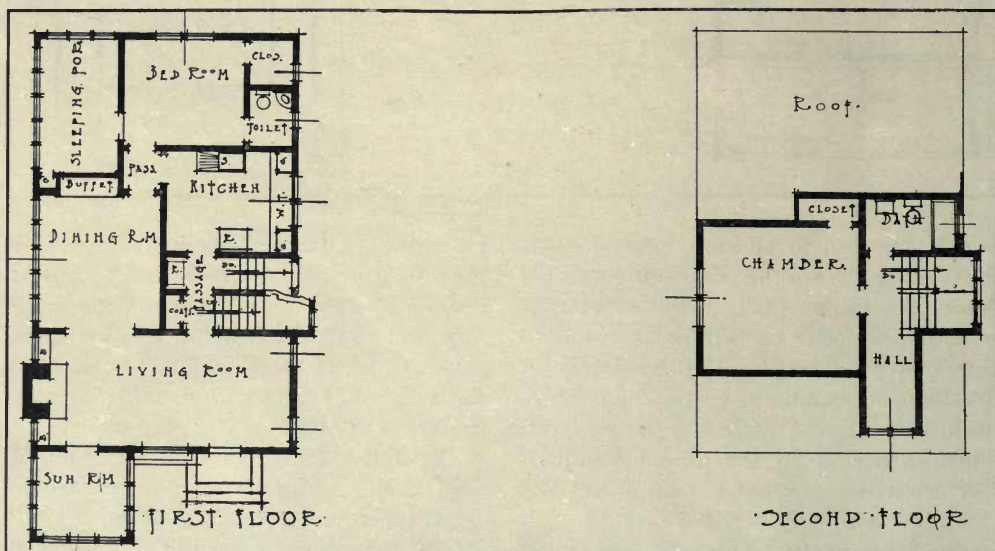


A charming small home.

arranged chambers, all well lighted and ventilated, each having good wall and closet space. In the daughter's chamber is a built-in dresser across the end with beveled plate glass mirrors, drawers, and hat boxes. Beside the large bath and linen closet, a thing of interest is the little screened-in balcony, the screens being hinged to open out, the same as casement sash, so the balcony can be used for shaking rugs and airing bedding. The

planned. In addition to the living rooms it has a bedroom suite with a sleeping porch on the first floor and a larger chamber and a bath room on the second floor.

The living room extends across the entire front, with a large boulder fireplace and built-in bookcases across the end, a French door opens on a sun room in front which is fitted with casement sash hinged to open in. The dining room is exceedingly attractive with its grouping of win-



floors are maple with tile in the bath. The finish is pine for white enameling.

The full basement contains a laundry, fruit cupboards, fuel and furnace room, also the engine for the water supply, the electric light plant, etc.

The exterior is a combination of white cement, rough cast, and shingles stained wood brown. The roof shingles a dark green, together with the bright red brick base course, piers, and steps, which gives a touch of color and a feeling of warmth in winter. A cobble stone chimney on the outside might be substituted for the brick, if desired.

In the next design we have an attractive bungalow which is very compactly

dows across the end, and its built-in buffet. The entrance to the dining room from the kitchen is through a small passage or rear hall, instead of being directly into the room. From this hall is a door leading into the rear bedroom. Opening off the bedroom is a large sleeping porch, a toilet, and a good sized closet.

The finish in the living room is of fir. The rest of the house is finished in pine, white enameled, with birch doors stained mahogany. The floors throughout are of maple except for the bath and toilet, which have tile floors.

The kitchen is very complete and convenient with its built-in work table, cupboards, flour bins, etc. The refrigerator

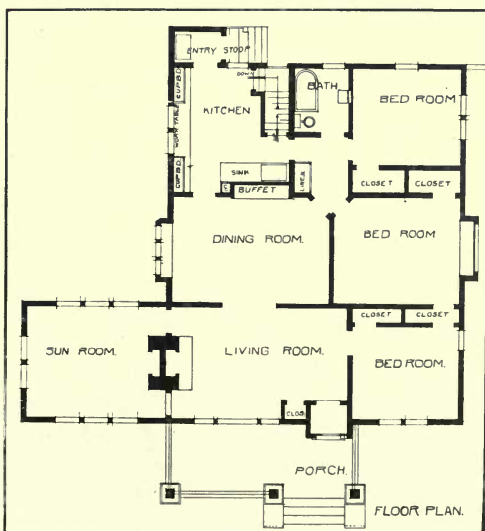


Seven rooms on the ground floor.

stands in the kitchen entry and is reached from the grade door on the stairs to the basement, for icing.

The plan as illustrated in our third design, shows a seven-room bungalow. The rooms are all large with ample wall space, plenty of windows and cross ventilation. The extended porch in the front is equipped with canvas curtains. The entrance from this porch is through a small vestibule directly into a large living room with its built-in fireplace. The coat closet which opens off the living room is convenient to the front door. A large sun room off the living room is reached through a French door, and this also has a brick fireplace. The dining room is unusually large, having an attractive built-in window seat and buffet. The kitchen is fitted with built-in cupboards and work table underneath the windows. The refrigerator is located in the rear entry convenient to the kitchen. A stairway leads from the kitchen to the second floor which provides storage space, or if desired, two additional bedrooms could be finished off. The stairway to the basement which is under these stairs provides a door at the grade level. On the other side, three good bedrooms with ample closet space are provided. The front bedroom opens direct from the living room. This has a connecting door between it

and the center bedroom, where the two rear bedrooms and bath open off a small center hall where a built-in linen closet is located. The concrete foundation extends under the entire house, exclusive of the sun porch. The basement is partitioned off to provide rooms for a laundry and a drying room, furnace, fuel, and vegetable room, as well as a billiard room. The floors throughout are of birch with tile in the bath, and pine in the kitchen for linoleum. The finish for the main room is of quarter sawed white oak. The bedrooms are finished in white enamel with birch mahogany doors.



Modern Stucco Bungalows

Chas. S. Sedgwick, Architect

WE are in a period of revolt against the "ordinary," in our attempt to gain something better than what we see about us. "What a cute bungalow—it is so different," is often intended as the highest commendation. As a matter of fact it is not the startlingly new

of opinion concerning the relation and the communication between the rooms in the convenience of the family in their ordinary living. Many people desire a large living room even if in so doing part of it must be utilized as a general passage way and means of communication



Built to fit living conditions.

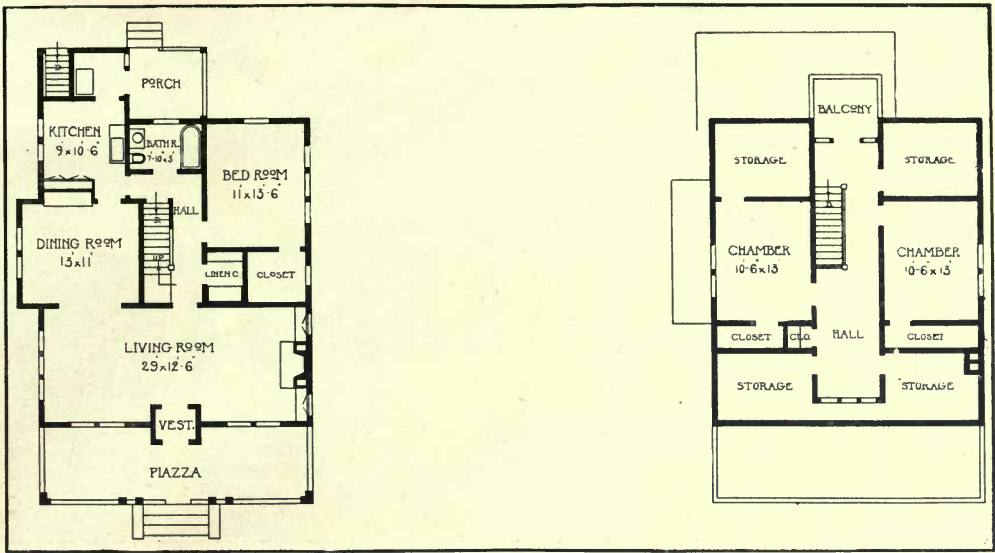
and different things that we really want so much as gathering of all the good points in the design by which the new home is to be built. Instead of hunting for novelties what we need to do is to standardize the good points; the features which are essential to the comfort and the conservation of the energy of the home makers, remembering that this comfort is never quite complete when there is anything which offends the sight, for a certain quiet beauty follows good design.

There is perhaps the greatest diversity

between the different parts of the house. The dining room may also serve this use without inconvenience in many instances. Where this is possible considerably larger rooms are possible in the same space.

Here are two bungalows which give perhaps a maximum amount of space in the size of the rooms for the given floor space. They are compact and built to fill the living conditions of the owners. The first has sleeping rooms under the gable, the second is all on one floor.

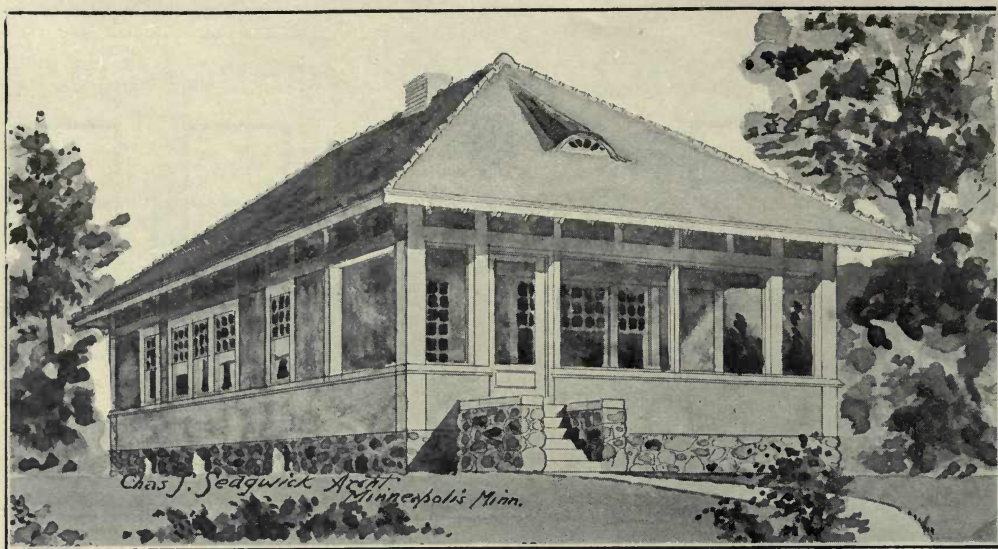
The first bungalow is 30 feet in width by 50 feet in depth, including the front



piazza and the rear extension. It has four good rooms, including bedroom and bath room as well, on the main floor with central hall and stairs. On the second floor are two good chambers with large closets and ample storage space under the low portions of the roof. This bungalow was recently built for \$4,000, including heating and plumbing. Exclusive of heating and plumbing the architect estimates it could be built for \$3,200 to \$3,600. It has a good full basement under the main part and is well built throughout. The first story is 9 feet high and the second story 8 feet. It is frame construction, well timbered and strongly built, sheathed and papered on the outside and finished with cement stucco to the grade line to the roof. It is also back plastered. The inside and the walls are plastered and neatly papered. The finish in the large living room and dining room is oak and the finish in the rear portion and second story chambers is Washington fir stained. The floors are of oak and of birch.

The front is symmetrical with a center vestibule opening into one large main living room 29 feet by 12 feet 6 inches. At

the right end of living room is a wide open fireplace with book shelves on each side and small casement windows above. The design is arranged for an east front, bringing the end windows in the living room, dining room and kitchen on the south side. A glazed French door in the center opposite the entrance, opens into a central hall with stairs leading to the second story and basement stairs underneath. At the right of this hall in the rear is a fine bedroom 11 feet by 13 feet 6 inches with good closet and a large linen closet opening out of the hall. At the end of this hall is the conveniently arranged bath room. In the rear of the dining room is the kitchen, a recessed sideboard opening into dining room and back of it cupboards opening into kitchen and at the rear of kitchen is a closed entry with space for refrigerator and door opening onto rear porch making a very convenient arrangement. At the rear is a grade entrance with steps leading to basement. This plan throughout has had very careful study and the bungalow is very much admired. All of the exterior trimmings, casings, cornices, etc., are painted white and the roof shingles are



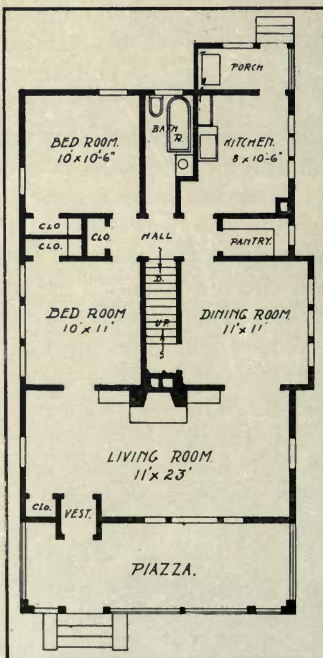
A small, compact home.

stained green. The front piazza is screened in. The second story hall is a pleasing feature with dormer windows in front and rear.

The second home illustrated shows a bungalow design 24 feet in width and 46 feet in depth including a front piazza which is 8 ft. in width. This is a very simple and economical little home and one that can be comfortably built on the average narrow city lot. There is a good full concrete foundation with basement under whole house. With the architect's estimate of cost from \$2,000 to \$2,500, the construction is of frame with boulder stone showing above grade line to floor and cement stucco above on metal lath. If hollow tile or brick were to be used for outside walls, it would add \$500 to the cost. The wood casings, cornices, etc., may be given

a coat of dark brown creosote stain and the roof shingles the same or red. The arrangement of rooms is pleasant and convenient, with one main large living room across the front and vestibule entrance at the side.

In the center of the living room on the inside wall is a broad chimney and fireplace with book shelves on either side; at the right of chimney is a wide opening into the dining room and at the left is a door to one bedroom. Between the dining room and bedroom is a stairway leading to attic story and basement stairs underneath, the small rear hallway connects with a bedroom on the left and with the kitchen on the right and between the two is the bathroom. There are three clothes closets and one small coat closet in front. Between the kitchen and dining room is a small pantry with an outside window and with shelving on one



side. In rear of kitchen is a small porch entry with space inclosed for refrigerator, this porch may be screened in summer and glazed in during winter months.

The modern bungalow is doing much to standardize the requirements which a small home should give to the home builder and which at the same time can be built at a

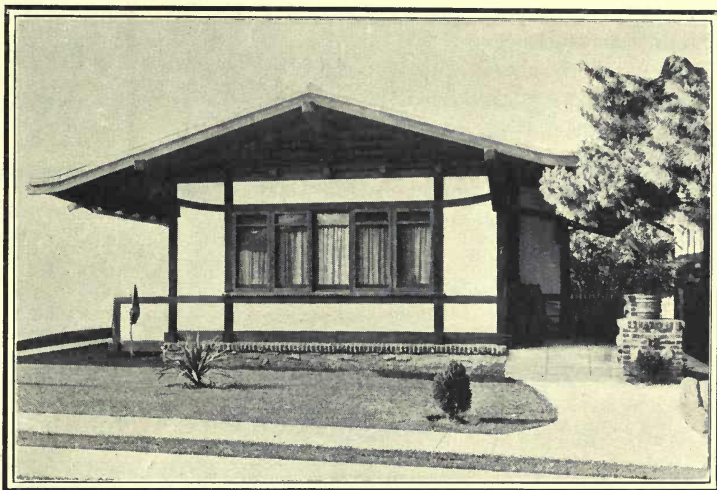
moderate cost. While many people are asking for "something different" in the main features they are all asking for the same thing—the greatest degree of comfort and convenience which can be gathered within the four walls of the home which shall conserve the time and the energies of the home keeper and of the family.

A Unique Bungalow

Jud Yoho, Architect

A UNIQUE but attractive type of bungalow is here shown. Presenting a combination of Japanese influence in the roof design and the horizontal lines of the half-timber work in the walls. The wide sweep of the roof and its curious details is the unusual feature of the design. It shows heavy timber brackets and has not of itself any great weight. The architect assures us that this roof construction is adaptable to any climatic conditions, but makes the provision that in sections subject to heavy snow fall the roof should be especially well braced. The exposed rafters and the treatment of the louvres under the ridge of the roof adds to the Japanese effect, as does the tilt of the timber work at the heads of the windows, and the window group itself.

This grouping of the windows with the triple group on the side of the living room makes a sun room of the living part of the house, together with the bay in the dining room.



A bungalow influenced by Japan.

The plan is a convenient one—the four rooms are of good size and well arranged for the living space and for economy in heating as well. The large living room and bright dining room make this a splendid plan for a summer home at the beach or in the woods. The bay adds to the width of the dining room and the cased opening between the two rooms adds to the size of both, while the recessed bay from the living room with its built-in seat makes a small reception alcove where a chance caller may wait. It is the more convenient because it is out of the sight of the dining room.

The projection of the bay has the effect

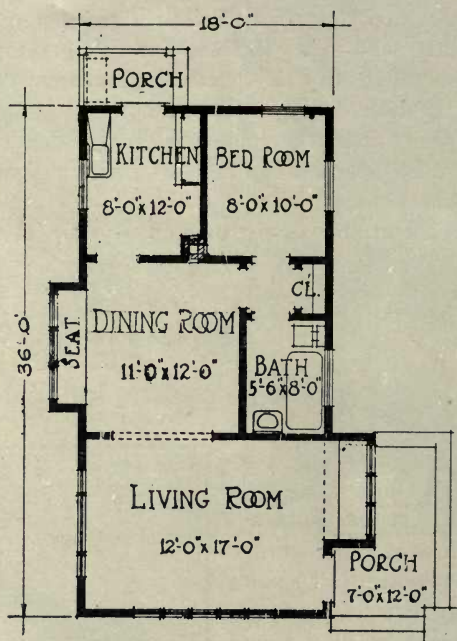
of recessing the entrance and giving it a slight protection, while emphasizing the approach and the terrace.

Beyond the dining room is the compact but convenient kitchen with its built-in cupboard, and well lighted sink, under the window. The rear porch makes a place for the refrigerator.

Opening from the dining room is a tiny passage way with the closet on one side, which connects the bedroom and the bath, and at the same time shuts them from the living part of the house. While these rooms are not large they have good light and cross ventilation and are conveniently arranged.

The whole house is eighteen feet by thirty-six—a very convenient dimension for a narrow lot, and an inexpensive house to build.

The exterior is of cement stucco plastered over galvanized metal lath, put on in the best possible manner in order to prevent checking and cracking.



FLOOR PLAN
No. 462.

A Snug Little Bungalow

Bungalowcraft Co., Architects



A home built at small cost.

THERE is always a demand for a convenient attractive little home which can be built at small cost, and the one shown on this page has proved very popular, containing as it does so many good features at the minimum cost. There is not a jog nor an extra projection to the exterior and this always means economy in construction, — jogs

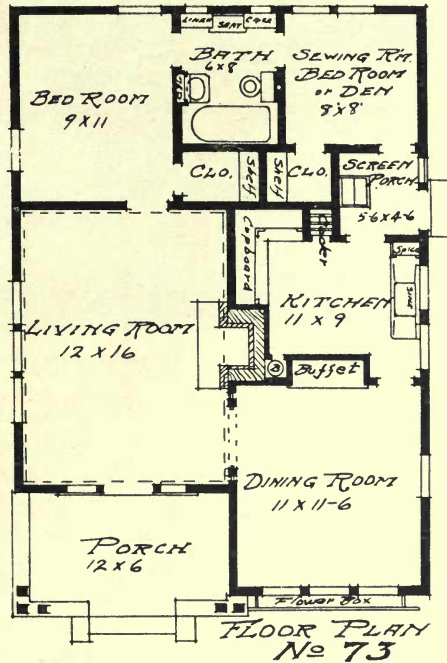
always run into expense, sometimes useless. The exterior is of weatherboards,—roof of shingles and so well braced that the occupant may smile at any amount of snow. The plans may be had either as shown in the picture or completely reversed so that they will adjust themselves to any location. The floor-plan shows the inside arrangement clearly but attention should be called to some features.

There is only one chimney but this carries a flue for the fireplace, one for the kitchen range and there is ample room for a separate flue for the furnace in locations where a cellar and furnace are required.

There is a pretty little buffet in the dining-room, which by the way has a pan-

eled wainscot and plate-rail and being to the front is one of the most cheerful rooms in the house. This is an important consideration in any home because if there is ever a time when someone in the family has a grouch it is at breakfast, and a

bright, cheerful dining room is a fine grouch-killer. The small room at the rear can readily be built as an open air sleeping room if desired. There are lots of closets, and a tiny screened porch and entry beside the kitchen. The kitchen is a model in its way with plenty of cupboards, closets, bins, etc., and all placed exactly right. In fact it looks as if this bright, cheerful kitchen should prove one of the most attractive rooms in this very charming little home.



Homes of Individuality

Selected by W. J. Keith, Architect

SO closely is the bungalow identified with California and its mild climate that one feels the necessity of showing on the exterior the adjustments that have been made in its construction to fit it to the requirements of more extreme climates.

Here is a charming bungalow adapted to the cold weather of our northern states. The cobblestones, nature's own building material, used so very attractively in this design, together with the heavy timber work and wide coursed shingles of

the exterior, give it that rustic, homelike appearance so hard to obtain in a bungalow when one must build for warmth. The retaining wall of these same cobblestones extending clear across one side of the house is a very unique idea, and planted with ferns and flowers, would add infinitely to the beauty of the design. With the shingles on the exterior stained a soft brown, and the roof shingles green, the white painted sash makes a pleasing contrast, and adds just a little touch of lightness that gives a cheerful



The retaining wall of cobble-stones—nature's one building material.

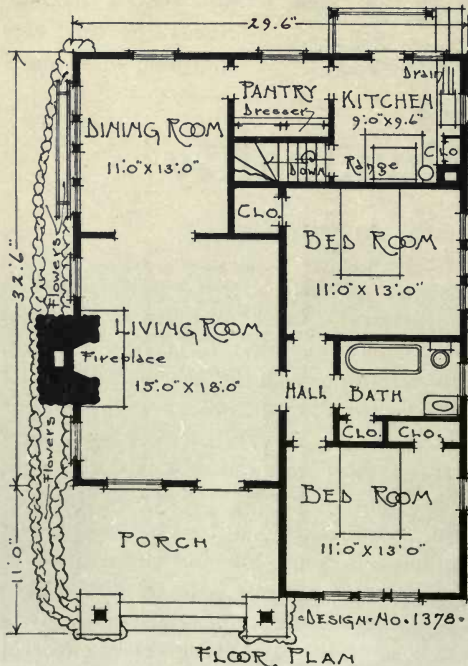
impression, and relieves the dark tone.

In floor plan arrangement, this design is exceptionally compact. The living room is of generous size, and with the broad open fireplace across one side

makes an unusually attractive room. A wide cased opening connects with the dining room, another large, well lighted room, with a flower box below the four casement windows. A swinging door leads from the dining room to the pantry, which is located most conveniently between kitchen and dining room and has plenty of cupboard space. The kitchen is equipped with all the modern conveniences, has an outside rear entrance, and has a door leading to the basement.

Two beautiful bedrooms are provided, both of which open off a small hall which connects with the living room and bath. These rooms are both furnished with plenty of closet space and ventilation. The bath is conveniently located between the bedrooms and contains the linen closet. Under the sill of the front bedroom windows there is a very attractive flower box which adds much to the effectiveness of the exterior design, while not adding much to the expense.

There is a full basement under the entire house, where are located the hot water heating plant, laundry, fuel bins, vegetable rooms, etc.





A cement bungalow.

Taken altogether this little bungalow with its cozy porch nestling under the low spreading roof makes a home of unequalled beauty and comfort. The architect estimates that it can be built complete for \$2,800, and its attractiveness makes it very popular. In size it is 29 feet 6 inches wide, and 32 feet 6 inches in depth, exclusive of porch and front projection.

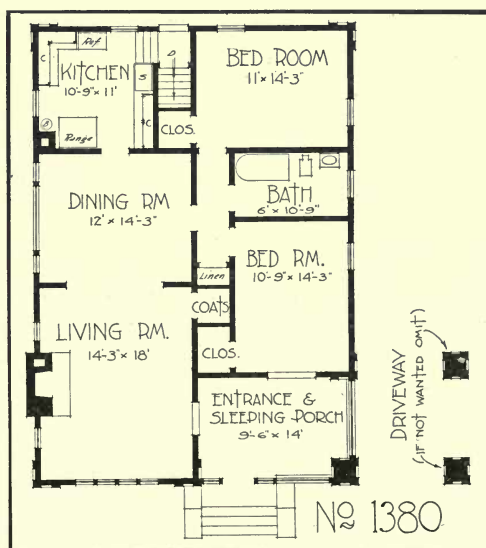
This cement bungalow with its almost flat tar and gravel roof is also very attractive in appearance and very conveniently planned. The piers of the porch and of the porte cochere are paneled as are those on the corners of the house. The wide projections of the eaves are carried on timber work which is continued in a pergola effect over the driveway.

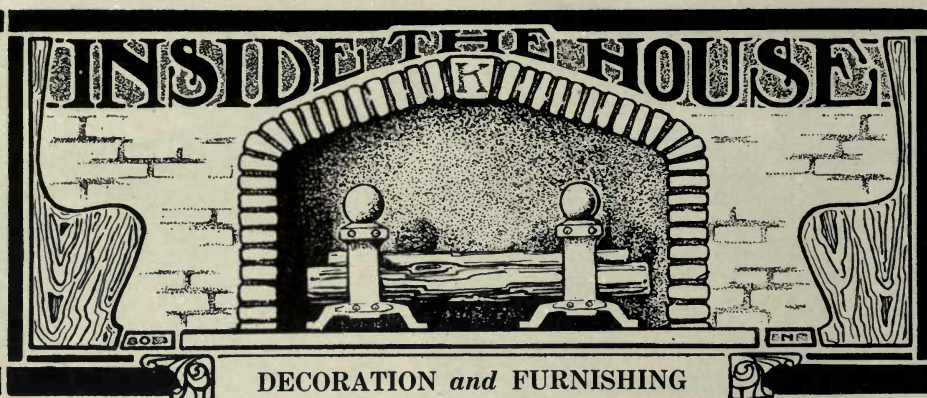
The plan gives five good rooms, the living and dining rooms and the kitchen on one side of the center partition, and the sleeping rooms on the other side of the house. The living room and dining room open together with a wide cased opening. The windows are well grouped and the fireplace is centered between windows.

Each bedroom has a good closet with a closet which may be used for coats,

opening from the living room. The linen closet opens from the bedroom hall, which connects the sleeping room and the bath.

The kitchen is well supplied with cupboards. The sink is well lighted and the refrigerator is on an outside wall. Four steps down from the kitchen is the grade entrance and the stairs continue to the basement.





A Center for the Family Life

THE accompanying interiors show a general family room with sun room adjoining and a charming dining room. This living room was originally two rooms, but the owner secured the services of a clever architect who could see possibilities in the arrange-

ment of the home. The inside wall was removed and a new fireplace of beautiful faience tiles was substituted for the old one. A sun room was built on and doors cut through on both sides of the fireplace and the result is a charming room, splendidly proportioned and well balanced.



The living room was originally two rooms.

INSIDE THE HOUSE

The wood trim is in old ivory enamel in a hand rubbed finish, with the French doors, mantle board, sills, etc., in dark, rich mahogany. The living room is a harmonious arrangement of skillfully handled tones of fawn and mulberry.

The walls are hung with a silk and linen tapestry in a fawn shade with a faint, almost invisible pattern which is brought out unduly in the photograph as this exposure was made under a powerful electric lamp. The windows are charmingly treated in velvet in a rich shade of mulberry and trimmed with dull old gold.

The group of windows to the left floods the room with a soft, mellow light, the glare being made soft and translucent by some transparent draw curtains of silk and wool in a pale amber shade.

These curtains are hung with rings sliding on a rod back of the valance and are easily adjusted by traverse cords. In addition to the French doors leading to the sun room, velvet portieres lined with English chintz have been hung in the openings and may be drawn when desired.

A heavy Donegal rug, eighteen by thirty feet, in a deep tan with shades of maroon, gray, dull green and black, covers the entire floor and adds space and dignity to this livable room. A luxurious over-stuffed davenport covered in a Jaspe stripe mulberry velvet is conveniently arranged in

front of the fireplace and with the well placed library table and reading lamp offers a delightful loafing place to while away the hours with a favorite book.

The long narrow table is a handsome piece of dark mahogany with cane panels set into the end supports. The shade of the mahogany reading lamp is covered in



Furnished in wicker, with chintz lined wicker lighting fixture.

old gold silk and trimmed with a deep silk fringe hung from underneath a wide band of embroidered galloon in tan and dull gold bullion.

The radiators are built rather low and concealed with wooden grilles finished in old ivory, the tops being in mahogany with their loose cushions of mulberry velvet, trimmed with a dull gold cord. A clever conceit is the light weight folding fire screen in mulberry velvet and dull gold.

Opening out of the living room is a cool and refreshing sun room with casement windows on three sides offering a delight-

INSIDE THE HOUSE

ful view of a formal garden with a glimpse of a lake in the distance. The walls are in rough plaster finished in oil in a warm gray with the ceiling in ivory. The wood trim is in Washington fir stained in gray with a rubbed varnish finish. A feature of this room is the tiled floor with a border of beautifully shaded faience tiles in deep

with a piece of chintz spread under the plate glass top of the table.

The wicker bowl suspended from the ceiling is lined with chintz; likewise the reading lamp, which may be conveniently placed at any desired point and attached to lighting plugs in the baseboard.

The dining room is particularly noteworthy, executed in tones of old blue, but the photograph fails by far to do justice to this charming room.

The walls have been hung with heavy canvas and exquisitely decorated in soft, delicate tones of dull blue, representing a formal garden scene which gives to this rather small room a spacious effect. The woodwork is done in white enamel with the doors and casement windows in mahogany, which blends de-



Dining room in dull blue and white.

brownish gray carrying touches of amber and dull red. The floor covering is a seamless chenille rug with a deep pile in soft tan with a plain border in a darker shade.

The fireplace is built of "rug-faced" brick in dull red with touches of gray and tan. Draw curtains of English chintz are hung at the windows and arranged to draw with traverse cords, the conventional window shades being omitted.

The light weight wicker furniture is stained in a beautiful shade of grayish brown and upholstered in the same chintz

lightly with the wall treatment.

A soft diffused light enters the windows tempered by draw curtains of sunfast in a pale amber. Heavy curtains of dull blue velvet provide a decorative feature and correspond in color and texture with the upholstered chair seats.

The sixty-inch mahogany table and chairs are in the fine Adam style, the chairs being somewhat unusual with the deeply carved medallion in the center of the cane panels. A beautiful sixty-inch sideboard, not shown in the picture, is placed along the wall opposite the triple window. A

INSIDE THE HOUSE

clever scheme to economize space is the arrangement of the china closet under the triple window. The shelves of this closet are of plate glass and adjustable.

The center lighting fixture of this room is ideal, an opalescent luminous bowl being suspended from the ceiling with antique sil-

ver chains. The candle side lights are also mounted on silver.

The room is exquisite in its carefully studied appointments, with a character quite its own to which the finishing touch is added by the handsome oriental rug in old rose, tan and ivory with blue.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given *free of charge*. Enclose stamp for reply.

Wicker flower boxes 10 inches wide and 3 to 6 ft. long contain a movable iron box. These boxes come with and without supports and in a variety of styles, costing \$5.00 and up.

Wicker furniture in ivory, relieved with black with the loose cushions in flowered chintz on a black ground will be very much in vogue this season. This style of furniture is suitable for any room and one or two odd pieces will always prove useful. Both rockers and arm chairs will cost \$15.00 to \$17.50 each complete with cretonne cushions.

A delightful bedroom treatment noticed in one of the show windows is a two-toned gray stripe paper that sells for 25c per single roll. A pretty 2-inch border in pink roses on a gray and black ground suitable for paneling sells for 10c per yard. The drapery fabric is a beautiful English chintz composed of baby rambler roses in pink climbing over a black and grey trellis. This chintz is 30 inches wide and costs 75c per yard.

The Home Builder and the Decorator.

TO those who are struggling with the problems of home building, for the first time, the relations between owner and decorator are often misunderstood. Numberless home builders fear to take advantage of the experience and skill of a decorator, thinking that their homes will lack individuality and that they will lose the opportunity to express their own ideas.

A successful decorator arranging a definite scheme, will consider a room or group of rooms from every angle, the purpose and suitability of each room, and

An unusual and pleasing bedroom paper is nasturtiums in soft natural colors arranged over a gray trellis on a cream ground. This paper will cost 50c per roll and is most effective.

Another paper well worth mentioning is a Florentine effect; a conventionalized rose design closely printed on a plain ground. The floral design is in soft gray on a cream ground and comes in various grades ranging from 25c to \$1.00 per single roll. Charming cut-out borders in any color desired may be obtained at 10c per yard.

Silk flowers are very much in demand for home decoration and some of the stores are featuring them very strongly. They are beautiful in form and color and will not fade. Some are charmingly arranged in pretty wicker baskets ranging in price from \$10.00 to \$25.00, while small clusters may be had at a nominal figure, suitable for grouping in wall pockets.

the tastes and ideals of the occupants. The decorator's goal is the creation of a beautiful room, harmonious in treatment, cheerful and restful, yet having its own distinctive charm. Seeking the aid of a decorator of the better sort does not mean the banishment of ones many cherished schemes and plans, but means instead the skillful working out of ones own half formed ideas and the elimination of all that is discordant and inharmonious.

In the average American home, the home maker does not have to solve the problems of style and treatment of wood

INSIDE THE HOUSE

trims, floors, etc., as that is generally advised or decided by the architect and is usually well designed. There is a notable tendency at the present time to have all the rooms on the first or ground floor connected with wide openings, which in the smaller home is a very sensible and practical idea, as it adds apparent spaciousness. In a home of this character the question of color, while not a serious one, requires more careful handling than in the larger home.

Planning the Vista.

Charming vistas may be arranged through a group of rooms by a careful selection of colors and clever placing of furniture and art objects. It is not always wise to arrange different color schemes in rooms opening together and having the same general treatment of wood finish as the eye is apt to be distracted by too abrupt changes. Where several rooms adjoin with large openings and present an uninterrupted view, it is a good plan to select a neutral color with a slight variation of tone in the different rooms, avoiding monotony by using contrasting colors in the hangings.

In the decorative treatment of a room the scheme of color and design must be planned from a foundation, as it is impossible to follow any set rules. However, there is one rule in the law of color harmony that must be adhered to, and that is to allow the floor covering to hold the deepest tone, the walls somewhat lighter, with the lightest shades on the ceiling.

Wall Coverings.

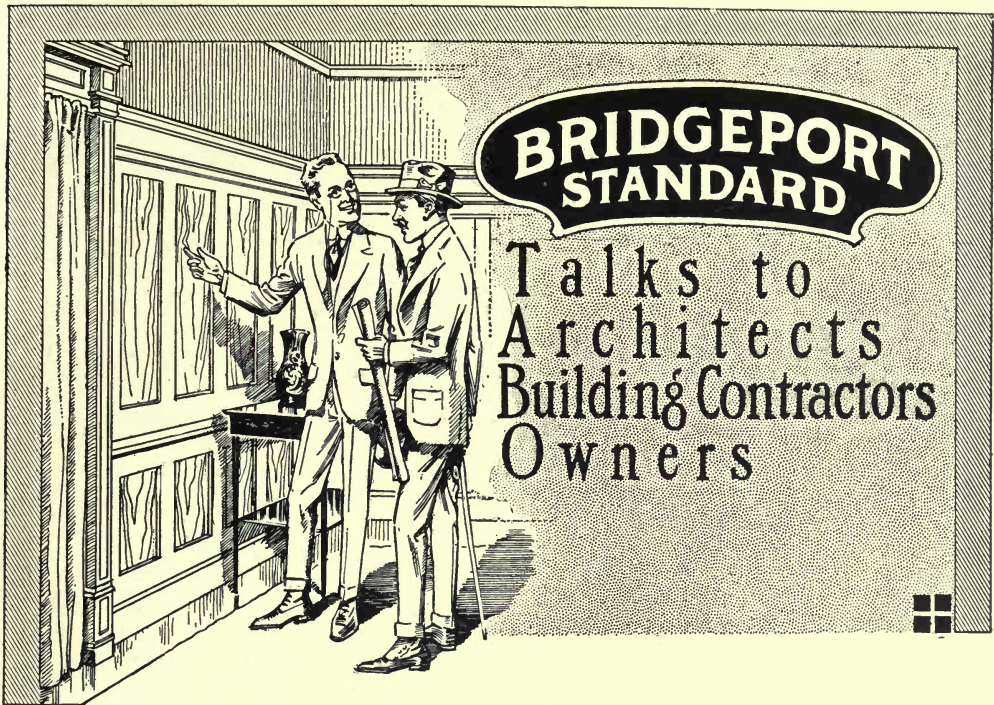
Perfectly plain papers and also textile weaves are very much in favor and a large and varied line in rich mellow tones with a good depth of color are now being displayed in all of the shops. Golden browns are again being shown quite extensively and there is nothing more satisfactory as they will harmonize with almost any other color. One of the new hangings is a golden brown paper in a textile weave with a slight suggestion of green. This paper makes a splendid background for pictures in dull gold frames and would be beautiful with velvet hangings of soft olive green.

Grays and putty shades make charming background and are more appreciated than ever before. Gray (if for the living room) is a color that must be selected very carefully and should be experimented with under both artificial and natural light in your own home surroundings before a final decision is made. A warm gray should be selected in which one imagines tones of amber, orange browns and dull rose without actually seeing them. Many home builders think they are getting this effect by selecting a Tiffany blend showing splotches of the colors as mentioned above, but this gives a very spotted effect and becomes decidedly monotonous. A cold gray in a living room is little better than the bare walls and even with dull old rose or mulberry hangings to liven it up, it loses its character and would prove very insipid.

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



- Architect:** "Here is that job showing the new gray finishes that I've brought you over to see. It gives you an exact idea of the beautiful finishes that can be given to the woodwork of your new home."
- Owner:** "My, but they're fine—the best I ever saw. How did you get them?"
- Architect:** "Easily answered. The Bridgeport people put out the *real* grays. I specified a coat of **Bridgeport Standard Acid Stain**, two coats of **WonderLac** and the result is just what you see here—certainly they're the slickest, clearest grays I ever laid eyes on."
- Owner:** "I happen to have some knowledge of wood finishing and I must say that I've never before seen what I called a good gray. They're all more or less of a greenish cast. How did you overcome that on this job?"
- Architect:** "You get a greenish cast when shellac and wax are used as a finish. There's just enough yellow in shellac to kill the delicate gray tint; but you see **WonderLac** is colorless, so it retains that beautiful gray tone which the stain gives to the wood."

Bridgeport Standard **Gray Acid Stains** are *real* grays. They give the most beautiful gray effects you ever saw.

But be sure to see that **WonderLac** is used over our acid stain—because WonderLac, being colorless, does not change the tint of the stains like shellac.

These new types of finishes are playing such an important part in attractive decorative effects, that no architect, building contractor or home owner who desires his woodwork finished in the most artistic and practical manner can afford to neglect being fully posted about them.

We are ready to furnish sample panels and complete information.

The Bridgeport Wood Finishing Co.

New Milford, Conn.

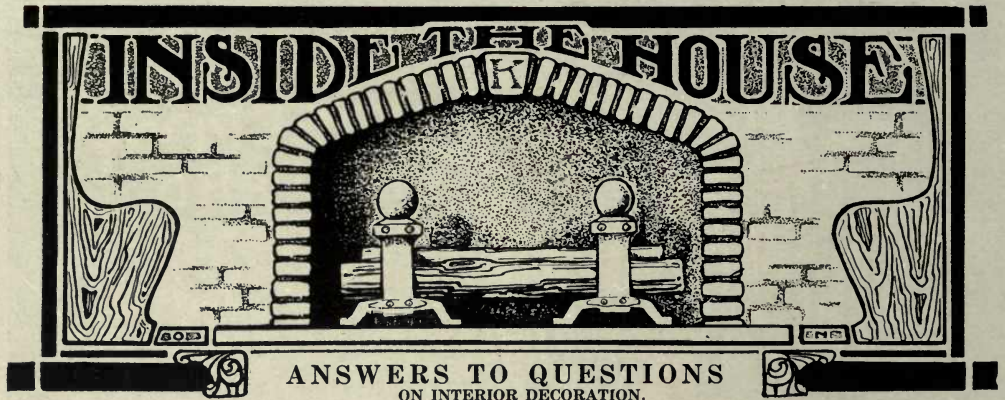
Architectural Service Departments:

New York
6 East 39th Street

Chicago
78 West Lake Street

Boston
8 Portland Street

Philadelphia
12th and Sansom Streets



Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

White Paint, and Children.

F. E. C.—I want some help as to finishing and decorating my living room and dining rooms. I find world's of advice as to living room with southern exposure but only one with western exposure and that had white woodwork. I cannot have the care of white finish in the living room. This room has a western exposure with windows on the western side. The woodwork is to be finished in what they now call golden oak—dull finish. Would it be preferable to finish the room in the natural or "antique" finish, dull of course. I can accommodate the furniture to the room. I have sufficient mahogany furniture for this room, but I don't fancy the oak woodwork and mahogany furniture. I want to paper the room (living room) in light paper as the room needs all the light it can get. I have a beautiful old mahogany dining table, but do not want to use it until my children are larger.

Ans. We infer that your reason for not wanting white woodwork in your living room is on account of the young children. If, however, you will use a varnish paint and not flat, with dark doors, you will not find it very hard to care for. White woodwork would do much to lighten this dark room and as the dining room with connecting French doors already has this finish, it is the logical treatment for the living room. Also as you have mahogany furniture, it is all the more a pity not to give it a proper setting. The doors can be stained dark, brownish mahogany, or even dark

oak, thus getting away with the largest surfaces to keep clean.

You should have a soft golden ecru for living room. Wall of pale golden tan with cream ceiling. In dining room a deeper tone of Old Gold for wall and Old Gold Sunfast curtains at outer sides only of the group of windows, with perhaps a valance across the top connecting the two. This will give an effect of sunshine and be in harmony with either oak or mahogany furniture.

Willow for Bungalow Furniture.

A. B. G.—I am building a new bungalow; five room, with bath, small hall and two porches, and would be glad for your advice in the matter. In the large living room we have lots of windows, as you will see from the sketch. Please give me your suggestion as to white or ivory woodwork. The exterior will be stained brown, with white trim. Solid brick foundation. We will have a mahogany upright piano in living room and would like willow, upholstered furniture. What color would you suggest for the walls, rugs, and curtains? Fireplace will be brown brick with white panel above, reaching to the ceiling.

2. Dining room and living room have double doors, so I want your idea of dining room curtains and walls. These two rooms must harmonize, so that they can be thrown together at times. I had planned to use Circassian walnut in dining room and delft blue curtains and rug, and the wall same as living room. I thought

The Varnish Problem



WHILE the right selection of varnish is of the utmost importance to the home builder, there are no real varnish problems.

Buyers can protect themselves against inferior varnishes by a wise selection of brands that have a well known reputation for quality.

Here are two that can always be depended upon to produce absolutely satisfactory results.

LUXEBERRY WHITE ENAMEL

Whitest White Stays White

Makes a rich permanent snow white finish, either dull or gloss effects.

LIQUID GRANITE *for* FLOORS

Lasting Waterproof Varnish

Makes a smooth satiny finish, and is easily kept in order with a floor mop. Also adapted for all interior work where great durability is desired.

We have some interesting literature on wood finishing for the home builder. Write for it.

BERRY BROTHERS

World's Largest Varnish Makers

ESTABLISHED 1858

Factories: Detroit, Mich.; Walkerville, Ont.;
San Francisco, Cal.

Branches in all principal cities of the world.
(266)



IT'S YOUR SEASON, *Spring!*

You who feel the call of Mother Earth—who yearn for your own yard and door-step; you who would get into your old "duds" and plant roses, digging into the fragrant soil with your bare hands—you who are weary of apartments, hotels and rent receipts

Build Now with

ARKANSAS SOFT PINE

It Is a Reliable Wood

Let us help you. Home-builders' book, samples, reliable advice—all free to those really interested. Address Dept K.

We have a dealer in your town. Be sure to ask him for Trade-Marked Arkansas Soft Pine.

Arkansas Soft Pine Bureau
LITTLE ROCK, ARKANSAS

Satin-like



Interior Trim

INSIDE THE HOUSE

of using the delft blue and tan for dining room, and old rose and tan for living room. What kind of window shades would you suggest, also curtains in the two rooms mentioned?

3. My bedroom is furnished in bird's eye maple and rug is delft blue. Would you tint the walls tan or blue and use tan or blue curtains? Please suggest furniture and color for the bedroom next to the bath room.

Ans.—Your own ideas seem well considered and in the main are good. We think your plan of furnishing the bungalow living room in wicker with mahogany piano an excellent one. Many costly houses are using wicker furniture for whole rooms. Of course it is differently treated for different places. In a sun parlor, for instance, natural wicker upholstered in cretonne or plain, would be used. In a living room such as yours, the wicker should be stained and some of it upholstered in velvet. Velvet is not more expensive than the handsome cretonne, as it is very wide, 50 inches. Nothing would make your living room so handsome as this treatment and the velvet is most serviceable covering. We have just done a living room in gray stained wicker upholstered with a mulberry velvet. The walls are a good-gray. The rug is one of the new high-pile rugs, ground an Oxford gray with zig-zag line pattern in black and 3 inch black border. Such touches of black are the very latest, both on walls and rugs. The davenport has fumed oak ball feet and bands of fumed oak on sides and is upholstered in the mulberry velvet. Every one exclaims over it.

Such a davenport without back costs \$50.00. Ours sets against the gray wall and has three large square pillows of the mulberry velvet standing upright against the wall. It is a handsome and durable and exceedingly comfortable, all hair and spring edge, piece of furniture and we should make this exception in furnishing the room in wicker.

Thin striped net curtains are next the glass and over curtains of a lighter shade

of mulberry Sunfast Madras in a leaf design. There are portiers of the velvet on the living room side lined with cretonne on side opening into next room. We should not advise just the same wall in dining room, the ecru wall will be good there but not in living room, which should be more on the grays, yet not a blue gray. We should combine old blue with Circassian walnut rather than delft blue.

In regard to your own bedroom, the blue wall will be a good background for the bird's-eye maple, provided you get a soft blue, but not too light. A solid tint is rather a hard proposition to handle. With solid blue wall we would have for curtains one of the pretty white Madras with scattered figures in blue and no other curtains. White ceiling.

To Finish Pine.

J. R. M.—We are building a house and would like your advice as to the finish and color scheme of the living room, den and dining room. We are using hard pine for woodwork and floors. Dining room will have plate rail. I had thought of blue for dining room, since all the rooms are so well lighted. Furniture to be oak. The family prefers the natural finish wood, but am afraid it would not look well with the built-in work and oak furniture. What is your idea?

Ans.—Replying to your letter of recent date, would say that we think it would be a mistake to finish the pine woodwork natural. Such a finish will answer for a kitchen, but nowhere else. The pine should have a brown stain if oak furniture is to be used. In the bedrooms it should be painted white.

We think the old blue wall an excellent choice for the dining room and the walls of the den would be pretty in dull but not dark green; then use a cretonne in green and yellow for curtains and furnishing.

We should tint the living room walls a warm soft gray.

Columned Openings.

J. J. K.—I am building a six-room bungalow and it is to have an opening between den and living room, also between

Note This ad appears only once in this publication. Cut it out **NOW!** Save it! Even if you do not intend to paint this season some day you will, and you'll be glad to have this to refer to when making your plans.

Vital to House Owners

Special Offer

To the first house owner in each town painting with Zinolin after reading this ad, we offer 10 per cent reduction on the cost of the Zinolin used—and unqualifiedly guarantee Zinolin to be just as revolutionary in every respect as claimed in our descriptive LEAFLET.

This LEAFLET is yours for the asking. Write for it. Inform yourself about Zinolin, the "Wonder Paint," before you paint. Know why Zinolin saves you money—why its brilliant luster lasts indefinitely, making your buildings always look newly painted. Know why Zinolin protects better—why its dazzling whiteness cannot be duplicated in any other outside paint—why its colors never fade no matter how delicate the tint when colors are used. Know these things. It will take but one second—it will cost but one cent to write—and know the greatest achievement in all paint history. Then you'll realize fully why you should use



ZINOLIN

"Arnold-ized" zinc paint

Years before putting Zinolin on the market—even before we tried it out along the seacoast—where the climate is most severe on paint—we knew we had an unusual product. But we, ourselves, were surprised to find how completely revolutionary Zinolin is. Zinolin has caused a genuine sensation. No one thought cracking, chalking, peeling and fading could be entirely overcome. No one thought the life of paint could be nearly doubled—or perhaps—they didn't think about it at all, but just asked their painters to "paint" without specifying any particular paint. That's why you owe it to yourself to write for our LEAFLET—to learn all about Zinolin—and to specify this wonderful paint—made only by the Arnold secret process—the only all "Arnold-ized" Zinc Paint in the world.

KEYSTONA —Another of our products highest award at the Panama Exposition. The first-created, washable, flat-tone finish for walls and interior woodwork. Imitated—but unsuccessfully. Justly famous for its soft, artistic colorings, extreme durability and big covering capacity. Costs slightly more by the gallon but less for the number of square yards covered. Economical. Hygienic. Use it instead of wall paper.

Write Now

Don't delay or you may forget—and this whole matter of paints is most vital to you. Send for complete information, giving us your painter's name today.

ZINOLIN and KEYSTONA are always obtainable at all Paint Stores and most Hardware Dealers.

Certified Painters

We have arranged with dependable painters in nearly every town who will not substitute other paints when you ask for Zinolin or Keystona, and who know just how to apply them. We will gladly give you the name of our certified PAINTER in your town, if we have one, or will communicate with your painter if you send us his name.

KEYSTONE VARNISH COMPANY

Established 1828

N. B. ARNOLD, President

1710 Keystona Building, Brooklyn, N. Y.

INSIDE THE HOUSE

living room and dining room, and I would like to know just what style opening you would consider the best. We do not intend to close these rooms. The dining room is to have beam ceiling. What kind of oak floors would you recommend for living and dining room? We are considering maple for other floors.

Ans.—In reply to your inquiries we are not much in favor of what is termed columned openings between living and dining rooms. It is always advisable to be able to shut off the dining room on occasions, either with glass doors or with portiers. However, many people use the columned opening, but in this case a large folding screen, which can be interposed, is absolutely essential. No such objection obtains between den and living room, where any kind of an opening may be used, as the living room is small, we should have a wide, open arch here. White oak is excellent for floors in living and dining rooms. Maple is good for the bedrooms, bath, and kitchen.

Wicker Furniture With Weathered Gray Stain.

E. M.—Will you please give me advice in regard to the enclosed bungalow design about finish of walls and woodwork and suggestions for curtains, rugs, and furniture. The woodwork in the living and dining room will be in curly fir. Should these two rooms and entry have the same color scheme? Would you advise the use of wicker furniture in living room?

Ans.—We think the finish of the woodwork should be the same in living, dining rooms and entry. The walls can have different coloring. For curly fir in a bungalow the best finish is a soft English brown stain, though a weathered gray would also be very pretty, provided you can carry out the idea in the furnishings. Should you finish the wood work in the gray stain, then we would get some of the new Kaiser gray dining room furniture, and gray stained wicker for the living

room. We would have the living room wall tinted with a gray stain, darkening the stain with a little black for the side walls, but just as it comes for the ceilings in both rooms. Then tint side walls in dining room old blue, and have a Scotch rug with gray center and blue and green border. In the living room use a plain, deep blue rug, and plain deep blue velvet or corduroy or rep for upholstering the wicker furniture. Blue Sunfast for side hangings at the windows over thin white voile.

With "Early English" Furniture.

R. F. W.—What kind of finish shall we use for our interior? We have furniture for the living room which is Early English; we have only two pieces of dining room furniture, china cabinet and buffet, which is golden oak, of Mission or a brown weathered shade.

We had thought of using linoleum on floors and oil paper on walls of bath room and kitchen, as tile is rather expensive for bath room.

Ans.—Inasmuch as the living room furniture is Early English, it determines the stain of the woodwork in this room, which should correspond. As several different finishes make a house look patchy, we should use the same stain for the dining room, but liven up the north exposure by the golden brown walls, cream ceiling, panels, and old gold curtain draperies. The chairs can have seats of either golden brown leather or of tapestry, and this might introduce a note of rose with the golden brown.

Give the hard plaster three coats of good oil paint in both kitchen and bath room. Let the plasterer use a good coat of cement, up wainscot height in both bath room and kitchen and before it hardens mark it off like tile in grooved lines. Then paint it. Let the kitchen linoleum be brown and cream, and in the bath room, if you prefer blue and white, let wall and linoleum match. Or else have an all white wall, which is better.



Use That Space Beneath the Gables

Finish it neatly and dust-tight so that it will always be clean and light and available for extra sleeping rooms, play rooms or storage.

CAREY

Ceil-Board
SUPERSEDES PLASTER FOR WALLS AND CEILINGS

makes attractive, livable, usable house space beneath the gables at very slight additional cost. Hammer and nails are the only tools required to apply it. Clean and easy to handle.

Adds a complete story to the home. Write for booklet and free samples.

THE PHILIP CAREY CO.

Gen'l Offices: 1024 Wayne Ave., Lockland, Cin., O.
Offices and Warehouses in Principal Cities.



Colonial Fireplaces ARE RIGHT

Made to Order from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

Furnish Your Home Out of the New

**SECTIONAL
"COME-PACKT"
FURNITURE**

Catalog

Send for it today. See what it saves you on beautiful furniture. See the wonderful choice it gives you at low cost. Then begin to make *your* home a Come-Packt home, as thousands are doing.



Come-Packt Furniture, designed by famous furniture craftsmen, is sent to you in sections direct from the factory, saving intermediate profits and much freight. Write today. Address

COME-PACKT FURNITURE CO.

456 Dorr Street

Toledo, Ohio



"As Good as They Look"

The just pride home owners take in the beauty of their Morgan Doors is matched by the satisfaction of knowing Morgan Doors must give lasting service. For Morgan Doors have an *All White Pine Core* that *prevents* warping, swelling and sticking.



are the only doors thus fortified against weather changes—the only doors that must fit and stay fit—the only doors insured against an aftermath of trouble.

So great is the variety of Morgan Doors that you are sure to find the right design for *your* home—*your* taste—*your* price desires. Morgan Doors are standard quality whatever their price. The value is guaranteed by the name on top rail—worth looking for—worth insisting upon.

"The Door Beautiful" Book FREE!

If you're a home owner or intending builder, write for this delightful door book—full of inviting suggestions for charming homes.

Morgan Sash & Door Company

Dept. A-27, Chicago

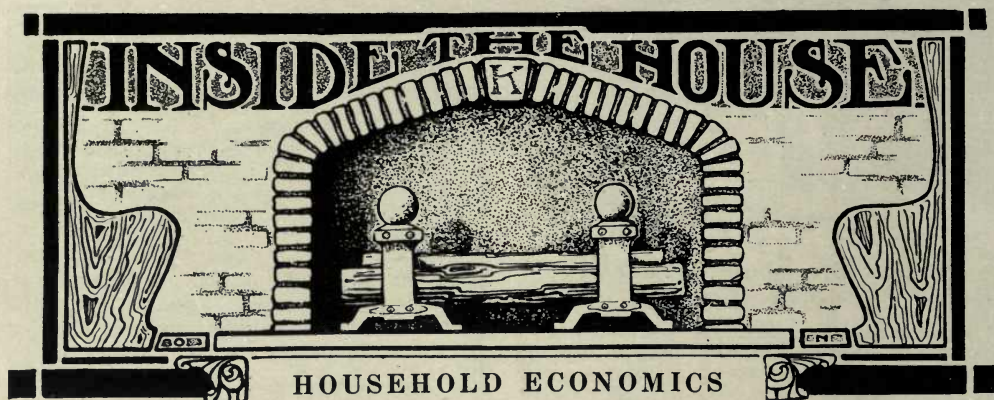
Factory: Morgan Co., Oshkosh, Wis.; *Easter* Branches: Morgan Millwork Co., Baltimore.

Displays: 6 E. 39th St., New York; 309 Palmer Building, Detroit.

Building Exhibits: Insurance Exchange, Chicago; Soo Line Bldg., Minneapolis.

If your Dealer hasn't Morgan Doors, write us.





The Bungalow Heating Problem

IN a severe climate where a complete basement is excavated and finished under the full house and all of the house is to be fully heated even in extreme weather the heating problem has been very efficiently worked out for all of the different types of heating plant.

The bungalow is essentially a form of house that clings to the ground; that spreads over a good deal of ground, with little more than the space under the roof utilized for second floor rooms and often it is all on one floor. Under such conditions a full basement adds very materially to the cost. In mild climates it is not a vital necessity. Summer homes naturally place themselves in the same class for they do not generally prepare for severe weather. With all of these some kind of heat is necessary, yet the householder does not need and does not wish to put in an expensive heating plant, nor one which is difficult or untidy to handle.

Fireplaces.

One always thinks first of an open fire for cool or rainy days. The fireplace itself is one of the most attractive features of the home. Nevertheless one does not often find a house which is satisfactorily heated by means of fireplaces alone. It is suggested that fireplaces are generally built as a decorative feature and are not properly constructed to give a full efficiency for the fuel consumed. The relation between the flue and the fireplace open-

ing, the placing of the damper, width of throat, etc., must all be carefully considered in its design. The California winter visitor is a little surprised to find the fireplace closed temporarily and an air-tight stove set up in front of it. One clever householder set up his air-tight stove in a closet and kept the door closed in mild weather, but when the morning was cool opened the closet door, built a fire in the stove and had a comfortable breakfast beside it.

A Tiled-in Stove.

An artist with a practical turn of mind set up a stove and tiled it in with tile which she designed and made herself, leaving a good space for the circulation of the hot air and working several open grills in the design, with doors which opened invisibly in order to take care of the stove. The porcelain stove of Holland and the Netherlands was her inspiration.

The House Heater.

The larger types of heating plant are very easily adapted to the small house. Heating the bungalow with hot water without a basement was discussed in the April Bungalow number for 1915.

This article gives some of the ways for heating the bungalow by direct radiation. There are types of the small furnace adapted especially to these conditions. One often used to find a "base burner" so placed in a living room as to heat,



No More Plastering

That alone is argument enough for Beaver Board—no more plastering

The distressing muss and litter of plastering is done away with. More than that the additional litter and annoyance of paper-hanging is likewise unnecessary.

The Beaver Board way is so much easier—just nail the ready-made walls to the timbers, paint according to your taste, apply decorative strips over joints and the crack-proof wall is done.

Our Design and Decoration Department will gladly help you get exactly the effect you want—no charge.

Use Beaver Board for new work or remodeling, large jobs or small. It gives handsome, permanent, serviceable walls and ceilings. Write for free sample.

BEAVER BOARD

The BEAVER BOARD COMPANIES

650 Beaver Road, Buffalo, N. Y.

Branches in 16 Cities

The Famous WELCH Extension Slide



For your closet or wardrobe may now be obtained direct from the manufacturers. It is readily attached and increases the capacity of your closet triple or quadruple—and saves its cost many times over in lessened clothes-pressing fees. You've seen The Welch in all the clothing cabinets for men's and women's wear in the best stores. Now we have arranged them for the home closet or wardrobe. In various lengths, heavily nickel-plated, guaranteed. Explicit details for installing. Write for illustrated circular and prices.

WELCH MANUFACTURING CO.

Largest manufacturers of Clothing Cabinets in the world.
21 Lyon Street Grand Rapids, Mich.



Oak Flooring

BEAUTIFUL -- ECONOMICAL
DURABLE

Three Vital Qualities

THE woman of today wants OAK FLOORING because it will harmonize with any kind of furniture or color decoration, and is susceptible to any kind of finish. In color it is RICH and CHEERFUL and imparts an air of REFINEMENT and ELEGANCE to a home.

The owner demands OAK FLOORING because it increases the selling and renting values.

OAK FLOORING is made in 13-16 in. and $\frac{3}{4}$ in. thicknesses in different grades. $\frac{3}{4}$ in. can be used very economically over old floors in old homes or over cheap sub-floors in new homes. It is cheaper than carpets or pine flooring.

Any carpenter or handy man can lay OAK FLOORING successfully, and during the slack season it makes a very profitable line for any carpenter.

There is a solid satisfaction and lasting pleasure in the substantial and dignified appearance of OAK FLOORING.

Write for Booklet.

"America's Best Flooring"

The Oak Flooring Bureau

1348 Conway Bldg., Chicago

INSIDE THE HOUSE

perhaps two other rooms, dining and bedroom, and possibly with a register in the ceiling to moderate the temperature of an upstairs room. There is on the market a small cottage furnace which is built on the principle of the "base burner" but which is installed under the floor of the living room, with a large register directly over it in the living room floor. This brings the heat in the room at the same place and to the same amount as with the burner, but with coal and ashes and attendance in the basement. This register is divided into a central heat outlet, and two outer return air inlets. The two return air inlets are connected to outer spaces in the body of the furnace, and through these spaces the cooler air of the rooms is drawn, down to the bottom of the heater, where it is deflected upward, passing against the welded steel

radiator of the furnace, absorbing its heat, which is delivered into the rooms through the central opening of the register face. The circulation is rapid and complete, and reaches all parts of the house which communicate with the rooms where the register is placed. The chill of upper rooms is taken off by the use of floor register openings through the ceilings, into the heated rooms below.

Upon inquiry we learn that it would be possible, in case the partitions were so adjusted, to replace the large register by two or even three registers in separate rooms which adjoin, the furnace standing under the point adjoining.

With any installation of hot air, registers should be so placed that vertical pipes run directly from the furnace to the registers.

It is calculated that the ordinary seepage of air into a room from the outside, through joints about windows and doors, the usual opening of outside doors, etc., changes the air completely every hour in the ordinary room, but that unless it is kept in motion it will quickly stagnate forming a "blanket" about the people and giving all the ill effects of bad air. Thus the office of ventilation is not only bringing a sufficient quantity of good air into the room but it must also insure a circulation of the air.

A room heater, with a complete circulation of air, fresh air intake and ventilation, which has been developed for heating single room schools, is applicable to the bungalow without a basement, if it is planned for the installation. This would require a central inside room about six feet square, where this heater can be installed. The floor area of the several rooms surrounding this central inclosure as figured for the installation, would not be greater than that of a large, single room school, for which the heater was planned. Open grills in the walls communicating with each of the rooms allow a full circulation of air and heat.

**GAUMER GUARANTEED
LIGHTING FIXTURES**

*"Gaumer
Lighting
everywhere
follows
the evening
glow"*



GAUMER
FIXTURE
GUARANTEED
BIDDLE-GAUMER
PHILADELPHIA

Unusually beautiful designs with a finish that does not tarnish—substantially built for life-time service.

Tell your dealer you want the genuine

**GAUMER
FIXTURES.**

Look for the
**GUARANTEE
TAG**
before you buy.

Send us an idea of your rooms and we will gladly suggest designs.

ADDRESS DEPT. D.

BIDDLE-GAUMER COMPANY
3846-56 LANCASTER AVE., PHILADELPHIA

Ask the Folks Who Answered the Ad.

THERE are literally thousands and thousands of home owners in the United States and Canada whose homes have been made sweeter, healthier, happier, more livable in every way because they read our advertisements and equipped their homes with the

TUEC STATIONARY CLEANER

"For Health and Cleanliness"

They began by writing for our free books. From these they learned how the TUEC does all the hard work of house cleaning, how it removes all the dirt and fine, microbe-laden dust from every part of the house and its furnishings, how it exhausts the polluted, breathed over air outside the building and replaces it with sweet, pure, life-giving air from out of doors, —all at the touch of an electric button.

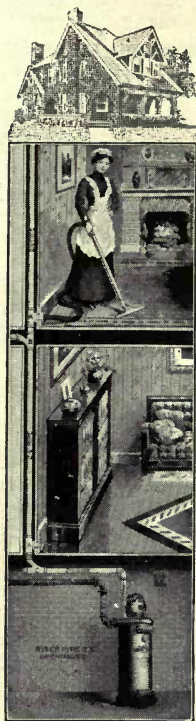
Then they asked other TUEC owners. When they learned from these how essential the TUEC is to clean living and how inexpensive it is first and last, they ordered the TUEC installed in their homes, with ample piping concealed between partitions and the powerful machine out of sight and hearing in the basement.

Follow their example. Write today for the TUEC Book, and names of TUEC Users in your vicinity.

The United Electric Company

10 Hurford Street

Canton, Ohio



LET EFFICIENCY BE YOUR CHIEF AIM IN HOME HEATING

THERE is no single item of home equipment which at so little expense affords so much comfort, convenience, economy and safety as the installation of

The "MINNEAPOLIS" HEAT REGULATOR

"The Heart of the Heating Plant"

This device proven satisfactory in thousands of homes for nearly a third of a century takes complete and accurate charge of the dampers of any style of heating plant, burning either coal or gas.

Its accurate operation maintains a uniform temperature of any desired degree both day and night. By means of a simple adjustment of the clock attachment it will automatically and silently, at any pre-determined hour, raise or lower the temperature to any exact degree.

With the Minneapolis Duplex Model No. 55 these exact night and morning changes can be automatically obtained during every 24-hour period for 8 days, with one winding.

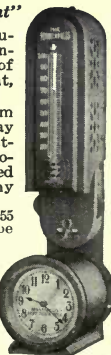
Sold by the heating trade everywhere under a positive guarantee of satisfaction.

Write For Booklet.

Minneapolis Heat Regulator Co.

WM. R. SWEATT, President

2725 Fourth Ave. So., Minneapolis, Minn.



Model No. 55

Most dependable board made in America



The problem of interior decoration has probably distressed you as it has most other people. Never settled—always bobbing up, with bother and expense. Always some room to re-paper or re-plaster; for plastered walls and ceilings constantly demand repair.

But you CAN solve the problem. You can get beautiful interiors with the appearance of the most expensive materials; and at comparatively little cost and less bother—interiors that will last for years and years. Many of Keith's readers already know that

UPSON PROCESSED BOARD

is the MODERN, EFFICIENT way to line walls and ceilings.

Here's a friendly hint: Learn all about Upson PROCESSED Board, so that when next you build or remodel or repair, you can do it to LAST.

Upson Board saves all the delay and muss and dirt of plaster. Does away with dirty, unsanitary wall paper. Resists fire and promotes house comfort the year 'round.

Upson PROCESSED Board is unlike any other board on the market. It is the one DEPENDABLE wall board. Really artificial lumber—KILN CURED, WATERPROOFED and SURFACE FILLED. Looks, feels and works like lumber, and is not spongy and absorbent like most boards.

Some inferior, irresponsible boards may seemingly cost a little less, but there isn't a dollar's difference between the cost of Upson Board and the cheapest board, for the average room. You save that difference many times over when you paint Upson PROCESSED Board.

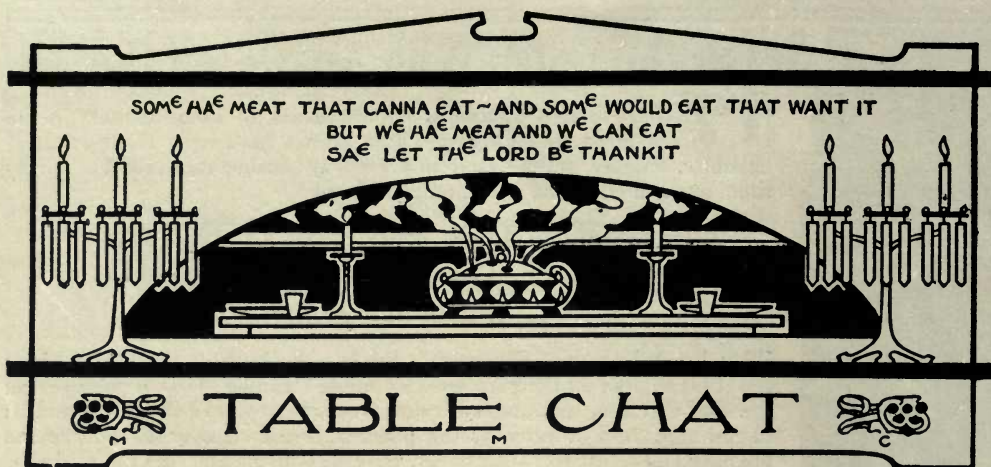
It is always the most economical and most satisfactory in the end.

Your request to us will bring you promptly a painted sample and complete information about Upsonizing—the modern way. Enclose 2-cent stamp for a delightfully interesting booklet on beautiful interiors, also.



THE UPSON COMPANY, Fibre Board Authorities
154 Upson Point, Lockport, N. Y.

LOOK FOR THE BLUE CENTER—TRADE-MARKED



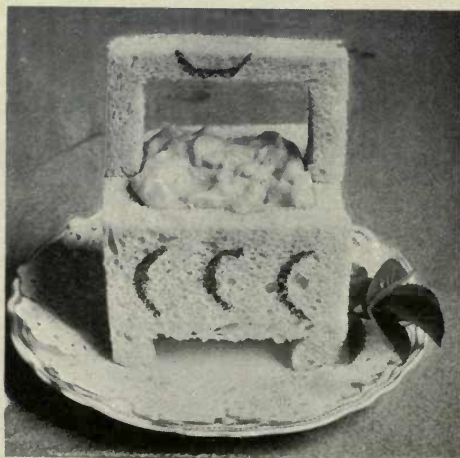
A Few Leaves of Lettuce.



EVER throw away lettuce, especially in the cold months, when it is at its best, and most expensive.

If there is not enough of it for a serving, to help out someone's lunch, use the leaves for a garnish. At French restaurants an omelet makes its appearance with its vivid yellow contrasted with the tender green of a couple of lettuce leaves, and a single leaf is enough to hold a portion of salad.

Or, you can take your half dozen leaves of lettuce and cut them into narrow strips with the scissors and mix them with dice of celery and stoned olives and have a good and pretty salad, with either mayonnaise or French dressing.



To serve chicken salad with bread.

If the coarser outside leaves are carefully washed and trimmed and allowed to accumulate from day to day, tied up in cheesecloth next the ice, they can be used for a cream of lettuce soup, which is extremely pretty and tastes about like all the other cream soups made from green vegetables, whose salvation is a liberal use of milk and butter and a discreet addition of onion.

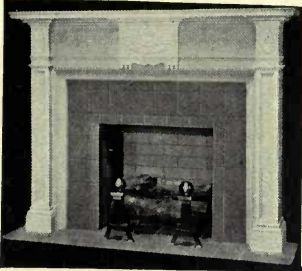
Chicken Salad in Crescent Basket.

An unusual way of serving salad is shown in the illustration. To prepare take one well boiled chicken, two bunches of celery and two hard boiled eggs. Remove the skin from the chicken and cut the meat in small pieces, with scissors; cut celery and chop the eggs and mix all together. Add pepper, salt and a dash of cayenne. Make baskets of bread, hollowing them out and making a handle for them. Decorate with crescents or any design suggested by the occasion. The design is made with a brush dipped in yellow vegetable coloring. Fill the baskets with salad, and on top put a spoonful of dressing that has had a cup of stiffly beaten cream added to it.

Brown Earthen Custard Cups.

One of the things you get at the five and ten cent store is an earthenware custard cup, which costs five cents, and is out of the question for a self-respecting custard. It is, however, invaluable for the cooking and serving of entrées. Anything that you would serve in timbales

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.



MONEY-SAVING PLANS

SAVE without skimping by building from our practical plans of up-to-date homes of distinction and charm. All waste eliminated by our experience as architects *and* builders of a great number of homes. Our plans have helped to beautify thousands of American cities. Send for our plan books: "Bungalows," 100 moderate priced bungalows; "Attractive Homes," 100 story-and-a-half and two-story houses.

Either Book Postpaid, \$1.00

Both Books for \$1.50

LINDSTROM & ALMARS

290 Plymouth Building

MINNEAPOLIS, - - MINN.



G. & B. PEARL WIRE CLOTH

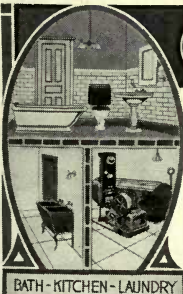
The wonderful durability of G. & B. PEARL Wire Cloth for screening as well as its beauty is due to its metallic coating. The composition of, and method of applying this coating is exclusive with us and used only on genuine PEARL. So when a dealer offers you something "just as good as PEARL" he is mistaken. It isn't so. There can be no "just as good."

The day you screen with G. & B. PEARL you end trouble and expense. No painting—no repairing—PEARL lasts and satisfies. It is the handsomest screen and the cleanest as well as offering least obstruction to the vision. Look for two copper wires in the selvage and the Round Tag bearing our name on each roll. They identify the genuine article, and for the sake of screen satisfaction they are worth looking for and insisting on.

THE GILBERT & BENNETT MANUFACTURING CO.

(Established 1818)

Dept. D, 277 Broadway, N.Y., Dept. D, 38 S. Dearborn St., Chicago
Georgetown, Conn. Wireton, Ill. Kansas City, Mo.
The Best Hardware Dealer in Your City Sells "PEARL"



BATH - KITCHEN - LAUNDRY



KEWANEE PRIVATE UTILITIES

Give Water and Light Service Equal to the Best Public Utility Plants in Cities

The largest or smallest residence, no matter where located, can be equipped with all the comforts of the city home. The Kewanee is the original air pressure water system, supplying water under strong pressure for bathroom, kitchen, laundry, garden, garage, barns and stock. Excellent fire protection. No elevated tanks. Anybody can operate. The Kewanee is built as a complete and compact system in our factory and ready for a life-time of good service as soon as the shipping crate is taken off. Cost from \$45.00 up, according to capacity desired. Our dealers are high class mechanics and will install a Kewanee System, with our guarantee of success. KEWANEE PRIVATE UTILITIES give daily service and remove the last objections to comfortable country living.

**Water Supply Systems—Sewage Disposal Plants—Electric Light Plants
Gasoline Engines—Gasoline Storage Plants—Vacuum Cleaning Systems**

Send for illustrated bulletins on any or all the above



COMPLETE & COMPACT

KEWANEE PRIVATE UTILITIES COMPANY, 224 South Franklin Street, KEWANEE, ILLINOIS

(Formerly, Kewanee Water Supply Company) Branch Offices—50 Church Street, NEW YORK and 1212 Marquette Building, CHICAGO

You are assured a square deal in Keith's.

you can serve in these little bowls, which are better than ramekins for everyday use, because they hold more.

In our illustration they have been used for minced chicken and spaghetti, moistened with a cream sauce and browned in the oven, but any number of things suggest themselves. There are baked beans, heated over for luncheon, creamed smoked beef, cheese fondu, tiny omelets of a single egg, Brussels sprouts in drawn butter, clams devilled with green peppers, even corned beef hash. They are also available for moulds for jellies or blanc mange, or for the baking of popovers or steaming of brown bread. And not the least of their advantages is that they keep the food so very hot.



Another use for earthen cups.

Making a Fish Salad.

A fish salad is an extremely good dish for luncheon or for a Sunday night supper. Arrange a circle of the inner white leaves of a head of lettuce around the edge of a platter, and cut the remaining leaves into shreds with scissors. Have an equal quantity of flaked fish, mix it with the shredded lettuce and dust lightly with pepper and salt. Just before serving mix well with mayonnaise made with lemon juice instead of vinegar. Garnish the salad with hard boiled eggs and cucumber pickles thinly sliced, and put some more mayonnaise on top of the mound.

Another way of making a fish salad is to take about a cupful of the water in which the fish was cooked, flavor it with pepper and salt and the juice of a small

onion and add the juice of a lemon. Have a quarter of an ounce of gelatine soaked in a little cold water and when the flavored fish stock is boiling hot stir it in. Pour a thin layer of the liquid jelly into a small mould, and when it begins to set arrange boiled fish in good sized flakes, hard boiled eggs and thin slices of cucumber symmetrically inside the mould, filling up with the remainder of the gelatine mixture. When it is quite hard cut the jelly in slices and arrange it on a bed of lettuce leaves.

Salad Forks and Spoons.

People who still have a fancy for dressing a lettuce salad on the table like the wooden forks and spoons, which are still made in Switzerland and have carvings on the handles of fruits and flowers in high relief. Quite an elaborate pair can be bought for eighty-five cents. A big bowl of lettuce flanked by fork and spoon and oil and vinegar cruets, with a carved wooden bread board at the other end of the table, bearing a loaf of brown or whole wheat bread, unsalted butter and olives is a luncheon that appeals at once to the eye and the taste.

The Two Grades of Olive Oil.

Whoever has read much about the olive-raising countries knows that the olives are pressed twice. From the first pressing results the very clear, light colored, virgin oil, from the second a darker colored and stronger flavored oil, which the peasants use. To any one who really cares for the distinctive taste of the oil, the second is as good, if not better, than the first. It is usually sold in bulk in shops in the Italian quarters in our cities, and is much cheaper than the other, costing little more than cotton seed oil. At forty cents a quart, frying in oil need not be considered out of the question.

In using an expensive brand an economy with oil is to get a quart and to mix it with an equal quantity of cotton seed oil, the flavor of the olive oil being strong enough to kill that of the other, which is, of course, perfectly wholesome. Indeed, there is a brand of cotton seed oil which is absolutely free from the cotton seed taste, and makes an excellent mayonnaise.

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size $7\frac{1}{2}$ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price \$1.00, Postpaid

With a Year's Subscription
to Keith's Magazine---\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.



Home in New Haven, Conn. Architect and Builder, W. G. Tower, New Haven, Conn. A pleasing combination—One color on roof, another on side walls.

These Shingles Defy Sun and Storm

The wear and tear of changing weather adds a continual expense for repair and repainting to the home where roof and side walls are covered with even the best shingles or other material the open market affords. But where a thoughtful architect or owner specifies

"CREO-DIPT" STAINED SHINGLES

there is welcome relief from the usual heavy item of maintenance. These shingles do not fade or wash out in streaks—they resist rot, decay, worms and weather in a remarkable way.

Unique Process of Preserving and Staining

The idea of preserving and staining shingles at the factory is exclusive with us—and responsible for the beautiful, soft-toned and lasting colors that distinguish "CREO-DIPT" Stained Shingled homes for their charm and individuality.

"CREO-DIPT" Stained Shingles come in 30 rich colors—in 17 grades—in 16, 18 and 24-inch widths—so you can give the exterior of your home an artistic appearance in harmony with its architecture and landscape.

They come bundled ready-to-lay without waste. Save the muss, fuss and disappointment of staining on the job—and cost even less.

Our Book picturing 100 "CREO-DIPT" Homes helps solve the building, remodeling or re-shingling problem. Our Samples of Colors on Wood show you exactly what you can get. Write.

STANDARD STAINED SHINGLE CO.



1022 Oliver Street,
North Tonawanda,
New York

Standard
Stained
Shingle Co.,
1022 Oliver Street,
N. Tonawanda, N. Y.

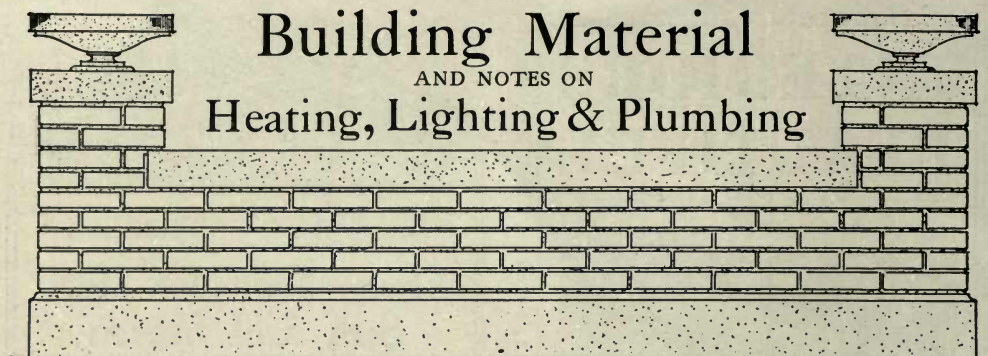
Please send Book and
Samples of Colors on Wood.

Factory in
Chicago for
West.

Name.....

Address.....

City.....State.....



Mixing Paints

John Upton

WHEN you get ready to paint you will want to know something about how much paint you will need, and perhaps something about mixing it. You may form a close estimate of the amount required for each coat by multiplying the distance around the building by its height. Then divide the number of square feet by five hundred for first coat on new work, and by six hundred for other work.

The number of coats needed will depend on the surface to be painted. New work will need a priming coat of thin paint and one or two others. Old work may need one or two coats.

If you use a ready mixed paint you can add enough oil to that used for the first coat so as to thin it sufficiently. One gallon of oil to a gallon of paint will usually be about right. For the first coat on old work, one-half as much oil may be enough.

Color.

It may be that you have picked out a mixed paint of some shade which you intend to use for the finish coat, after using white lead and oil for the priming coat. Or, you may decide to use white lead for the body and a ready mixed colored paint for the trim. A small amount of the colored paint, say one part in ten, may be mixed with the white to give a slight tint to the body.

Perhaps you wish to use white lead for the entire job, and may wish to color it.

This should be done by adding colors ground in oil, as better results are obtained than with the dry powders.

In mixing paint it is well to be sure to mix enough as any which remains may be used somewhere else and it is much better to have some left than to be obliged to stop and mix more. This is especially true in using colored or tinted paint as it might take some time to secure just the desired tint in a small quantity. If you have a little of two or more colors left you may combine them and put in a little lamp black and use for porch floors, eave troughs or roof gutters.

New Work—Priming Coat.

To mix white lead for priming coat on new work use these proportions:

One hundred pounds of white lead.
Six to seven gallons of raw linseed oil.
One gallon of turpentine.
One pint of drier.

This will make ten gallons of paint which will cover five thousand to five thousand five hundred square feet at one coat. If less is required reduce the amount accordingly.

For soft woods as white pine, poplar, and basswood, use the larger quantity of oil. For yellow pine, spruce and hemlock, use less oil.

The priming coat should be thin and well brushed out.

What Paint

shall I buy, is sometimes asked, to be sure that it contains

Dutch Boy White Lead

It can't be done.

You buy Dutch Boy White Lead in steel keg (as shown here).

The painter makes paint of it by adding linseed oil and color.

That is the paint which wears.
Ask us for Paint Tips No. K.E.

NATIONAL LEAD COMPANY

New York
Cleveland

Boston
Buffalo
San Francisco
St. Louis

Cincinnati
Chicago

(John T. Lewis & Bros.
Company, Philadelphia)
(National Lead & Oil
Company, Pittsburgh)



Trade at home and prosperity takes no vacation.

Second Coat.

For the second coat on new work use:

One hundred pounds white lead.
Four gallons of oil.
One to two quarts of turpentine.
One pint of drier.

This makes about seven gallons of paint which will cover about four thousand square feet of surface.

Third Coat.

For the third coat:

One hundred pounds of white lead.
Four gallons of oil.
One to two pints of turpentine.
One pint of drier.

This makes seven gallons. It will cover four thousand two hundred feet and it will not sink into the wood as much as the second coat.

Repainting.

To repaint old work the first coat should be made about the same as the second coat for new work except that more turpentine should be used, as much as one gallon to the hundred pounds of lead. This is partly to soften the old paint so that the new can form a bond with it. A little more oil may be needed also as the old paint will be more dry and dusty than new work.

The second coat for old work should be the same as that given for the third coat on new work.

Mixing.

To break up white lead quickly, easily and smoothly, begin by adding a very small quantity of oil, not more than one pint of oil to one hundred pounds of white lead, with a good strong, smooth paddle, work this oil completely into the lead, then add another pint of oil. When this is thoroughly worked in you may add additional oil, one quart at a time, working it well into the lead each time, until you have worked in about one and one-half gallons of oil to the hundred pounds of lead. In breaking smaller quantities of lead, reduce the quantity of oil in proportion. This will make the lead into a workable paste.

The tinting colors should be thinned by the addition of oil, then they may be added to this paste and well mixed.

Drier should also be added before the

final thinning or owing to its not being thoroughly mixed in, the paint may dry in streaks.

Next add the remainder of the oil and last put in the turpentine; stir thoroughly as each ingredient is added.

The order of mixing is important. The chief thing that makes lead and oil paint durable is the close union between the lead and the oil. If the turpentine is added before these are thoroughly mixed it tends to prevent this union. If the lead is thinned too much before the coloring matter is added the paint will be apt to be streaked.

The paint will work better if the lead is broken up the day before it is to be used. The color may be added then also. The drier, the remainder of the oil and the turpentine should not be put in till you are ready to begin work. It is well to strain paint through cheese cloth or a wire strainer as this will guard against lumps and consequent streaks. Paint also spreads better if strained.

When colors ground in oil are used you will need about the following quantities for each one hundred pounds of lead, to make the given tints:

Light gray, 8 ounces lamp black.

Cream, 3 pounds French ochre.

Yellow, 2½ pounds medium chrome yellow.

Buff, 5 ounces Venetian red and five pounds French ochre.

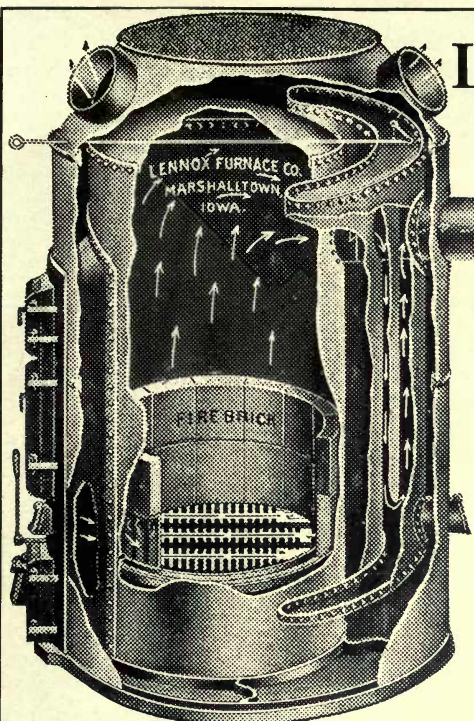
Green, 20 pounds medium chrome green.

When a large quantity of tinting color is added to paint more oil will be needed, equal to about one-half the weight of the color added. Also more turpentine in the same proportion as the original mixture.

In adding color do not put in the required amount all at once, as colors vary in their strength and you may secure the desired shade with a less amount than you think. On the other hand, it may be necessary to use more than is called for. You can add a little at a time, until the tint pleases.

Brushes.

Perhaps the best brush for large surfaces is the round one, known as a pound brush. The smaller brushes for trimming and sash may be round or flat. Cheap brushes are not economical. They



Lennox Torrid Zone All Steel Furnace

Built to deliver air *Free* of
dust and gases

Sold with that guarantee

Three Styles of Fire Pot
For Every Grade of Fuel

In planning your home do not forget the very important feature of having a **real heating plant.** Figure for a moment the importance of a thoroughly warmed home, and realize the discomforts & high fuel cost of an inferior plant.

Built like a power boiler---in one piece
Riveted Dust and Gas Tight

Write for catalog and address of nearest dealer

LENNOX FURNACE CO.
Marshalltown, Iowa



A Cheerful, Open- Grate Fire and a Ventilating Warm- Air Furnace

are combined to secure
coziness, comfort, health
and economy in

Many styles of grates and
mantels to choose from.

The JACKSON VENTILATING GRATE

will pay for itself in three years
by giving four times as much
heat as the ordinary old-style
grate from the same amount of
fuel. Not only warms *Directly*
by the fire in the grate, but
warms *Indirectly* by drawing in
fresh air from outside, warming
it in the air chamber sur-
rounding the fire and sending it
into the room. Also heats con-
necting rooms and also rooms
upstairs if desired. Any mason
can set it up from our Complete
Plans furnished **FREE.** Better
than a furnace for Fall and
Spring—more cheerful, less at-
tention, about half the fuel.

Send for Free Catalog K of
Ventilating Grates, mantels, and-
irons and all kinds of fireplace
fixtures with explanations, illus-
trations, full information and
prices; also reference to users in
your region.

EDWIN A. JACKSON & BRO., Manufacturers
25 Beekman Street New York



Study this diagram and
you will see at once the
heating and ventilat-
ing principle which
makes this grate su-
perior to all others.

Your Home is not Complete

unless equipped with the only modern and sanitary way of
caring for ashes, garbage and refuse. Saves time, labor, fire
risk, expense and dirt. No more ash dust in the house—No
more danger of fire from hot ashes—No more litter in the
basement. Can be installed under any type of heater either
before or after heater is in place.

The SHARP Rotary Ash Receiver

protects the fine furnishings of your home, insures pure,
dustless air and more healthful conditions through-
out the house. Read what a prominent doctor says:

Having one of your Rotary Ash Receivers
in my home, I desire to say that I consider
it one of the most valuable acquisitions to
a home that can be installed. As an effective
means of caring for ashes, as a receptacle
for waste material and as a method of
bringing about a more healthful condition
in homes, it is doubtful if anything can be
invented that will meet these requirements
more effectually. Since its installation my
enthusiasm increases with its use.

You owe it to yourself and family to get ac-
quainted with the Sharp Rotary Ash Receiver.
We will gladly send you full particulars to-
gether with the endorsement of many satisfied
users.

**THE SHARP ROTARY ASH
RECEIVER CO., Inc.**

Dept. 11

Binghampton,
N. Y.

Districts
open for
repre-
sentatives.

Architects
See
Sweet's
Catalog.



For Simplest and Grandest Homes



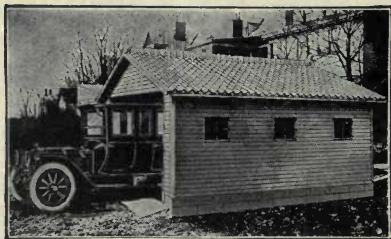
EDWARDS Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of Metal Spanish Tile is yours for the asking. A postal will bring it.



Own Your Own Garage All Sizes—All Prices

An Edwards METAL Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and safe! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.
\$69⁵⁰
and up
Write today—right NOW!

The Edwards Manufacturing Co.

*The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.*

521-541 Culvert St., Cincinnati, Ohio

will waste time and paint. They may shed bristles enough to mar the job.

Note: The articles of this series are prepared by a practical painter from his own experience and it may be noted that the proportions which he gives vary from those laid down by the manufacturers in that they contain more oil and not so much turpentine, but with a slightly larger percentage of the two combined.

A manufacturer's note says: "The painter may exercise his own discretion in using a larger or smaller quantity of oil according to whether the wood is oil absorbing, as white pine, poplar and basswood, or less permeable, as yellow pine, cypress, spruce and hemlock. The painter may, in rare cases, find it advisable to increase the quantity of turpentine, as in southern exposures, to prevent blistering. Where this is done a corresponding decrease shall be made in the specified amount of linseed oil. If the wood is very resinous, prepare it for priming by brushing on a mixture of one pint linseed oil, one pint turpentine, one pint turpentine drier. This should be thoroughly brushed in."

Galvanized iron may be prepared for painting, by washing with a solution of chloride of copper. This deposits a thin film of copper and furnishes the necessary key. Another method is to wash with hot water containing carbonate of soda or borax. This slightly roughens the surface and removes the grease. Vinegar will do the same thing.

To prepare cement and concrete surfaces, if new, use a wash of dilute sulphuric acid, followed by strong vinegar.

Surfaces which have stood for some time will need only the vinegar. Old plastered walls which have been white-washed, should be treated with vinegar.

The Way to Lay Shingles.

Wet the shingles thoroughly twenty-four hours before laying and use 3d. zinc, copper or galvanized nails.

For one-third pitch roof lay 4½ inches to the weather.

For one-half pitch roof lay 5 inches to the weather.

On the sides of buildings lay 6 inches to the weather. Break all joints as far from the edges as possible.

Furnace

Comfort and Retail Stove Cost

WRITE at once for low factory price on the Kalamazoo Pipeless Furnace. One register—no pipes to fit except smoke pipe. Save big money in buying—save work in setting up furnace—save fuel—yet heat *every* room. Simple—economical—top-notch quality throughout. Write for offer on



Free Plans

For Pipe Furnace
If you want a pipe furnace, we shall be glad to draw up plans **FREE** and quote prices. Write for catalog.

Free Trial—Cash or Easy Payments

Set it up in your basement. Easy as setting up a big stove. Do it in a jiffy—no experience needed. *We pay freight and ship within 24 hours.* \$100,000 money-back guaranty.

Write today and ask for Pipeless Furnace Catalog No. 1006.

KALAMAZOO STOVE CO., Mfrs.

Kalamazoo, Mich.

300,000 families using Kalamazoo Stoves, Ranges, Gas Stoves, Furnaces, White Enameled Metal Kitchen Cabinets and Tables. 4 catalogs—say which you want.

"A Kalamazoo
Trade Mark
Registered **Direct to You"**



Design No. 524, by Jud Yoho
Estimated cost \$2800

All About Bungalows

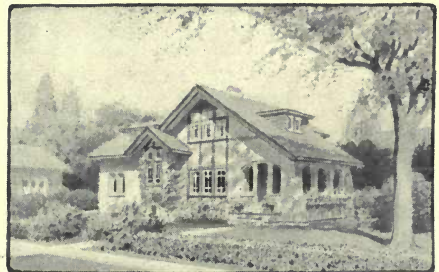
BUNGALOW BOOK
1916 De Luxe Edition

Contains the cream of 1000 practical and distinctive bungalows actually built for \$400 to \$4000, suited to any climate, with photos of exterior and interior views, plans, size of rooms, cost, etc. Also valuable suggestions on bungalow building written by an expert.

The Largest exclusive Bungalow Book published. 112 pages, Price **\$1.00** Postpaid

Worth many times its cost to any prospective builder. A smaller edition of same, only 50 cents. Send check, money-order or stamps. Money back if not satisfactory.

JUD YOH0, THE BUNGALOW CRAFTSMAN
463 Craftsman Bldg., Seattle, Wash.



A typical little Casement Home.

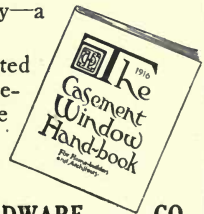
Will Your New Home Have Charm?

Casement Windows add to any home a delightful individuality—a homey charm.

Our interesting illustrated booklet tells how Casements may be made practical for your home.

Write to-day—its free

THE CASEMENT HARDWARE CO.
7 SO. CLINTON ST., CHICAGO

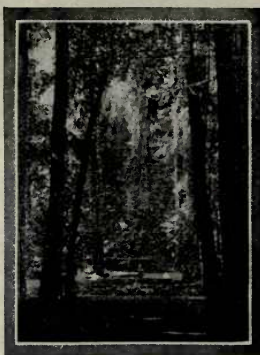




WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH's staff of wood experts.

This department is created for the benefit of KEITH's readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

A Fine Timber Pergola

Monroe Wooley

PERHAPS no town in the country has a finer specimen of a natural-bark pergola than the thriving little city of Anacortes, Washington, where a leading citizen has built a pergola which has attracted much ad-

miration. He has used the materials most logical for the part of the country, and doing so has made a pergola unique of its kind.

The pergola is about seventy-five feet in length, and to support the lattice frame



A pergola showing the fine effect of the natural bark.

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, mouldings, porch-work, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement machinery and interior woodwork—ALL AT WHOLESALE PRICES DIRECT TO YOU.

Don't plan to build, repair or overhaul until you see these two great books: Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

CHICAGO MILLWORK
SUPPLY CO.
1421 W. 37th St.
Chicago, Ill.

Material Complete
for Houses from
\$375.00 up

Catalog
of
8000
Price
Bargains

Beautifully
Illustrated
PLAN BOOK

Books
Are Free



Lasting Beauty

A fine-appearing wood finish can be produced with almost any stain—but how long will it *stay* fine appearing—that's the question to which you ought to know the answer before the work is done.

Lowe Brothers Non-Fading Oil Stains

are made from permanent pigments that do not fade when exposed to sunlight. They make possible a large variety of finishes, including mahogany, walnut, oak, cherry, etc.—twelve in all.

Lowe Brothers Non-Fading Oil Stains are easily and quickly applied by competent workmen, dry quickly with a flat finish and do not raise the grain.

An extra rich mahogany finish is secured by one coat of Lowe Brothers Non-Fading Dark Mahogany Oil Stain, followed by one of Lowe Brothers Mahogany Glaze. Used on birch, walnut, gum and other woods it brings out a full, rich color closely resembling old mahogany.

You will find a lot of good information about oil stains and varnishes—and their use in securing fine effects—in

"Varnish and Varnishing" —free on request

With it we will also send special cards and information on Non-Fading Oil Stains.

The Lowe Brothers Company

465 E. Third St., Dayton, Ohio

Boston New York Jersey City Chicago
Kansas City Minneapolis Toronto



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS

EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Catalogue "G-29"
showing a series of
new designs in

"Pergolas"

Lattice Fences
Garden Houses
and Arbors

When writing in-
close 10c in stamps
and ask for Cata-
logue "G-29."

Catalogue "G-40"
—containing very
useful information
about Exterior and
Interior Columns.
will be sent to those
who want it for 10c
in stamps.

Caldwell Sash Balances

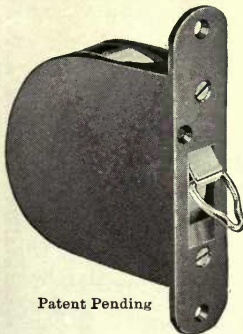
Uniform Mortises

For use in all classes of
new work

Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counter-balance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular

Caldwell Mfg. Co.
6 Jones St., Rochester, N. Y.



Patent Pending

work overhead sixteen or twenty large timbers are employed, all nearly eighteen inches in diameter and having the natural bark still on them, just as they were taken from the forest.

The huge circular pillars rest on cement abutments, rectangular in shape. Wooden blocks resting on the tops form a foundation for the heavy pergola stringers and cross beams. Many specimens of plant life have been placed at the base of each pillar, and before very long the vegetation will envelope the rustic structure, as the natural bark invites the clinging vine.

This pergola shows the fine effect of the natural treatment of logs retaining the bark. The arrangement of the overhead beam work is rather unusual and quite noteworthy. In the long vista of the pergola proper the perspective is enhanced by the dropping of the beams as they recede. The end section at the farther end of the pergola spreads in a "T" shape, and the pillars of this section are lower in height than the others, each section being raised by the thickness of the beam. This change of level breaks the long lines in a very interesting way, either in looking through the pergola or in viewing it from the outside.

The Preservation of Logs.

In building with logs a first necessity is a proper treatment of the log to prevent its being attacked by dry rot, and to insure its preservation. It is an accepted fact that log buildings can be so constructed that logs will remain unaffected by decay for an indefinite period of time, and that such construction does not involve any serious problems, nor is it a matter of great expense. When great logs covered with bark are placed on end on moist concrete footings, without any protection to the log and tightly capped at the upper end, immediate decay is invited, as such conditions effectually prevent seasoning. The treatment for preservation of logs is not new for, such a

treatment, invented in 1840, is still in practice, and considered both effectual and inexpensive.

The Passing of the Chestnut.

Reports state that the chestnut blight has now swept through the northeastern states, and that by every indication it will sweep the entire country where the chestnut is indigenous. No cure has been found for it, and the only prevention suggested is the cutting of wide areas over which it may not pass.

The situation causes wide spread dismay in the regions of the chestnut. The question now is whether we shall have diseased and scrubby chestnut woods, or whether we shall clear them out and make forests of other species. Professor Toumey, of the Yale Forest School, takes the latter view,



An interesting vista.

and it is probably the only practicable one. He would change over the chestnut stands or woods to other hardwoods or to softwoods of pine or spruce. Already an experiment of this kind has been made at New Haven.

Tests of the Fire-resisting Qualities of Wood.

Wood, like paper, is highly inflammable, when it is in thin pieces, yet is very slow to burn when it is in large timbers. Some experiments have just been made in Seattle, Washington, to test the



Majestic



Underground Garbage Receiver

The Sanitary Way to Keep Garbage

It is buried in the ground close to the kitchen. Only top and cover is exposed, is convenient but never unsightly. It is water tight—snow and frost proof—emits no foul odors and keeps away flies, mice, dogs and cats. Always closed, can easily lift out for emptying. Dumping door opens with foot lever, closes itself.

Coal Chute and Cellar Window

Protects the House and Grounds

It prevents your house, lawn, walk, flowers and shrubs from being littered up and ruined with coal dust and stray lumps. A glass door serves as a window, when coal is not being received. It locks from inside and is absolutely burglar proof. Can be put in already built home or built into a new one.

Write for Catalog of These Two Home Necessities

These two Majestic specialties meet the present day demand for sanitation and cleanliness in the home. Send for the catalog and get the whole Majestic story. Ask your dealer to show you Majestic Specialties.

The Majestic Company, 606 Erie St., Huntington, Ind.

Manufacturers of Coal Chutes, Garbage Receivers, Milk and Package Receivers, all-metal Basement Windows, Rubbish Burners, Street and Park Refuse Cans, Metal Plant Boxes, Pipe and Pipeless Warm Air Furnaces, Hose Reels, etc.



No. 3, Villa, Double Wren House; fine appearance. Brackets furnished. Pole extra, 6 to 16 feet \$2.25—6 cents per foot

Win the Birds to Your Place

All the feathered songsters will make their home with you if you invite them with several of our unique houses, shelters and baths.

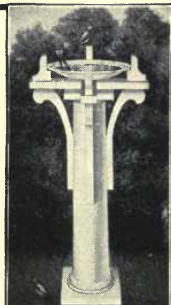
Various birds have different tastes in houses. We have styles that will suit the birds and you and add quaint charm to your grounds.

"The Garden Unique" shows many original designs

Write for copy today. You can have a number of bird families on your place if you order at once. They'll delight you by their song, and clear your garden of insects. Send check or money order today.

THE GARDEN UNIQUE

64 Ivison Ave., Berwyn, Illinois



No. 120, Colonial Bath Pedestal 46 in. high. Price only \$7.50

That Bungalow

which you intend to build next Spring will need the soft, artistic tones of

Cabot's Creosote Stains

to make it complete and harmonious.

Paint doesn't suit bungalows. It forms a hard, shiny coat that is foreign to their character and "atmosphere." The Stains produce deep, rich and velvety colors that harmonize perfectly with the style of building and surroundings. They are 50 per cent cheaper than paint, and the Creosote thoroughly preserves the wood.

You can get Cabot's Stains all over the country. Send for free samples of stained wood and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists

Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



Stained with Cabot's Creosote Stains
Sidney Lovell, Architect, Chicago, Ill.

slow-burning qualities of solid wood, and to compare it with metal covered boards. A small structure, 4 by 8 feet and 6 feet high, was built with three sides of 3-inch material, the fourth side was built of $\frac{7}{8}$ -inch shiplap, over which galvanized iron was nailed on the inside. All of the lumber used had been cut a comparatively short time.

Draft had been arranged and a large supply of light wood placed inside and the fire started. At the end of three-quarters of an hour when the fire was extinguished, the three-inch lumber was found to be charred to an average depth of three-quarters of an inch, while the shiplap, which had been covered with the galvanized iron had been completely consumed. The three-quarters of an hour of burning had not sufficed to completely heat the outside of the three-inch timbers. It seemed that the metal covering had served to absorb the heat, and perhaps had aided the combustion of the shiplap. This bears out the assumption that a heavy timber construction is a slow burning construction.

Scientific Investigations.

In a report published by the Forest Products Federation, submitted by J. Norman Jensen, C. E., he says: "It would seem at first glance that there is nothing in common between scientific investigation and comparative cost of building materials. The size of a joist to be used on any job depends on scientific facts. The lumbermen sometimes feel that in their contact with public officials they do not receive that consideration which is due them. They do not understand that what those officials desire is scientific facts as to the strength of lumber, not mere opinions."

"There are some problems that can best be solved by engineers of broad training and experience. These men understand how most economically to design for any given condition, and could advise accordingly."

"When the information on lumber is available it could be published in an attractive booklet, and freely circulated."

Among the recommendations which he makes are these: "Obtain more information concerning lumber. Collect such information as will show the adaptability of lumber for various purposes, and the merits and defects of various kinds." "Conduct tests to determine the strength of each kind of lumber.—The literature on this subject is scattered." "Brand lumber. Some method of identification of the kind of lumber must be adopted. Some method of guaranteeing the strength of any stick in any shipment must be evolved." "Conduct tests to determine ways of making lumber more fire resisting."

IXL ROCK MAPLE, BIRCH AND BEECH FLOORING



"The Finest Milled
Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.



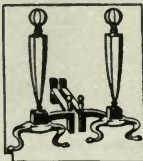
SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price..... 1.00
50 Design Book "Bungalows and Cottages," Price..... .50
One Large and One Small Book, Together \$1.25, Three Books..... 2.00

Many pretty one-story Bungalows and Cottages. Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA



SIGN THE COUPON

and we will send you,
without obligation, our new catalog showing

OUR SELECT LINE
OF
AND IRONS

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc. These will interest all who are building or improving their homes.

We Make Only High Grade Goods, But Our Prices Are Right

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

STOVER MANUFACTURING CO.

704 East Street, Freeport, Ill.

Send me your Catalog No. 1550 I am
especially interested in.....

Name

City

State



Member that
Old Injun
Grip?

Grips the Plaster

Of course you remember that old boyhood grip where your fingers clinched 'round the other fellow's. Hard to break, wasn't it?

Well, you'll find there's the same grip — only tighter because the fingers are solid plaster — between your wall surface and

Kno-Burn

Expanded Metal Lath

Whether you use it for interior plastering on walls and ceilings or for stucco outside, the mesh of "Kno-Burn" sets into the plaster with a bond that will never disintegrate.

Ask your architect about "Kno-Burn;" but before you quiz him, send for "Practical Homebuilding," a treatise on house construction that will enlighten you about many things — profusely illustrated.

Send 10c to cover cost of mailing and ask for booklet 659

North Western Expanded Metal Company

Manufacturers all types of Expanded Metal

965 Old Colony Bldg., Chicago



THIS BOOK ON HOME BEAUTIFYING SENT FREE

Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. If you wish we will also send FREE our beautiful colored dollar portfolio showing panels of all popular woods finished with Johnson's Wood Finishes. Take this ad to your dealer—or write Dept. K-E 4. S. C. JOHNSON & SON, RACINE, WISCONSIN "The Wood Finishing Authorities"

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure. Fifth edition "HOMES, not HOUSES," 123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

BAYONNE
for
BUNGALOW ROOFS

Roof troubles, leaks and costly repairs will soon set in, if the covering of bungalow roofs isn't **BAYONNE**. It is above all **absolutely** waterproof. Does not shrink and expand with cold and heat as even metal coverings do. Metals will rust, bulge and buckle; tar-coverings will blister, shrink and crumble; others corrode and wear out quickly.

BAYONNE

Stays-flat—and is practically indestructible. Laying is cheap and simple, and it requires but one coat of paint for general use. It is attractive, neat and clean—and the easiest roofing to keep clean because you can sluice it with water.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's, Page 539.

JOHN BOYLE & CO., Inc.

112-114 Duane Street—70-72 Reade Street, New York City

Branch House: 202-204 Market St., St. Louis

LEGISLATION

Public Resources.



HIS country is still laying foundations which shall help or hamper coming generations. Undeveloped public resources are the latent equipment of future prosperity, and to no one is this fact of more importance than to the home builder. The accompanying letter from Mr. Gifford Pinchot, is self-explanatory:

"I write to ask your help to defeat a most serious attack on our public resources. Since the fight over the Alaska resources was won there has not been so pressing a threat against the Conservation policy as the present effort in Congress to give our public water powers for nothing into monopolistic control.

"The Shields bill, now before the Senate, gives to the power interests without compensation the use of water power on navigable streams. The amount of water power these streams will supply is larger by far than all the power of every kind now in use in the United States. It pretends to, but does not, enable the people to take back their own property at the end of fifty years, for in order to do so under the bill, the Government would have to pay the unearned increment, and to take over whole lighting systems of cities and whole manufacturing plants. Private corporations are authorized to seize upon any land, private or public, they choose to condemn.

"Bills which gave away public water powers without due compensation were vetoed by President Roosevelt and President Taft. The Shields bill would do precisely the same thing today.

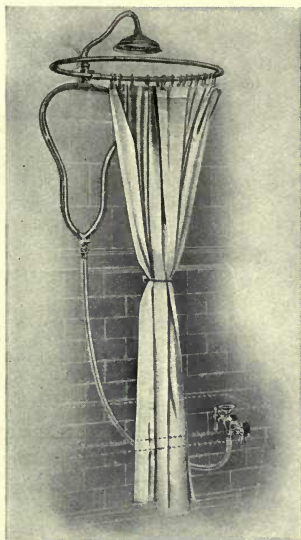
"Another water power bill, the Ferris bill, relating to the public lands and national forests, was in the main a good bill as it passed the House. As reported to the Senate, it encourages monopoly by permitting a corporation to take as many public water power sites as it may please. Under it the corporations could not even be kept from fastening upon the Grand Canyon, the greatest natural wonder of this continent. This bill takes the care

of water powers on national forests from the experienced and competent Forest Service, and gives it to the Interior Department, thus entailing duplication and needless expense.

"In my opinion, there is undue carelessness as to the disposal of public resources at present in Washington. The water power legislation now before the Senate is too favorable to the men who, as Secretary Houston's admirable recent report shows, control through 18 corporations more than one-half of the total water power used in public service throughout the United States. The water power men charge that conservation hampers development. The Houston report shows, on the contrary, that the most rapid development is in the national forests, where conservation is best enforced. On the other hand, 120 public service corporations own and are holding undeveloped and out of use an amount of water power equal to four-fifths of all there is developed and in use by all the public service corporations in the whole United States.

"Natural resources lie at the foundation of all preparedness, whether for peace or for war. No plan for national defense can be effective unless it provides for adequate public control of all the raw materials out of which the defensive strength of a nation is made. Of these raw materials water power is the most essential, because without electricity generated from water power we can not manufacture nitrates, and nitrates are the basis of gunpowder. We have no great natural deposits of nitrates.

"A concerted movement is on foot to break down the conservation policy. Feeble resistance or none at all is being made by official Washington. Unless the press and the people come to the rescue, the power interests are likely to win. This is a public matter wholly removed from political partisanship. For nearly ten years this fight for the public water powers has gone on. We ought not to lose it now."



This Wolff Shower

one of the several Wolff models, will add an invigorating zest to the bath that will be a source of keen satisfaction throughout all the years it will be used. Wolff Showers, in common with other Wolff fixtures, are extra full value for the money. May be added to your initial bath equipment with little increase of cost, or at any time after fixtures have been installed.

*Write for the Wolff
Bath Book Now*

and let appropriate fixtures be a part of your building plans. Wolff fixtures have long been known for their high standard of quality and are easily obtainable anywhere. Your plumber has our complete catalogue and will be glad to furnish them.

L. WOLFF MANUFACTURING CO.

"Makers of Plumbing Goods for 60 Years"

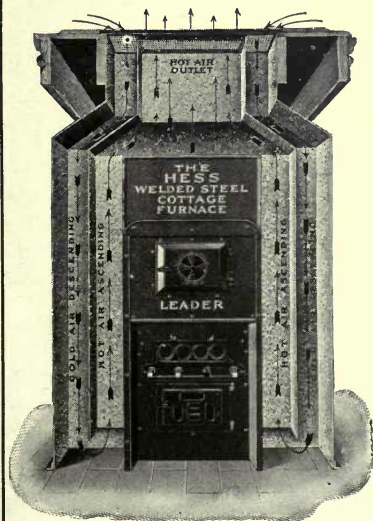
Pottery: Trenton, N. J.

601-627 West Lake St., CHICAGO, ILLINOIS

INEXPENSIVE HEATING

with the

Pipeless Furnace



The Pipeless Furnace heats with one big register, and the cold air returns to the furnace through the ends of the same register. It warms by circulation, better than stoves or radiators, with less fuel, and at less cost for installation. It insures a healthful atmosphere, for moisture is added to the air, and leakage of gas and dust is impossible, for **every seam is welded**, and is always tight. Suitable for bungalows, cottages, stores, churches, etc.

Our regular furnace heats with separate pipes and registers, and will distribute heat to a larger number of rooms than the **pipeless**.

Tell us your needs. We sell direct from **factory to consumer**, and can save you money, no matter where you are. We sell on easy payments also, if desired.

Hess Warming & Ventilating Co., 1217 Tacoma Building, **Chicago, Ill.**

Makers also, of White Steel Medicine Cabinets.

SPLINTERS AND SHAVINGS

Protecting the Birds.

LOUISIANA has inaugurated a wise and far-seeing policy in establishing bird refuges for all manner of bird life. These reserves lie for the most part in the low country along the coast, west of the Mississippi, a region mostly uninhabitable by man. Some three hundred thousand acres of game preserves and wild life refuges have been established. In an article on Bird Refuges of Louisiana in Scribner's Magazine, Mr. Roosevelt tells something of the work being done.

"The Audubon society, which has done more than any other single agency in creating and fostering an enlightened public sentiment for the preservation of our useful and attractive birds, is a purely voluntary organization, consisting of men and women who in these matters look farther ahead than their fellows, and who have the precious gift of sympathetic imagination, so that they are able to see, and to wish to preserve for their children's children, the beauty and wonder of nature."

It was the Audubon society which started the movement for the establishment of bird refuges. The society now protects and polices about a hundred of these refuges, which are worthless unless protected. The game warden and his boat are two of the chief obstacles in the way of the poachers, the plume-hunters and eggers, who always threaten these bird sanctuaries. The beautiful snow-white lesser egret, which had been almost exterminated by the plume hunters, flourishes in the protection of these reserves. The greater egret and Louisiana herons are found in other parts of the protected regions.

The State Conservation Commission was founded in 1912 and has accomplished results along many different lines. The work of reforestation has begun; "work which will turn lumbering into a permanent Louisiana industry by making

lumber a permanent crop asset, like corn or wheat, only taking longer to mature—an asset which it is equally important not to destroy."

"The Audubon societies and similar organizations are doing a great work for the future of our country. Birds should be saved because of utilitarian reasons; and moreover, they should be saved because of reasons unconnected with any return in dollars and cents. A grove of giant redwoods or sequoias should be kept just as we would keep a great and beautiful cathedral. The extermination of the passenger-pigeon meant that mankind was just so much poorer; exactly as in the case of the destruction of the cathedral at Rheims. To lose the chance to see frigate-birds soaring in circles above the storm, or a file of pelicans winging their way home across the crimson afterglow of the sunset, or a myriad terns flashing in the bright light of midday as they hover in a shifting maze above the beach—why, the loss is like the loss of a gallery of the masterpieces of the artists of old time."

Progress, Prosperity and Helpfulness.

Prosperity, according to the dictionary, is successful progress. Purely material progression exists only during periods of prosperity. Real reforms are born in times of depression and it is in the process of revolution that true and lasting progress lies.

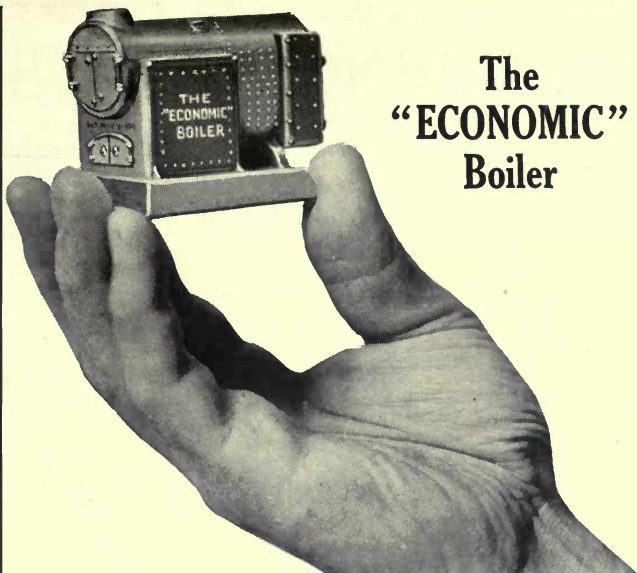
Progress, in its finest sense, is the striving toward ideal completeness or perfection, while prosperity is only in the nature of thriving—an advance in pursuit of anything desirable. The latter is materialistic, the former idealistic.

The condition of prosperity in this country today is one of true progress because its basis is fundamentally sound. It had its inception in external affairs, its growth and development in thriving domestic affairs. Bank clearings are breaking all previous records, exports are reaching new high marks as one month

We hold it up for your Inspection

The "Economic" Boiler has the safety and high economy of leading stationary types. The more you examine this boiler from every angle the better you will like it.

**WRITE NOW for
all the Bulletins**



The "ECONOMIC" Boiler

ERIE CITY IRON WORKS,

Erie, Pennsylvania

ENGINES - BOILERS - HEATERS - TANKS

SALES OFFICES IN ALL PRINCIPAL CENTERS

HESS MEDICINE SANITARY CABINET LOCKER



The Recessed Steel
Medicine Cabinet

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

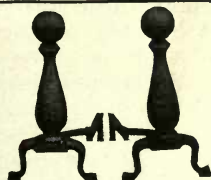
Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free



ASK FOR CATALOG "D"
Showing hundreds of designs.
Prices very low.

WE PREPAY FREIGHT ON ALL GOODS

It is better to buy our brand new, unsoiled goods of modern design and finish than try to select from the necessarily limited assortments to be found in local stores. Don't buy old-fashioned, shop-worn, unattractive hearth furniture.

SUNDERLAND BROS. CO.

(Established 1883)

323 So. 17th St., Omaha, Neb.

Beautiful Andirons

Shipped to any railroad town in the United States

Freight Prepaid

Throat Dampers, Ash Traps
Basket Grates, Gas Logs
Spark Screens, Fenders
Fire Tools, Wood Holders

How One of Our Dealers Nearly Got Into Trouble

¶ The Real Value of a well known Quality Brand like "HUDSON" was strikingly illustrated recently, when one of our dealers nearly lost a good customer through no fault of his.

¶ The dealer sent us an order for a carload of Hudson Shingles. In loading the car, some boxes that had not been stamped with our Hudson trade-mark were included. The dealer did not notice it and sold 100 boxes of Hudson Shingles to the customer, which were delivered upon receipt of the car. The customer immediately 'phoned the dealer and said, "I bought 'Hudson Shingles,' the kind all my neighbors use and recommend, and you can't palm off any of that stuff on me."

¶ Fortunately, most of the car was branded Hudson, so the dealer took back the 100 boxes that were unlabeled—and delivered boxes branded *Hudson*, and the customer was satisfied.

¶ Write your name in the coupon below, and we will send you samples of Hudson Shingles, the kind that the people want, and copy of our book—"Shingling & Roofing"—free, postpaid.



**ASPHALT READY
ROOFING CO.**

Room 479, 9 Church Street
NEW YORK, N. Y.

Asphalt Ready Roofing Co., Room 479, 9 Church St.,
New York.

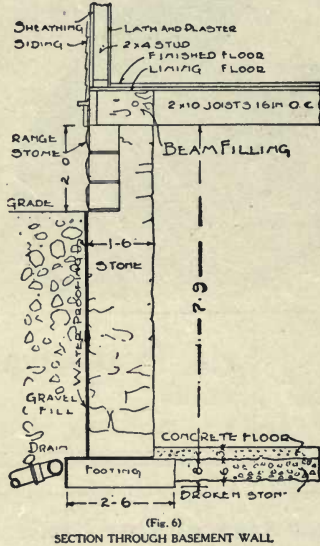
Send samples of HUDSON SHINGLES and Booklet, "Shingling & Roofing," with no expense to me.

Name

Address

BUILDING *the* HOUSE

*A Handbook Every Home-Builder
Should Have*



A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition
Price, One Dollar

Published by

M. L. KEITH
McKnight Bldg. Minneapolis, Minn.

follows another, crops were most bountiful, bond sales are the heaviest in years, and the hammer of the builder is ringing more merrily than for some time past. There have been consistent gains in building permits for months. Property owners, who have been waiting through several long, lean years for the return of normal conditions, are now encouraged to proceed with their building operations. This is true, not only of the individual owner ready to engage in the erection of a country home or city residence, but it applies as well to banks, financial and all other extensive business organizations.

The return of prosperity means much in the way of the enhancement of the architectural beauty of our cities through the erection of these new structures.

There is no good reason why the present period of progress and prosperity should be but a flurry; it should be lasting. And it may be made so through substituting helpfulness for aggressive opposition, co-operation for competition. In the field of building, particularly, should competition and the evils attendant upon it be eliminated.—*W. J. Hoggson.*

The Painting Habit.

Last year one of the County Clubs of a southern state inaugurated a paint campaign. The papers took up the subject. The result was surprising. The beginning was not very wild, but as fast as one man painted his house another one began to be interested. Supplies of paint on hand in the local shops were exhausted and new lots had to be ordered. Painting in that county has reached the epidemic stage. Farmers who had unpainted houses a year ago have caught the contagion to such an extent that they are painting house, barn, sheds and outbuildings, and the change along the country roads is one that everybody is talking about.

One school district had an unpainted school and had planned that in the fall the school house should be painted. The painting infection caught that district and the school patrons arranged for some entertainments and oyster suppers and the school house is painted. To make it more interesting the people of the whole district are painting their houses,



If You Expect to Build Don't Miss This Offer

At the time you are planning that new home and naturally desire to study the ideas of several leading architects who specialize on residences of the moderate-cost type, you can get valuable suggestions from the

many beautiful designs, plans and details shown in eight issues of

Building Age

The National Building Publication with a Monthly Circulation Among Builders, Architects and Owners

The information contained in *Building Age*, both in the editorial and advertising pages, is of the keenest interest to home-builders, and will enable you to introduce numerous features in your new home that add to the convenience, comfort and value without material additional cost. *Building Age* also contains data that *should save you many dollars*.

OUR SPECIAL OFFER

The price of these eight numbers is \$1.60. We will mail a set to you for special price of \$1.00 if you order at once and mention Keith's Magazine. Don't delay as the supply is very limited.

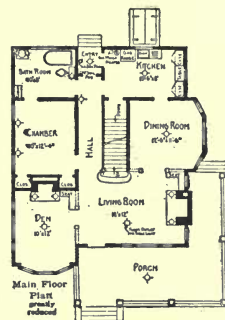
THIS \$1.00 SHOULD SAVE YOU HUNDREDS

BUILDING AGE, 163 39th St. Building, New York City

For enclosed \$1.00 send at once the set of eight numbers according to special offer in Keith's Magazine.

Name _____

Address _____



Solve Your Roofing Problems
with

UNDERFELT ROOFING AND SHINGLES

Underfelt is a moderate priced Roofing that can be used for any purpose. It is made of the very best materials possible at the price and is unexcelled in wearing qualities.

We absolutely guarantee every roll to be waterproof and the equal of any standard Roofing made at a similar price

DI-MACK WALL BOARD

Colors in Cream and Brown or Oak Grain Finish

The Modern Wall and Ceiling Finish. It is less expensive than lath or plaster, *Warmer, Stronger, Artistic, more Durable*. It is a non-conductor of heat and cold.

Ask for our special offer to dealers for 1916

Samples and Prices on Request

MCCLELLAN PAPER COMPANY, MINNEAPOLIS, MINN.



New Booklets and Trade Notes



HE uses and beauty of concrete as a structural and as an architectural material have been set forth in a handsome booklet, "Building for the Future" by the Marquette Cement Manufacturing Company of Chicago. The half tones cover a wide range of subjects in which their product has been used and have in themselves an intrinsic interest. These include the low and wide spreading Municipal Tuberculosis Sanitarium and the Northwestern Station in Chicago and many office buildings in that city, the Ford Motor building, Minneapolis, elevators, viaducts, concrete bridges and residence work. The marginal pen and ink sketches are clever and help to place the book in an artistic rather than a commercial class.

* * *

A little book on Reinforced Concrete by Walter Loring Webb, C. E. and W. Herbert Gibson, B. S., C. E., has been issued by the American Technical Society, Chicago. This is a material the treatment of which is developing so rapidly that only the very latest book published can be entirely up to date in its treatment of the subject. The book is published in 1916; is gotten out attractively in flexible leather, pocket size, \$1.50. The subject is treated in a simple concise manner suitable for both engineers and students, or for those who wish to know at first hand something about the material which is being used so largely in their building.

* * *

Two books on Suburban Grounds and Landscape Gardening have just been issued in second editions which have a particular interest for the home builder. Both are published by John Wiley & Sons, Inc., 432 Fourth Avenue, New York.

How to Lay Out Suburban Home Grounds, by Herbert J. Kellaway, Landscape Architect, is a book of 134 pages, 6 by 9, including 41 half-tone plates and 15 plans and maps. Cloth, \$2.00 net, postpaid. Both books recognize the necessity for outdoor art in planning the home of today and are prepared for the purpose of giving assistance to those with moderate incomes who wish to secure beautiful surroundings.

Landscape Gardening as Applied to Home Decoration, by Samuel T. Maynard, has 396 pages, 5x7 $\frac{1}{4}$, 190 figures. Cloth, \$1.50 net.

* * *

The Room Beautiful, published by Clifford & Lawton, New York, is a very handsome volume, dedicated to the Decorative Trades, in which is presented a collection of interior views illustrating historic periods from the earliest time to the present day. "Many of the interiors are from museum photographs of

rooms to which furniture of approximate date has been added. Few good rooms are of in-vailable period styles. The English periods nearly always overlapped." The interiors are presented in a chronological order, without text.

* * *

A Plan Book which will interest the farmer and dairy man has been issued by the Loudon Machinery Company of Fairfield, Iowa. It gives information about concrete work, different suggestions in manger and gutter construction, barn farming, ventilating systems, and in fact a complete reference book on barn construction. It also gives plans for the dairy barn, combination cow and horse barns, exclusive horse barns, two round barn plans, hog barns, hay shed, chicken house and dairy ice house with illustrations of the completed buildings, giving a general index on the last page. Their General Catalog No. 43, with price list, gives a full description of the tools and barn equipment.

* * *

The Standard Pump and Engine Company of Akron, Ohio, have issued a book on Standard Pumping Units for Water Supply, which will find interest among those who are planning to install such apparatus, and which is sent on request. The advantages of a "direct connected unit" are apparent. They show several combinations of water systems. They have established standard designs of which the parts are interchangeable so that purchasers may be able to obtain repair parts at any time.

They issue a special bulletin "illustrating the application of Pumping Units and Water Supply Systems for specialized stock and dairy farms, greenhouse and truck garden water supply requirements, etc. There are features in the machines making them especially adapted to service in which the Pumping Unit takes the water from the source of supply and delivers it directly into the pipes for distribution, spraying and irrigating without the use of over-head or storage tanks of any kind.

"Because of the simplicity of design little attention and care is required and being self-contained it is economical in operation as there is no loss of power due to extra shafts, belts, pulleys, etc.; being compact it requires little space and is easily installed and may be operated and cared for by those not skilled in the use of machinery."

* * *

"The House That Father Built" is the title of a very pleasing little booklet issued by the General Fireproofing Co. of Youngstown, Ohio. It shows houses from all parts of the country, designed by some of the best architects, and of all types of design, in which

Stillwell CALIFORNIA HOME Plans

SUITS EVERY CLIMATE

3 BIG For \$1.
PLAN Books Postpaid

containing photos, plans, descriptions, costs. Stillwell Homes are reproduced from original California designs—combining beauty, individuality, comfort and economy—and can be built

substantially and economically in any climate.

"REPRESENTATIVE CALIFORNIA HOMES"

50 ideal homes, \$2,000 to \$6,000—Price 50c

"WEST COAST BUNGALOWS"

51 inexpensive homes, \$1000 to \$2000—Price 50c

"LITTLE BUNGALOWS"

31 perfect little homes \$300 to \$1700—Price 25c (Postpaid)

WE SELL BOOKS & BLUE PRINTS ON A MONEY-BACK GUARANTEE

E. W. STILLWELL & CO., ARCHITECTS

451 HENNE BLDG., LOS ANGELES

ALL 3
BOOKS
FOR \$1

BUY YOUR FURNACE \$10 DOWN \$10 A MONTH



Our monthly payment plan of selling direct saves you the dealer's profits and charges for installation. The

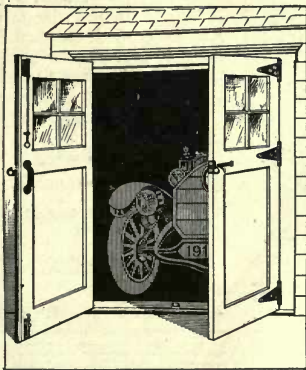
JAHANT FURNACE

with the patented "Down Draft System" is best for residences, schools, hotels, churches, etc., because it delivers plenty of heat wherever and whenever desired at a saving of one-third to one-half in fuel bills. Install the Jahant yourself. We send complete outfit, freight prepaid with special plans, detailed instructions and all necessary tools for installation. Satisfaction guaranteed or money refunded.

WRITE FOR FREE ILLUSTRATED BOOK

The Jahant Heating Co., 125 Steiner Ave. Akron, Ohio

Save 1/3 to 1/2 on Fuel Bills



For Your New Garage—

Stanley's No. 1776-J1 Set contains complete Hardware 'Trim' for garage with double doors. Write for Circular "T."

THE
STANLEY WORKS
New Britain, Conn.

Your House Will Look

much more attractive if you use

Kees Metal Building Corners

These little galvanized iron pieces, used with lap siding, fit perfectly, give a mitre-corner effect and save time and expense of beveling. Cost little—last always. Almost invisible when painted.

Write us for free samples and particulars.

F.D. KEES MFG. CO. BEATRICE, NEB.
Box 102

Let us tell you about Gossett Window Screen Hangers. Free Samples.



The BIG April National Builder will contain complete plans of a Bungalow, a Cottage and a Two-Family House



THE supplement to the APRIL issue will be twice as large, printed on BOTH sides, and will give FOUR times the usual information. Ten or twelve pages of the magazine will be devoted exclusively to the floor plans, etc., of various kinds of houses.

These plans are a feature of *The National Builder* EVERY MONTH (always of a house that has actually been built) and are complete, drawn to exact scale on a separate sheet 36 x 24 inches, and sent as a supplement to the magazine. They are not for sale, but are sent to our subscribers with each magazine. DON'T MISS the

196 Pages

of useful, interesting information on building (construction details of all kinds of buildings—such articles as "Economizing Space," "Wall Board and Its Uses," "Sanitary Features of the Home," and many others on interesting topics for the builder) that appear every month in *The National Builder*—it's full of information.

Edited by Fred T. Hodgson

Mr. Fred T. Hodgson is editor, and any builder will tell you he is the most prominent authority on building construction in the country.

Start Your Subscription
with the April Number

USE THE COUPON—SAVE \$1.00

The regular price of *The National Builder* is \$1.50 for 12 monthly issues. But if you use the coupon it will be sent two years—24 issues—for only \$2.00. Eight issues for \$1.00.

PORTER-HODGSON CO., Publishers
1301 Ellsworth Bldg., Chicago, Ill.

Enclosed find.....for which
for which send *The National Builder* for.....years.

Name.....

City.....State.....

(If you live in Canada send \$2. for one year, \$3. for two years)



KEWANEE SEWAGE DISPOSAL PLANTS

and Water Supply Systems Give the Country Home Complete SANITARY EQUIPMENT

and enable you to install in your home modern plumbing for bathroom, kitchen, sink and laundry.

The construction of the Kewanee System is extremely simple and most of the material may be bought at home. The Kewanee Castings are the most necessary and important parts and are adjusted to give the best results. Our Bulletin explains all.

You can't go wrong in the installation of a Kewanee System when the simple instructions are followed, and the Kewanee Castings are used.

KEWANEE PRIVATE UTILITIES


like Public Utilities, give every city comfort to the country household. We will furnish plan and work with you for best arrangement of the following:

Water Supply Systems Electric Lighting Plants Home Power Plants	Sewage Disposal Plants Gasoline Storage Plants Vacuum Cleaning Systems
--	---

Send for Bulletins, mentioning the subject you are interested in.

KEWANEE PRIVATE UTILITIES CO.

(Formerly Kewanee Water Supply Co.)
 324 S. Franklin Street, Kewanee, Illinois
 BRANCH OFFICES: 50 Church Street, New York
 1212 Marquette Building, Chicago



Special Offer to Contractors

EVERY building contractor will be interested in securing two of the best journals on building, together with a fine book of plans under my "Special Offer."

12 Big Monthly Numbers KEITH'S \$2.00
 12 " " " Nat'l Builder 1.50
 1 " Book of Plans 1.00
\$4.50

Special Price for all three \$3.00

Select Your Book From This List

Vol. 1-136 Designs Bungalows.....	\$1.00
Vol. 2-100 " Cottages.....	1.00
Vol. 3-125 " costing below \$4,000.....	1.00
Vol. 4-175 " " 5,000.....	1.00
Vol. 5-175 " " 6,000.....	1.00
Vol. 6-125 " " above 6,000.....	1.00
Vol. 7-100 " Cement and Brick.....	1.00
Vol. 8-50 " Garages.....	1.00
Vol. 11-40 " Duplex and Flats.....	.50
Vol. 12-100 " Artistic Homes.....	.50

Send all orders with remittance to

M. L. KEITH

828 McKnight Building Minneapolis, Minn.

their products have been used. "Herringbone Houses," as they call them, make a very good showing. They say that conditions have changed since the times of some of our fine old homesteads, and the methods of building of long ago are gone forever, but this is the promise of the book that you have it in your power to build a house so sturdily constructed, so resistant to the wear and tear of years that your children and grandchildren will point with pride to the splendid "house that father built."

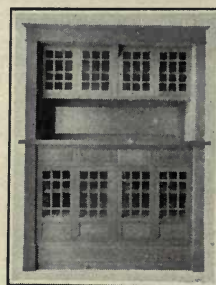
In suburban and country districts a fire-resistant house needs little argument in its favor. Everyone knows the dangers of fire in the country, the high insurance rates and the usual speed and facilities of the local fire department.

* * *

After considerable experimenting a metal casement has been evolved by the Zahner Metal Sash & Door Company of Canton, Ohio, which can be used in conjunction with wood frames.

The combination of mechanical efficiency and improved appearance made possible will be a marked help to architects when designing medium or low priced houses.

The principal points of the new casement are permanency, ease of operation, minimum obstruction to light and good ventilation. The rigidity of construction prevents rattling and warping, twisting and binding.



This Sideboard, 5 ft. x 7 ft., 16 inches deep, Red Oak, with Beveled Plate French Mirror, Crated for Shipment

\$60.00

F. O. B. St. Paul

Let us figure your Millwork
Our Service and Prices will
Please You

We Ship Anywhere

SNELL SASH & DOOR CO.

428 Selby Avenue - - ST. PAUL, MINN.

WILLIAMSON UNDERFEED Furnaces and Boilers

Cut Coal Bills 1/2 to 2/3

THE one certain way to reduce coal bills 1/2 to 2/3 is by using a Williamson Improved New-Feed Underfeed Furnace or Boiler. With the Underfeed coal is fed from below. All the fire is on top, causing perfect combustion. Smoke and gases are burned up, making more heat with no smoke, smell, clinkers, and very little ashes—you can use cheap slack soft coal or pea and buckwheat hard coal and secure same heat as with highest priced coal.

Write for facts. If you want to save from 1-2 to 2-3 of your coal bill, get our wonderfully instructive book entitled "From Overfed to Underfeed."

THE WILLIAMSON HEATER COMPANY

Formerly PECK-WILLIAMSON COMPANY

456 Fifth Avenue Cincinnati, Ohio

KEITH'S MAGAZINE

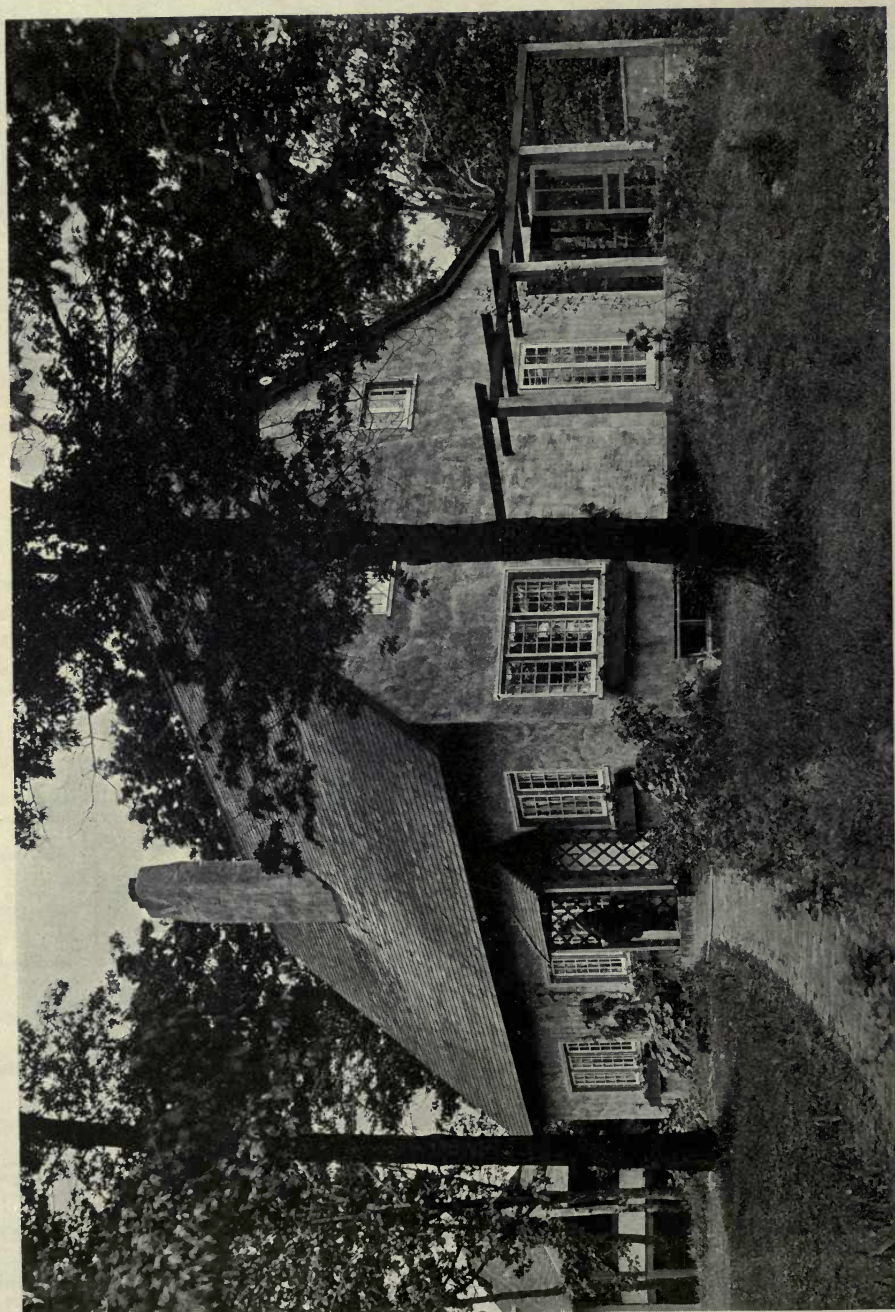
ON HOME BUILDING

CONTENTS FOR MAY, 1916

Just a Word	342
Building a "Maryland Farmhouse"— <i>William Draper Brinckloe</i>	345
Planning the Trellis— <i>M. Roberts Conover</i>	350
The Treatment of the Fireplace— <i>Tile—Anthony Woodruff</i>	354
The Problem of the Sink— <i>Edith M. Jones</i>	358
The Use of the Stencil—Part II— <i>Fabrics and Furnishings— John A. Knowles</i>	361
The Practical House— <i>Ellis R. Warner</i>	365
A Modest Two-Story House.....	368
Shingles and Timber Work	369
Influenced by the Swiss Chalet.....	372
With Timbered Gables.....	373
A Roomy Small House.....	375
With a Broad Frontage.....	376
Homes of Individuality.....	378

DEPARTMENTS

Inside the House—	
Decoration and Furnishing.....	382
Answers to Questions on Interior Decoration.....	388
Household Economics.....	392
The Table and Its Service.....	396
Building Material and Notes on Heating, Lighting and Plumbing.....	400
The Architect's Corner.....	404
Woods and How to Use Them.....	408



A charming stucco cottage.

KEITH'S MAGAZINE

VOL. XXXV

MAY, 1916

No. 5

Building a "Maryland Farmhouse"

William Draper Brinckloe



HE Colonel's car jerks up, with crunching brakes, before the quaint little colonial office. The Colonel steps hastily down, then turns with courtly courtesy to assist out the Little Lady, and Her Husband.

"Here we are, Ma'am—this is the Architect's. Now, if you'll step this way a minute (after you, sir!) I reckon he'll be able to tell you just exactly what you want to know, ma'am. Ah, here he is; hope I see you well, sir. Allow me to introduce—"

A moment or so of formality; then the

Colonel, his back to the wide fireplace, clears his throat.

"Yes, sir, I've just been showing them some of the wonderful waterfronts of Talbot County. For awhile they rather inclined to an old farm on the Choptank; the old farmhouse with that paneled parlor, you know; but I am glad to say they have since decided to take the "Duke's Purchase" farm on the Peachblossom. How, Ma'am, perhaps you had better—"

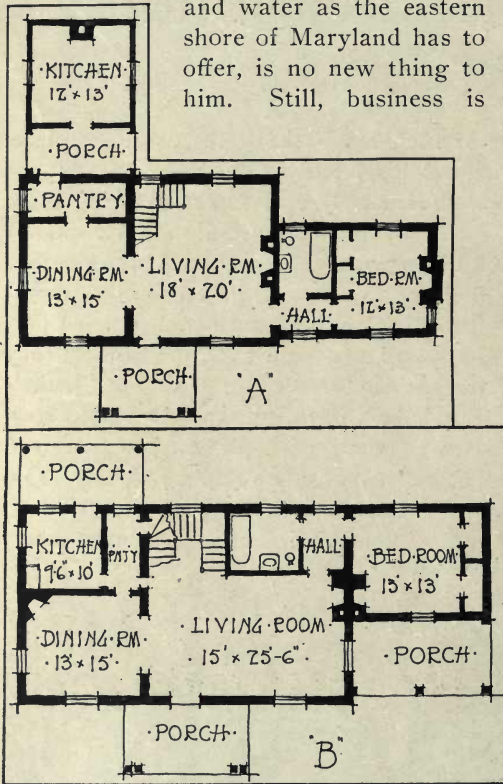
The Little Lady bubbles joyously. "Oh, we've bought just the dearest, duckiest, most wonderful farm you ever saw!



An old Maryland farmhouse.

We've been motoring around the country, looking for a place, for ever so long; but we didn't see a thing that really suited us until we came here. Oh, it's simply heavenly!"

The Architect smiles encouragingly. The incredulous delight of the city-bred folk when first they see the rare, wondrous beauty of such land and water as the eastern shore of Maryland has to offer, is no new thing to him. Still, business is



business. "Then you've bought one of our Talbot farmhouses? I congratulate you! And I suppose you'll remodel it somewhat?"

The Little Lady's brow puckers charmingly. "No-o-o; there were two of just the cutest little old brick cottages you ever saw; but the horrid men wouldn't sell either of them! I took some snapshots though. I'll show them to you and you can see for yourself,—if I can find them. Oh, here they are."

She fusses with her handbag a moment, then lays down two photographs on the drawing board.

"There! Aren't they just too dear for anything? I simply *love* those huge old chimneys; and those whitewashed bricks are perfectly stunning! Well, anyway, we've bought a place—and now we must build a house on it!"

The Architect considers a moment. "What sort of house? That is, how many rooms, and—"

"Oh, something very simple; just a sort of bungalow, you know. I really haven't thought it out exactly, for we hoped to get some nice old-timey farmhouse and fix it up."

"Exactly. Well, then, why not take one of these old cottages as a model, and plan a bungalow on the same lines?"

"Oh, *lovely!* Can we do it? You know, I thought a bungalow had to be one of those California things,—sort of Japanese-y; and I had simply set my heart on living in a real farmhousey home! But I didn't think there was any help for it."

The Architect snatches a sheet of tracing paper, and sketches rapidly a moment; laying sheet over sheet, correcting, altering, and re-drawing. "There! now, let's take this smaller house—so we'll have a big living-room taking up about two-thirds of the main house; this wing off to the right (it's the kitchen in the old house) we'll use for a bedroom, with a bath worked in, so. Now, the dining-room and pantry come over on the left; we'll put the kitchen off to the rear, with a little porch between. In winter, you can enclose this porch, you know."

The Little Lady is all excitement. "Oh, what a darling scheme? It's *most* attractive; only—let's see—will there be any good bedrooms on the second floor?"

"Well,—there will be two good-sized rooms, but I can hardly recommend them

for summer sleeping quarters. Of course, we will have a few more dormer windows, but these can't be very large, else they'll be out of scale with the rest of the design. Wait, let's mark this floor-plan 'A' and set it aside."

"What a shame! It was such a cute plan!"

"Oh, no matter; we'll try to work up something quite as interesting, and a bit

stuck off at the end of the passages?"

"Exactly; that's because of the sharp slant of the roof; and these 'passages' generally manage to shut off most of the breeze from the roof; while the gambrel roof is so much steeper in pitch that we get the window much nearer the room proper. Excuse me, I didn't mean to deliver a dry lecture! Well, now, let's see; H'm, h'm—no, that won't do! Wait, I



With white-washed brickwork and a gambrel roof.

more practical. Now, suppose we take this other photograph; it has a gambrel roof, and therefore we can get a much more liveable second-story."

"Why?"

"Because the gambrel or double-pitched roof not only increased the second-floor space very much, but makes the dormer windows much more practical. You know how ordinary dormers in an ordinary attic, seem to be set away out on the roof, when you're inside?"

"You mean they always seem to be

have it!" He makes a few quick lines on the tracing paper. "Here we are; I'll call this scheme 'B.' The main part of the old cottage seems pretty nearly right, as it is, though we may suggest a few more windows at the end. But the wing is a much later affair; we'll change it to suit, as we go along. The big living-room we'll work in to the right, at the front; that permits a bath and a good stairway to the rear. The bedroom we'll put over in the wing; and it can have a nice little private porch of its own."

The Little Lady interrupts. "But then you'll have to go through the bedrooms to get to the porch?"

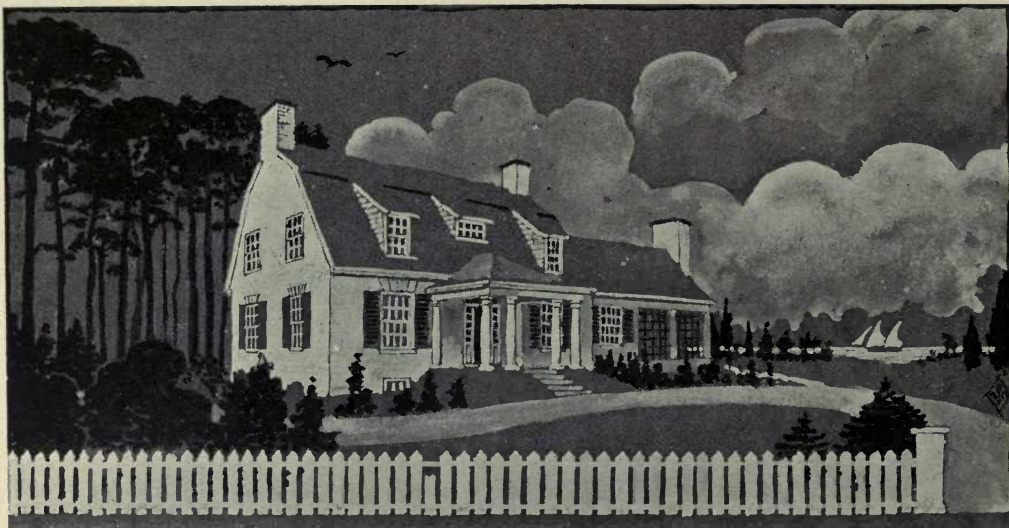
"No; we'll have a window, clear to the floor, at the end of the living-room, a French casement, or some such thing. So, now, the dining-room comes over here, to the left, with kitchen and pantry behind it, and a little back porch at the rear."

"And the second story——?"

'impossible,'—that word is merely a cloak for laziness or incompetence! Of course, we'll have to build a bit bigger; but we can keep to the same type of house, so far as externals go. Wait a moment."

Another sheet of tracing paper; a few more hasty lines.

"Here we are, scheme 'C.' A nice, wide central hall, a living-room off to the right, and two bedrooms to the left. We'll put



The new "farmhouse" for Madam.

The Architect nods. "Yes, we get two good, comfortable bedrooms and a storage room; we even have space for a bathroom up there."

But the Little Lady is considering. She looks at the plan, looks away, looks back again; then turns half-hesitatingly to the Architect.

"Oh, it's all very pretty, and awfully cute; but I'm afraid I don't altogether like it. You know my baby will soon want a room of her own, and I just couldn't bear to have her sleep upstairs! I suppose it isn't possible to get another room downstairs?"

The Architect bows, laughingly. "My dear Madam, I never, under any circumstances, tell my clients that anything is

the bathroom at the rear; part of it can be extended under the stairway. The dining-room, the kitchen and the pantry, are all off in the wing; we get space for two or three fine second-story sleeping rooms, besides bath, storage, servant's room. There's a back stairs, you see; a house of this size ought to have one. How does this scheme suit you?"

"Oh, it's simply delightful! But about the outside, can you make it look real nice and old-timey, just like the old house we saw?"

The Architect laughs. "I'll try to, at any rate; come here tomorrow—no, that won't give me time enough; can you make it the day after? Very well, then; good afternoon—good afternoon!"

Again the Little Lady and her suite sit before the draughting table. She smiles up excitedly. "Well?"

The Architect turns to one of the draughtsmen. "Townsend, get out the second sketch I made yesterday—no, not that one — ah, here we are."

He lays out a sheet of drawing-paper; the Little Lady clasps her hands with a charming little squeal. "Oh, it's *wonderful*! but please explain——"

"Certainly; certainly! Well, I've tried to carry out the hospitable, homelike feeling of the Eastern Shore farmhouses. I've used good solid brickwork; no mere flimsy clapboards. The gambrel roof, you know, was quite characteristic of this section, especially in the better class of story-and-a-half farmsteads; so, too, were the so-called "Dutch" dormiers that I've shown."

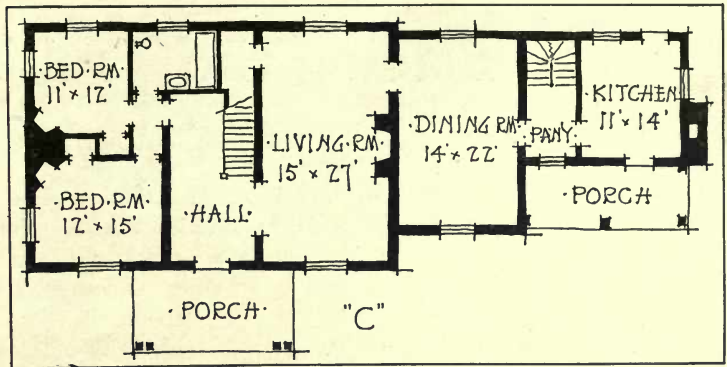
"I like that roof so much, it just seems to fit down, somehow," she murmurs.

"I'm so glad you like it! A gambrel roof is a dangerous piece of business, in the hands of unskilled designers; the two slants must bear just the right proportion to each other, else the roof becomes a hideous nightmare instead of a thing of beauty. Still, I'm conceited enough to think I really did design a good-looking gambrel this time.

"The windows, you'll notice, are wide, ample affairs; the little colonial panes make them look even larger. And the shutters——"

She interrupts quickly. "But do we want shutters?"

"Pardon me; I think you do. Not for practical reasons, perhaps, but for esthetic reasons you want them by all means. The green blinds will give a needed note of



color against the white brickwork——"

"White brickwork?"

"Certainly; we'll whitewash it like the old house you saw. The old Marylanders always did it; they knew that white is the only tone that harmonizes and yet contrasts with a landscape of sombre pines, bright green fields and oak-woods, and silver-blue waters. A mass of red brickwork is all well enough in town—but I don't always care for it in the country! Well, I think that's about all; I'll start on the working-drawings if you're sure the sketch suits you."

"Oh, it's just *dear*; it's *perfect*; I'm simply *crazy* about it!" gurgles the Little Lady.

"Very good!" nods Her Husband, lighting a cigarette.

"Excellent! Excellent!" applauds the Colonel. "I always contended that these modern gimcrack bungalows weren't at all the thing for this fine old locality; and I am delighted, ma'am, to see how greatly you appreciate the fine old colonial cottages of Talbot county. And now, I suppose you wish to return to the hotel? We'll join you there in the course of a few minutes. Your husband and I have a little matter of business to attend to. Good evening, ma'am! Good evening! Now, gentlemen, come up to the Yacht Club with me, I've got some old Maryland apple toddy, that's simply liquid velvet!"

Placing the Trellis

M. Roberts Conover



HE house needs the friendly caress of natural growths, a caress that gives it beauty where it is plain, shade where it is too sunny, and kindly screening. The relation of the house with its surroundings and of its family life with its immediate

nate that they made loud appeal for notice, standing for years until they disappeared under a burden of neglected vines. There have been others so satisfyingly simple as to always be a delight. Almost any old country village that has known prosperity will show us trellises



Trellises at the entrance.

out-of-doors is not only expressed in the use of vines about the house itself, but in the vine-covered out-of-door room, arbor, summer house, pergola or tea-room according to its pretensions, and a practical use of vines in such places demands some form of trellis.

Through the years that are past there have occurred various phases and forms, certain epochs in trellises influenced variously by economy, by material used and by foreign influence upon prevailing styles. There have been trellises so or-

of different periods. Old, close lattices, forbidding to vines and light resisting; trellises of wrought iron and wire, rusty and cheerless; old, decayed, wooden trellises falling to bits; and now and then in the purity of white paint a restored form of some beautiful, simple style of a past period which delights the eye. In this connection there rises before me a picture which was fact in my early childhood: an old brick farm house in its fourth generation with bricked walks, box-bordered, leading to its hospitable doors. On either

side of the porch at its main entrance was a trellis of wooden lattice through which roses clambered. Its interstices were diamond-shaped and spacious enough to be airy, and it was painted white in contrast to the cheerful warmth of the bricks. Half-way across the yard from the entrance porch intersecting the box-bordered walk was a box-bound circle within

which stood a white fan-shaped wooden trellis, and the rose that clambered over it looked very lovely. Really, that old fan-shaped trellis was decorative. Doubtless modern taste would rule that it was misplaced standing so in the center of the lawn space in its green ring of box and turning the path to left and right on its way toward the front door, yet in memory's picture, that old fan trellis looks just right as it holds for the enjoyment of the approaching guest that beautiful fragrant old rose.

Happily, the simple and beautiful lines of the old trellises are again with us, a little differently spaced, with ample rectangular spaces or with oblique bars. It is fashioned from the best of by-gone periods with modern adaptation and is architecturally appro-



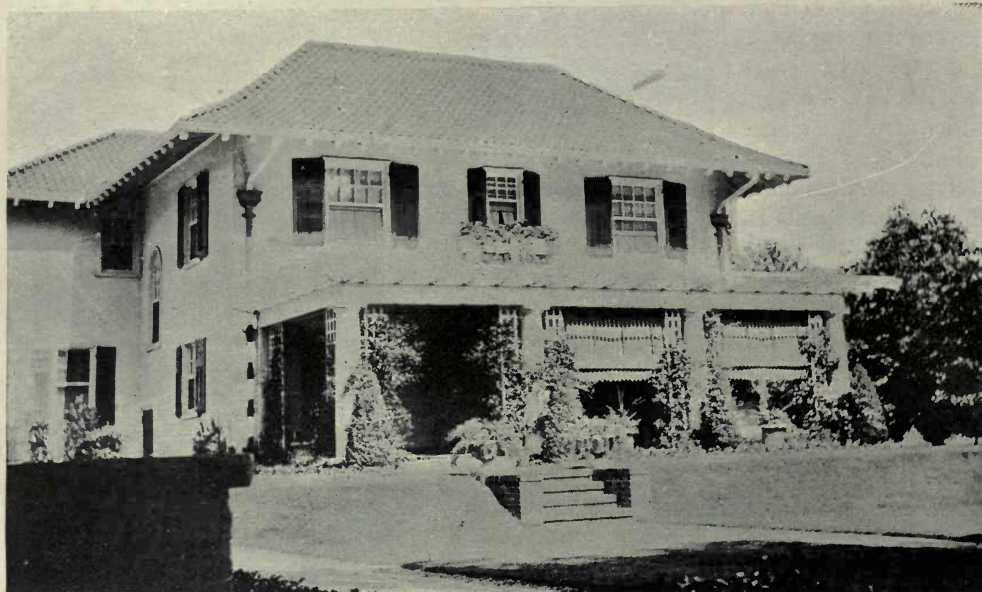
White trellises on a brown shingle house.

priate to the dwellings of the present time; to the house of plaster, the house of brick or stone, and the house of wood.

The ample spacing of the modern vogue is much more friendly to roses, for it admits the light and air so essential to healthy foliage. The interstices of oblique bars are a little more favorable to the unaided ascent of vines.



A trellis over the chimney.



A porch trellis.

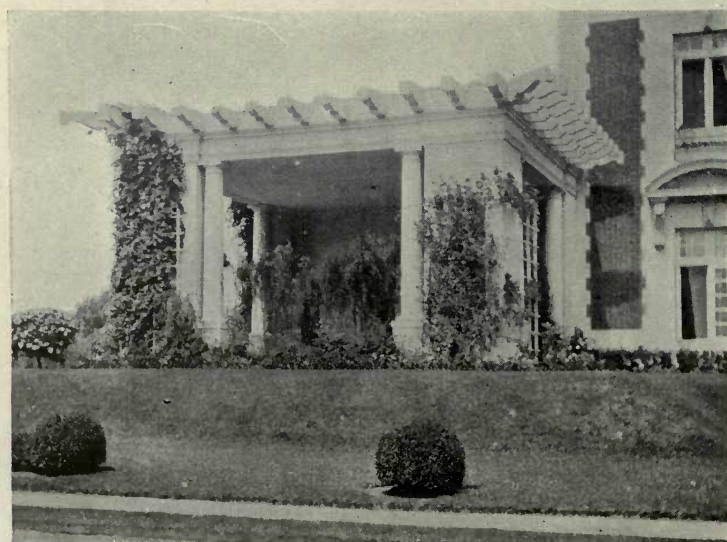
Iron trellises are, of course, more durable than wood, but they are not interesting in themselves and require an ample and speedy covering of vines.

The wooden trellis needs to be strongly built and braced or bracketed in its position, for though an uncovered trellis suf-

fers little from the wind, when blanketed with foliage the strain is severe in unsheltered locations.

Where a trellis is to be used against the side of a house, it is better to offset it several inches. In order to allow free passage of air to insure against dampness, brackets at the top and bottom and at intermediate points are necessary. The legs of the wooden trellis should rest upon stone or concrete blocks instead of in or upon the ground.

Well-seasoned wood should be used and the cross-bars securely fastened with nails or screws. The trellis should be kept painted. White paint is by far the most attractive if the color of the house



An out-of-door room.

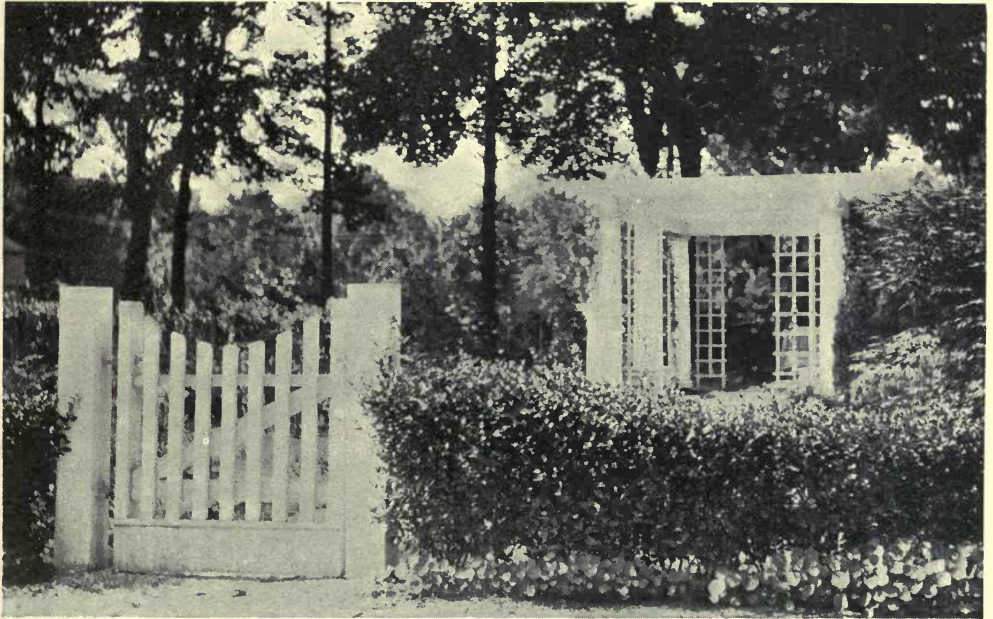
permits its use, and there are few color schemes which are not the better for a touch of white.

Sometimes severity of the facade of a formal type of house is very agreeably relieved by trellises at the corner extending to the height of the windows or sometimes to the cornice. The first illustration shows a very attractive treatment.

Rose-covered trellises about the rear or side entrance, on either side of windows

trellis on either side of the column as it becomes vine covered makes a background for the column, as the vine is trained not to cover too completely.

In each case it will be noticed that the trellis is nicely made of material heavy enough to carry the weight of vines likely to be dependent upon it. One beauty of the present day trellis lies in its careful design and construction. It becomes an integral part of the structure, not



A trellised pergola.

and about the verandas are very attractive on the brown shingled house with its white trimmings.

The bracketed overhang of the next house illustrated invites a trellis treatment which has been carried over the brickwork of the chimney in rather an unusual form, beside the entrance, and at the ends of the porch as well.

The stucco house with the tile roof shows a very attractive trellis treatment used in connection with a porch with cut rafter ends. The carefully constructed

merely an afterthought or built to fill an unconsidered need.

A somewhat similar treatment has been given the trellises about the classic pergola in the last illustration, making a support for vines at the sides and ends, which give a protection both from sun and wind, as well as forming a screen about the pergola.

The treatment of the out-of-door sun room is not essentially different. The vines soften the mass of the supporting corner.

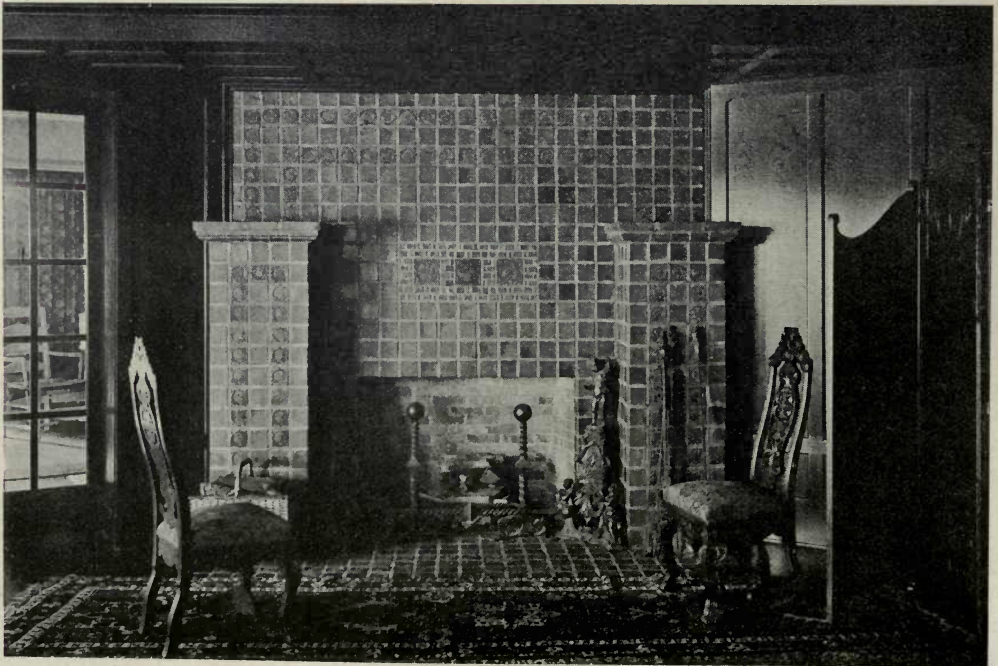
Treatment of the Fireplace Tile

Anthony Woodruff

SO important in the design of a house is the treatment of the fireplace that unless it has been carefully planned to fit into the decorative scheme and general design it will tend to dominate the entire scheme or to clash with it. The very simple room with the barest essentials as to finish and woodwork which of itself is quite ordinary, unobtrusive, but in simple good taste may become a fine apartment and extremely individual by the placing of a strikingly handsome fireplace. In fact, when designing a room for a very beautiful fireplace the other parts of the interior should be subordinated, the finish being more or less unobtrusive in order not to compete with the fireplace.

Facing with tile is essentially a logical treatment for a fireplace, as its possibilities in any direction are almost limitless. Being a plastic substance in its early stages of manufacture, its shape, form, decoration, and texture of its surface are entirely within the control of the designer. In color, its possibilities are even greater because it is not desirable to control it absolutely with each piece, while yet directing it in a very definite way. A subtle quality in hand-made tile results from the fact that very seldom are two pieces absolutely identical, as is the case with the machine-made product, each piece having the individual attention of the workman.

Building materials in general and those



There is a subtle quality in hand-made tile.

used for fireplaces in particular are of two general classes: either structural, as in the case of brick or stone, where the construction is of the material itself and therefore must be governed by peculiarities and structural limitations of the material; or decorative, as with tile, wood or plaster, where it is frankly a covering material which faces the construction of a rough building material. It might be noted that while wood is, under most conditions, a structural material, about a fireplace it takes its place as a decorative or facing material. Under modern building conditions, however, this distinction is largely superficial, as there is always a finishing material, even with brick or stone.

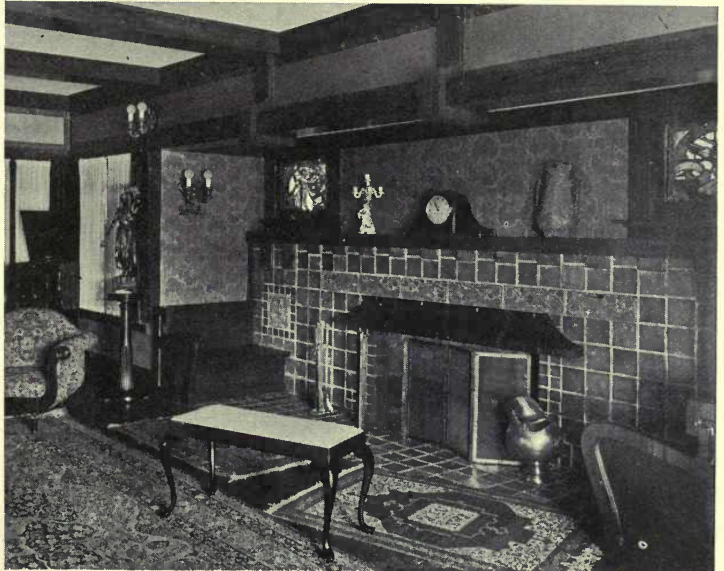
The art of tile-making and its use goes back to very early times and through the oriental civilization, but so individual is this art that each period is in its own way distinctive. The tilemaker's craft is sensitive and his work is essentially the response to the demand for beauty in the individual surroundings, and has developed in this country under the increasing demand for beautiful homes.

Perhaps in no other direction has the handicraft movement more strongly touched modern living conditions than in the development of the possibilities of tile.

A Visit to the Batchelder Studios.

Several years ago, being much interested in some special tile work, I made my first visit to the Batchelder Studios, in

Southern California. Near the Arroyo we found a beautiful little bungalow with a big yard and a group of low buildings under the pepper trees. Here was the beginning of what has since become a unique industry. It started as a "back yard" experiment, with a portable kiln having a capacity of one hundred fifty six-inch tiles. During the first year the demand for the tiles increased to such an



An interesting treatment in color and line.

extent that a permanent factory was built, and quickly following each other, three kilns were installed, having a capacity of four thousand tiles.

In a recent visit to the bungalow by the Arroyo, the buildings were changed and the portable kiln replaced by a permanent plant on the other side of the city, and beautifully fitted downtown offices.

A distinguishing feature of this studio lies in the way the work is handled. Whether it is a fireplace or the full interior of a room, the design is worked out as a whole, rather than for the individual tile. If a fireplace is under consideration, the rest of the room, propor-

tions, exposure and lighting, and general conditions are studied and taken into account, and the fireplace as a unit is designed for these conditions; the general lines are fixed, the color scheme decided, at the same time determining the accent which is supplied by tile specially designed to give the texture of surface, form, color, or a combination of these.



The joints have value as have lead lines in glass.

The tiles are hand-wrought by processes peculiar to this factory and designed for the particular places in which they are to be used. A hand process does not work with the precision of the machine-made article. The tiles have a slight variation of shape and size—sufficient to relieve the monotony of machine-pressed tiles. These variations are not sought, Mr. Batchelder tells us, but are inevitable in a hand-made product and are at the same time desirable. "We make the very best

tile we can possibly make by hand. The work when set up produces the effect of unity rather than uniformity."

The color in the individual tile is very interesting, but when set in a sufficiently large surface to get the effect as a whole and in relation to each other, the color possibilities are practically without limit. The range of the color scheme is a revelation to those who are familiar only with the uniformly colored tile of commerce.

As in the case of old Persian rugs, the colors do not admit of positively inharmonious combinations. A single tile furnishes only a clue as to the ensemble produced by a completed piece of work. The color effects have been described as "luminous," "mellow," "glowing"; each tile is a unit in a general scheme keyed to a definite color note. When figure tiles are employed, more positive touches of color are often fired into the background areas by way of enrichment, or to catch the brighter hues to be found in curtains, hangings and rugs.

When the dominant note is red, the tones vary between light and dark, or with the warm, light tones

glowing through the surface, or with a note of dull blue and green fired into the clay. They furnish a rich color scheme blending with oak or with mahogany or with the darker tones of wood or wall, and are particularly interesting with many of the darker-hued Oriental rugs.

The browns, either dark or light, may have subordinate touches of gray, green, or may take a soft, mellow pink, which may be used effectively with white wood-work, or the colors may blend into grays

or into the green grays.

After the tile work is set in position it is rubbed with raw linseed oil, which leaves it with a soft, leathery finish and without disagreeable high lights.

In setting the tile the cement lines of the joints are as important in the design of the tile work as are the lead lines in the leaded glass window. The joints are from one-quarter to one-half inch in width, the pointing concave, well back below the surface of the tile to expose the rounded contours.

The color of the cement may be sought in some of the middle values of the tiles, neither too light nor too dark, and may be repeated in the color for the wall.

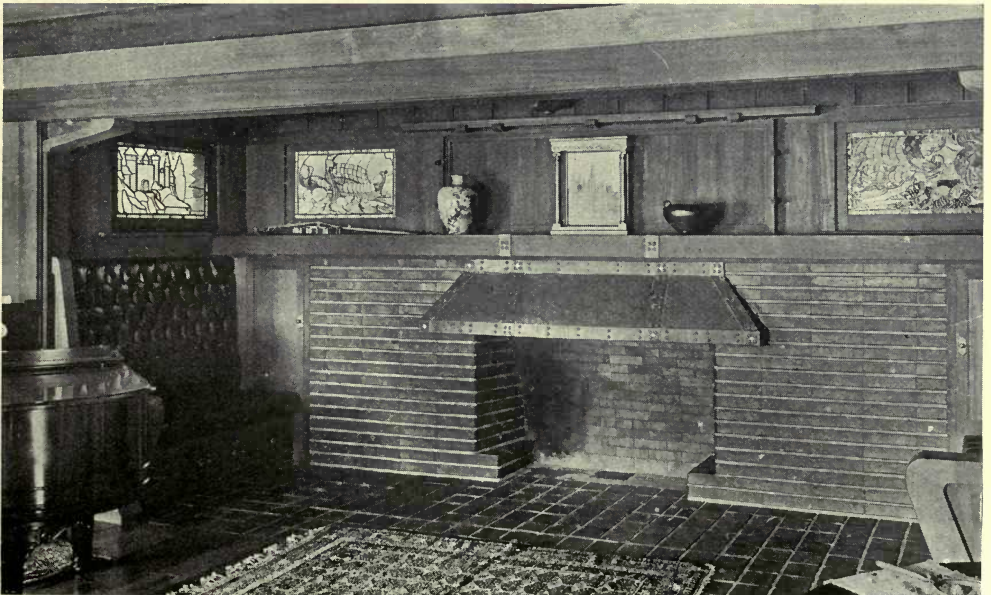
It may be noticed that in these fireplaces shown, and the recommendation is made general, that the firebox opening should not be bound with the convention-



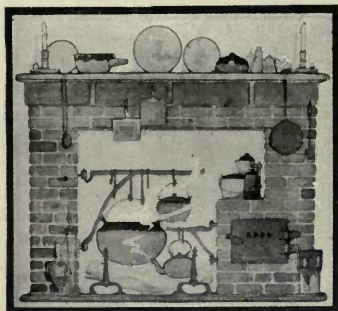
Special tile about the fire opening.

al brass ruling. It is a makeshift at best bringing in an unrelated color.

The fireplaces here shown, while only giving a few examples of this individual treatment of the fireplace design, at the same time show the possibilities of tile in the home, when it is treated as an individual material.



An ingle-nook with tile and leaded glass.



THE KITCHEN



The Problem of the Sink

Edith M. Jones

(Copyright, 1916, by Edith M. Jones)

THE form of the hesitation waltz last year was called the "Kitchen sink." When and how the name originated is hard to say, but it enjoyed its period of popularity and was in turn replaced by different dances of other names.

Not so with the dance of the kitchen sink which women have been dancing three times a day in their kitchens for all these many years. Its vital importance has never allowed the name to change or the dance to die. The dance form has changed, however, in the last few years. Women have wakened to the fact that the dance as they have been doing it has become old-fashioned and out of date. It has an ugly, quite out-of-date stoop and double

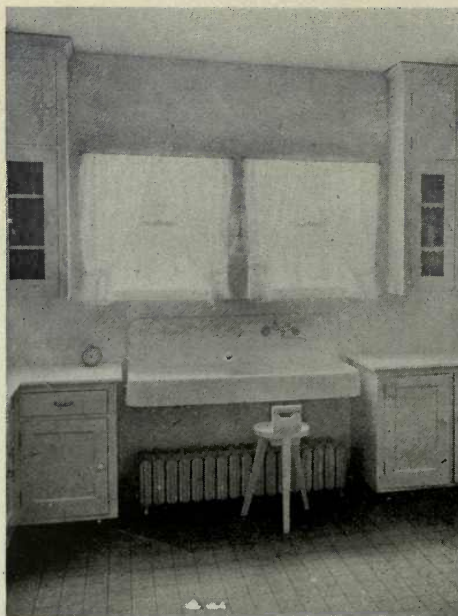
the number of steps and motions.

Have you ever thought how much less room is required nowadays for the modern dances?

Think how much more room the old-fashioned polkas took! Why, we danced hard and furiously through long halls. Today the amusement rooms are smaller because the dancing has become less strenuous.

Just so with the "Kitchen - sink" waltz of modern housekeeping. There is a studied ease about the dance of today and less and less unnecessary motion. Smaller kitchens have done much toward simplifying the dance and modern equipment is all planned with the view of making this room attractive.

Because of the well planned equipment the



With cupboards on either side.

new dance can be done with almost no stooping motion. The sinks and working table tops are made two and three inches higher than formerly. In other words, 36 or 37 inches, instead of 32 or 34 inches, from the floor are the popular heights for the sinks, etc., around which this modern dance is performed. Gas ranges with elevated ovens make stooping unnecessary. Ice boxes are set up from the floor and drainage is provided to avoid the extra motion and care of the pan of former years. Pan closets do away with the low, storage cupboards. The new floor coverings are not alone comfortable but so easily cared for that the old-fashioned scrubbing has given place to the new-fashioned mops. The sinks are models of beauty and made of materials which are easily cared for. The gas ranges do away with the dirt and care of coal and the later ranges require no polishing. Even the house dresses which women wear to do their work in are more attractive nowadays because so much heavy work has been eliminated with the improved conditions—and so on and on we may enumerate the wonderful changes which make housekeeping an increasing joy and the "Kitchen-sink" waltz in the well-planned kitchen a real pleasure, as any dance should be. So we may say—dances come and dances go, but this daily dance of the housewife goes on steadily improving.

There are many kinds of sinks on the market today to please every fancy and pocketbook.

The porcelain enameled iron one-piece

roll-rim sink with right and left hand drains is beautiful to look at and easily kept clean. There are good looking white rubber mats of any size desired which can be used to protect the dishes when necessary. These mats can be ordered from any wholesale rubber com-



One-piece sink with double drain-boards.

pany and are quite reasonable in price.

The usefulness of a sink is doubled and dishwashing is robbed of much delay and annoyance if right and left hand drainage is provided. Few people realize at how small a cost wooden or enamel drain-boards can be installed and much efficiency obtained.

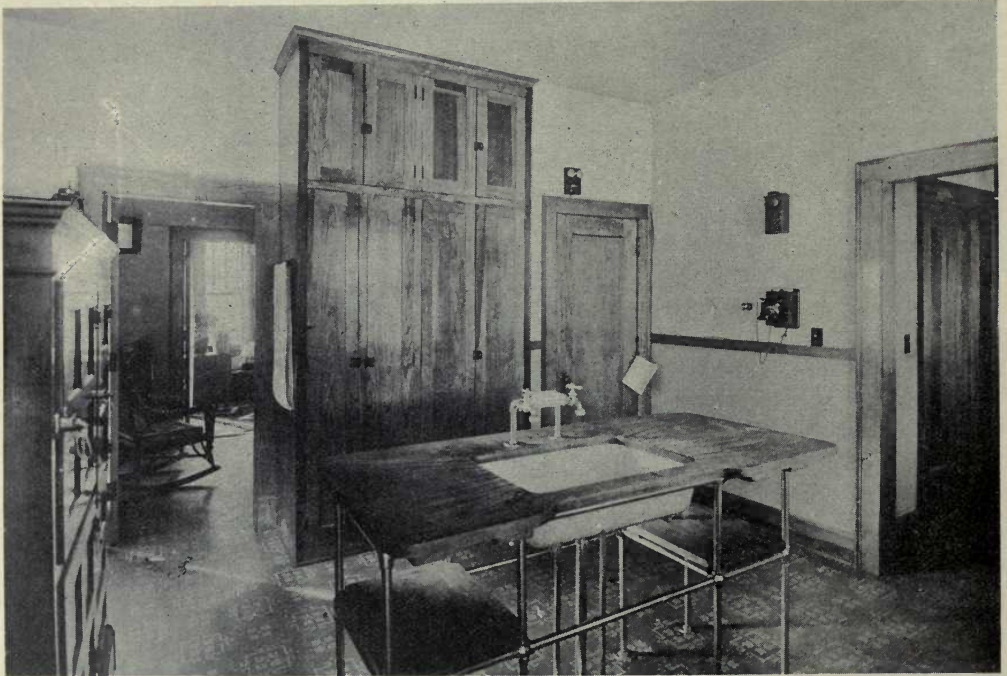
Sometimes such an arrangement as shown in the illustration, with cupboards

on either side is satisfactory. The table tops on either side of sink are covered with vitrolite and the scheme is good because there is ample drainage room and yet less wall space is required for the sink itself.

The center sink solves a good many problems and has proven itself worth while. One can readily see how this

She says her friends all say they envy her her kitchen and will take her "job any time she leaves it."

One last word about sinks. Whatever kind is chosen to meet the purse, fancy and demand, see to it that ample drain boards are provided. There is no one more important thing in the kitchen than this one of ample working surface. Con-



A center sink.

arrangement concentrates the equipment and saves hundreds of steps in the preparation and clearing away processes. There are several different types—more or less elaborate—which can be used, but in every home where the cook has become accustomed to the innovation it is always very popular. Recently I talked with the cook who had been in the kitchen from which this photograph is taken and she was most enthusiastic. She says she never wants any other kind of an arrangement because she can do twice the amount of work with half the time and effort.

gestion, confusion, breakage and wasted energy are all avoided in this way.

Then the placing of the sink is important. One advantage of the center sink is the light and air it has from all sides. A sink under windows is pleasant, not alone of light, but the air in one's face is often refreshing and the view restful. Above all, avoid placing the sink against a wall with the window at the back. When it is necessary to place sink on inside wall, *always* provide side light. These must be given consideration or we will find harder problems ahead of us.



The Use of the Stencil

Part II—Fabrics and Furnishings

John A. Knowles



THE easiest form of decoration for the amateur to undertake and that which is most likely to be successful is stencilling. As brevity is the soul of wit so restraint is the soul of design; and happily enough the error of the amateur is not likely to be that of overdoing the ornament, as he will generally choose the simpler forms until he has more or less mastery of the subject. The flatness of effect of this form of decoration lends itself admirably to the wall design as already discussed, where any suggestion of projection would be out of place.

Besides its suitability as a means of decorating walls, stencilling has additional advantages in its applicability for ornamenting cushion covers, casement curtains and even for articles of dress, and these when they become soiled may be washed without injury as the work in this case, being done in oil paint instead of the water paint recommended for walls, is permanent. The stencils for this work can be bought for very little cost. Many firms supply packets of most beautifully cut Japanese stencils with designs of birds and flowers, which are

most admirably suited for such dainty things as doilies or table centers. Neither is there any great restriction as to the kind of material upon which stencils may be used, brown Holland, casement cloth, silk or satin, all take stencilling admirably, though such things as velvet and plush, as well as the coarser textured materials used for hangings, are not so suitable. The group of designs shown would work out excellently for cushion covers if the color scheme chosen be not too varied. A very good plan to avoid this and keep the colors in key with one another is to mix a tint upon which the general scheme is to be founded and then try the effect of adding a little of another color to this general tint and see how they harmonize rather than mix entirely fresh tints for each color required. As an illustration, let us suppose that we are going to stencil the first of the three designs for cushion covers and that the material bought to make the cover of is an old gold tint of satin. First, as regards materials, we shall require a couple of small stencil tools half an inch in diameter, a piece of wood, glass or tin for a palette, some oil



colors in 3-inch tubes, of which the following will do practically any color scheme required: Flake white, yellow ochre, middle chrome yellow, burnt sienna, crimson lake, Prussian and ultramarine blues and raw umber. We shall also require a 5-inch palette knife and some medium to thin the paint and make it dry, of which either hard oak varnish or mastic varnish is best. A small bottle of turpentine and some petroleum to wash the brushes out in completes the

palette. Take some more of the general tint, adding some raw umber to it. This is for the stalks. These tints will all go well together, being all modifications of the same general tint. The tint for the flowers must be mixed separately and made of white, burnt sienna and a little crimson lake. The material should be stretched and tacked down on a drawing board or table top, and the stencil pinned down upon it with thumb tacks to prevent its moving. When the stencilling



A group of designs for cushion covers.

outfit. As the color of the ground on which we have to work is old gold, and the design is a conventional treatment of a rose with stalks and leaves, a harmony of rich bronze greens and browns with brown red for the flowers would look best. The flounce or cord of the cushion could then be made a lighter yellow and the whole, when finished, would make a fine harmony of color. Mix a tint for the leaves as a beginning, consisting of flake white, a little Prussian blue and chrome yellow, and thin it with enough varnish till it is a stiff cream. Hold the palette knife dipped in this against the material and see if it harmonizes with the ground tint. If too bright add a little raw umber to "kill" it. This is for the general tint and is to be used alone for the brighter parts of the foliage. Now take some of this general tint of green and add a little Prussian blue for the darker parts of the leaves and put it on one side of the

is done it should be carefully lifted off and laid upon an old newspaper and carefully cleaned on both sides with a rag dipped in petroleum or turpentine. Remember that the stencilling tool is not brushed across the work but dabbed on with a short pounding motion. If the colors are inclined to dry bright and glossy, either use less varnish in the paint or add a little dry color of the same tint bought in powder instead of ground in oil as it is in the tubes. The material, however, generally absorbs the oil and prevents this trouble. Do not add but very little turpentine to the paint unless necessary, as this causes the oil and varnish in the paint to run and form dark grease stains around the work. Always make a trial on a piece of spare material of the same kind before doing the actual work, as this will prevent mistakes and consequent disappointment. If the design is complicated or the paper strips

which separate the different parts of the design narrow, so that the brush, in working, overlaps into the next compartment, it is better to do a part at a time, say the leaves first, and these having dried, cover them with pieces of paper and do the flowers. In this way the work will come out cleaner and sharper, which is one of the effects to be aimed at in this sort of work. Although not so applicable in its use on walls, shaded stencilling looks well on fabrics, and very charming effects can be obtained in this way. For instance, a rose can be made to shade from a delicate salmon pink at the tips of the petals to a deep pink and leaves from a light yellow to dark green. In order to do this at least two brushes will be necessary, one for the lighter and the other for the darker tones. We will suppose it is required to shade a conventional design of roses, with leaves and briars. Mix the tints for the roses first, making one of flake white, a little middle chrome yellow and a little crimson lake or vermillion, adding enough varnish to make it into a stiff cream and, if it seems too thick to work, a few drops of turpentine. This is for the light parts and is to be put on one side of the palette. Mix another tint deeper of crimson lake, very little white and a mere trace of yellow; thin as before and place on the other side of the palette. Now work a brush into each of these and, taking one first, dab the center of the rose and ends of petals required light, then, taking

the brush worked into the other tint, start at the opposite end of the petals and gradually work up and into the light tone, using as little paint in the brush when making the junction of the two tints as possible. It will be found that in this way the most delicate gradations of tint are not only possible but easy. For the leaves mix two tints, the first of middle chrome yellow, flake white and the merest trace of Prussian blue for the delicate green tips of leaves; the other of the same colors but with less white and more Prussian blue with a trace of raw umber added. The stalks make of raw umber and chrome yellow with here and there a dab or two of dark green worked in to give variety. If a stencil in course of time become torn or too frail for further use, lay it on another sheet of paper

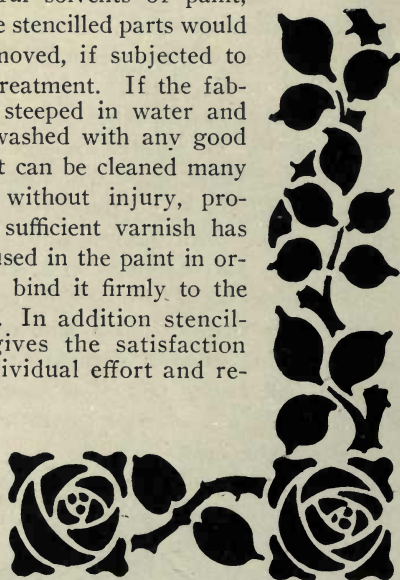


Design for table cover.

and stencil the design through with a nearly dry brush and when this is dry cut out the design as before. Some people make their stencils of tinfoil, especially where they are to be used with water paint, as this material cannot become soaked with the water like paper and become limp, but it is hardly necessary to use this for ordinary work as, unless carefully handled, tinfoil soon becomes baggy through the continual banging of the tool upon it. Parchment is a good material for stencils but expensive, and, after all, nothing is better than paper if tough and of good quality. It always pays to take

care of one's tools and if this is done by carefully laying the stencil upon an old newspaper and cleaning it, back and front, with a rag and some turpentine or petroleum, when dry it can be rolled up and put away for further use, but if the paint be allowed to dry on the stencil it will make it so thick and heavy as to be useless for further work. In the same way if the brushes are

cared for they will last a long time. If they are required to be used in the same color the day after, all that is necessary is to place them in a jar with enough water to cover the bristles, when after a good shake, they will be once more ready for use. But when finally done with they should be cleaned out in petroleum and then washed in soft soap and warm water and allowed to dry. When a fabric which has been stenciled has become soiled and it is necessary to clean it, it can be washed, but care should be taken that no soft soap, washing soda or soaps containing strong alkalis be used, as all these are powerful solvents of paint, and the stencilled parts would be removed, if subjected to such treatment. If the fabric is steeped in water and then washed with any good soap it can be cleaned many times without injury, provided sufficient varnish has been used in the paint in order to bind it firmly to the fabric. In addition stenciling gives the satisfaction of individual effort and results.



What Will Grow Under Trees.

Many people ask, "What can I have under trees where grass will not 'grow'?" Of the usual shade trees, elms and silver maples are notoriously ravenous, and no ground cover of year-round beauty, so far as I know, will thrive permanently under them without occasional watering and liberal use of commercial fertilizers. The trailing myrtle is generally considered the best ground-cover under trees because it has evergreen foliage and its waxy blue flowers appear with the first violets, bloom with profusion in May, and give scattering flowers all summer and autumn. It is also hardy, more so than English ivy.

It is a misfortune when specimen evergreens lose their lower branches. The fallen needles are supposed to be responsible for killing the grass under evergreen trees. I know of attractive ground-covers of lily-of-the-valley under pines and other trees. Lily-of-the-valley has a certain decorative quality, and is very attractive, especially when in bloom. The only drawback is that it has no winter beauty. English ivy seems to me the ideal ground cover under trees wherever it will thrive without winter protection.—*F. H. Sweet.*

The Practical House

Ellis R. Warner

A Building Experience by One of Keith's Readers

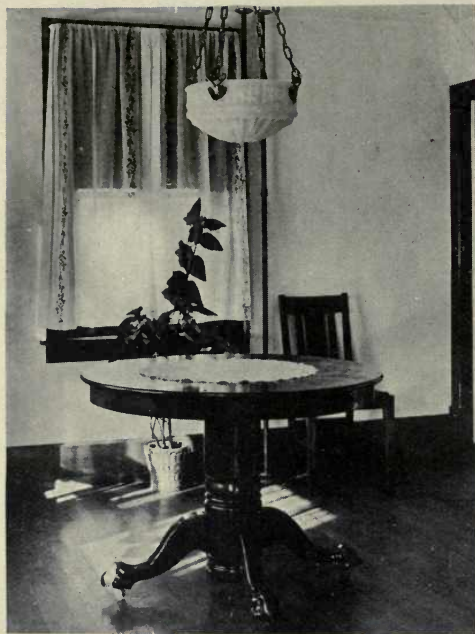
IN the building of a house, the greatest consideration is expense. If you are planning to build, plan and put up a cheap house—but do not mistake the meaning of cheap. The cheapest article is the one that gives the greatest value in return for the price which is paid for it, whether it be soap or shingles. Construct a building that will return not only one hundred cents for every dollar invested but also at least six per cent interest in comfort, convenience and attractiveness. If you cannot do this, you better put your money in the bank and rent a house.

This, however, can be done if the use for which the building is designed be carefully considered, and the house built accordingly.

Before starting the foundations of this house, which will mean so much to you, be sure that you have on hand these two things: an exact knowledge of what you want, and an infinite supply of patience. What will you have gained by building your home if when finished the home is unsatisfactory? Do not depend on good luck and the carpenter getting you what you want. If you do you will be disappointed. Get it yourself and then you will



Red asbestos shingles add a distinctive touch.



In living room.

be sure of it. But all this requires patience, and patience you must have first, last, and all the time.

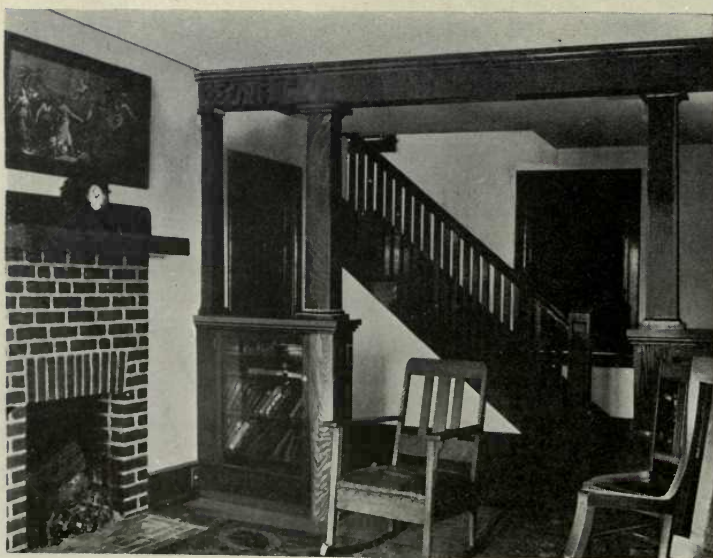
The home shown was planned and built by a man with a small family and a small

income, at a cost of twenty-eight hundred dollars. It was intended for a home, not just a house, and therefore was made to last a lifetime and never look shabby. It is large enough to be comfortable and not so large that it is difficult to find tenants to occupy it if the owner is compelled to be away for some time. It is essentially a cheap house.

In regard to expense, the initial cost is not the only item; repairs of all kinds must be reckoned on. For this reason many of the new buildings that are being put up are of stucco, as is this, since it combines the good qualities of the brick and the frame houses in a cheap, substantial material that needs no repairs. The red asbestos shingles not only make the place attractive and a trifle distinctive, but also furnish a covering that is equally impervious to fire and water. The long roof line, broken by the dormer windows, gives a low appearance to the house which the wide pillared porch helps to emphasize.

Do not think that a house that is inconvenient to work in is a cheap house. Your wife will enlighten you if you make that mistake. Pay particular attention to the lights, woodwork and arrangement of rooms — especially the kitchen.

Don't skimp on light. The oculist and nerve specialist will get what you expect to save. Place lights where they will be needed. In the living room of the house are three lights—one in the center for the lamp, one over the desk and one near the bookcase. Two



An inviting fireplace.

lights are in the kitchen, one over the sink and one over the range. Upstairs a light is placed in each closet and one on either side of the bathroom mirror. These are worth much more than the actual cost in the trouble they save.

The floors throughout the house are of hard wood. Only a woman who has tried to care for poor floors knows what this means. The trim, white upstairs and chestnut downstairs, is perfectly plain, since highly carved woodwork serves only to catch dirt.

Upstairs the rooms are all good size for bedrooms. The sewing room is the smallest, but is large enough to hold a single bed if desired. All are airy in summer if the windows are kept open a little. The closets furnish ample space for storing winter clothing and the many articles one wishes to save.

The upper hall and stairway are very attractive. The stairs are easy, and the window at the landing makes them light. The arch between the reception hall and the living room is just enough to divide the space into two rooms, though they can be used as one room when entertaining many people at one time. The fireplace is a great pleasure as well as convenience.

The kitchen is especially well arranged, as two or three steps bring one from the range to either the sink or the cabinet. The shed, opening from the kitchen, is a very convenient place for the refrigerator, brooms, dust pans, etc. Plenty of hot water is always on hand, furnished by a small heater in the cellar, where are also stationary tubs. The hot water heating sys-



The entrance door.

tem is used, and is satisfactory in every respect.

Altogether it is a good looking, well built house that is made to live in. The owner of this type of house will be pleased with his investment, and will find no trouble in recovering his money if he should be so unfortunate as to have to sell.

There are three elements which enter into and which determine the success of a house. The first, to many people, is the actual value in the house, with interest constantly accruing on the investment in the comfort which it gives. The other two are the attractiveness of the house and the convenience of its especial arrangements. Each of these is a direct asset which will pay a face value.



A convenient cupboard.

A Modest Two-Story House

IT is not unlikely that a great many people contemplate building; but hesitate on account of the high cost of building material.

The design shown is for a modest full two-story house. Planned for the business man with a small family, who wishes

market at from five hundred to a thousand dollars, that will give him his ride into the country on a Sunday afternoon, without feeling, when he gets back, that the cost of the trip has been excessive.

A house of this size can be built on a five to eight hundred dollar lot in the sub-



The entrance is sheltered by a hood.

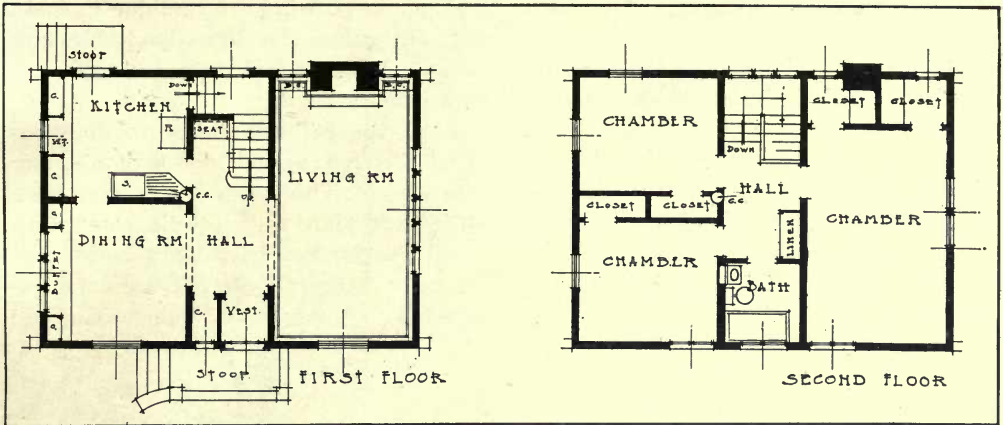
W. W. Purdy, Architect.

to own a home of his own without increasing the already high cost of living, for truly, it is the home owner that is getting the most out of living, and not the renter, who, while free from care and responsibility, has not even a place to hang his hat that he could call his own.

One need not spend five or ten thousand dollars in order to enjoy these privileges, any more than he must pay from two to three thousand for an automobile, when there are any number of cars on the

urbs, where the taxes are reduced to a minimum. The insurance and the upkeep are both minor considerations. In fact, a good lot in the suburbs of a growing city will increase in value enough to take care of the depreciation on a house of this kind. The interest, after all the main consideration, is now reduced to the minimum, so, with the advent of spring, why not have a home of your own!

It will be hard to find any better plan than that of the center hall arrangement.



The entrance is sheltered by a hood supported by plaster brackets, simple, yet effective in detail. The coat closet, convenient to the entrance, is lighted by a small window. With the stairway and a seat, with a hinged lid for storing rubbers, in the opposite end of the hall, waste space is reduced to a minimum. The living room on the right with an attractive fire-place and built in book cases and a wall beam on the ceiling, makes an exceedingly attractive room. The casements on the side are high enough to permit a davenport underneath. The dining room, directly opposite with its built-in buffet, as the central feature, makes a very pleasant room. The kitchen, while small, is about as convenient as it is possible to make it. The stair to the basement with grade door, leads down underneath the main stairs. This basement extends under the whole

house and contains the laundry, furnace room, for a hot water heating plant, with fuel room, vegetable, fruit and general storage space.

On the second floor are three well arranged chambers and a bath, opening off the center hall. The owner's chamber, over the living room has two large closets, each with an outside window. Note the convenience of the linen closet and clothes chute in the hall. The doors on the second floor are of birch, finished in tobacco brown mahogany, while the finish is of pine, painted an egg-shell ivory enamel. The floors are of birch—stained. The first floor is finished in oak with birch floors. Kitchen in pine. The bath has a tile floor and wainscoating.

This home should be built complete as described in the vicinity of Minneapolis, for from \$3,500 to \$3,800, according to the architect's estimate.

Shingles and Timber Work

SET high enough to give a good outlook, the projecting bay takes advantage of the sweep of view for this home built in one of the western states.

A glance at the plans will show that the floor space has been profitably utilized. The house is forty-two feet in length and its width is twenty-six feet. The exterior is of interesting general de-

sign and the side lines are perhaps more attractive.

Shingles of red cedar, set alternately two inches and six inches to the weather, are used on the exterior walls and the roof is entirely of shingles. The shingles of the walls are stained a tan color and those of the roof a terra cotta tone.

The fireplace chimney adds the texture of clinker bricks and is well proportioned.

and five large windows combine in making an extremely light and pleasant room. A hammered copper electric fixture lends a finish to this room.

From the hall the dining room is entered through French doors of pleasing proportion. This room has an attractive buffet and plate rail, is wainscoted with wood panels, and has also a beam ceiling with a central electric pendant fixture. The dining room, living room and



Set high to get the view.

Jud Yoho Architect

From a porch six feet by ten feet the hall is entered by a door three and one-half feet wide by seven feet in height, and on either side of the door are side lights of beveled plate glass.

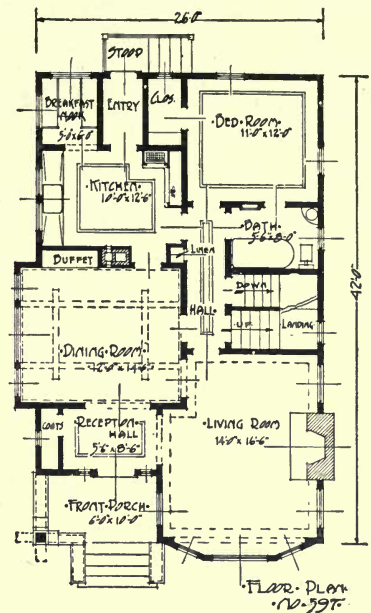
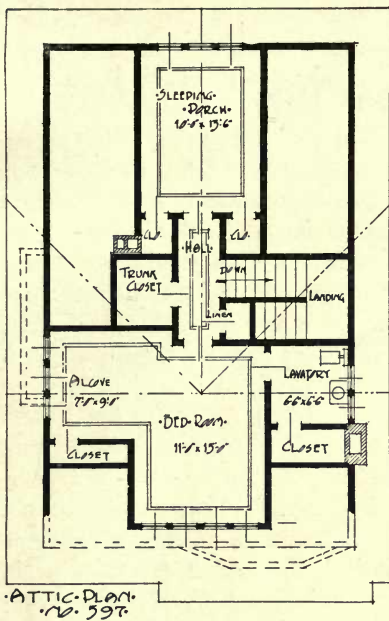
The hall, which is eight feet six inches by five feet six inches is wainscoted with wood panels, finished with photo rail and face beam, and has a convenient closet for coats.

The living room is entered opposite the fireplace, through a cased opening at the end of the hall, and has wood cornice at the ceiling. A cheerful fireplace

hall have oak floors and there are French doors between dining room and living room.

Reference to the floor plan will show that all the rooms are commodious and conveniently grouped. The simply arranged kitchen is well equipped. There are two large cupboards, a cooler, sink and drainboard. Beyond the kitchen is a rear porch, which is practically closed in, excepting for the door which is latticed and screened.

Another good arrangement on the floor plan is seen in the rear hall from



which the dining room, the living room and the rear bedroom are entered. This gives access to stairs going down to the basement, up to the sleeping porch and rooms on the second floor, and also to the bath room and the kitchen. In fact every room on this floor may be entered from this rear hall.

The back bedroom may be used as a den as there are two large sleeping rooms finished under the roof. In addition, a trunk room and linen closet, opening off the hall upstairs, are provided and the stairs are three and one-half feet wide with an easy tread.

The bathroom is of good size. A hinged cover on a seat in one corner provides a chute to the laundry in the basement. Both lavatory and bathroom have a medicine case with a beveled plate mirror in the door.

The front bedroom is eleven feet by fifteen feet with an alcove seven feet by nine feet. There are seven windows in this room giving direct light from two sides. The back bedroom or sleeping

porch is ten feet by thirteen feet six inches and has three large windows.

There is a full cement basement amply lighted and ventilated. Laundry trays are provided. The concrete floor is sloped to a drain connected with the sewer system, so it can be cleaned with a hose if desired. A hot air furnace with hot water coils is centrally placed. There are separate flues for the furnace and for the kitchen range.

The plan provides for four large clothes closets and a broom closet, enough to delight the heart of the most exacting housewife. The large number of windows provided throughout the house make it light and cheery. The wood, which is native fir, is stained a light oak color. The walls are light buff and the ceilings cream. The hardware is of brush brass, giving a most pleasing effect.

The house is roomy, contains little waste space and is withal an exceptionally serviceable and satisfactory house. The architect gives its cost as slightly less than \$2,800.00 to complete.

Influenced by the Swiss Chalet

IT IS often curious to trace the influence under which a house has been designed and note how easily it may be read. This home is not at all like the Swiss chalet either in form or exterior finish. It is much more complex in outline and shows at a glance that it was not built for people in the Swiss mountains. Yet one feels the Swiss character. The carved wood balconies and the brackets are essentially of the chalet type. In fact, all of the woodwork, in the slight overhang, in the gables and in the barge boards, is a little more strongly defined than the usual timber work of the low lands.

It will be noticed from the plan that the frontage of the house is rather broad. This particular home-builder found himself possessed of a narrow lot—there is

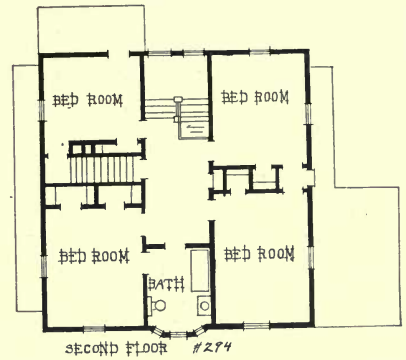
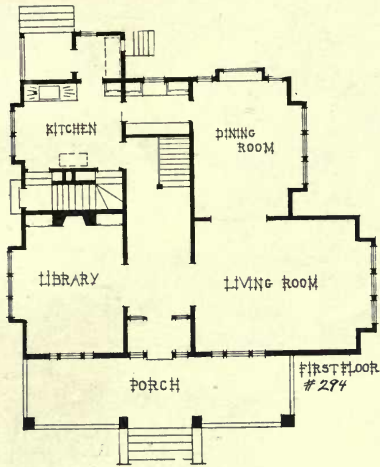
nothing unusual in having greater plans than the basis on which to complete them. As between the necessity of enlarging the size of the lot, or reducing the size of the house, there is generally no question as to the easier process. So the long living room was reduced to the width of the dining room, the two bays in line supporting the balcony. It still left a good living room, and reduced the cost to build as well.

With its central entrance and open hall the interior gives the feeling of ample space, with the library on one side the hall and living and dining rooms on the other. In the library is that feature of quick comfort, a gas grate, with bookcases on either side. Each of the four main rooms down stairs have projecting bays, filled with windows. The dining room has a



With wood balconies and brackets.

Lindstrom & Almars, Architects.



built-in buffet recessed under a wide window as well. The pass pantry with its well arranged shelves and cupboards, is under the landing of the main stairs and connects the dining room and kitchen. Under the rear stairs from the kitchen are the basement stairs providing grade entrance to the cellar, and side entrance from kitchen. At the rear of the kitchen is an open porch and an enclosed entry where is placed the refrigerator, iced from the outside. This placing of the refrigerator is also very convenient to the dining room and serving pantry, which is not always the case when the refrigerator is placed in an outside entry. A long distance between the dining room and the refrigerator always means many steps, especially when salad courses and other foods which must be kept cold are placed on the table. It is a point which

the home-builder will do well to consider when studying the plans for the new home.

On the second floor are four bedrooms, all with cross ventilation. Each room has good closet space. The owner's room has two closets and opens directly into the bath room. The stairs from the kitchen open into the housekeeper's room. Attic stairs open from the hall. Two rooms and bath are finished in the attic.

The second floor is finished in birch with tile floor in the bath room.

The main rooms on the first floor are finished in quarter sawed oak. The rest of the house in birch. The vestibule has a tile floor, and battleship linoleum is laid over the kitchen floor.

The exterior of the house is stucco over metal lath, with asbestos shingles in the gables and on the roof.

With Timbered Gables

A LARGE home, artistic, convenient, but at a minimum cost, is always in demand and this one was designed with just these requirements in view. The rooms are all of good

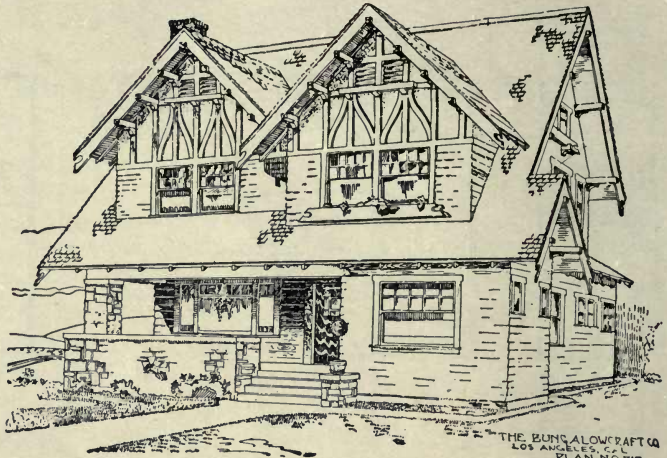
size and the arrangement is excellent. The den with its outside entrance is set apart from the rest of the house so that it may be used as an office if desired, or as essentially his own room, for the "man

of the house." A seat is shown but may be replaced by bookcases, and their position may be determined after the place for the desk has been decided.

The entrance from the porch is either into the den or the living room, and both again open into the hall. The living room and dining room, as well as the hall, are connected by wide openings, which may be closed by sliding doors. Bookcases are built under the windows on either side of the fireplace in the living room. The ceilings of both living room and dining room are beamed. The dining room has a recessed buffet built in beside the chimney, and a group of windows opposite the doors to the living room.

The chimney carries a flue for the furnace in the basement and one for the kitchen range as well. The sink in the kitchen has double drain boards and is well lighted. Beyond the kitchen is a screened porch and a toilet opens from it.

On the second floor are four bed rooms,

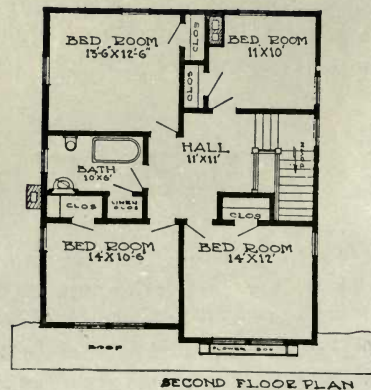
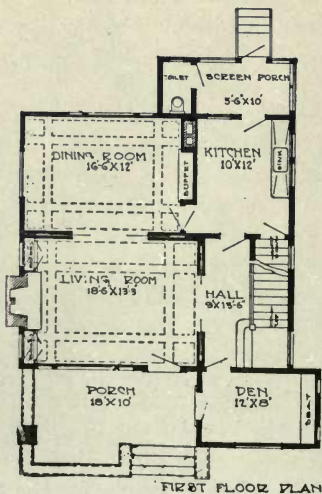


The gables are stucco with timber work.

each with windows on two sides, giving cross ventilation. Each room has a good closet. The linen closet opens from the bathroom.

There is a basement under the house with accommodation for the furnace and the usual arrangements for fruit, vegetables and storage.

The exterior of the house is of wood except the gables, which are plastered with cement, with Old English half timbering. The cut is made from a pen and ink drawing and does scant justice to the subject.



A Roomy Small House

FIVE bedrooms and a sleeping porch sounds like a large house, and when to this is added a sunny breakfast room and enclosed kitchen porch, with good sized living and dining rooms and kitchen it gives very complete living accommodations for a family.

An outside door from the dining room opens on a terrace which is pergola covered, and on which the breakfast room also opens. This breakfast room is really a sun room which opens from both the kitchen and the dining room. The service entrance from the kitchen to the



The side view is quite as attractive.

E. W. Stillwell, Architect.

Since the rooms on the second floor are not so very important the stairs and hall do not take valuable space at the entrance, but are placed so as to give access from the kitchen. It connects the two rear bedrooms and the bath room, as well. The front bedroom has a good closet so that it may be used as a bedroom, or as an extra room. The living room has a good fireplace with windows on either side. Sliding doors separate it from the dining room in a very satisfactory way.

dining room is on the other side of the built-in buffet.

The kitchen is fitted with cupboards and has a sink under the windows. A broom closet opens from the enclosed kitchen entry. An outside grade entrance connects with the landing of the basement stairs from the rear hall. The bath room has cabinets under the windows on either side of the basin, an excellent idea, and a linen cupboard is also in the bath room.

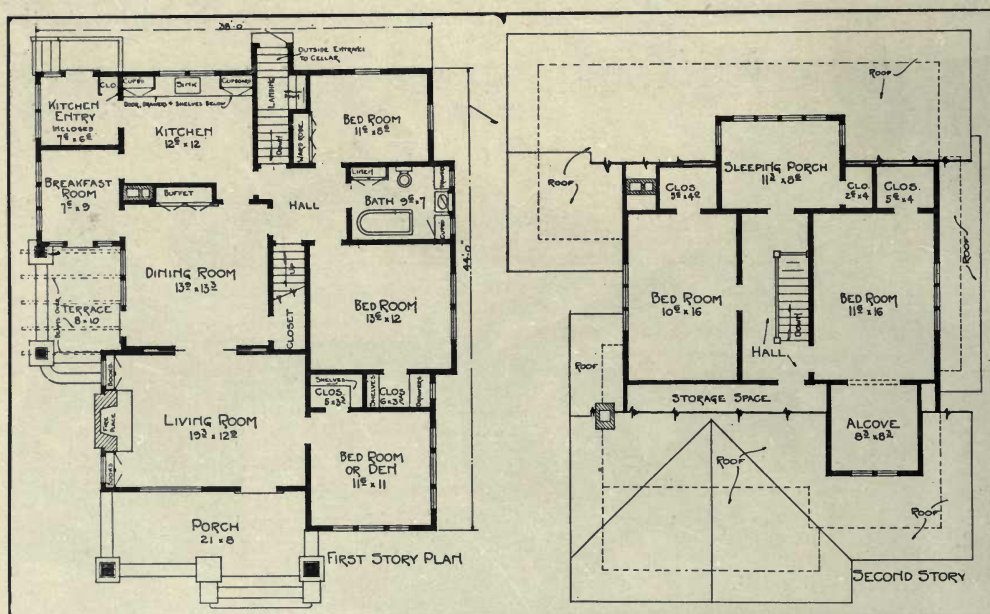
While the house is built along bunga-

low lines, two good rooms are finished in the second floor, with windows in the gables, and given cross ventilation by the dormer window. There is a good sleeping porch at the rear of the house.

The side of house is even more attractive from the opposite corner, making it suitable for a double frontage, but this view shows front and roof lines best. The slope of the roof makes the rafters

cut the second story bedroom ceilings, but only a little as the walls are six feet high at the lowest point.

Lower walls are siding. The outside head casings of all windows are on a line and made wide enough to form—with a molding and corbels—a finish for the shingled upper walls. Porches are cement with stippled cement plaster pedestals and walls.



With a Broad Frontage

WHERE the lot is of sufficient width a home with a broad frontage is very desirable, both for its looks and its comfort.

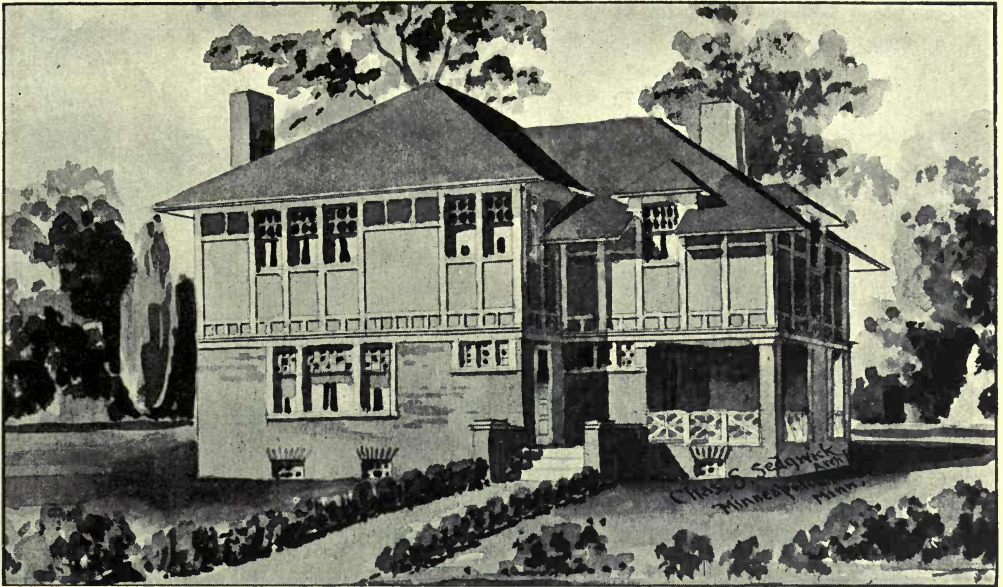
The design we are here presenting has a frontage of 38 feet with a depth of from 25 to 30 feet. The exterior treatment of this home is of brick veneer in the first story, or to the heads of the windows; cement on metal lath in the second story with half timbers showing.

The roof is low with wide projecting

eaves, and is dropped lower in the "wing" than the main portion of the house. This saves a little in the cost and adds to the attractiveness of the whole.

In this design there are two chimneys; one for the living room fireplace which projects beyond the wall as an outside chimney, and one for the corner fireplace in the den which also provides a flue for the kitchen and laundry.

The rooms are not large but are conveniently located and open well together



Brick Veneer with stucco above.

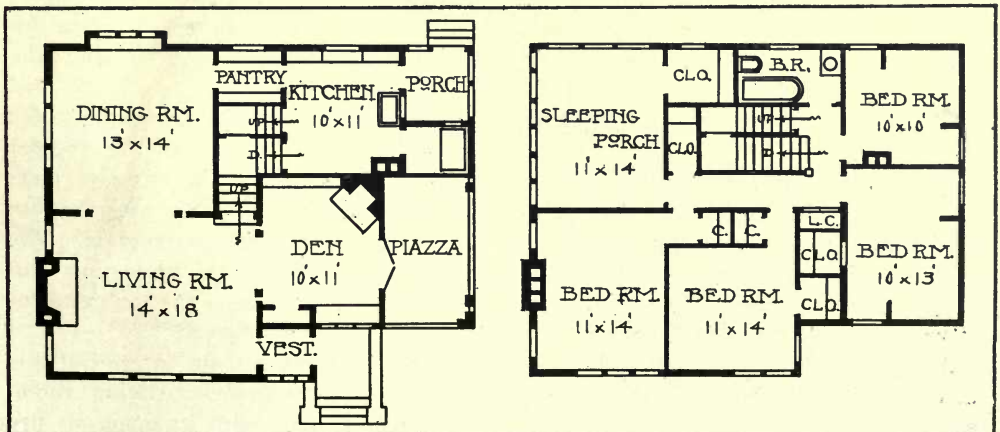
Chas. S. Sedgwick, Architect.

with wide archways. At the right of the den is a piazza coming under the roof which may be glazed as a sun parlor if desired. The stairway is centrally located, leading up from the main living room to a landing which has also steps from the kitchen, making a very conveniently arranged combination of main and rear stairs to the second floor. Stairs to the basement are under the main stairs, opening from the kitchen.

A convenient pantry with cupboard and shelf room connects the kitchen with the dining room. The kitchen is also provided with cupboard space, and in addition has a store room, in which is placed the refrigerator with an ice door from the rear enclosed porch.

The three principal rooms are finished in oak, the kitchen and pantry in white enamel.

The second floor has four good rooms



and a glazed sleeping porch. The bed rooms are provided with a good closet, the sleeping porch having a closet with a window large enough for a dressing room, the linen closet opens from the hall. The bath room is over the kitchen. Attic stairs are carried up over the main stairs, enclosed with a door at the foot.

The attic space may be used for storage, being lighted by dormers at the rear of the house which gives light and ven-

tilation. There is space enough for an extra room to be finished if desired.

The second story has a birch floor and wood work finished in white enamel.

The architect estimates the cost, without either heating or plumbing included, to be from \$3,800 to \$4,200. This estimate does not include the cost of finishing a room in the attic space, as suggested. The roof, as shown, is shingled and stained.

Homes of Individuality

Selected by W. J. Keith, Architect

An English Cottage Design.

THIS home was designed as a modified old English Cottage. Its simple lines and the soft shadows cast by its projecting eaves give it a most charming home-like appearance.

The floor plan suggested carries out the old English feeling, with the entry screened by the ballaster of a most attractive stairway. The fireplace, in the corner of the living room, breaks out square from the wall so as not to have the crude appearance of a corner fireplace. The openings to the dining room and the piazza flank it with pleasing symmetry. The piazza, on the side of the house, is just back far enough from the street to be away from the eyes of the curious and, being connected with the dining room, would make an ideal place for breakfast and supper on the long summer days.

The stairs go up from the living room but connect with the kitchen by three steps. Down four steps from the kitchen is the grade entrance, with the stairs to the basement under the main stairs. Between the kitchen and dining room is the pantry with a dresser built in on each side. The ice box is in the enclosed entry.

On the second floor are three bed rooms. The front bedroom has three good windows in the dormer, with closet space under the roof on either side. The bath room is conveniently located.

The exterior of the house is of stucco. A hood projects over the entrance, with open timber work and brackets. Flower boxes under the group of windows in the living room add to the attractiveness of the house.

A Western Home of Cement.

Simplicity of design and construction is the watchword today of much of the modern residence building. Not only may much individuality be secured thereby, but at the same time economy of construction, giving, as is secured in this case, the maximum of house for the minimum of expenditure.

The exterior of the house is plastered with cement stucco upon the regular frame of the house. The effective piers are plastered in the same way, and so are not an expensive construction. The plastered shelter over the projecting windows protect them from the too great intensity of the sunshine.

The main feature of the interior of this house is the magnificent living room, 17x32 feet in size, with its generous fire

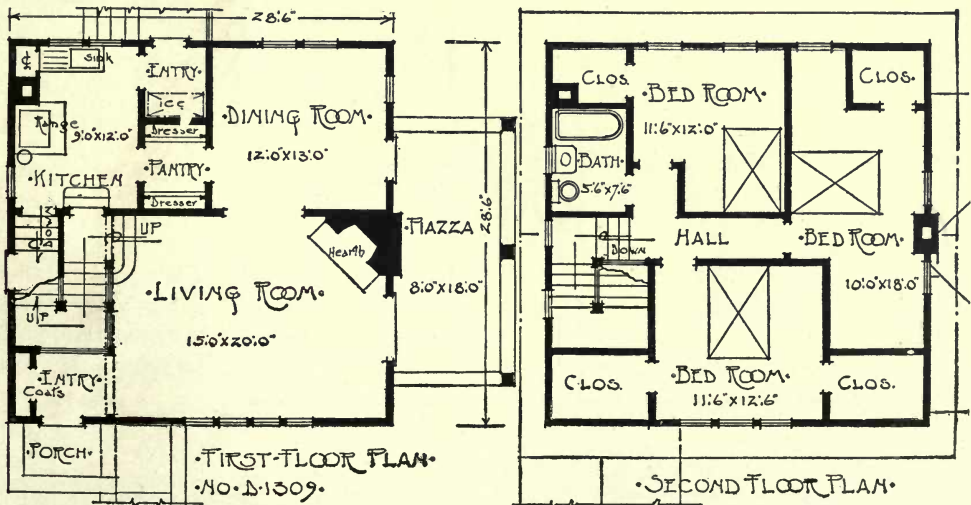


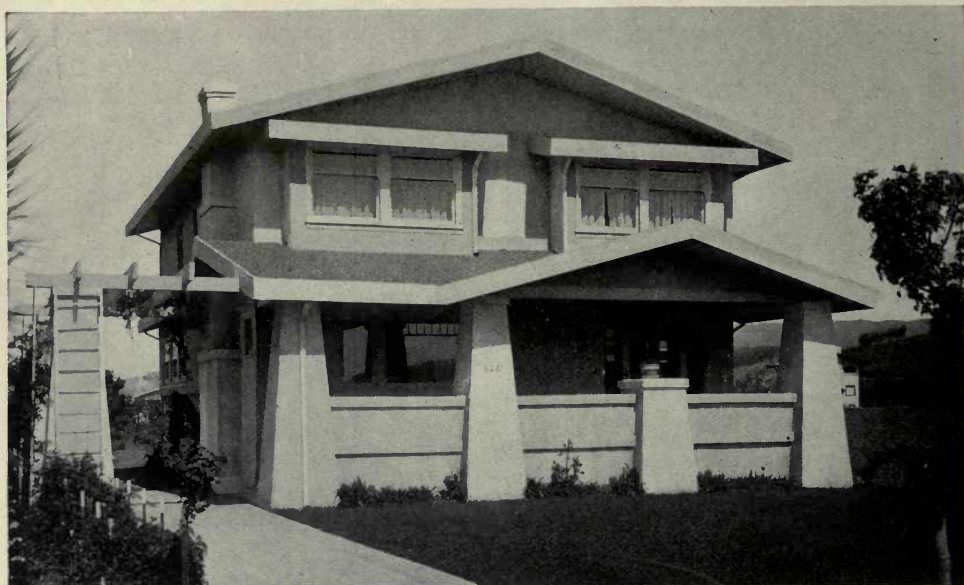
A charming home-like appearance.

place at one end, and the half screened staircase and sun parlor at the other. Beyond the living room is dining room with a projecting bay, and balcony or terrace at the other end. A large pantry with a high window and filled with cupboards is placed between the dining room and kitchen. A high sash in the wall

lights the lavatory, which opens opposite the stairs to the basement. Steps from the kitchen meet the main stairs on the landing. The refrigerator stands beside the outside door.

There is an outside grade cellar entrance leading to the full basement which extends under the entire house, with



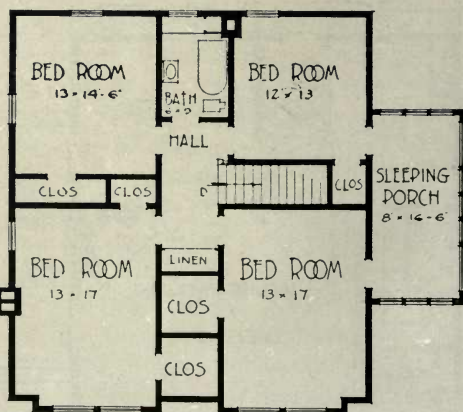
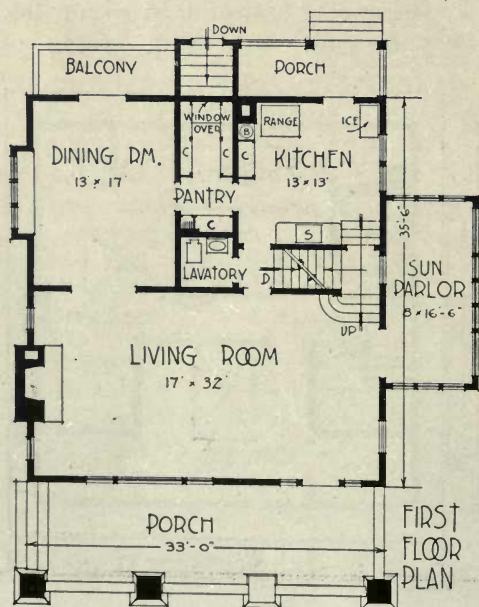


An effective stucco house.

laundry, heater room, fuel bins, etc., making the home very complete in every respect. With all these conveniences the cost of construction should not exceed \$5,000, according to the estimate.

There are four bedrooms on the sec-

ond floor, large, well lighted, and airy. All have good closets and some of the closets are unusually large. The linen closet opens from the hall. Over the sun room is a sleeping porch which opens from two of the bedrooms.



DESIGN NO. 1407

Gordon-VanTine Plan Books Show At Least ONE Plan That Will Exactly Suit YOU!



Standard Home No. 319C. 5 rooms and bath. Kitchen cabinet, flour bins, etc. All lumber, millwork, paints and hardwood. Price complete - - **\$837**



Standard Home No. 330. 5 room modern Bungalow. Craftsman finish. Every convenience. Wholesale price for material complete - - **\$775**



Standard Home No. 157. Two-story. 6 rooms and bath. Every convenience. Big veranda. Wholesale price for material complete **\$758**



Standard Home No. 301. 5 rooms and bath. Craftsman slash grain fir finish. Wholesale price for material complete **\$744**

Over 300 Plans—Send the Coupon Today—Save \$500.00 to \$1,500.00!

SEND today for two plan books—Ready-Cut Homes—material cut to fit. Standard Homes—material in the standard way, over 300 illustrations, floor plans, color schemes. All at exact prices. Both books free! Buy your new home at our "Mill-to-Consumer" wholesale prices on any method you like. We sell

Ready-Cut Homes Material Cut to Fit **Standard Homes** Material in the Standard Way

Our plans contain hundreds of ideas, new wrinkles and home suggestions appealing to women. **Highest Quality; lowest prices.** Distinctive homes with class to them—cosy bungalows, stately dwellings, comfortable cottages! Save enough on your home to pay for your lot.

"Mill-to-Consumer" Prices!

We sell through no agents or dealers. From catalog only. Lowest selling expense strips our prices to rock-bottom! Not only have we 100,000 satisfied, enthusiastic customers among home owners but over 10,000 contractors, carpenters and builders also buy regularly from us. All are expert buyers. Our houses are

Shipped Anywhere—Safe, Prompt Delivery and Satisfaction or Money Back!

Makes no difference where you live. We ship 90% of orders same day as received. **Absolute** satisfaction or money refunded without correspondence or argument. Also freight paid both ways. You are sole judge of what constitutes satisfaction.

Get These Three Books FREE!

Two big plan books and 156 page catalog of 5,000 Building Material Bargains. Simply send the coupon today with your name and address. Don't even consider building until you have **STUDIED** every page. Sign the coupon NOW!

Gordon-Van Tine Co.

821 Federal St., Davenport, Iowa

Established Half a Century



GORDON-VAN TINE CO.
821 Federal St., Davenport, Iowa

☐ Standard Home Plan Book

☐ Garages—Ready-Cut and Portable

☐ Ready-Cut Plan Book

Please send me free the books checked.

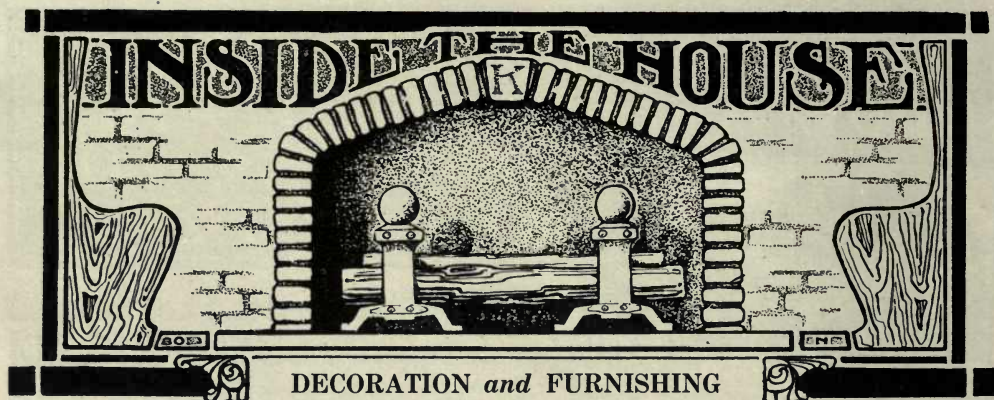
☐ 5,000 Building Material Bargain Catalog

☐ Hotbeds and Greenhouses for the Home Grower

Name City State

Street No.

Occupation

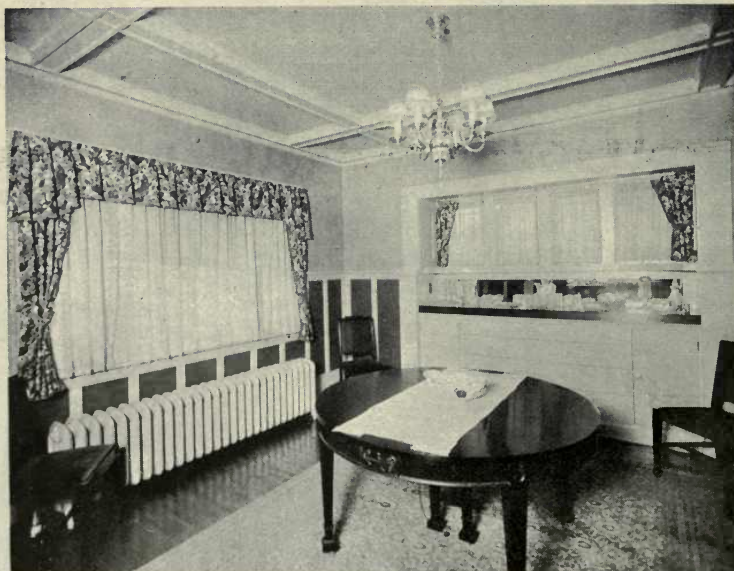


Color in Relation to Exposure and Light

IN THE interior treatment of the home, color is the first consideration, with design and form following very closely. Too much pattern in the wall paper, draperies and rugs without sufficient plain surface to bal-

ance is apt to prove very disconcerting. When the new home is planned is the time to consider the color scheme and interior decoration. Too many of us are prone to rush to the wallpaper store to inspect the "newest things" in hangings, and make our walls a display space for the prevailing fashions in wallpaper.

We must plan our color schemes according to the exposure of the different rooms. For a north room, which is lacking in sunshine, warm glowing shades of browns, yellows and rose tones will give the effect of sunlight. For rooms with a southern aspect, grays, creams, blues and greens will be charming.



Dining room with its delicately beamed ceiling and wainscot.

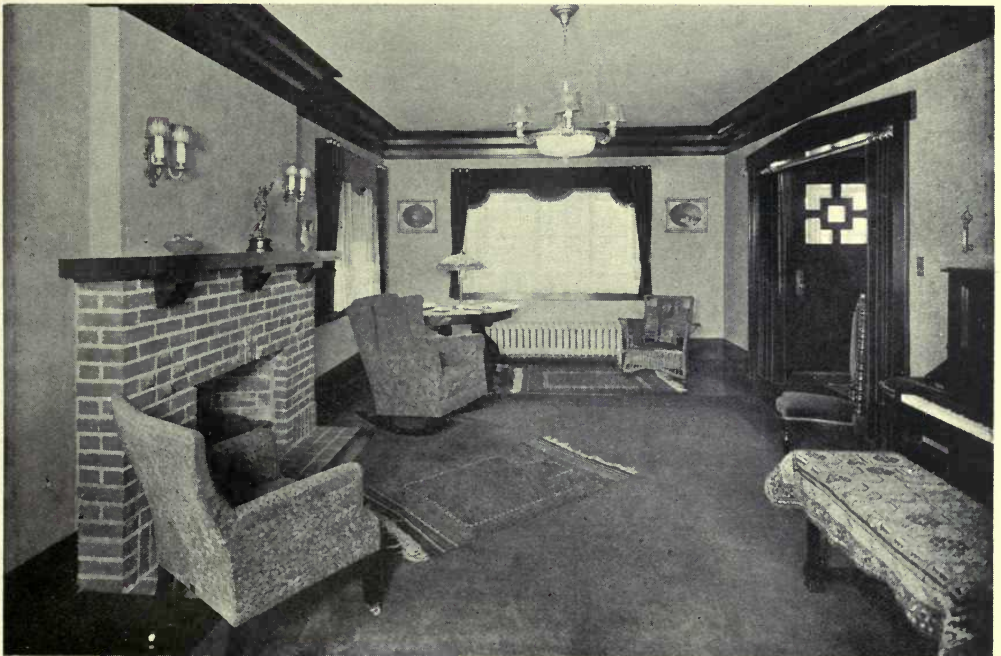
INSIDE THE HOUSE

If the home builder has certain pieces of furniture, rugs and hangings which must be used, they should be studied carefully as to suitability and proportion. If they do not fit into the scheme harmoniously, they should be disposed of at once without the slightest hesitation.

The wall color of the living room

the furniture, as fancy dictates, which would not be possible if the fireplace were set in the end wall. This is a point well worth consideration by future home builders.

Did you ever step into a long living room where the fireplace was set in the end wall with most of the furniture



The living room in restful gray and rose.

Residence of Mr. P. C. Condit.

shown in the illustration is a restful warm gray with faint suggestions of dull rose in what you might term imaginary tones, glowing softly when viewed from different angles. Life and color is given to this charming room by the aid of dull old rose velvet hangings and the soft self-toned Chenille rug.

A feature of the room is the well placed mantel in the center of the long side wall permitting various groupings of

grouped near it, and the opposite end of the room having a forlorn and deserted appearance? If the room is at all narrow in proportion to its length it may seem to be out of balance and give you the impression that it is liable to tip up at any moment.

The room illustrated is nicely proportioned with the wide window in the front wall offering a splendid view of all outdoors. The draperies of rose velvet are somewhat unique in their arrangement,



the flat lambrequin valance being hung back of the side curtains, with a handsome silk fringe across the bottom edge. The side curtains are suspended from old fashioned gobelins, so popular in bygone days but now very difficult to find.

The entire grouping of draperies are fastened to one long thin strip of board, itself secured to the window frame by two small hooks, making it easily removable at house-cleaning time.

The laces are of the very popular panel style in pure Duchess effect. This lace hangs flat and is very sheer and as the decoration is at the bottom of the window it offers a splendid view from the interior, while the exterior effect is stunning. This Duchess lace comes in ivory and also in a soft champagne tint and makes a very practical glass curtain, as the soft tints will not wash out or fade.

The dining room takes on a Colonial atmosphere with the paneled wainscot and delicately beamed ceiling done in soft old ivory enamel. The panels are filled in with a Japanese grass cloth paper in

dull old blue with glints of silver running crosswise with the weave. The upper side wall is hung with a Tiffany blend in delicate shades of gray and blue, the ceiling being in ivory. The dining table and chairs are in pure Adam period with the seats of the chairs upholstered in dull old blue velvet. Life and color is given to this charming little dining room by the gorgeously colored English chintz window draperies printed in dull blues, gray and mauve over a cream ground. This same chintz is also used as a lining for the heavy portieres hung in the arch leading to the hall.

Voile curtains in a soft tone of amber trimmed with fine Barman lace tempers the strong light entering the wide windows. The beautiful collection of cut glass is set off to advantage by the heavy mahogany top of the built-in sideboard.


The lighting fixture suspended from the ceiling is executed in antique silver which blends beautifully with the blue treatment, and the candle shades are carried out in a champagne tinted silk.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing
Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given *free of charge*. Enclose stamp for reply. Write on one side of the paper only.

A Quaint Shop.

N a quiet back street in a dreary, dilapidated old building which did not look as though it could house anything of interest I discovered an old-time Master-craftsman of the cab-

inet-maker's guild. His dusty little shop was filled with the fine old pieces which he had been gathering and quietly working, apparently for many years, unnoticed by anybody. One could scarcely believe such a quaint shop possible in the midst

INSIDE THE HOUSE

of the busy bustle of a progressive mid-western city.

Here were many old-fashioned square pianos of antebellum days with a few spinets of antique patterns, and old melodeons. Piled up in tiers, minus the clumsy legs and covered with dust were many beautiful cases, nearly all of mellow toned rosewood with a few glimmering softly in their coats of fined grained San Domingo mahogany.

Stacked against the posts which support the sagging old roof were many wire-strung iron frames which formerly were the "inwards" of these grand old instruments and they vibrate musically when the neighboring jig saw tears its way through a tough piece of this precious wood.

Over in a dark corner a shadowy object aroused my curiosity, which proved to be an old tarpaulin, and peeping from under one corner was the stocky claw and ball foot of a lovable old secretary in mahogany with a slant top. The body of the desk contained three drawers on which were mounted quaint brass handles and key hole escutcheons. The overlapping drawer fronts stamp this piece of furniture as being over one hundred years old.

Pulling out the two wooden slides or supports and lowering the lid was dis-

closed a writing surface covered with a square of aged moth-eaten baize cloth or green felt, not glued on but actually fastened down with heavy brass tacks driven into the beautiful wood.

The rear of the desk contained four



Mahogany sewing table with two leaves, a reproduction, \$15.00; mahogany dressing case, restored antique, \$60.00; mahogany table lamp with two lights and extension, \$8.25; mahogany tip table, a reproduction, \$12.75; mahogany foot stool, \$6.

wide and shallow drawers with sides and backs, all of the same wood. Above the drawers were many little pigeon holes, while in the center, dividing these receptacles into two sections, was a center compartment with two little swinging doors. This little cubby hole did not appear to be as deep as the pigeon holes, and, on giving a gentle pull to the doors, some-

INSIDE THE HOUSE

thing clicked mysteriously and the whole compartment slid forward and out, revealing two little secret drawers in which the "master of the manor" kept his most valuable documents.

As my eyes grew accustomed to the dim light I discovered many pieces that smacked of Colonial days.



Library table of antique rosewood, \$25.00; Ottoman, reproduction in mahogany, \$16.00; pedestal floor lamp, solid mahogany equipped with two lights and extension, \$14.00.

Up near the roof astraddle a pile of lumber, perched a long mahogany sofa in pure Empire design with double curved arms holding the old-fashioned roll pillows at each end. It was covered with slippery and prickly black hair cloth and was a sight to make one weep, as the beautiful hand carved arms, at one time becoming loose, had been secured in place, not with glue and wood dowels,

but with hand wrought spikes driven through the face of the arm. The back of the sofa carries the same double curve as the arms with the exception of a raised section in the center and is deftly carved in acanthus leaves.

Hanging from a wooden peg in the wall like a ham in a butcher shop was a genuine antique "pie crust" tip table. Nothing can recall the good old Colonial days so distinctly as a "pie crust" table, which was used as a tea table, with the stately dames sitting upright in high ladder back chairs sipping tea and incidentally peddling gossip. This treasure had been very artistically treated with a coat of bright red paint but a little scraping with a knife removed the flimsy disguise and proved it to be heavy West Indian mahogany.

Secured to the wall with a rope to help it retain its balance on the rickety floor was a tall grandfather's clock with a bonnet top, the scratched and battered face showing the phases of the moon and days of the month and the chimes denoting the hours. Plick-Plock-Plick-Plock. In the deep hours of the quiet night, can you imagine anything more suggestive of the simplicity and charm of by-gone days as this old clock standing at the foot of the wide stairs in the spacious hall sonorously ticked off the hours that weigh so heavily or that go all too quickly.

Under the workbench with a discarded apron thrown carelessly over it was a beautiful rosewood ottoman and cuddling up to it as if for companionship was a dainty little mahogany footstool, both covered with layers of dust and shavings. Above the bench hung an exquisite mahogany mirror frame, minus the glass. The frame was about eighteen inches

INSIDE THE HOUSE

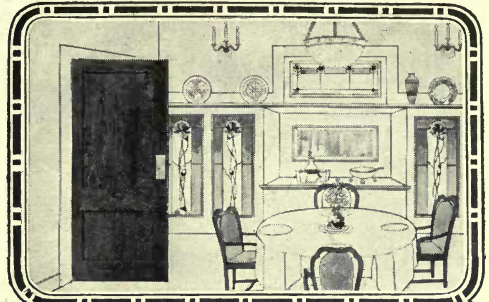
wide by forty inches high, the top being straight with a projecting cornice. The delicate side columns were exquisitely carved in the popular pineapple motif, terminating in a twisted rope design.

From the rafters hung innumerable chairs of splendid design, some in walnut, others in solid mahogany; also one in oak in the Stuart style with cane seat and back. Carelessly stacked in the corner stood the uprights of a beautiful old four poster, the canopy top having disappeared years ago. These perfectly plain but exquisitely turned posts were of red eucalyptus, a very hard wood often mistaken for mahogany.

In this crowded little shop surrounded with his primitive tools and littered with treasures of the past this craftsman repairs and polishes with patient skill and loving hand, giving to this mellow old rosewood and mahogany the allurements and charm of the olden long-past time.

These beautiful old melodeons and piano cases, he is remodelling into desks and tables, preserving all the charming curves and delicate mouldings of the originals. The heavy turned legs are taken apart, carefully reduced in size by planing down the inside surfaces and glued together again, giving them the proper proportion and balance, and finished to bring out the wonderful flame of color obtainable only in wood touched with age.

On a lathe—probably as ancient as some of these oldest treasures—he has been experimenting with pieces of solid mahogany, and the result has been many fine pedestal floor lamps, reading lamps and odd shaped candle holders, following the traditional lines and crude simplicity of Colonial days. Using some of the fine antiques as models he has made many beautiful reproductions in rosewood and mahogany, retaining all the fascination and stately charm of the originals.



Doors that Please

are an essential feature of homes that please. Hence the importance of having



Doors which express the highest degree of quality due to the exacting Morgan standards of manufacture.

Then too, Morgan Doors save you the annoyance of warping, swelling and sticking common to ordinary doors—and the expense of replacing them. The *All White Pine Core*—an exclusive Morgan feature—makes Morgan Doors immune to weather changes.

There are Morgan designs for every door requirement. The choice of beautiful veneers is astonishingly large and prices are practically the same as you would pay for ordinary doors.

Look for the name MORGAN on top rail—our pledge of quality—your guarantee of daily satisfaction. This

Delightful Book Free

You'll find this big book, "*The Door Beautiful*" full of charming door suggestions and mighty helpful if you are going to build or re-model. We'll gladly send it on request.

MORGAN SASH & DOOR COMPANY

Dept. A-27 Chicago

Factory: Morgan Co., Oshkosh, Wis., Eastern Branches: Morgan Mill-work Co., Baltimore.

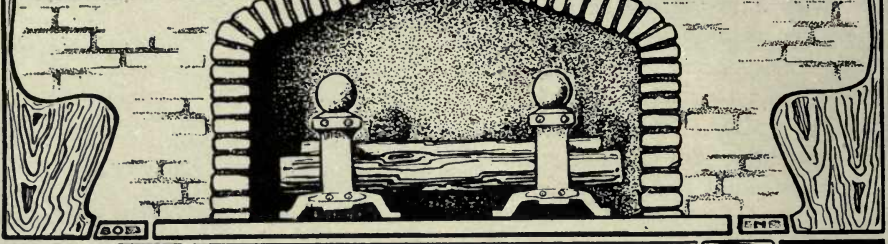
Displays: 6 E. 39th St., New York; 303 Palmer Building, Detroit.

Building Exhibits: Insurance Exchange, Chicago; Soo Line Bldg., Minneapolis.

If your Dealer hasn't Morgan Doors, write us.



INSIDE THE HOUSE



ANSWERS TO QUESTIONS ON INTERIOR DECORATION.

Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

The Kitchen Wall.

J. C. G. Will you please advise me in regard to my new bungalow, of which I send a sketch. Probably my golden oak dining room set would do to use.

Ans. The woodwork, if in oak, may be stained in fumed oak shade or early English; at the same time have your finishers scrape and bleach your dining room set and match up to the woodwork.

In the dining room window place a moss-filled cushion covered on both sides with a sunfast tapestry in a small design. This will enable you to reverse the cushion when necessary.

Robin's egg blue with ivory enameled woodwork for an east chamber will be excellent, but do not get the blue too deep. The draperies for this room can be made of white or ivory cotton taffeta or drill with a cretonne border on front edge and bottom. Blue draperies would give you too much color.

A simple white enamel wood bed with woven cane panels in the head and foot board would be stunning.

The other chamber with its sunny exposure should be treated in gray and rose. Finish the walls in a gray tint with the draperies and bedspread in soft rose in a solid color, with a couple of large rag rugs on the floor in gray and pink. A pretty chintz or cretonne with a light cream ground well covered with pink roses would look pretty in this room. The small hall opening off the dining room should be carried out in light tan.

By all means have a smooth wall in

the kitchen and paint same in a Colonial yellow or creamy white. Better still, hang the walls and ceiling with oilcloth made for that purpose. Have the man add a cup of common molasses to the paste before hanging and it will never start to peel. This can be washed with a good quality of soap and will last for years.

A Colonial Interior.

F. B. O. I would like to ask your advice on the color scheme of the rooms of my newly built house.

The front door opens into a central hall with an open stairway. I had planned to have all interior woodwork a flat white, also the stair, to carry out the Colonial effect. I had thought of yellow walls. Could I get a good effect having the living room walls painted a brown and the dining room a blue? For the kitchen I had planned a light tan, and for the bedroom a yellow treatment.

Ans. The interior being strictly Colonial, I would suggest that you keep the walls of the first floor rooms severely plain, using the colors as you have arranged them, simply as a background. A reception hall, particularly in the Colonial treatment, should be very formal, and you will find that the right shade of yellow, while giving a very cheerful atmosphere, will show reserve and dignity.

It would be well to consider carefully the depth of the brown for the living room. Do not have it too dark, as the room might appear gloomy on winter afternoons. A golden brown would make a nice treatment



PLAN WALLS LIKE THESE



This is the result you get from Beaver Board.

The paneling can be as pronounced or as unobtrusive as you please.

Our Free Design and Decoration Department will help you get just the effect you want.

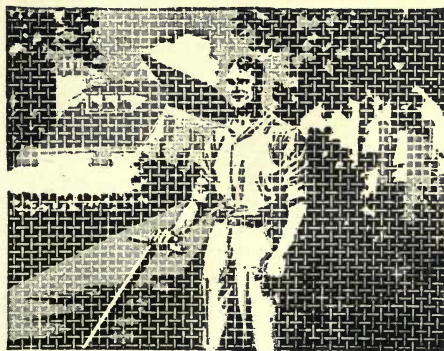
Beaver Board is the modern wall and ceiling material. It takes the place of lath, plaster and wallpaper. Painted—not papered—it's completely sanitary. You'll never go back to lath and plaster once you've tried Beaver Board.

Let us send you the free booklet and painted sample.

BEAVER BOARD

The BEAVER BOARD COMPANIES
651 Beaver Road Buffalo, N. Y.

Branches in 16 Cities



G. & B. PEARL Wire Cloth Stops Screen Expense—

PAINTING—repairing—replacing screen—those are the expenses which make inefficient wire cloth a source of annoyance and money loss. When you screen with genuine G. & B. PEARL you do away with painting, repairing and replacements—simply because PEARL is rust-proof as metal can be made, consequently makes a screen that's practically wear-proof.

Genuine G. & B. PEARL has two copper wires in the selva and a Round Tag bearing the name Gilbert & Bennett attached to the roll. Considering the fact that imitations are so decidedly inferior, real G. & B. PEARL is worth insisting on.

The Gilbert & Bennett Manufacturing Co.

(ESTABLISHED 1818)

Dept. C. 277 Broadway, New York. Dept. C. 38 S. Dearborn St., Chicago

Georgetown, Conn. Wireton, Ills. Kansas City, Mo.

The Best Hardware Dealer in Your City Sells "PEARL."



Oak Flooring

BEAUTIFUL -- ECONOMICAL
DURABLE

Three Vital Qualities

THE woman of today wants OAK FLOORING because it will harmonize with any kind of furniture or color decoration, and is susceptible to any kind of finish. In color it is RICH and CHEERFUL and imparts an air of REFINEMENT and ELEGANCE to a home.

The owner demands OAK FLOORING because it increases the selling and renting values.

OAK FLOORING is made in 13-16 in. and $\frac{3}{8}$ in. thicknesses in different grades. $\frac{3}{8}$ in. can be used very economically over old floors in old homes or over cheap sub-floors in new homes. It is cheaper than carpets or pine flooring.

Any carpenter or handy man can lay OAK FLOORING successfully, and during the slack season it makes a very profitable line for any carpenter.

There is a solid satisfaction and lasting pleasure in the substantial and dignified appearance of OAK FLOORING.

Write for Booklet.

"America's Best Flooring"

The Oak Flooring Bureau

1348 Conway Bldg., Chicago



with chintz hangings at the windows.

Select for the dining room a dull old blue, the hangings to be in chintz with blue design on a grayish white ground. The hardware trim and lighting fixtures will look well in silver.

Treat the library in different shades of olive green, having your rug in three shades of green with a touch of black if possible. Plain olive green repp or velvet will be very effective at the door and windows. This room being small, should be treated in one color, getting your contrasts from a few pictures, a bright copper plate or two and your book bindings.

Tan or Colonial yellow paint will do nicely in the kitchen, or white glossy oil-cloth in a small blue square about an inch each way.

Your bedrooms will be very effective using the colors as you have planned. If you do these rooms in oil two fine lines three inches from ceiling and one inch apart will relieve the plainness. The color for the lines may be taken from the draperies.

Your idea of making the bathroom a pure flat white with just a suggestion of blue is good. Add two blue lines just about the wainscot and running up and around the doors and windows.

Don't you think a flat white for your woodwork will be difficult to keep clean? A pure white enamel rubbed down to a very dull finish will show very little reflection and would be much easier to keep spotless. The hand rail, newel post and treads finished in mahogany would be beautiful and still be in the Colonial spirit. The risers and spindles should be finished white.

Furnishings for the Exposures.

A. S. I am an interested reader of your magazine and would appreciate your help in planning the interior decoration of my new bungalow. Enclosed you will find

diagram showing floor plan and a list of the furniture which I have already.

Ans. Your difficulty lies in the fact that your furnishings are adapted to north and east exposures rather than the south and southeast facings of living and dining room. Your furnishings are good and in harmony with the fumed oak woodwork and dark red brick, but the whole effect will be rather warm for those rooms. You do not state the character of the two rugs you have on hand, but in them lies your chief trouble. If you could do something else with those rugs, we could tint the living room walls a soft putty gray, put a green rug on the floor and use green for the hangings, not a bright grass green but a soft, sage green. It is possible your green rug with a little dark red could be used; you can tell best about that. The brown leather will be all right. The dining room, however, cannot take the brown, red and green rug. With the living room in gray and green, dull green and blues should be used in the dining room. A foliage paper in the reseda greens and soft blues on a part of the wall would be extremely pretty, with the remainder tinted dull blue and pale gray ceiling. Then get a mixed blue and green rug, and you will have two attractive rooms.

We would use curtains of blue and green cretonne on light gray ground in dining room, no others, and upholster the seat in the same cretonne.

The bedrooms will be rather heavy with mahogany furniture and woodwork also. You should lighten them up with a deep cream wall in northeast room and use a cretonne in pink roses and light green foliage for over-curtains, with rugs to harmonize. The other room could have pale grayish tan wall, with English chintz pattern of small bright colored flowers.

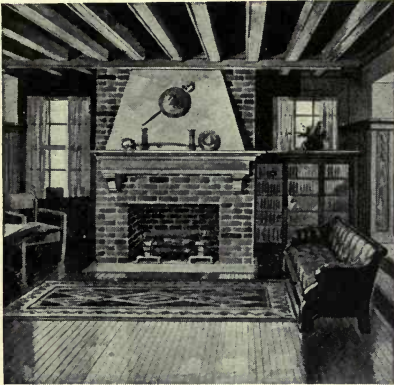
Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price \$1.00, Postpaid

With a Year's Subscription
to Keith's Magazine---\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.



TRUE home-lovers have long needed this book. It not only includes eight attractive, new and individual home designs—one of which will fit your pocketbook—but also gives many valuable hints on proper construction, as well as complete information regarding the adaptability to all home-building uses of

ARKANSAS SOFT PINE

Send us your name—we'll send you the book. If especially interested in White Enameled Woodwork, please indicate the fact in your request.

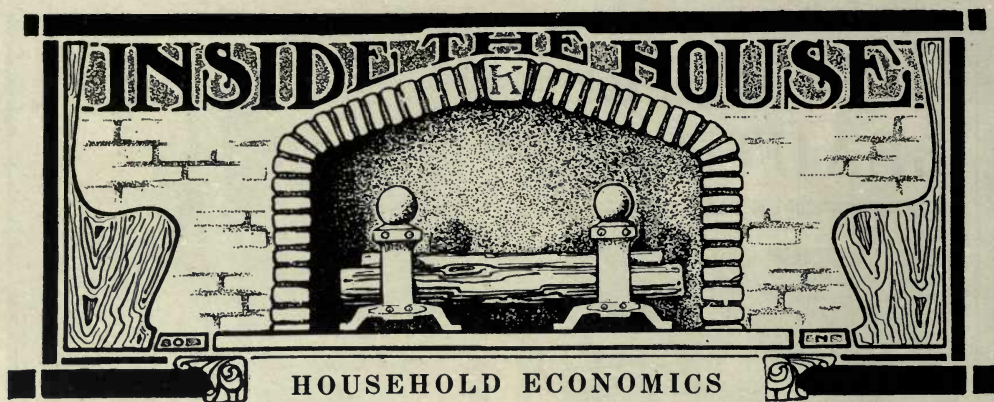
Address Department K.

Arkansas Soft Pine is trade-marked and sold by dealers. See that yours supplies it. He can.

Arkansas Soft Pine Bureau

LITTLE ROCK, ARKANSAS





An Ash Receiver

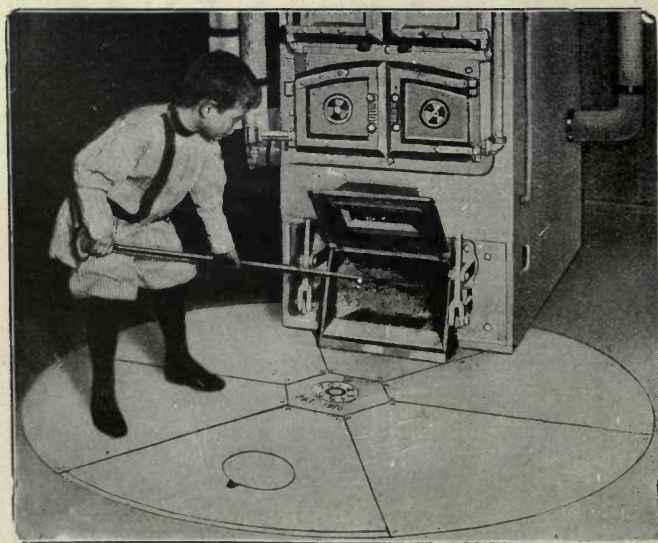
ONE of the problems of the householder involves the care of the ashes from the furnace, their storage while they are accumulating, and finally their removal from the basement, without danger of spilled ashes to ruffle the temper of the housekeeper before they are carted away. Many devices have been used involving a more or less expensive layout, and generally based on the ash pit under the furnace. If the plant is large enough to warrant an ash pit which extends through or under to the outside of the basement wall so that the ashes can be

hoisted directly from the pit to the cart from the outside, this makes a very efficient way of handling them. But to the householder the ash pit has its disadvantages, especially the scattering of dust in getting the ashes out of the basement.

The cuts show a device which gives a solution to this problem. While it is not intended to advocate children playing with the fire, the cut shows the top of the ash receiver installed under the basement floor, while the second cut shows what is under the floor and how the ashes are received.

The cans are shaped to fit closely together in the circle, on a revolving frame in the pit, one side of which is beneath the heater. When one can is filled the frame within is turned by a lever, bringing an empty can into place. The cans hold from one bushel to two and a half bushels, each according to the different sizes of the receiver.

There are two flanged wheels attached to the perpendicular shaft in the center. The cans rest on the bottom one and the hooks on the cans hold them to the top wheel. The whole thing revolves on a pivot made fast in concrete. It turns easily because it is on a pivot bearing and balanced, so that with the lever you can move it easily



An ash receiver under the furnace.

When You Build A Home

COMPLETENESS is a chief consideration and in line with this desire there is no single item of home equipment which at so little expense affords so much comfort, convenience, economy and safety as the installation of

The "MINNEAPOLIS" HEAT REGULATOR

"The Heart of the Heating Plant"

This device, proven satisfactory in thousands of homes for nearly a third of a century, takes complete and accurate charge of the dampers of any style of heating plant, burning either coal or gas.

Its accurate operation maintains a uniform temperature of any desired degree both day and night. By means of a simple adjustment of the clock attachment it will automatically and silently at any pre-determined hour, raise or lower the temperature to any exact degree.

With the Minneapolis Duplex Model No. 55 these exact night and morning changes can be automatically obtained during every 24-hour period for 8 days with one winding.

Sold by the heating trade everywhere under a positive guarantee of satisfaction.

Our booklet gladly mailed on request shows all models, explains details and gives prices.

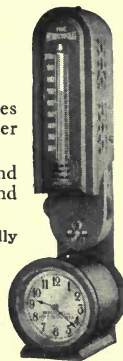
MINNEAPOLIS HEAT REGULATOR CO.

2725 Fourth Avenue South

WM. R. SWEATT, President

MINNEAPOLIS, MINNESOTA

Model No. 55



Colonial Fireplaces ARE RIGHT

Made to Order from

\$200 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are economical both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO



HOW TO SAVE ON FURNITURE

Buy It Fresh From Our Factory

Before it has had to make profits for people all along the way between the factory and the home. Come-Pack saves these profits. You get it practically at factory cost, plus freight, which is very low, because Come-Pack is sent in sections. You put it together yourself. That's why it's so surprisingly cheap—so cheap that some people can't realize, until they see it, that it compares with the finest furniture made. Remember this when you

Read Our New Catalog

We'll send you one free. It shows you where you can save in every room in the house, on furniture that your friends will exclaim over, and that your children will be proud of as heirlooms. The table shown here is an example of Come-Pack Savings. Price tables that can be compared with it, at any good furniture store. That will convince you.

COME-PACK FURNITURE CO.
556 Dorr St.
Toledo, O.



48-in. Top

Factory Price \$28.75

COME-PACK FURNITURE CO.



BAYONNE

Solves Your Roofing Problems

It is above all absolutely waterproof—neither water nor moisture can possibly penetrate it. Unaffected by heat or cold—it never expands or shrinks.

For all practical purposes it is indestructible—does not corrode or crumble and will outlast any amount of constant wear.

BAYONNE

has consequently none of the disadvantages of tar, metal and other prepared roof-coverings. Simply laid on the dry boards and tacked only on the edges, it stays flat. Requires but one coat of paint.

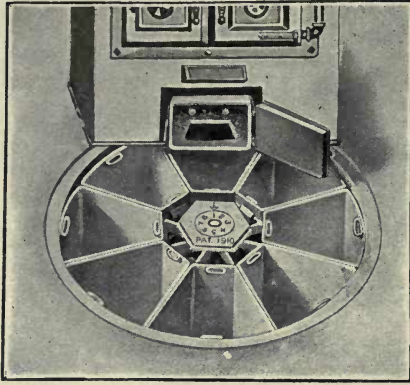
Sincerely endorsed by builders and owners of country homes, suburban residences, summer cottages, hospitals, etc.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's Page 539.

JOHN BOYLE & CO., Inc.

112-114 Dnane Street—70-72 Reade Street
New York City
Branch House—202-204 Market St.
St. Louis

INSIDE THE HOUSE

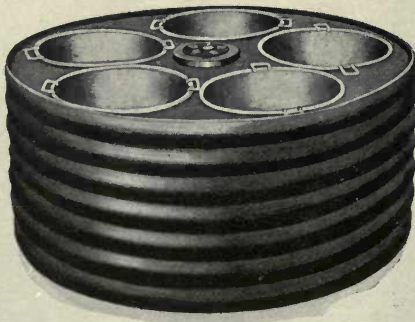


Ash cans in the receiver.

when all the cans are full. It stands plumb, even if only one side is filled, and nothing on the other.

Put the lever on the end of the shaft inside the dial and turn it until the next number on the dial is opposite the arrow. If the can is over full, the surplus is wiped over into the on-coming empty can, by means of an iron scraper for that purpose.

The cans fit so snugly together that only a little dust can get down between and the device is made so there is a space about four inches in depth all around under these



Receiver with cylindrical cans.

cans to hold this accumulated dust. The kitchen range can be attached if it is so located as to run a pipe down to the receiver? Any furnace dealer can make this connection.

One of these cover plates is removable, thus exposing a can, which is lifted out.

By a slightly different adjustment, the receiver may be set two inches lower and the floor cemented over the iron plates, leaving the dial exposed and a removable cover for taking out the can.

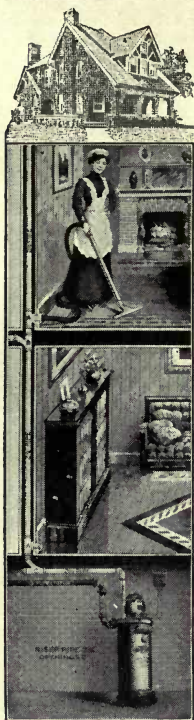
It is claimed that these cans may be used for garbage in the same way, as there is ventilation directly through the fire box to the chimney carrying off all odors.



Convenient for the ash man.

Another style of receiver has cylindrical cans, and may be set outside of the house. A cut shows it set beside the kitchen door, where garbage and ash cans may be kept out of sight and still be very convenient both to the kitchen and to the garbage and ash collector.

A simple type of hoist can be installed beside a convenient basement window, which has a plate on which an ash or garbage can, or in fact anything, may be set; the plate is raised by a convenient leverage, and rotated when the window is reached so as to place the can outside of the window, from which it may be taken away.



Ask the Folks Who Answered the Ad.

THERE are literally thousands and thousands of home owners in the United States and Canada whose homes have been made sweeter, healthier, happier, more livable in every way because they read our advertisements and equipped their homes with the

TUEC STATIONARY CLEANER

"For Health and Cleanliness"

They began by writing for our free books. From these they learned how the TUEC does all the hard work of house cleaning, how it removes all the dirt and fine, microbe-laden dust from every part of the house and its furnishings, how it exhausts the polluted, breathed over air outside the building and replaces it with sweet, pure, life-giving air from out of doors, —all at the touch of an electric button.

Then they asked other TUEC owners. When they learned from these how essential the TUEC is to clean living and how inexpensive it is first and last, they ordered the TUEC installed in their homes, with ample piping concealed between partitions and the powerful machine out of sight and hearing in the basement.

Follow their example. Write today for the TUEC Book, and names of TUEC Users in your vicinity.

The United Electric Company

10 Hurford Street

Canton, Ohio



A typical little Casement Home

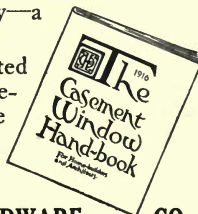
Will Your New Home Have Charm?

Casement Windows add to any home a delightful individuality—a homey charm.

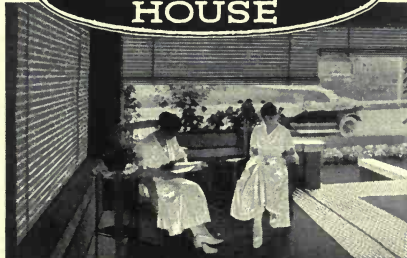
Our interesting illustrated booklet tells how Casements may be made practical for your home.

Write to-day—its free

THE CASEMENT HARDWARE CO.
7 SO. CLINTON ST., CHICAGO



MORE HOME TO THE HOUSE



YOU can make your porch the favorite gathering place for all the family—a shady, secluded refuge from the summer sun, an ideal sleeping room on summer nights, by equipping it with

AEROLUX NO-WHIP PORCH SHADES

Made of Aerolux Splint Fabric, they shut out sun yet let in light and air. Aerolux No-Whip Attachment, an exclusive feature, prevents whipping in the wind. Furnished in different grades and colors at moderate prices. An architectural adornment to any home.

Aerolux Splint Fabric Awnings do not absorb and retain heat, but keep it out.

Write for illustrated catalog

THE AEROSHADOW COMPANY
505 Oakland Avenue Waukesha, Wisconsin

INSIDE THE HOUSE

THE TABLE AND ITS SERVICE

HELEN LITTLE

Safe Food

WHEREVER she looks or wherever she listens the housewife of today is confronted with a suggestion of unsafe food. Small wonder that she either becomes unduly prejudiced against all manufactured food products or on the other hand quite indifferent to unsanitary conditions in her food markets. Today the problem of adulterated foods is negligible compared with that of food manufactured, stored and sold under uncleanly conditions. The leading food manufacturers, it is true, point with pride to their wonderful factories whose cooking equipment is far superior to that of the average home kitchen. The housewife should take advantage of these efforts made in her behalf

by learning the names of the up-to-date food manufacturers and ordering by the brand or trade name instead of the haphazard method of ordering a "can of peas." In spite of the progress that has been made along food lines there are still many factories that are in the dark ages so far as sanitation is concerned. One such factory was visited by the writer. The odor of decomposing tomatoes was noticed miles away and the close inspection disclosed the suspicious evidence.

The housewife of today needs to be on her guard against use of inferior materials, "make weights" and substitutions, which are economic frauds which harm the family pocketbook. There has been a general impression that the pure food

law prohibited the sale of adulterated foods but it does very little of the kind. It simply requires the manufacturer to state on the label any adulterant, artificial coloring, or chemical preservative used. The use of the phrase "Guaranteed under the pure food and drugs act" has also misled many women who have supposed it to mean that the article was pure, whereas it was a guarantee from the manufacturer to the dealer protecting him in case of prosecution. So much confusion has arisen from the use of



Salmon salad in a cabbage.



Let us send you the plans of this Camp Cottage

Here is the ideal vacation bungalow, built by the members of one family in the forest beside a Michigan lake. Three sunny, cheery rooms; screened openings on all sides; roofed with the famous Carey crushed slate roofing in natural, everlasting colors; side walls of crafty, artistic panels of

The materials complete for this cottage measuring 32 ft. long by 13 ft. 4 in. deep, including all Lumber, Door, Hardware, Roofing, Ceil Board and Screens may be had for approximately the small sum of \$140. A house that you and your family can enjoy for years, owning your own summer home for less than the cost of one season's board. You could not possibly make any other investment of such a small amount to bring you as great returns in health and happiness.

CAREY

Ceil-Board
SUPERSEDES PLASTER FOR WALLS AND CEILINGS

bill for the purchase of the Carey Products required for the erection of the house. Samples of Ceil Board, Carey Crushed Slate Roofing and Descriptive Literature free on request. Please indicate in your reply the approximate location of your proposed camp.

Send \$1.00 for complete working plans, specifications (from which your nearest lumber mill can cut to exact dimensions) bill of materials and interior and exterior views of the Carey Ceil Board Camp Cottage. This amount will be credited on your

THE PHILIP CAREY COMPANY, 1024 Wayne Ave., Lockland, Cincinnati, O.

Beautiful tiled bathroom and kitchens are no longer a luxury. Even the most unpretentious homes can afford

UPSON FIBRE-TILE

Looks like expensive tile. Lasts longer. Costs far less. Really artificial lumber with deeply indented tile pattern. Nail it over old plaster or to studding, and enamel. Send 2c stamp for sample and interesting booklet.

THE UPSON COMPANY 155 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.



Design No. 327 by Jud Yoho, Estimated Cost \$3200.

If you are planning a real home—plan a bungalow and consult my

NEW BUNGALOW BOOK

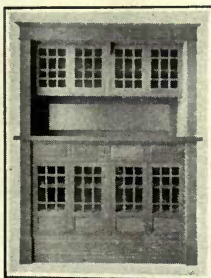
1916 De Luxe Edition

Compiled and written by a man of experience and reputation. Illustrated with exterior and interior photos, plans, sizes of rooms, cost, etc., of the cream of the 1000 pretty, distinctive, practical BUNGALOWS, actually built for \$400 to \$4000, suited to any climate. Get this **largest exclusive bungalow book**, 112 pages of invaluable building suggestions. Price.....

\$1.00

Smaller edition of same only 50c. Send check, money order or stamps. Money back if not satisfactory.

JUD YOH0, *The Bungalow Craftsman*
464 Bungalow Bldg., Seattle, Wash.



This Sideboard, 5 ft. x 7 ft., 16 inches deep, Red Oak, with Beveled Plate French Mirror, Crated for Shipment

\$60.00

F. O. B. St. Paul

Let us figure your Millwork
Our Service and Prices will Please You

We Ship Anywhere

SNELL SASH & DOOR CO.
428 Selby Avenue ST. PAUL, MINN.

INSIDE THE HOUSE

this phrase that a new rule has been made prohibiting its use.

I want you also to remember that a food may be pure yet poor in quality so that a list of pure foods is not always a safeguard as to quality. It will pay to investigate brands of canned goods, spices, flavors, coffees, teas, etc., until those are found which will stand the test not only of purity but of taste.

Are you interested in procuring pure nutritious food for your family? Would you really like to know what you are eating? If so a little food study will more than repay you for the time and effort spent. First of all learn what foods are most apt to be adulterated and pay special attention to those. In general, foods which are changed from their original shape can be most easily adulterated, for instance, spices, ground coffee, candy, jams, jellies, ground meat, such as sausage and mince-meat. If you will send for the published reports of the state food departments which can be obtained from the food and dairy commissioners of most states, and obtain copies of your city food ordinances, you will be able to more wisely purchase food supplies for your family.

Have you ever noticed the labels on the canned goods, vanilla extract, and spices which you buy? The next time you buy labelled food, examine the label and if it contains such terms as artificial or synthetic coloring, coal tar or aniline dyes, benzoate of soda, saccharine, fruit ethers;—beware. The above phrases indicate the use of substances which are deleterious to health. On sausage containers look for "Prepared with cereal" or "Cereal 5 per cent," which means the addition of starch or cereals which hold water. On potted meats the following trick has sometimes been used to fool the unwary housewife. The words "Potted meat, chicken flavor," are arranged like this:

"Potted	Chicken
Meat	Flavor"

The most interesting sort of food study is that conducted along the line of per-

sonal trips to the factories, bakeries, dairies, and food markets. As a rule you will find the proprietors of such places most courteous and accommodating and you will learn many facts about the sources of food supplies which will both astonish and interest you.

One woman can do little to improve food conditions, but by working with an organization such as the Housewives' League or with your local women's club much can be accomplished. She can, at any rate, get some definite knowledge of the foods which she places before her family, and which will allow her to make an intelligent selection in their choice.

Improved methods in the canning of vegetables have brought the luxury of green vegetables all the year round to the tables of even the less prosperous people, much to the advantage of their health as well as their pleasure.

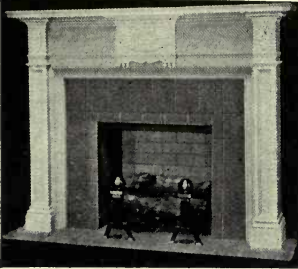
Here are some recipes for their use which will help to vary the routine of the menu.

Some Recipes for Using Canned Vegetables.

Corn and Bacon—This dish gives a good meat substitute and a hearty food to serve in the winter time, also it is especially good, and easily prepared when out camping. It requires one-half pound of bacon, one can of corn, salt and pepper as desired. Cut the bacon in small pieces and fry out in pan, then pour off all the fat but about two tablespoonfuls, turn in the corn and cook until piping hot and well mixed; season with salt and pepper, serve immediately, and it will arouse the enthusiasm of the camping party.

Cabbage Salad—Hollow out a firm white head of cabbage, reserving the inside for creamed or scalloped cabbage. Flake one can of salmon or two according to the size of the cabbage. Measure or estimate the amount and add one-third part of celery cubes and one-fourth part of diced sweet midget pickles. Mix the whole with boiled or Mayonnaise dressing and fill the cabbage shell with this mixture.

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

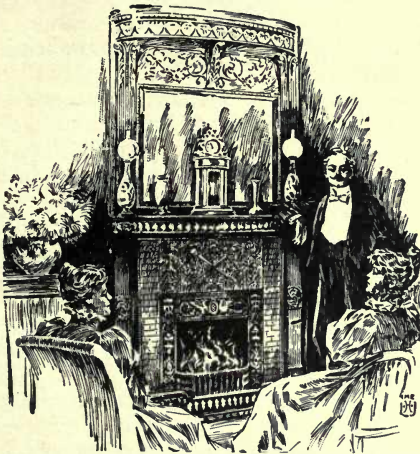
There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.



The Jackson Ventilating Grate

will make your fireplace a perpetual pleasure. Burns wood, coal or gas. Unlike the ordinary grate it produces an even temperature thruout one or several rooms, and gives four times the heat of the ordinary grate. Its special feature is a fresh air pipe which draws pure air from outdoors and sends it heated into the room, while the impure air passes up the chimney. Perfect ventilation is thus assured.

Send for Our Free Book "K"

It fully explains the principle of the Jackson Grate, shows the numerous styles and gives full information with prices.

Special catalog of andirons and fireplace fittings mailed on request.

E. A. JACKSON & BRO., 25 Beekman St., New York

**Ready
Roofing
85¢
roll**

This price for roofing will surprise you a lot more when you see what you get for it. Our catalog shows all kinds of roofing material at money-saving prices—send for it.

Every builder has use for wall board. We have all grades at prices you can't resist. Also paints, varnishes, brushes, hardware—everything you need—shown in our free catalog.

**Wall
Board
1 3/4¢
Sq. ft.**

BUILDING

MATERIAL

**Panel
Doors
\$1.10
Each**

We have just the doors you want for that addition to your building, also windows, hot-bed sash, porch rails and columns, and at prices—but get our catalog!

**Hard-
wood
Mantel
\$5.00**

Then there are mantels and grilles—latest designs—screen doors and windows, floor and wall tile, mouldings and interior trim—all at lowest known prices. Write today for our

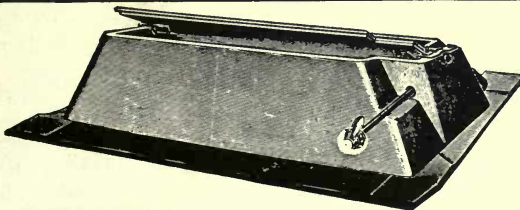
FREE CATALOG

Be sure to address Department D

HUBER BUILDERS MATERIAL CO.

41 Vine Street

CINCINNATI, OHIO



The Peerless-Drake Fireplace Damper

Can { Blow Shut
Not { Get Out of Order

MR. HOME BUILDER: Insist on your mason using the PEERLESS-DRAKE DOME DAMPER in your fireplace.

Costs No More Than Others Although Worth It

Ask for Descriptive Booklet

DRAKE MARBLE & TILE CO., 605 Second Avenue South, Minneapolis, Minn.

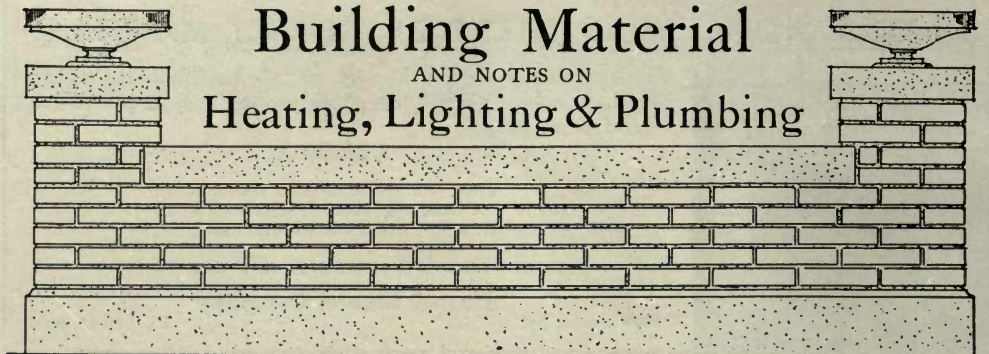
COMPLETE FIREPLACE FURNISHINGS

You are assured a square deal in Keith's.

Building Material

AND NOTES ON

Heating, Lighting & Plumbing



Modern Lighting Problems.

SUPPOSE we should suddenly be spirited back to the conditions of our great grandparents in the matter of artificial light; we can scarcely realize what it would mean to do all of our evening work, and play, by the light of a "tallow dip," and even the blaze of light from a great chandelier filled with wax candles would not seem so glittering to us as it did to our grandparents. The contrast between their time and ours brings us face to face with the advantages and the faults of our present lighting systems. How far the abundance of light and the glare and eye-strain which accompanies it has to do with the nervous tension of this generation is a question which the later study of conditions and the development of lighting schemes may tend to improve. A paper read before the Building Managers' Association by A. O. Wallis, gives some very interesting points.

This subject is quite as interesting to the home builder, though in a slightly different way, as to the manager of great buildings, since he studies the effect of the light as it reaches the eye of the individual and its physiological structure.

"The eye being constructed in a manner to be able to protect itself against abnormal light, is provided with a device known as the iris.

"When the light entering the room, or the rays from a lamp, falls directly upon the work in front of the user at an angle which reflects the light directly back from the working surface, the result is an unnecessary eye-strain.

"Under these conditions, the iris con-

tracts so as to reduce the amount of reflected light which reaches the retina, in consequence of which the eye will not see as clearly the work it is intended to see, as it would if a lesser amount of light were used, but so placed that the angle of reflection would not reach the eye."

"As natural light is of primary importance, the windows of a building should always be designed so as to afford the most useful inflow of daylight. Large windows do not necessarily accomplish this, but may be very inefficient, if they cause a large amount of reflected light. This makes a double loss; maximum illumination wasted because improperly placed, and restricted seeing power imposed upon the eye."

"Except in especial cases where mural effects are desired, the maximum light should be delivered at the working plane. This is usually thirty-two inches from the floor." This refers especially to the business building and should be lower in a home, but all windows should be as carefully placed with reference to the uses of the room. A glare of sunshine across the floor of a sewing room has this unfortunate effect, as has a light directly behind the head as the housewife stands at the range or sink.

Indirect Illumination.

It has been found, however, that a system which gives the least fatigue to the eye does not always satisfy people who have been accustomed to a strong direct light. The habits of a lifetime are deeply imbedded with fixed associations and a room softly lighted, without any visible source of light, and without shadows, departs so widely from what we

For Simplest and Grandest Homes



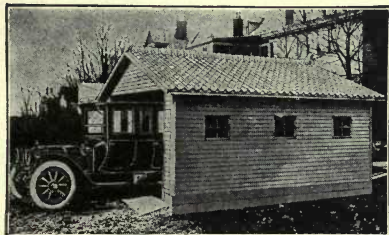
EDWARDS Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of **Metal Spanish Tile** is yours for the asking. A postal will bring it.



Own Your Own Garage All Sizes—All Prices

An Edwards **METAL** Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and *safe*! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.
\$6950
and up
Write today—right NOW!

The Edwards Manufacturing Co.

*The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.*

521-541 Culvert St., Cincinnati, Ohio



Get our ideas before decorating the home

Soft, warm tones predominate in the room pictured above.

The walls are Mellotoned a soft brown, the ceiling a cream. The arts and crafts stencil is executed in brown Mellotone. The woodwork is stained a light brown with Lowe Brothers Early English Non-Fading Oil Stain—followed with "Little Blue Flag" Inside Rubbing Varnish rubbed to a dull finish.

Furniture, floor coverings and draperies all harmonize with the walls and woodwork.

Red-brown and green are the prevailing tones. This beautiful room is only one of a number pictured in our booklet, "The House Outside and Inside," which we shall be glad to mail you on request.

Lowe Brothers Non-Fading Oil Stains

are just as the name indicates—"NON-FADING." They are made from permanent pigments that do not fade when exposed to sunlight, as do acid and water stains, and need no protecting coat of varnish. The Oil Stain is easily applied and dries to a beautiful flat finish. It is wonderfully durable and satisfactory.

Twelve rich colors

can be had with Lowe Brothers Stains—among them mahogany, walnut, oak, cherry, etc. Write for "The House Outside and Inside," and see the beautiful effects made possible by these oil stains in combination with other products of equal quality.

The Lowe Brothers Company

465 E. Third St., Dayton, Ohio

Boston New York Jersey City Chicago
Kansas City Minneapolis Toronto

have been accustomed to for years that it gives an uncanny sense to those who have not themselves been conscious of eye-strain and uncomfortable glare under the older systems.

It was a long step from the tallow dip or wax candle to the electric light bulb of even eight or sixteen candle power.

With decreased cost and increased efficiency in electric lighting, people began to realize that the brilliance of the lighting and the glare resulting was a disadvantage rather than a growing advantage, and the indirect system of lighting was devised to give a sufficient amount of light and at the same time to do away with the objectionable glare, giving instead a soft restful light.

In the indirect system of lighting the electric bulbs are placed in opaque bowls at a distance from the ceiling which is definitely computed for each set of conditions in order to give proper light in the room. Under the lights in the bowl are strong reflectors which throw a powerful light against the ceiling, the surface of which is carefully prepared to

reflect and distribute the light over the room. It is really reversing the conditions of the streak of strong sunlight across the polished floor of the sewing room; instead of reflecting the light from the floor into the eyes it reflects from the ceiling onto the work. To those who have accustomed themselves to it, this light is very satisfactory and restful. At the same time it is rather extravagant in comparison with other systems in the amount of current consumed for a sufficient quantity of light obtained at the working plane for ordinary conditions.

Direct Illumination.

The object of direct illumination was primarily one of economy in current consumption, which economy was very essential in the early days of electric lighting, because of the high cost of the production of electricity and the large amount of current consumed by electric lamps for a required amount of light.

The illuminating engineer has been trying to create an ideal working condition, and between the two extremes of the direct and the indirect systems another has been devised to use the advantages of the other systems.

The Semi-indirect System.

In order to satisfy the eye as to the source of light the semi-indirect system of lighting places an electric lamp under the reflectors prepared as for indirect lighting, and replaces the opaque bowl with a translucent bowl or globe.

The arrangement and the design of the fixtures vary so greatly that the individual system should be studied carefully before deciding on an installation. The term has been used so loosely as to cover fixtures which do not have the essential principles of indirect lighting. Frequently two fixtures which may appear identical with each other have widely different efficiencies, on account of the chemical difference in the make-up of the glass.

The later systems of illumination have of necessity revolutionized the external design of lighting fixtures. Both gas and direct electric light fixtures imitated candles, antique lamps or torches and never established a form which essentially belonged to either gas or electricity. In fact even yet most direct lighting fixtures are an imitation of something which they are not.

GAUMER

GUARANTEED

LIGHTING FIXTURES



Change your old Fixtures
to beautiful modern designs
Ask your dealer for the famous

GAUMER FIXTURES

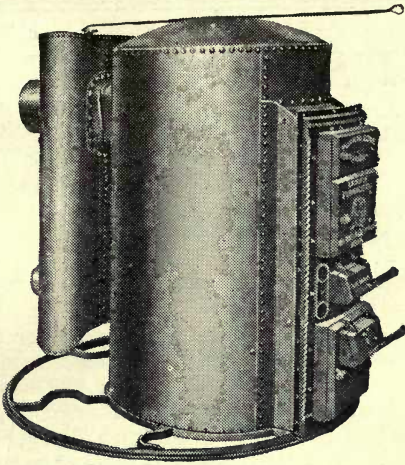
Distinctive, artistic,
unequaled for durability.

Refuse substitutes — get the
genuine. Look for this
Guarantee Tag when you buy.



See your dealer first—if he can't supply
you write us for advice. Address Dept. D

BIDDLE-GAUMER COMPANY
PHILADELPHIA



Lennox Torrid Zone All Steel Furnace

Built to deliver air *Free*
of dust and gases

Sold with that guarantee

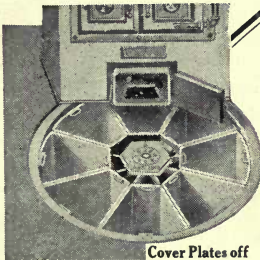
Three Styles of Fire Pot--For Every
Grade of Fuel

Built like a power boiler--in one piece
Riveted Dust and Gas Tight

There is no more important feature in your home planning than the *heating plant*. It should have ample capacity, be easy to run, furnish a genial warmth in cold or mild weather, proper humidity, and low fuel cost.

Write for catalog and address of nearest dealer

LENNOX FURNACE COMPANY, Marshalltown, Iowa



Cover Plates off

**I must have
have one in
my House!**

A simple and most effective means of caring for Ashes, Garbage and Refuse. No modern home is complete without

**The Sharp
Rotary Ash
Receiver**

It not only eliminates the ash dust nuisance but is a perfect preventive against fire from hot ashes. Protects the fine furnishings of your home. Insures pure, dustless air and more healthful living conditions. Does away with dirty, disagreeable ash shoveling, provides a clean, dustless basement--the delight of every home owner. Read what Mr. Geo. W. Babcock of Louisville, Ky., says:

"Your Rotary Ash Receiver which the writer installed in his residence, is the most satisfactory device of its kind that he has ever seen. I have spoken to numerous people concerning this device and am at a perfect loss to understand why anyone building, or anyone who has a furnace, would not install same, even after he has finished building. The ease with which the ashes are removed from the furnace, and the state of cleanliness which it makes possible in your furnace room, are two of the greatest benefits. I would not be without this Ash Receiver for a great deal of money, as it is without exception the most satisfactory device I have installed in my house."

The Receiver can be easily and cheaply installed in any building in connection with any kind of heater. Holds several weeks accumulation of ashes. The ashes simply drop into the cans which revolve as each can is filled. A sanitary receptacle for garbage and refuse.

It is to your interest to investigate the Sharp Rotary Ash Receiver. We will gladly send you full particulars together with the endorsement of many satisfied users. Write today.

THE SHARP ROTARY ASH RECEIVER CO., Inc.
Dept. 12, Binghamton, N. Y.
Districts open for representatives



YOU may go to unnecessary expense in brush-coated or stained-on-the-job shingles but... you can never successfully imitate the velvety colors or lasting beauty of

"CREO-DIPT"
STAINED SHINGLES

17 Grades 16, 18, 24-inch 30 Colors

Use the genuine originals (alone produced by our *special factory process*) and so put on us all responsibility for uniform coloring and quality of material.

If you seek a truly economical yet most artistic and distinctive exterior for a home, send for Book of 100 "CREO-DIPT" Homes and Samples of Colors on Wood.

"Thatched Effect" and "Dixie White" Folder on request
STANDARD STAINED SHINGLE CO.

1022 Oliver Street, N. Tonawanda, N. Y.
Factory in Chicago for West

Trade at home and prosperity takes no vacation.

THE ARCHITECT'S CORNER

What Is YOUR Building Problem?

Put Your Home-Building Problems Up to Us, and We Will Give Them
Careful Study and Reply Either Through These Columns
Or by Mail When Stamp Is Enclosed.

Recommendations for Remodeling House.

Question 1. How far should top of window frame be below ceiling?

Answer. It is customary to have the top of the windows and door openings line up, and in a house with a 9 ft. ceiling for the first story the top of the window frames may be either 7 feet or 7½ feet from the floor. This would leave the distance from the top of the window frame to the ceiling, in one case 2 feet, and in the other case 18 inches.

For the second story rooms, where the ceiling height is 8 feet, the top of the window frames should be 6 feet 8 inches from the floor, which would leave 16 inches as the distance from the top of the window frame to the ceiling.

Question 2. Where should fireplace be built, in or outside of wall?

Answer. An outside chimney requires a faced brick, and therefore costs more money than where the chimney is built all inside the wall, but of course if the chimney is projected partially on the outside it does not take up the space in the room, both up stairs and down, and our preference is for a chimney and fireplace partially on the outside.

Question 3. What size of glass should be used in second story window?

Answer. The size of glass for the second story windows is a matter that you may wish to determine by whether or not you want to keep the expense of these modifications down by using what is termed "stock mill size" of window frame. I should judge that you would probably want to use throughout the second story a uniform size window, double sash.

Question 4. What kind of hardwood flooring in dining room?

Answer. What to recommend here depends somewhat on other things. As I

understand it, you propose to re-cover the old floor. Parquetry flooring would be nice. It is thin and would not bother you at the threshold, where you would have some trouble by using thicker flooring. Parquetry flooring is usually oak and quarter sawed. Then there are other floorings in oak, birch and beech and maple.

Question 5. What trim in dining room, early English oak or golden oak, etc.?

Answer. As I understand it you propose to retain in the living room and reception room the white woodwork, in which case the sliding doors between the living room and dining room would very nicely match if they were in mahoganized birch. This would then determine the trim of the dining room to be birch mahoganized. You could, however, if you prefer to have English oak in the dining room for the trim, have your sliding doors oak veneered on the dining room side and mahogany veneered on the living room side. I would not care to see the doors oak on the living room side with the woodwork in white.

Question 6. What height should sliding doors be?

Answer. Make them the same height as the other doors so that they will line up. I think I would make all of the remodeled doors and windows the same height as those standing.

Question 7. What trim for the new stairs?

Answer. As you have a cased opening leading from reception room into hall, where the view is constantly open to the stairs, I would suggest white enameled finish with mahogany rail and birch treads, mahogany finish. The stair spindles would be white, capped by the mahogany rail and newel post.

Question 8. As the house faces east on a hillside, what would be proper window heights to take advantage of the view?

WATER SYSTEMS FOR COUNTRY HOMES

Every country home should have a good water supply system. It provides comfort, affords fire protection, and is useful in many ways.

We have filled nearly 15,000 orders for tanks, towers, and water supply systems of all kinds and for all purposes. We can furnish you one to meet your individual requirements—ready to install. Your plumber or any good mechanic can do the work.

Complete Systems
for as little as **\$42**

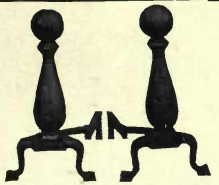
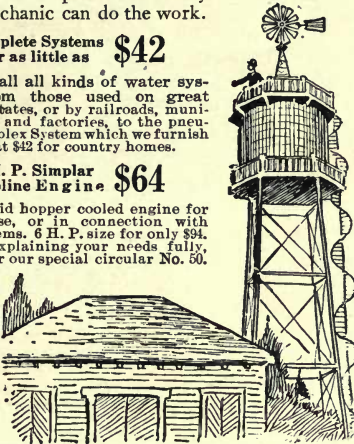
We install all kinds of water systems, from those used on great country estates, or by railroads, municipalities, and factories, to the pneumatic Simplex System which we furnish complete at \$42 for country homes.

4 H. P. Simplex
Gasoline Engine **\$64**

A splendid hopper cooled engine for general use, or in connection with water systems. 6 H. P. size for only \$94. Write, explaining your needs fully, and ask for our special circular No. 50.

The
Baltimore
Company

Baltimore,
Maryland



ASK FOR CATALOG "D"
Showing hundreds of designs.
Prices very low.

WE PREPAY FREIGHT ON ALL GOODS

It is better to buy our brand new, unsold goods of modern design and finish than try to select from the necessarily limited assortments to be found in local stores. Don't buy old-fashioned, shop-worn, unattractive hearth furniture.

SUNDERLAND BROS. CO.

(Established 1883)

323 So. 17th St., Omaha, Neb.

Beautiful Andirons

Shipped to any railroad town in the United States

Freight Prepaid

Throat Dampers, Ash Traps
Basket Grates, Gas Logs
Spark Screens, Fenders
Fire Tools, Wood Holders

Cut Next Winter's Coal Bill 1/2 to 2/3

Yes, a coal saving of 1/2 to 2/3—guaranteed. That's "The UNDERFEED Way." The famous "candle principle" makes the Williamson New-Feed UNDERFEED furnace sootless, smokeless, clinkerless.



Over 35,000 enthusiastic users are saving fuel money. Find out how you can, too. Write today for valuable book, "From Overfed to UNDERFEED."

The Williamson Heater Co.

246 Fifth Street

Cincinnati, Ohio

WILLIAMSON CUT
NEW-**FEED** COAL
UNDER-**FEED** BILLS
Furnaces and Boilers 1/2-2/3



THE general adoption of Berry Brothers' varnishes and enamels by home builders is based on a foundation that cannot be shaken.

The uniform excellence of all our products has inspired such confidence in them that the label of Berry Brothers is recognized as a guarantee of quality and a sure protection against inferior varnishes.

The use of poor or inappropriate varnish may ruin the appearance of an interior.

When you finish or refinish the woodwork of your house, adopt the riskless way by insisting on the use of Berry Brothers' architectural finishes.

LUXEBERRY WHITE ENAMEL

Whitest White Stays White

Makes a rich snow white finish in either dull or gloss effects. Will not crack or chip and a gentle washing when necessary keeps the finish in perfect condition. Color can be modified to shades of ivory and gray when desired.

LIQUID GRANITE for FLOORS

Lasting Waterproof Varnish

The beauty of hardwood floors is brought out and preserved by this splendid floor varnish. It produces a rich smooth lustre, is marproof, and is easily kept in perfect condition with a floor mop.

We make a specially adapted finish for every architectural use from basement to roof.

Write our architectural department for interesting literature on wood finishing for the home builder.

BERRY BROTHERS
(INCORPORATED)
World's Largest Varnish Makers

ESTABLISHED 1858

FACTORIES: Detroit, Mich.; Walkerville, Ont.;
San Francisco, Cal.

Branches in all principal cities of the world.

(299)

Answer. The two sash windows will meet these requirements in that they will bring the dividing sash below the eye line of the average person standing. Precautions should always be taken that neither the meeting rail nor any bar of the window should come at the height of the eye, as is sometimes the case where the windows are divided two-thirds and one-third.

Exterior Stucco.

E. J. W. Will you kindly give me your opinion on the use of stucco in an extremely cold part of the country? Will it withstand a temperature of 50 degrees below zero as it is here often in the winter time? Is it considered as warm as other form of building material? Are there any special ways of applying it to make it more valuable?

Ans. Whether stucco withstands a temperature of 50 degrees below zero or not, I cannot say with much authority, as we do not get it quite that cold here, but we do have it pretty close to 30 below and we have a great many stucco homes that seem to stand the cold weather in this section without detriment.

I think if you have the best construction with insulating linings, that you would find the stucco finish would give you quite as warm a house as siding or shingles. There are several ways of applying stucco. I assume that you are talking now of a stucco exterior on frame construction. The proposition over tile is, of course, entirely different.

There should be a good insulating quilt either between the studs or covering them, under or outside of the sheathing. When this is stripped it adds another air space around the outside of the building, which protects against the cold outside. In addition to this a waterproof building paper should be laid under the metal lath.

There are several manufactured articles which accomplish this purpose: a fabric reinforced with metal which becomes embedded in the plaster, and a so-called stucco board which has a creosoted wooden lath embedded in an asphalt mastic, which, it is claimed, is proof against moisture, heat and cold. The lath have a dove-tail grip or a bevel on the under side of each lath to form a key for the stucco. You can, therefore, nail this lath right over the sheathing boards, but I believe that a warmer construction is to furr out so as to get more of an air space between the sheathing boards and the outer surface. This attains the same results, of course, as if you use metal lath with a good insulation.

* * *

"When driving a good many small nails in hardwood it is a good idea to have a small hole drilled into the end of the handle of your hammer and filled with tallow or beeswax. Before driving a nail, jab it into the wax and it will go into oak like pine."

Building the House

A Handbook Every Home-Builder Should Have

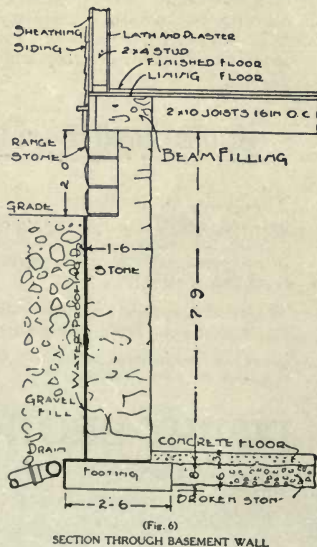
A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition just off the press

Price \$1.00

Published by
M. L. KEITH, McKnight Bldg., Minneapolis



A Free Book

—on Concrete Machinery

Porches
Vases
Chimneys
Flower Boxes
Building Blocks
Fence Posts
Drain Tile
Sewer Pipe
and others

Not exactly a catalog because it gives the cost of making many concrete products—Blocks, Bricks, Porches, Chimneys. Also tells about the profits in making Drain Tile for farmers; describes the advantages of farm drainage, etc.

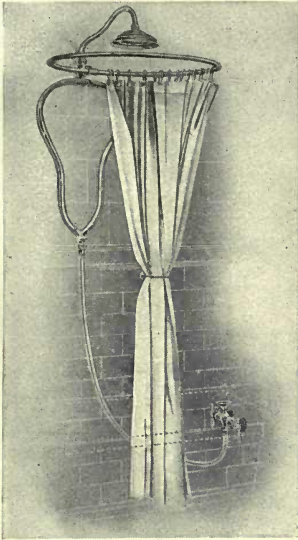
Get this book if you are interested in concrete. Contains a lot of valuable information and interesting reading. Sent free upon receipt of a postal card.

W. E. Dunn Mfg. Co.

417 24th Street

HOLLAND, MICH.





This Wolff Shower

one of the several Wolff models, will add an invigorating zest to the bath that will be a source of keen satisfaction throughout all the years it will be used. Wolff Showers, in common with other Wolff fixtures, are extra full value for the money. May be added to your initial bath equipment with little increase of cost, or at any time after fixtures have been installed.

Write for the Wolff Bath Book Now

and let appropriate fixtures be a part of your building plans. Wolff fixtures have long been known for their high standard of quality and are easily obtainable anywhere. Your plumber has our complete catalogue and will be glad to furnish them.

L. WOLFF MANUFACTURING CO.

"Makers of Plumbing Goods for 60 Years"

Pottery: Trenton, N. J.

601-627 West Lake St., CHICAGO, ILLINOIS



BATH - KITCHEN - LAUNDRY



KEWANEE PRIVATE UTILITIES

Give Water and Light Service Equal to the Best Public Utility Plants in Cities

The largest or smallest residence, no matter where located, can be equipped with all the comforts of the city home. The Kewanee is the original air pressure water system, supplying water under strong pressure for bathroom, kitchen, laundry, garden, garage, barns and stock. Excellent fire protection. No elevated tanks. Anybody can operate. The Kewanee is built as a complete and compact system in our factory and ready for a life-time of good service as soon as the shipping crate is taken off. Cost from \$45.00 up, according to capacity desired. Our dealers are high class mechanics and will install a Kewanee System, with our guarantee of success. KEWANEE PRIVATE UTILITIES give daily service and remove the last objections to comfortable country living.

Water Supply Systems—Sewage Disposal Plants—Electric Light Plants
Gasoline Engines—Gasoline Storage Plants—Vacuum Cleaning Systems

Send for illustrated bulletins on any or all the above

KEWANEE PRIVATE UTILITIES COMPANY, 225 South Franklin Street, KEWANEE, ILLINOIS
(Formerly, Kewanee Water Supply Company) Branch Offices---50 Church Street, NEW YORK and 1212 Marquette Building, CHICAGO



COMPLETE & COMPACT



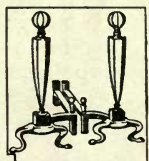
SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price.....1.00
50 Design Book "Bungalows and Cottages," Price......50
One Large and One Small Book, Together \$1.25, Three Books.....2.00

Many pretty one-story Bungalows and Cottages. Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA



SIGN THE COUPON

and we will send you, . . .
without obligation, our new catalog showing

OUR SELECT LINE OF AND IRONS

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc. These will interest all who are building or improving their homes.

We Make Only High Grade Goods, But Our Prices Are Right

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

STOVER MANUFACTURING CO.

704 East Street, Freeport, Ill.

Send me your Catalog No. 1550 I am

especially interested in.....

Name.....

City.....

State.....

You will find "Keith's" Advertisers perfectly responsible.



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH's staff of wood experts. This department is created for the benefit of KEITH's readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

The Sawdust Waste.



It is estimated that of the total cut of lumber in the United States, eleven per cent is wasted yearly in sawdust. The State College of Forestry at Syracuse has been carrying on this investigation and estimates that in New York alone enough good lumber goes into sawdust every year to build at least two thousand good substantial frame houses. In its studies of a better utilization of wood, this waste is one of the problems.

Under present conditions in the mill sawdust is used largely for fuel, but in order to burn in a green condition it must be mixed with fifty per cent of chips, or there must be a strong forced draft. It is becoming apparent that there must be a better use to which this granulated wood could be put than burning it or allowing it to rot in great piles where-ever a saw mill has been operated.

Wood is a poor conductor of heat and sawdust is an excellent insulation which is used largely for insulating the walls of big ice packing establishments.

The sawdust comes from the very best of the lumber and the attempt is being made to find a use where its own valuable qualities may be utilized. We are told that in a dry state it is sometimes mixed with "wood flour" and various chemicals to form an artificial flooring which is an excellent substitute for linoleum. A satisfactory, yet inexpensive, kitchen floor is one of the crying needs

of the time and it is to be hoped that this may be fully developed and put on a commercial basis.

Wood Flour and Its Uses.

Sawdust is ground into "wood flour," either by means of mill stones as grain was formerly ground in old fashioned mills, or by means of steel burr rollers, which pulverize the wood. In this form it is finding a growing use in the manufacture of dynamite and also of inlaid linoleum. According to a late government bulletin, wood flour to the value of \$300,000 is used annually for these purposes. On account of the vast amount of sawdust which accumulates as a waste product in the mills, there is no lack of raw material for industries which develop a way to utilize this waste.

Wood flour is also used in making composition flooring, oat meal paper, and in several other products.

It is in special demand at the present time in ammunition factories as an absorbent in preparing dynamite for use.

For use in dynamite, the trade demands are said to require a white wood flour, since the freshness of dynamite stock is indicated by a light color.

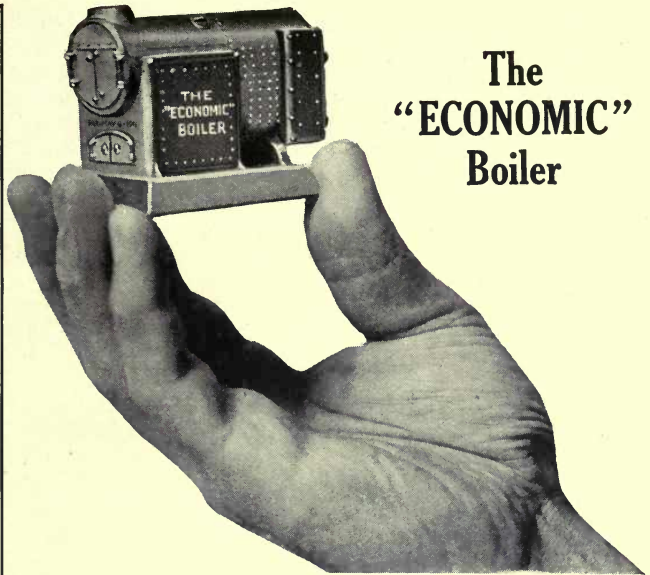
Chemically bleached wood flour has recently come into use in making wood stucco, moldings, etc. Mixed with certain oils, some forms of sawdust and wood flour are used for floor polishing materials.

All wood-flour using industries require

We hold it up for your Inspection

The "Economic" Boiler has the safety and high economy of leading stationary types. The more you examine this boiler from every angle the better you will like it.

WRITE NOW for
all the Bulletins



The "ECONOMIC" Boiler

ERIE CITY IRON WORKS,

Erie, Pennsylvania

ENGINES - BOILERS - HEATERS - TANKS

SALES OFFICES IN ALL PRINCIPAL CENTERS



This Book On Home Beautifying Sent Free

Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

S. C. Johnson & Son, Dept. K. E. 5, Racine, Wis.
"The Wood Finishing Authorities"

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure.

Fifth edition "HOMES, NOT HOUSES," 123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.



Residence of William Finch, Esq., Cos Cob, Conn.
B. E. Shubert, Greenwich, Conn., Builder.
Roofed with Green Hudson Asphalt Shingles.

There's the Roof You Need Right Now

HUDSON SHINGLES

Slate-Surfaced in Red and Green Beautify the Home

Their cost is reasonable. They need no paint or stain and make a permanent, leakproof, fadeless and fire-resisting roof. Send for book—describing some functions of the roof you may not have heard of—also

How to Apply Asphalt Shingles

to get the most artistic and durable effect by the Boston Hip and other materials.



Send for "Shingling Aids" 79

ASPHALT READY ROOFING CO.

Room 479

9 Church Street, New York, N. Y.

a white or very light cream-colored flour having good absorptive powers. The wood species that may be used are confined to the light, non-resinous conifers, and the white broadleaved woods like poplar. Spruce, white pine and poplar are the species most used. Mill waste, free from bark, furnishes much of the raw material for making wood flour.

In the manufacture of linoleum, either wood or cork flour is used. The flour is mixed with a cementing material spread out on burlap and rolled or pressed to a uniform thickness. The cement is the expensive constituent. Cork linoleum is the cheaper because less cement is necessary. The patterns are printed on, leaving a dark base. For inlaid or straight-line linoleum, wood flour is used exclusively. Cork linoleum is always dark, and slightly more elastic than that produced from wood flour. The wearing qualities are about the same.

Wood-flour mills are scattered over the country, according to the bulletin, from Maine to California wherever the proper combination of wood and water power is available, and the domestic wood flour competes with the Norwegian product which, before the European war, was delivered at Atlantic ports for \$12.50 to \$15 per ton.

The mills of Norway which produce much of the European wood flour are of the mill stone type.

Steel burr rollers which pulverize the wood were developed on the Pacific Coast to handle sawdust as a raw material, and requires only one-fourth as much power to operate.

Gooseberry Bushes and White Pine.

"While it is established by legend that geese once saved Rome, it has now been determined by fact that gooseberry bushes threaten the destruction of the pine forests of this country. The white pine blister rust was imported to this country on nursery stock of white pine, but it has been discovered that the disease cannot be communicated from one pine to another. Instead, it is transmitted from a diseased pine to currant and gooseberry bushes, and from them to other pines.

Hence, the Department of Agriculture

has issued a warning that the cultivation of these pie, jam and jelly producers should not be encouraged in the vicinity of pine forests. These bushes have been found to be the most vulnerable point of attack for the white pine blister rust. In Europe where this disease rages it has been found impossible to raise pine forests. It not only attacks the young trees but it will kill trees that are thirty years old. First found within the past few years, it threatens to become a most dangerous disease unless steps are taken to control it.

It has already gained a foothold in a number of the eastern states, and the government has been asked for an appropriation of fifty thousand dollars with which to fight it. The legislature of Massachusetts has been asked for ten thousand dollars for the same purpose. Meanwhile, since it cannot communicate from one pine to another, and does infect currant and gooseberry bushes from which other pines are attacked, it will be well for owners of pine timber and gooseberry bushes to either get rid of their timber and go to raising currants and gooseberries, or get rid of their gooseberry and currant bushes and specialize in pine. They are irreconcilable as companions in the same part of the country."—*Mississippi Valley Lumberman*.

Identification of Woods.

Some rather interesting contests have been held in Cleveland,—under the auspices of the National Lumber Manufacturers' Association,—in Dayton, Kansas City, Indianapolis, Minneapolis, and possibly other places, where several thousand people attempted to name the various woods shown.

There were two separate contests, one containing eighteen commercial woods, for which a prize of \$10 was given for correctly naming each one of them. The other asked contestants to name correctly the samples of four of the commercial woods, for which a prize of \$1.00 was given. The wood samples were six inches long, three inches wide, and one inch thick in their natural color. Of all the thousands of guesses, however, there were but five winners of the \$10 prize and but ten winners of the \$1.00 prize.

KEITH'S MAGAZINE

ON HOME BUILDING

CONTENTS FOR JUNE, 1916

Just a Word	422
Some Charming Porches and Verandas— <i>Charles Alma Byers</i>	425
A Brick Colonial Cottage— <i>Warfield Webb</i>	429
Some Groups of Oriental Rugs— <i>George Leland Hunter</i>	433
The Development of the Range— <i>Edith M. Jones</i>	437
Emergency Planting— <i>M. Roberts Conover</i>	440
"Ye Lytel Nest"— <i>Charles Saxby Elwood</i>	442
A Practical Little Plan	444
A Bungalow That Is Different	445
A Brick and Stucco House	447
The Usefulness of the Bay	448
With a Side Porch	450
Homes of Individuality	451

DEPARTMENTS

Inside the House—	
Decoration and Furnishing	454
Answers to Questions on Interior Decoration	460
Household Economics	466
The Table and Its Service	470
Building Material and Notes on Heating, Lighting and Plumbing	474
Woods and How to Use Them	480
Splinters and Shavings	484



An inviting veranda.

KEITH'S MAGAZINE

VOL. XXXV

JUNE, 1916

No. 6

Some Charming Porches and Verandas

Charles Alma Byers

THE building of houses with good porches and verandas cannot be too much encouraged. Both health and pleasure are to be derived from out-door living, and an inviting porch or veranda can do more to coax us forth into the open than any other one thing. Those leisure moments or hours of the summer should be made at least profitable to our health, and where else than in some such fresh-air retreat can they be made more enjoyable as well?

Therefore, let us give to these features of the home the proper amount and the right kind of consideration.

In planning the porch or veranda, there are several things that deserve to be considered—location, size, style, furnishing and so forth. Some of these will naturally depend upon the house itself, but the matter of furnishing, as well as floral treatment, can always be more or less governed by individual taste.

A porch or veranda somewhere on the



A spacious California veranda.

front of the house constitutes a rather common arrangement. Such a location will sometimes produce certain restrictions as to formality, but nevertheless, if it can be made sufficiently deep and roomy, and perhaps given a degree of seclusiveness through the use of vines and potted plants, it may become a very enjoyable retreat. A porch on the side or in the rear, however, rarely suffers any

valleys or even an elevated view of the city, with its myriad of flickering lights at night—an effort by all means should be made to so place the porch or veranda that such a picture may be enjoyed to the fullest extent. Some of the accompanying pictures may well be studied in this regard.

Both size and style will be also considerably regulated by the size and style



The rambling veranda of a country house.

such restrictions, and hence there can be no excuse for the failure to make it as homey and comfortable in the matter of general treatment as anyone can wish for. Moreover, such a location always affords the ideal seclusion.

But there is yet another thing to be considered in reference to this matter of location—namely, the possible view which may be commanded. If elevation or something else chances to give unrestricted command of some charming bit of landscape—a vista perhaps of green hills and

of the house. However, there is no house so small but what it may possess a porch of ample dimensions to make of it a satisfactory out-door lounging place. And style is purely a matter of appearance, with which comfort has very little to do.

The accompanying illustrations show porches and verandas of several different sizes and styles. There is, for instance, one view that portrays the front porch of a bungalow, of Japanese influence; another that shows the spacious veranda of a large home of the California Mission

style; another that illustrates a portion of the L-shaped veranda of a house of the imitation thatched-roof style of architecture, and others that, respectively, show the porch of a country house of the Colonial type, with the broad, sweeping view from the veranda, which of itself has been built on very simple lines, the rambling side veranda, of pergola type, of a Spanish home, and, finally, the redwood-log covered and columned front veranda of a house of an Americanized Swiss chalet style. Each is in excellent keeping with the particular style of architecture represented by the house, and not only does the collection introduce many different styles of porches and verandas but nearly every kind of building material is also shown to be employed in their designing.

In the creation of out-door retreats of this kind, the matter of furnishing is highly important—much more so than seems to be generally realized, or at least practiced. Some of the pictures here shown deserve to be especially carefully studied in this respect. The so-called wicker furniture is always particularly suitable and effective for this purpose, being comfortable and reasonably durable, and conforming admirably to floral treatments. Hickory furniture, however, is also always quite suitable.

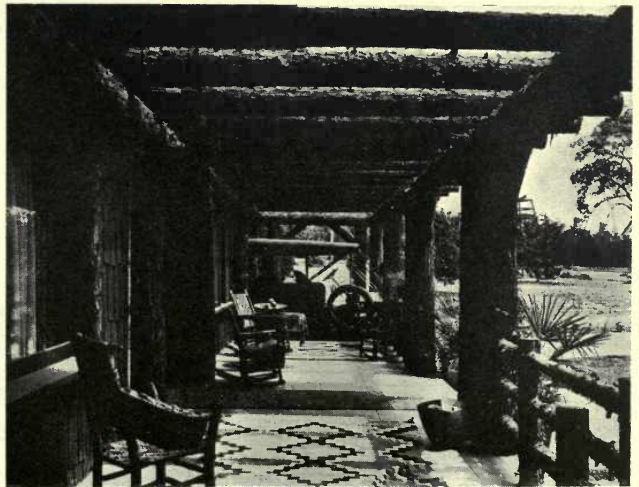
And, in furnishing the porch or veranda, let us not merely begin and end with a few comfortable chairs. To them may be added, as suggestions, a swinging seat of some kind, or a hammock, and perhaps a tea or a reading table. And a few rugs on the floor will help materially to improve the effect,



A porch with a view.

and especially to make it the more cozy. Grass rugs are always highly satisfactory for this purpose, and in some cases, as shown by one of the photographs, Indian rugs can also be used with charming results.

The employment of floral decorations will be governed largely by the location of the retreat and by the amount of seclusion desired or permitted. Merely a slight tracery of vines over the columns or pillars will suffice in some cases, while



A veranda of red-wood logs.

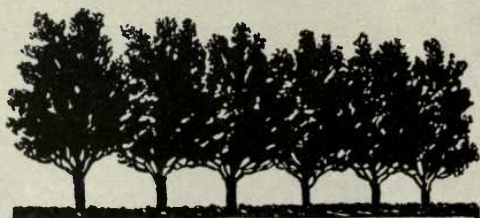


The front porch of a bungalow with Japanese influence.

in other schemes a profusion of vines and flowers can be used. Hanging baskets and potted plants, of course, will not be forgotten, and through the use of them almost any porch or veranda can be made into a truly delightful and beguiling retreat indeed. To the person who loves flowers—and nearly every woman does—the porch offers some wonderful opportunities. Let us realize these possibilities and make the most of them. A properly designed and furnished porch or veranda tastefully and artistically decorated with flowers and vines does more to enhance the exterior of the home than any other one feature.

Nearly all of us are too prone to spend

an unnecessary proportion of our leisure time in the summer couped up in the four walls of a stuffy room. If the outside features of our homes be given the due amount of attention, we, instead, should find it after a while an easy matter to virtually eat, sleep and live in the open for a large part of the year. And for that afternoon hour especially, spent in reading or sewing or studying, or for that afternoon tea, why not have some attractive and comfortable out-door retreat, fanned by cooled and invigorating breezes, in close proximity to the house, to retire to? Then, too, there is the evening, after the day's work is done and the lights are on, to be reckoned for.



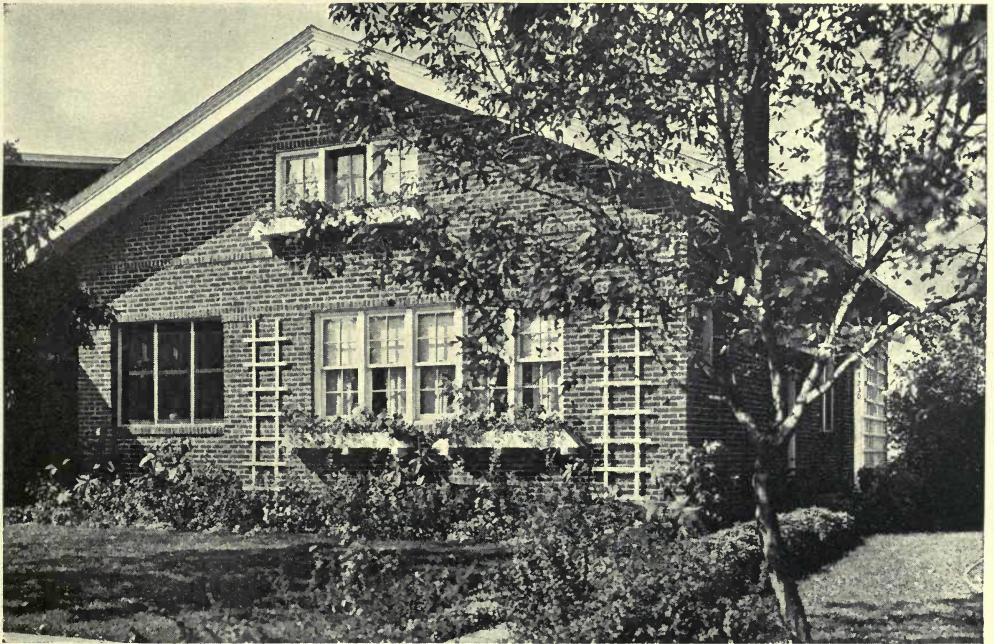
A Brick Colonial Cottage

Warfield Webb



WE see such a preponderance of small houses of the bungalow type that one is likely to grow just a bit weary of the style and to crave something in the small house that, while it might savor of the bungalow, will still add something that gives it a distinct type and

when the owner has been careful to study the varying forms of architecture and the numerous styles of the small home. He should know at first hand what are the possibilities before him and not depend on the designer to furnish ideas as well as put them in shape for use. It will demand



A home of the Colonial-bungalow type.

makes it stand as a happy medium between the bungalow and cottage or other type of building.

Every city has its quota of small houses. Every street has its illustrations of the houses we note. Each home builder is anxious to get away from the commonplace type and to get something that while being different, will at the same time offer a newer conception of the, as yet untried possibilities of the small house. This is only possible

thought, it will compel care and some original study for the adaptation necessary to get the actual things desired, so that the finished house may come as near as possible to a realization of the ideal he had in mind.

As an example of this newer planning and of the keener realization of a desired type, the several views shown herewith give a fair conception. This small house of the colonial-bungalow type, was planned by

the wife of the owner, after her own ideas, and not without a great deal of forethought and careful observation. The desire here was to have a modest home that would be a different and we might say a distinct type. In the neighborhood where this home is located, one of the better class suburbs of Chicago, there are many attractive homes of the smaller type. These for the most part run to the bungalow style, and still there is not a vast amount of difference in the entire section. With this very idea forcing itself into mind the originator of this house aimed to hold aloof, and the effect has been the building of a home along rather distinctive lines.

This house is builded on a lot forty by one hundred and twenty-five feet. It is thirty-two by fifty feet in size, save that the rear portion is two feet less in width, though this is not perceptible at first glance. The exterior is of face brick running from a light to a dark red, rough face, with wide white mortar joints, and straight bond.

The entrance, on the north side, is slightly recessed and all of the woodwork is painted white. The latch and knocker are of colonial design and very good. The entrance is pergola covered, rather an unusual cutting being given to the rafter ends, and the same cutting repeated in the ends of the beams which carry them. The trellises are effective decorations of themselves, irrespective of whether they are vine-covered or not. The same is true of the trel-



The trellises and flower boxes are effective.

lises on either side of the group of living room windows.

The low, rather flat roof and wide eaves is covered with a composition shingle deep green in color, which gives a good contrast with the brick work and white trimmings.

There are five rooms and a sun parlor, so arranged as to make it convenient, compact and homelike. The foremost thought here has been to make it a home. That is the keynote and the one distinct characteristic in every phase of the house and lawn. The entrance at the side permits a larger share of room for the

rest of the home. The vestibule is tiled with glass panel door, leading up two steps to the inner door. This outer door serves as a double protection in winter and also makes a vestibule nook. From the inner door there is a hallway with a large opening leading directly into the living room. This is the large room of the house, being 14 by 22 feet, with brick mantel and fireplace, double windows, and double glass paneled doors, leading directly into the sun parlor at the south.

The latter room is a unique abode with its brick walls, harmonizing with the exterior of the house, and giving the room a cool and comforting appearance. This room is 8 by 14 feet, and is furnished with easy chairs and lounge of summer furniture. It is enclosed and can be used at any season of the year with comfort, it having, as the other portions of the house, a hot water radiator. The walls of the living room are

decorated with a gray paper, and over the mantel is a panel picture depicting a nature study that has a significant charm in its setting. The furniture of this room is colonial.

The woodwork trim of this room is of brown mahogany, giving a tone effect that is peculiarly pleasing to the eye.

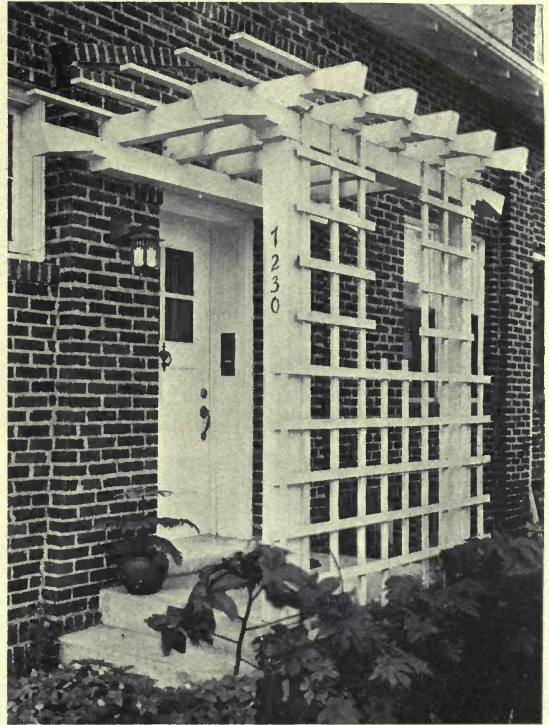
Immediately back of the living room, and separated by the hallway that extends to the other side of the house, is the dining room, 13 by 15 feet, with its trim of Kaiser gray, the walls of which are done in gray below the plate rail, and a gray blue above. The large windows opening on the south side give a flood of light, while the radiator which runs almost the entire length of the opening, is placed under a window seat, which gives the addition of the seat and at the same time keeps the radiators out of the way. This room is furnished with William and Mary furniture and is cozy and inviting.

The bedrooms are located on the north side of the house, the first having a door leading directly from the hallway, is 10 by 12 feet, with homelike decorations and yellow tinted walls. Just back of this, and opening into a rear hallway, is the bathroom, with white tile floor. The second bedroom, 12-6x14-6 feet, is placed at the end of the house, connecting with the bath room. This room is tinted in old rose. Both of the bedrooms have continuous white enamel trim and mahogany doors, the contrast being effective and inviting.

The kitchen is back of the dining room, with glass panel swing door, giving it a direct connection with the latter, and finished in yellow pine trim. It has a built in china closet and refrigerator, located so that the icing may be done from the porch. Gas range, sink and kitchen cabinet make this compact and complete.

The attic is unfinished. In the basement, with entrance at the rear hallway, there is a billiard room with brick walls and colonial brick fireplace. The heating plant, coal bin and other essentials are also in the basement, so arranged as to be very convenient.

The lawn has been planned with an



The entrance is pergola covered.

abundance of old fashioned flowers, that give the surroundings an appearance of the old-time homes of another age. The concrete walk leads from both side and rear of the house to the brick garage, that harmonizes with the house, and the little archway, builded of wood, painted white, lends a new charm to the place. The rear fence is a large latticed or panel effect, in white, where hollyhocks are set in profusion, making a beautiful background. Looking at the home from the exterior it gives one the idea of colonial days, and



With its brick walls and wicker furniture, the sun room is very pleasant.

still there is the newer bungalow effect that makes the combination quite interesting. Electric lighting fixtures of modern design, make the lighting tasteful and pleasing. The cost of the house when built, without the ground, was something more than four thousand dollars, and this

is a low figure when we consider the character of materials used and the delightful effect attained. It has gotten away from the effort to build a bungalow, and has attained instead, the home that will find many admirers because of its simplicity and its clever design.

A Dash of Color

With our love for browns and grays, with our desire for unobtrusive backgrounds, we sometimes forget that color is essential to life, just as essential as form, and that a sort of mental lassitude, coldness, and indifference grows upon those who, in their surroundings, are indifferent to color. The psychology of color associates it with emotion, nevertheless there are colorblind people who have the full register of sensations and emotions. Though their color sense may be deficient in one or all three of the primaries, they have no indication of this in their attitudes towards life.

However, we normal people crave color, just a bit of it, and unless it is forthcoming, something seems lacking. How often has a brown room been spoiled, just because the decorations were planned with "everything to match" until it seemed as if the whole room were being viewed through a brown lens or a pair of amber-tone glasses. Oh, how a room needs not only contrast but a touch of the primary; a dash of red, a flash of blue, a splash of orange, a hint of yellow, a bit of green, an errant pulse of purple—just a trifle of color but enough to hold the eye and impress the soul with feeling! How a corner full of color will redeem a place! Just as a richly colorful room becomes luminous, so with the lives of the family. With color something is added; without it something is lost.

Evelyn M. Watson.

Some Groups of Oriental Rugs

George Leland Hunter

MOST things Oriental are mysterious, especially Oriental rugs. One should begin with the great divisions in studying Oriental rugs. One should learn to distinguish Chinese rugs from Bokhara rugs; Persian rugs from those of India.

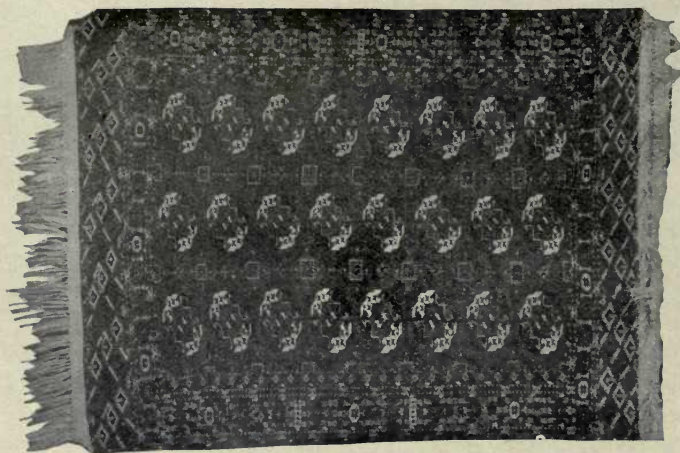
Chinese rugs have an especially distinctive character. The weave is so loose and coarse, the colors so pale and delicate, with all strong reds absent, and with blues and yellows predominating. The designs, with few exceptions are of native Chinese origin, found also in Chinese silks, porcelains and other Chinese works of art.

However, until the last quarter of the nineteenth century, Europe and America were not aware that beautiful rugs had been produced in China. Not until then did a few seventeenth and eighteenth century examples begin to attract attention and admiration in Paris, London and New York. Since then as a result of the Boxer revolution, and other internal Chinese troubles, thousands of Chinese rugs have been sold at auction as well as in private sales in both Europe and America.

Noteworthy about Chinese rugs is the fact that the designs are less continuous than in Persian and other Oriental rugs. The motifs are apt to be detached, and



Chinese rug of the Kien-Lung Dynasty.



Royal Bokhara rug.

separated from each other by spaces of solid color. This is especially true of the rugs that show the signs and symbols of the literati. Also, the borders of Chinese rugs are much less important than those of most other Oriental rugs.

The pile of Chinese rugs is comparatively high, so that it leans over even more than the pile of Kazak rugs, and gives the Chinese rugs a peculiarly silky luster.

While Samarcand is now in Russian Central Asia, it was once a part of Chinese Turkestan, and subject for centuries to Chinese dominion. Consequently one should not be surprised at finding that Samarcand rugs are Chinese rugs, though with a strong leaning toward Persian. In other words, Samarcand rugs might be described as Chinese-Persian rugs. The designs are apt to be more continuous

than those of other Chinese rugs, and the borders more important, although the weave is more like that of other Chinese rugs, and the knot is the same; that is to say, the knot is the Sehna (sometimes spelled Senna).*

At this point I would like to explain that an Oriental rug knot is tied around a pair of warps. To make a Ghiordes knot, lay a short piece of wool over a pair of warp threads; then draw the

ends up through between the two warps and pull tight. The result is a Ghiordes knot. In the Sehna knot, one of the ends twists the other way around its warp, so that it comes up outside, instead of inside the pair of warps. In other words, when the Sehna knot is used, there is a knot end rising between every pair of warps; while when the Ghiordes knot is used, there are two knot ends rising between every second pair of warps.

Bokhara rugs are also woven with the Sehna knot. Bokhara rugs are just as much distinguished for rich reds as Chinese rugs are by the absence of them. Bokhara rugs are much more closely woven than Chinese rugs, and the pile is trimmed much shorter. Bokhara rugs are woven in Russian Central Asia east of the Caspian sea, along the line of the Transcaspian railway

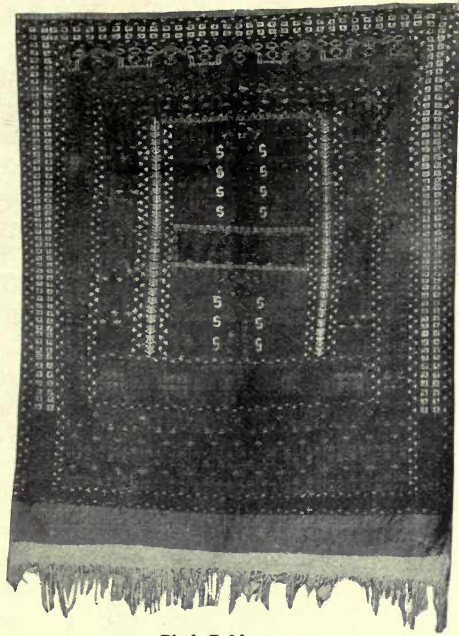


Princess Bokhara rug.

*These knots are illustrated more fully on page 383 of the December, 1915, issue of Keith's Magazine.

and also by the wandering tribes of Afghanistan and Belouchistan. The patterns of Bokhara rugs are radically different from those of Chinese rugs. They are without exception rectilinear, and the favorite motif is the octagon. Instead of cotton warps, they have entirely woolen warps, and frequently very long end selvages, and end fringes. Often these selvages are ornamented with embroidery or tapestry or broché figures.

The principal divisions of this group are Royal, Princess, Tekke, Yomud, Afghan, Belouche, Beshir, Pinde. The character of the different designs is made clear by the accompanying illustrations. The finest and most exquisite rugs of the Bokhara group are the so-called Royal Bokharas made in the Khanate of Bokhara, in the vicinity of the city of Bokhara, which is the capital of the Khanate and situated on the Transcaspian railway, and has always been the most important shipping point for Bokhara rugs. While octagon motifs are characteristic of Royal Bokharas, crosses or *katchlis* are equally distinctive of Princess Bokharas. As the illustration shows, the field of a Princess rug is divided into four quarters by a cross intersecting at the center of the rug. Rough and crude as compared with these rugs, but nevertheless interesting, are

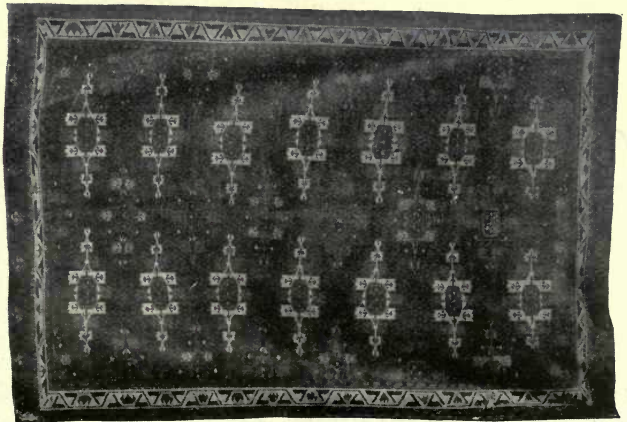


Pinde Bokhara rug.

those woven by the Tekke and Yomud semi-nomadic tribes that inhabit the country between Bokhara and the Caspian Sea. Of Beshirs not only the designs, but also the brick red coloration are distinctive. The Belouche Bokharas woven by the tribes of Belouchistan are a varied group in small sizes, many of them of inferior quality. The end selvages are apt to be very wide and often interesting, camel's hair often appearing in its nat-

ural color in the field. Of all the Bokhara rugs the only kind that comes regularly in large sizes is the Afghans. The traditional pattern consists of three rows of large octagons, almost in contact. The quarters of the octagon usually alternate red and blue.

Very different are the backs of Bokhara rugs from those of Chinese rugs. On the backs of Chinese rugs the coarse weft



Yomud Bokhara rug.

threads that pass back and forth after every two rows of the knots are plainly visible. In Bokhara rugs these weft threads are comparatively fine, and almost hidden by the woolen knots that encircle the warp.

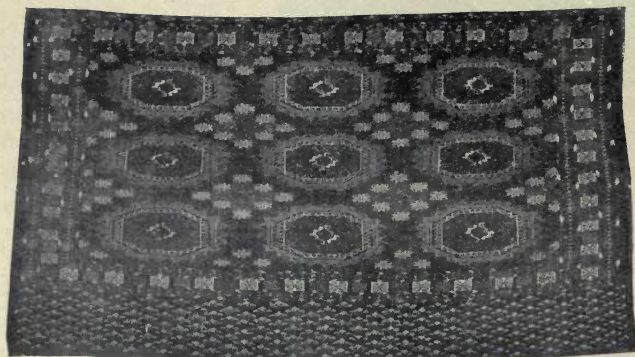
For centuries the world's finest rugs have been woven in Persia, where the best wool for the purpose is grown. The designs of Persian rugs are not detached, as in so many Chinese rugs, but tied together into all-over patterns that usually cover every inch of the surface with detail. The designs are also peculiarly suited for interpretation in rug texture, being flat without relief shading, and also being

tied with the Sehna knot are apt to have a shorter pile and a less silky surface, but design of greater intricacy and more definitely outlined.

Although the city of Mosul is not in Persia but in Turkey—to be exact, on the Tigris, two hundred and twenty miles northwest of Bagdad,—Mosul rugs are properly classed with those of Persia. The rugs marketed at Mosul by Nomadic weavers from the north, from the east, and from the south, are the products of many different races and naturally show great diversity of character. Indeed, the only characteristic common to all of them

is the nature of the weave, though they are prone to yellow and russet hues and the wool is soft and lustrous.

The weaving of Oriental rugs in India became important in the latter half of the sixteenth century, when Persian weavers were imported and Shah Akbar, following the example of Persian princes, set up looms in his palace. A number of other Indian dignitaries imitated his example, and rugs of the



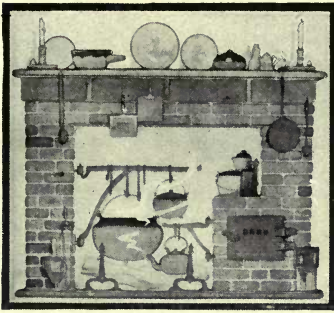
Tekke Bokhara rug.

vivid with life, though not naturalistic to the extreme extent of many ancient Indian and eighteenth century Chinese rugs. Compared, however, with Bokhara rugs and Caucasian rugs and Turkish rugs, Persian rugs have designs that are full of curves and much nearer nature.

Most Persian rugs, ancient as well as modern, have cotton warps, and consequently fringes that are comparatively unimportant. Persian rugs that are tied with the Sehna knot, so-called from the Persian city of Sehna, are those that bear the names Sehna, Kirman, Khorassan, Kashan, Fereghan, Saruk, and Serape. The other varieties made in Persia are usually tied with the Ghiordes knot. Rugs

highest type were woven, in designs that were based on Persian designs, but were apt to be much more naturalistic. In the last half of the nineteenth century, however, the industrial development of India under English rule, and especially the introduction of rug weaving into the jails, substituted modern factory for primitive methods. Western designs had been introduced, bad dyes were common, and prison-made fabrics flooded the English market. It is only fair to add that during the last few years the quality of India rugs has greatly improved, and reproductions not only of Persian but also of Chinese rugs are made that compare favorably with the originals.

NOTE.—We wish to acknowledge the courtesy of Good Furniture Magazine to whom we are indebted for these cuts of Chinese and Bokhara rugs and for their authorization of our use of parts of Mr. Hunter's article, which is of special interest to the home builder who is buying Oriental rugs.



In the New England kitchen.

THE KITCHEN



An early gas range.

The Development of the Range

Edith M. Jones

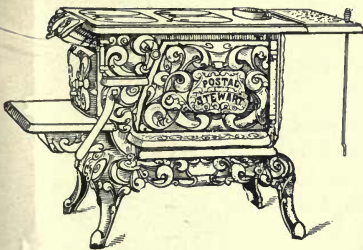
(Copyright, 1916, by Edith M. Jones)



AVE you ever stopped to consider what an important place fire has played in the history of man? Do you realize that all architecture began with the erection of sheds to protect the sacred fires of ancient times?

At first it was the tribal fire, and later the family, as it calls itself today, developed and provided itself with a per-

crude utensils to the machinery of the first class cuisine. True, the jump from the wandering savage fires to the modern gas range is a long one and although the methods and appliances have changed in the process of time the simple needs of humanity have not varied.

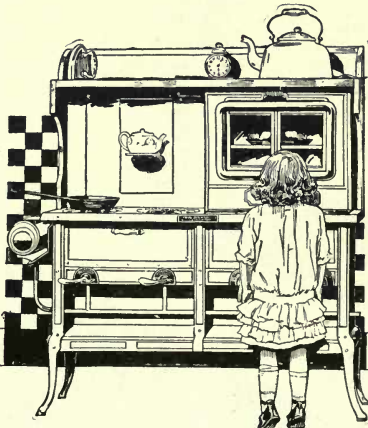


The old-fashioned cook stove.

manent fire. This family hearth was the altar and very center of the house. No oath was more sacred than the one a man swore by his own fireplace, and this fire was esteemed so greatly that it burned night and day. The apparatus and methods in cooking vary according to the means and education of the people—from the primitive fires and



The coal range.



The latest type of kerosene stove.

People have always cooked—cooking is common in some form or other to all the people of the earth except perhaps the Eskimoes, who allow frost to act as a substitute.

The earliest manner of cooking was roasting or parching whole, and it is interesting to study the different methods used by the different

tribes of people, because one can judge the development of the people in this way.

For instance, the Australians took little trouble with their foods. They would tear off the skin of the animal, hold it for a few minutes before the fire and then

devour it in such large quantities that they would lie in a torpor for hours in consequence.

On the other hand, the early Polynesians were very delicate cooks. The modern fireless cookers, with the heated stones and radiators, remind one of their methods. It was

their custom to dig pits and put heated stones upon the bottom, then layers of leaves, then the bread-fruit, then more leaves, more hot stones and then the earth. After an hour or two the fruit was thoroughly cooked and most delicate in flavor.

The kitchens as we find them during the middle ages were very simple. Often the butchering itself was done in the kitchen near the fire. In the 15th century we find the tripod and spit made their appearance and racks for broiling small game were introduced.

The North American savages had the art

of stone boiling perfected. I well remember a trip I took to Ft. Wrangle, Alaska, something over twenty years ago. I had the pleasure of seeing these people still using all their primitive methods. In this land of the totem pole the hand of civilization at that time had made absolutely no impression. There was just one white

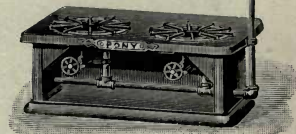
man, a missionary, and his wife in the place. We visited the huts of the Indians and found each family living in one large room which had a pile of stones in the center. These stones held the fire which was the center of the family life. Here the cooking of the family was done and around this fire they squatted to eat their meal, dipping into a common mess bowl with ladles of bone. Above the stones they built frames and dried their game and fish for future use. The Indians have always been remarkable in their methods of covering their fires and carrying their fire brands. With them, as with all primitive people it was considered almost a fatal omen for the tribe or family if this fire ever died out, and so it was guarded as though it were life itself.

It is interesting to know that the potters of the Pueblo region were the first to coax the smoke out of chimneys. They made these chimneys from the water jars by breaking out the bottoms, putting one upon the other and sealing the cracks.

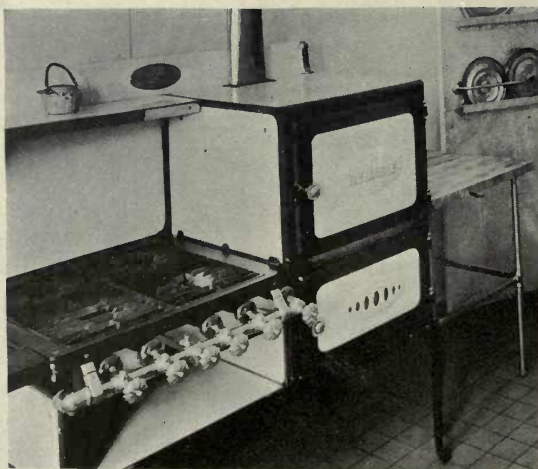
The early English kitchens ex-



Gasoline cabinet range.



An early gasoline stove.



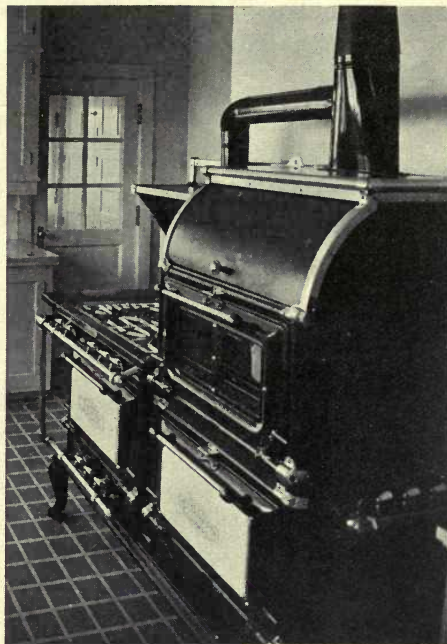
The white enameled range.

press much order and thrift. The chimneys, open fireplaces, hanging crane, the tin ovens for baking placed before the fire, and finally the brick ovens, were all steps in the line of progress. Our grandmothers tell us that the cooking in the New England kitchens can never be excelled and sometimes when we hear of those good things it makes us doubt if modern invention is so necessary after all.

Nevertheless, ever since Benjamin Franklin invented the cook stove it has been evolving itself under the influence of the great needs of the times until the beautiful gas and electric ranges of today have come as a blessing to every kitchen, doing away with the dirt and hard work and making the precious minutes of a day count for much more than of old.

For instance, we find the old-fashioned wood cook stove has given place to the later improved models of the coal range.

For the country and lake homes the old-fashioned gasoline stove has given place to a modern gasoline cabinet range, and the old kerosene stove has been supplanted by the much improved wickless blue flame. These kerosene stoves, owing to the gasoline market conditions, have become very popular in the last few years. The modern automatic is, perhaps, the best type on the market today. It is safe, reliable and substantial. There are no wicks to trim, and the heat is



The Blau gas range.

regulated with valves. The oil supply is automatically constant and the burners are close to the cooking kettles so that the heat is conserved and under perfect control. The ovens are well insulated with air space and asbestos, and bake very satisfactorily. The Blau gas and electric ranges, where expense is not a serious consideration, are proving themselves very satisfactory for suburban use.

But we all agree that the modern gas range can boast itself the greatest boon which the progress of time has brought to the housewife. One has to be beyond the limit of the gas supply but for a brief season to appreciate what it means in the ease and comfort of the everyday life. When one stops to consider that the range is used three times a day for 365 days,



The last word in the gas range.

in other words, one thousand and ninety-five times in the year, one begins to realize what an important piece of furniture the kitchen range is in the family life.

The manufacturers have made much progress in general finish, construction and workmanship in the last few years. For instance the black finish of the up-to-date range does away with the dirty blacking of the stove and the white enamel covered ranges are not alone ornamental but practical because so easily kept clean.

The drilled burners are practically indestructible and are so made that they are easily taken apart and cleaned.

The ovens are rust proof and the im-

proved oven burners give an accurate, easily determined heat.

The automatic lighter is a great convenience, doing away with the annoyance of matches. The white enamel splasher backs and panels are good to look at and easily cleaned.

The rounded and covered corners of the different parts of the range are small but important details, and above all the elevated oven and broiler make cooking far more convenient and comfortable, and the space under the range is surely a great joy and satisfaction to the housewife in her efforts to keep clean.

So we see the evolution of cooking has kept pace with the demands and progress of the times and conditions.

Emergency Planting

M. Roberts Conover



N the matter of plants, eatable and beautiful, the man who moves to a rented place in the country after summer has begun is often handicapped. Though he is surrounded by fields and woods and all that nature does for the country in June there is need for a garden of some of the vegetables and there are almost always places about the lawn or dwelling which need the beauty which some rapid-growing vine or plant can impart. For instance, vines are wanted about the veranda or to cover an arbor to the pump or the garden. There is a raw place at the junction of the lawn and foundation and the soil is poor. What will grow there?

What will form the quickest border to improve the appearance of an irregular path?

Near the outer boundary of the place is a brush pile. What will cover that? There is an old hedge grown "leggy" and rough. The ground shows under it bare

and ugly. What will grow there? An old tree stump looms severely up from the lawn where once was a majestic tree. What will beautify it quickly? A kitchen window is too sunny. The poultry yard does not look well from the house. A fence of posts and barbed wire runs down one side of the lawn. What will relieve its nakedness?

So really the need for quick-growing annuals are many and diverse. Of course, if one can procure and plant without stint, there are many annuals and a number of perennials which will flower quickly enough to meet these conditions but where one must begin with seeds to get a quick cover and some bloom before the time of stay is ended, the list of plants is alarmingly limited.

As a preliminary to rapid growth have the spots to be planted well dug over and to quite a depth so that the soil is light and porous. If one can get poultry manure and mix it with leaves and sandy

loam in the proportion of one-third of each, or use one-half loam and one-half well-rotted stable manure, black and fine, it will work well where the quick annual vines are to be grown. Gourds, for instance, grow with wonderful rapidity in such a soil, and in the garden patch such a dressing for cucumbers and squash will insure the yield of these vegetables before one turns citywards.

From among garden vegetables the man who is to stay at least two months may choose the following:

Peas—Melting Marrow and Dwarf Champion need no trellis.

Radishes—Cardinal Globe, French Breakfast, Landreth's All-season, Golden Globe (30 days), Scarlet White-tipped forcing (20 days from planting).

(Plant these where it is a little cool and shaded.)

Lettuce—Simpson's Curled Lettuce.

(A cool, moist place is best for this also.)

Spinach—Henderson's Long Season.

Cucumber—White Spine, Cool and Crisp.

Egg Plant—New York Improved or the Large Round Black.

Tomato plants about 6 inches high set out June 1st will bear by August. Livingston's Coreless, Matchless and Stone are good varieties.

Muskmelon—Emerald Gem, 80 days from planting; Anne Arundal, 70 days from planting.

Beets—Crosby's Improved Egyptian, 40 days from planting.

Squash—Delicata, White Bush or Cym-ling, Summer Crookneck (use when small, as late plantings toughen soon).

As to flowers:

For borders or bedding, use Tom Thumb Nasturtiums, Sweet Alyssum, Ageratum, Portulacca or Dwarf Morning Glories. Phlox Drummondii and Petunia planted by June first will bloom in August. If one intends staying into the fall, Zinnias and Marigolds will help out the list. For tall effects the Castor Oil Bean, Cannas and Caladiums are very useful. You can get good foliage effects with these before the summer is over if you plant by the first of June.

The Summer Cypress or Kichia gives such lovely effects that it is worth while to try some plants ready started at a florists. It is very useful as a background for low borders.

In those puzzling spots where quick and rapid covering with vines is necessary, these annual vines will prove useful:

Balloon Vine.

Ornamental Gourds.

Hyacinth Bean.

Climbing Nasturtium and Cypress Vine (for fences and lower effect).

Wild Cucumber (where higher vines are wanted).

Morning Glory.

Of course one cannot expect as early bloom or as extensive growth as where these vines have more time, but they will grow rapidly enough to fill in gaps and cover unsightliness in a few weeks.



"Ye Lytel Nest"

A Labor-Saving Bungalow

Charles Saxby Elwood, Architect

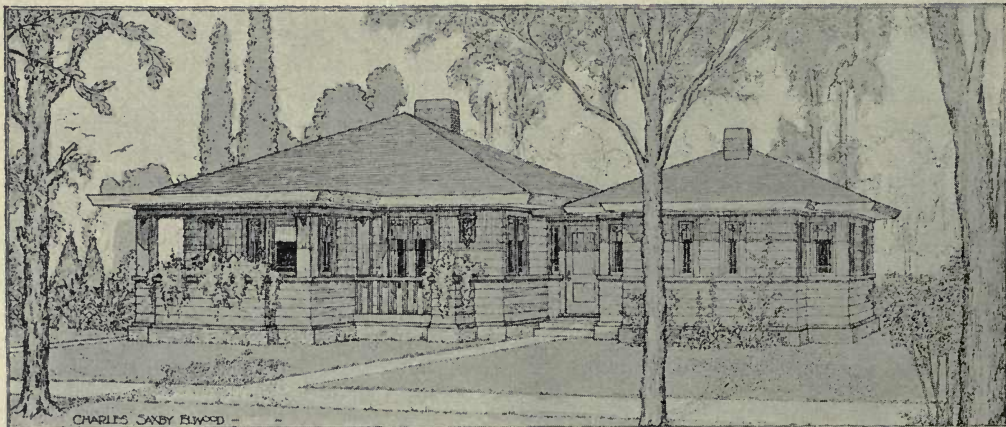
YE LYTEL NEST" is an air castle. Even the wooded plot on which to build it lies beyond the green hills of hope.

Unusual in design it is. But, though an air castle, there is nothing of the freakish or impractical about it. Its details have been worked out most carefully

table, surprisingly enough, has within its drawer-section a practical, comfortable double bed complete with bedding.

Heat is supplied by a scientific furnace conveniently located in the basement—clean, fresh, out-door air, warmed and healthfully moistened.

The living room finds its happiest feature



The low-lying effect gives a charm on hill or prairie.

by experienced hands, its mechanical equipment is made up of thoroughly tested devices.

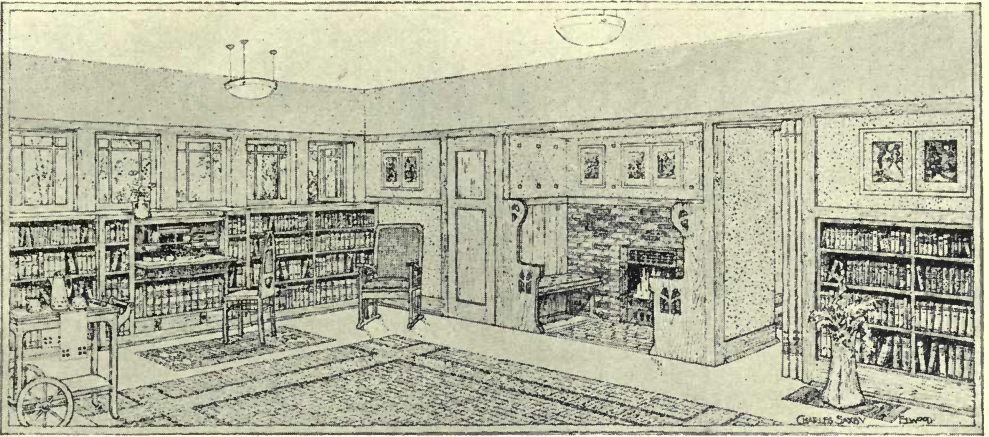
It is so arranged, so equipped, that, lacking a servant, the housewife need fear no drudgery. Housework, cookery, here demand but a few pleasant hours daily thus yielding added hours for recreation and good citizenship. "Love in a cottage," once deemed folly, becomes well-ordered, joyous.

Plan and illustrations speak for themselves. There is a compact basement with a laundry. And though seemingly there are but two sleeping rooms actually there are three. For the simple dining room serving

in its inglenook with cheery fireplace and inviting seats. With the woodwork stained a warm dull brown, with the soft-hued tapestry brickwork and the refreshingly colored Maxfield Parrish prints with their golden borders, the whole nook would possess rare charm of a winter's evening.

Buffet, serving table-bed, desk, book-cases, and seats are all built in.

The kitchen, compact for step-saving, will have washable walls of some fresh sunny tint. A well-lighted room it is with sink and drain boards (with cabinets below) built in beneath the windows. There is ample cupboard space and a well-placed



The inglenook is a happy feature of the living room.

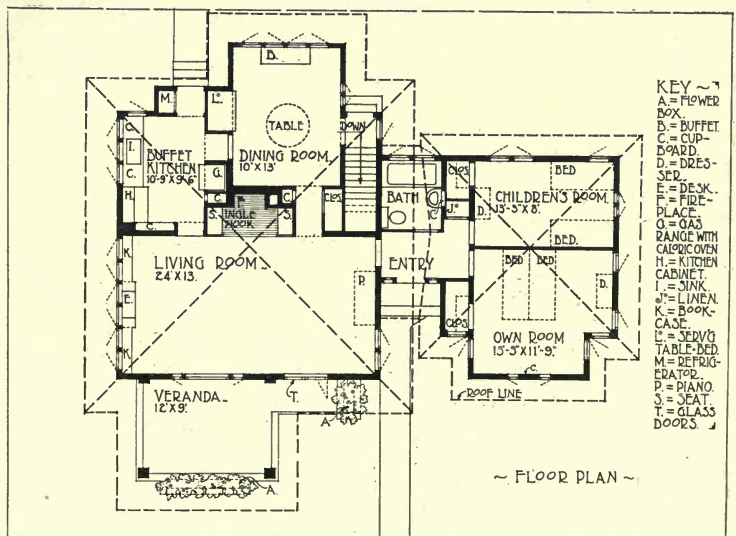
refrigerator. One of the modern scientific kitchen cabinets supplants the usual built-in variety. Space is provided for a portable electric cleaner and a special gas heater insures unlimited hot water in kitchen and bath room at a turn of the faucet. The gas range seems just like the standard variety but—it isn't. Its oven is actually an efficient fireless cooker providing for cookery most appetizing and marked economy in fuel. This magic oven positively insures against cold meals or burnt foods and gives the housewife new freedom. She can leave the house confident that foods in the oven cannot be overcooked.

All windows in "Ye Lytel Nest" are casements opening *outward*. The effect, indoors and out, is most attractive and, when one wishes it, almost any room becomes practically an airy veranda. This is particularly worth while in these days of fresh air sleeping.

Out of doors entrance and veranda are happily separated and thus "Mr. Peddler" or the stranger in quest of information do not spoil your siesta nor intrude upon your quiet chat.

The ground plot for the nest must be at least sixty feet wide. If still wider the cottage will gain an added charm.

In soft silver gray will the little home be stained with roof and trim moss green. The low-lying effect will give it real charm on hill or prairie and tend to make it yet more inviting if it be nested among tall trees.

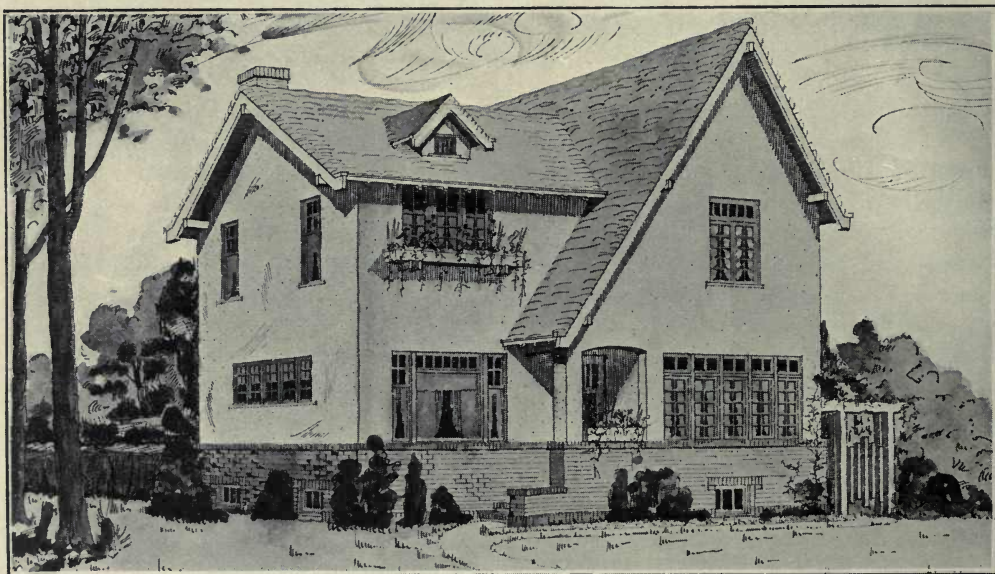


A Practical Little Plan

IN the plan illustrated we have a six-room cottage where every inch of space has been utilized. The entrance is through a covered stoop into a central hall. The large living room on one side extends the width of the house, with a group of casement windows in the center of the long

Under the main stairs are the basement stairs with a grade entrance, and an entrance to both stairs from the kitchen.

From the stoop at the side of the house is a side entrance opening into a passage way which connects the kitchen and dining room and gives access from the outside



The entrance is through a covered stoop.

W. W. Purdy, Architect.

side which are high enough to permit the placing of a davenport underneath. The fireplace with bookcases built in under windows fills the end of the room, while a large group of windows are opposite.

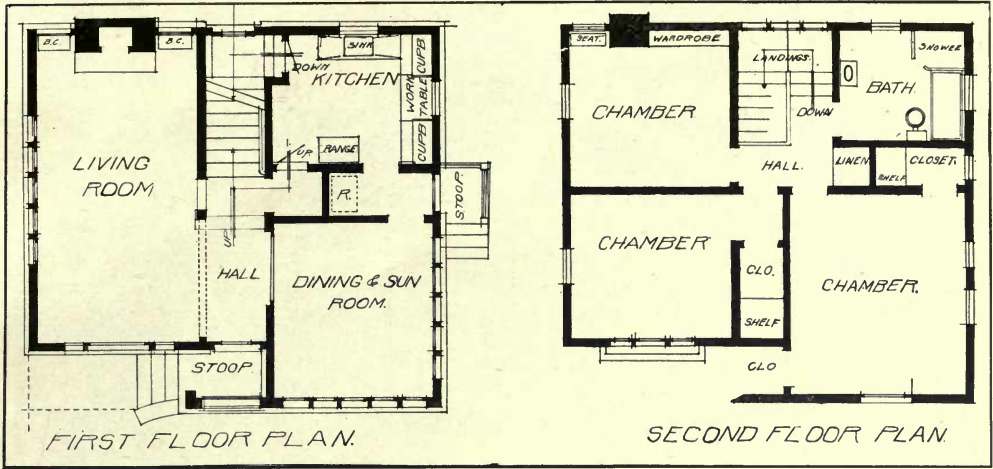
French doors open from the hall into the dining room, two sides of which being fitted with casement sash converts this room into an open porch at will and makes a sunroom of it at any time.

The stairs are cleverly treated so that a door to the kitchen opens from the landing at the second step, with ample space for hanging coats, etc., in this passage or closet.

for both. The refrigerator is placed in this passage way with a high cupboard built over. This makes it equally convenient from the dining room. This passage serves as a pass pantry and the outside entry aids in keeping odors from the front of the house.

The kitchen while small is very convenient with its built-in cupboards and work table. The sink is well located and well lighted with double drain boards, and so convenient to the cupboards that a second handling of the dishes is not necessary.

On the second floor are three chambers,



each being corner rooms with windows on two sides. A wardrobe is built into the rear chamber and a seat is built under the window. The larger chamber has two closets; all of the closets are large. The linen closet opens from the hall. The bathroom is fitted with a shower in addition to the usual fixtures.

There is a full basement under the house with laundry and fruit room, fuel bins, and a room for the heating plant.

The specifications call for white oak floor in the living and dining rooms, with quarter-sawn white oak finish. The kitchen is finished in natural pine, with pine floor for linoleum. The floors of the second story are of birch, while the finish is of pine enameled with birch doors stained mahogany.

The exterior is of rough cast white cement plaster over metal lath above the brick work which is carried up to the first story window sills.

A Bungalow That Is Different

IN the photograph is shown a very attractive home, the original of which was built in Seattle at a low cost, and yet has, even at a glance the essential atmosphere of a home. It is charming in outline, in detail and in texture.

This house comes up close to you—it is friendly; the roof droops down till you can well-nigh touch it and there is an agreeable familiarity in every detail, with nothing cold, forbidding or distant; it fairly talks to you. Half the charm of bungalows is due to this quality; they seem so near to one, so sociable, and so agreeable, like a friend—that is never cold; a different atmos-

phere from that of mere "houses."

Nor will the reader be disappointed upon investigating further. Every need is provided for; a basement that is light and serviceable, a roomy and useful second floor, making a warm, durable, thoroughly practical home.

This bungalow is peculiarly adaptable to a corner lot, or one with at least fifty feet of width. It will be noticed that, exclusive of the porches, the house is thirty-eight feet wide and thirty-two feet deep. The rear entry in this case is at one side, rather than behind the house—an arrangement that has a number of advantages. Notice



It is charming in outline, detail and texture.

Jud Yoho, Architect.

the front porch too—it is such a satisfying relief from the stereotyped projecting sort. The projecting brick piers and pergola are just enough to dress up the front and avoid what would otherwise be a flat and less interesting facade.

The texture of the walls is very pretty indeed. The design calls plainly for a rough texture. The shingles are laid alternately in wide and narrow courses, for the body of the walls, and clinker brick is used for the masonry. The design, too, calls for light colors. In the house illustrated, the shingles of the walls are stained silver gray and the trim, including sash, is white. The roof may be light green, brown or slate. The effect of such a com-

bination is very pleasing and attractive.

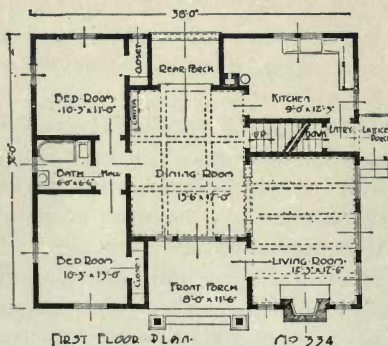
The shrubbery around the house adds immensely to the effectiveness of the design. Banked against the walls in profusion, it sets the house off splendidly.

Within doors we find a very good arrangement, with the five large rooms on the first floor, the two big bed rooms and the sleeping porch upstairs, and a half basement underneath.

The recessed rear porch is a feature that will please many, especially in mild climates. In more rigorous climes this porch can be enclosed with removable glass sash and converted in winter into a breakfast room, a sewing room or a little conservatory, as fancy may dictate.

The two principal rooms are rather large in size. The pedestals in the archway between the two rooms are cleverly used for two little book cases. The dining room is paneled and both principal rooms have beamed ceilings.

As the living rooms are well lighted, the woodwork is finished in mahogany. The little hall between the bed rooms is white enamel. A sash door to the bath room lights the hall. The bed rooms are very dainty and light in lead blue.



A Brick and Stucco House

IN this design a rough Oriental brick is used from the grade line up to the sill course of the first story windows. It is used as a veneer outside of the sheathing. Above this sill course the walls are finished with cement stucco on metal lath.

While it was first intended to build a cottage and was so planned, the effect of the

is a wide group of windows at the front, while a columned opening with bookshelves recessed from the living room side connects with the dining room beyond. The sun room is fitted with casement sash with transoms over. The dining room has grouped windows.

Beyond the den and opening from the



Rough Oriental brick and stucco.

Chas. S. Sedgwick, Architect.

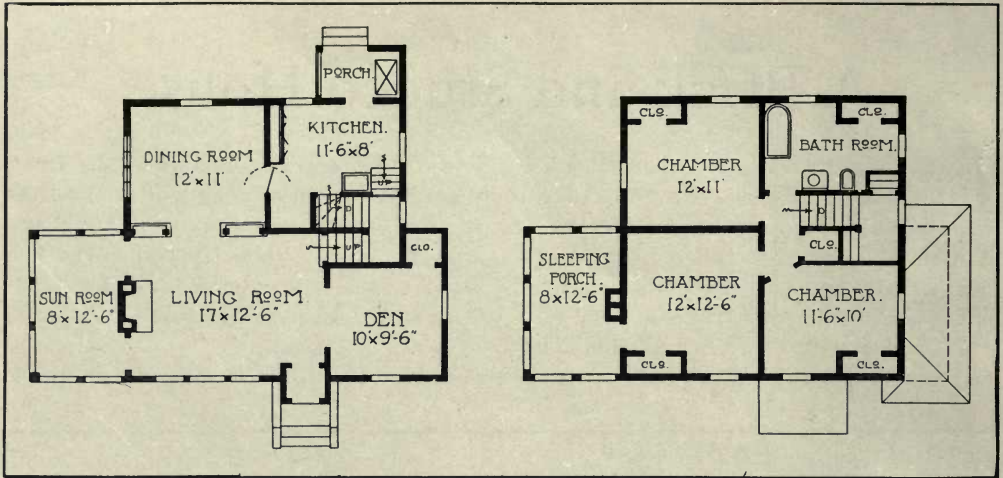
two-story glazed porches has been to make a more imposing house than was expected, and to make it seem larger than it really is. The main part of the house is 25 feet each way and the sun room is 8 feet by 12 feet 6 inches, the sleeping porch over being the same size.

At the right of the entrance is a small den connecting with the living room by a wide opening, and having a good closet. The living room extends across the front of the house, being 17 feet by 12 feet 6 inches in size. A fireplace and the openings to the sun room fill one end of the room. There

living room is the main stairway. Steps from the kitchen connect with the landing. The basement stairs are under, with an entrance at the grade level.

Stairs both to the second story and to the basement open from the kitchen. Oftentimes the housekeeper prefers to arrange the kitchen equipment in accordance with her own methods of doing her work. She might prefer the cupboards in the niche by the stairs leaving more wall space for table or working shelves. The refrigerator is on the rear porch.

On the second floor are three chambers



and a glazed sleeping porch. Closets are built under the low roof. The bathroom is quite good sized and its closet may be used for linen.

The first floor is finished in fir, stained, and has oak floors. The finish for the sec-

ond story is of pine, white enameled.

The roof is shingled and stained a dark reddish brown with creosote stain.

All outside trimmings, cornices, casings, etc., have the same stain. There is a full basement under the main part of the house.

The Usefulness of the Bay



A cozy convenient home.

Bungalowcraft Co., Architects.

THIS design shows one of those large, cosy, convenient homes, all on one floor, with good storage space in the attic, which is reached by a scuttle and removable step-ladder.

This home was arranged, the architect tells us, by a lady—a housekeeper and a home maker—who has arranged even the smallest details with the thought of saving steps and effort. A noticeable feature is the placing of the cabinet kitchen almost in the center of the house, easily reached from either the living room or the bedrooms and in direct connection with the dining room. The screened porch off the kitchen is also an inside porch making it easily screened or glazed, while the bed rooms are corner rooms with cross ventilation. The bath room connects directly with two bed rooms and is reached from the hall as well. The linen closet opens from the bath room.

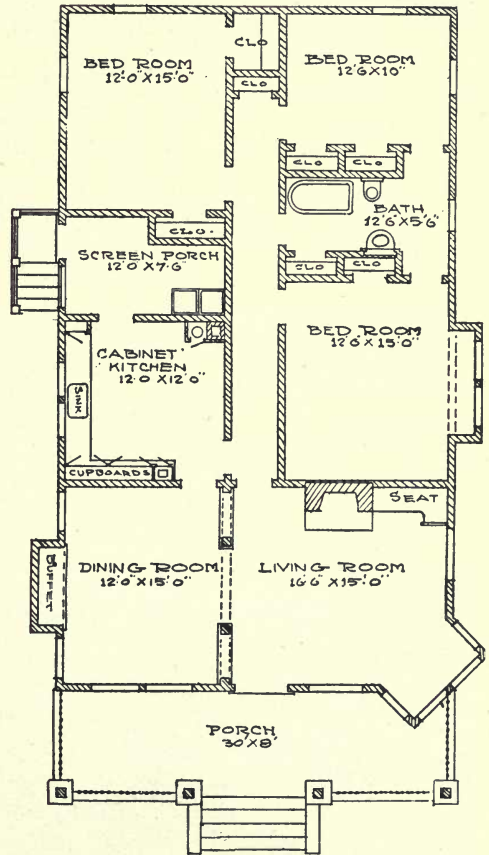
The little square bay in the living room is appreciated by Madam who uses it for a sewing and reading nook. Book cases are built into the buttresses of the opening between living and dining rooms. A seat is built in beside the fireplace in the living room. The buffet in the dining room is recessed in a bay, with windows on either side. Another bay gives better light and air to the bed room which is not a corner room. Two closets are provided for most of the bed rooms—another luxury due to the thoughtful arrangement of Madam.

Set tubs are placed on the screened porch by the kitchen, making it into a convenient laundry. A cover over the tubs, which may be hinged to turn up against the wall, makes a convenient table when the tubs are not in use. Notice that the range boiler is enclosed where it stands beside the chimney. Perhaps nothing in the kitchen catches so much dust as the unprotected range boiler.

As this house was recently built for a physician, the room just back of the living

room was arranged for an office with a side porch where the bay window is shown and a door cut through from the living room where the seat is shown.

The exterior of the house is weather boarded with brick used about the front



porch. The roof is shingled. The architect tells us that this house has been built several times in California for \$2,200, and in Wisconsin with a warmer construction and a furnace for \$3,000. With the constantly increasing cost of building materials any figures quoted can only be taken as giving relative values.

With a Side Porch

FOLLOWING a California custom which might be useful in any place where there is a prevailing wind, the side of the porch, only is glazed. This side porch can be screened giving complete privacy, or the end or the entire porch can be glazed as is usual in the colder climates.

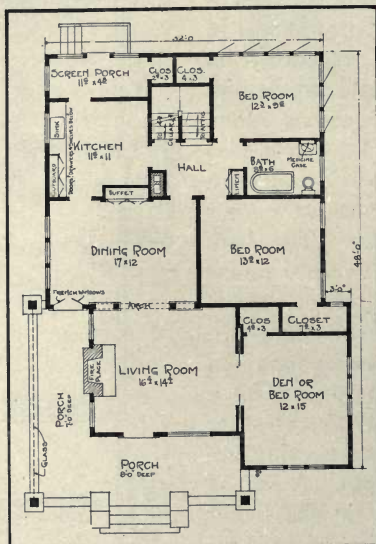
The big porch does away with the necessity of an entrance hall, giving a free access to the outside which is especially desirable in a mild climate.

The living room has a good fireplace and many windows. Sliding

doors separate the den from the living room in such a way that it may be used as a sleeping room if desired. It is a large

room, 12 by 15 feet, and can be used as a general utility room or may be made into a music room or library. It has a good closet which will be useful in any case.

Beyond the living room and separated from it by a columned archway is the dining room. It opens on the glazed porch by French doors, giving an outside entrance to the room. A group of windows fills one end of the room. A built-in buffet is recessed in the wall



The big porch takes the place of an entrance hall.

E. W. Stillwell, Architect.

opposite the living room. Beyond the dining room is a small hall around which are grouped the sleeping rooms and bath, with the linen closet opening directly in the hall. The stairs both to the basement and to the attic space open from this hall and it communicates with the kitchen as well. Each bedroom has good closet space.

The rear corner bedroom is really a sleeping porch, with its outside walls filled with casement sash.

The kitchen is well equipped with cup-

boards and built-in shelves and drawers; the sink is well lighted. A screened rear porch gives outdoor working space, and has a useful closet in connection.

The basement extends under two-thirds of the house, and there is a good attic space, nearly eight feet at the most.

The flower boxes make an attractive feature of the house. The porch is of brick and the planting and vines have been very well handled to add to the attractiveness of the house.

Homes of Individuality

Selected by W. J. Keith, Architect



With the hospitality of the Colonial times.

A With a Gambrel Roof
SURPRISING amount of room can be planned under a gambrel roof.

While it is economical of space it is not easily handled. Few other problems give a more severe test of the skill of a designer than the building of a successful gambrel roof. There are no exact rules for the proportioning of the two roofs nor of their angle with each other, only that they must be right.

The residence illustrated herewith is a representative and distinctive example. It embodies in pleasing proportions modern and traditional colonial features. The cream color plastered walls give a sunny yet cool appearance, while the graceful sloping roof adds an air of hospitality.

The main entrance gives into a reception hall, flanked on either side by the living and dining room. Running the full depth of the house, the living room, with its open

fireplace of simple colonial design and windows on three sides, makes a truly enjoyable apartment. The dining room is on the garden side of the house, and communicates with the kitchen through a completely equipped pantry.

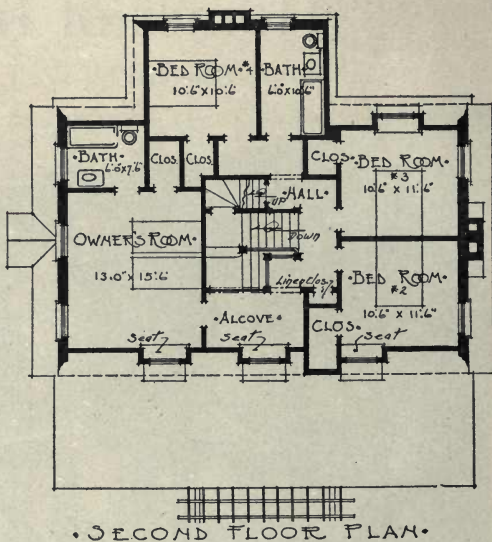
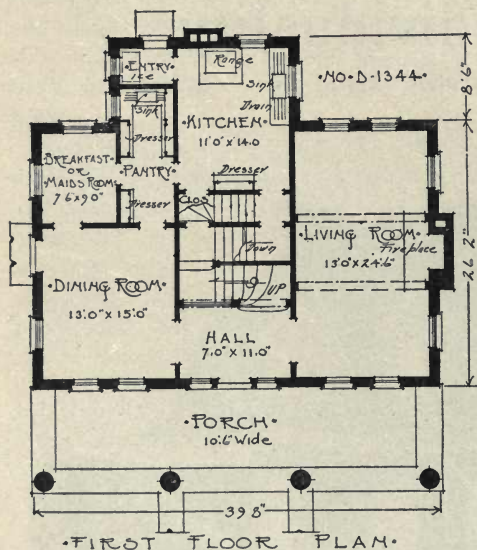
A small room, which can be used for either a maid's or breakfast room as desired, opens from the dining room and pantry. Complete culinary equipment is provided in the kitchen with refrigerator space in the rear entry. A large closet is provided for pots and pans and a dresser

appearance. The outside entrance to the dining room is hooded and enclosed with the roof carried over the window.

Only part of the carriage porch is shown on the plan, the broken line indicating the omission. This carriage porch is pergola covered, with vines running up the great posts. One end of the porch has been glazed as shown in the photograph.

With a Brick Porch

The effectiveness of a little brick work is often far-reaching if cleverly handled. This brick porch gives almost the effective-



for the kitchen service. For ready access to the second floor a stairway leads to the landing of the main flight, under which descends the cellar stairs.

An owner's room with private bath, three bed rooms and a general bath are shown on the second floor. Ample closets are provided for each room, and all except the rear bed room has windows on two sides.

Over the rear stairs are the stairs leading to the attic where two additional rooms and a bath are arranged.

This house is constructed of hollow tile and plastered with cement mortar. The usual frame construction with cement plastered over metal lath would give a similar

ness of a brick cottage. It is well treated and rather unusual in its general form with its wide-spreading arch.

It is planned largely with its magnificent living room, recessed staircase at one side, and wide entrance opening to the dining room on the other; generous fireplace at one end, and triple window at the other end, make an interior unusually pleasing.

The dining room has a deep sideboard built in under windows, with a closet at each side giving an effect of deeply recessed windows. Between the dining room and kitchen is a butler's pantry with cupboards and a good working shelf under the window.



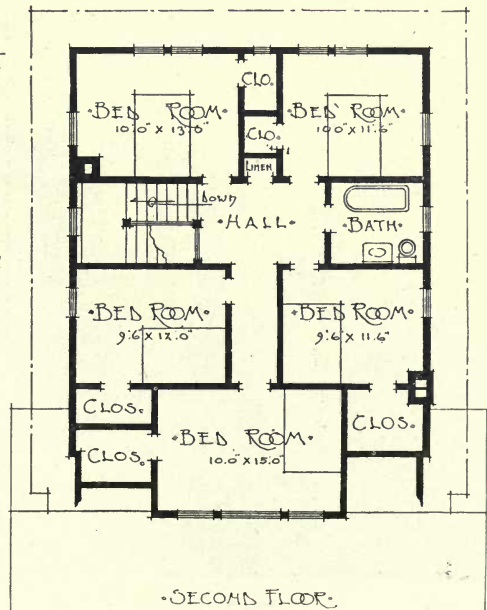
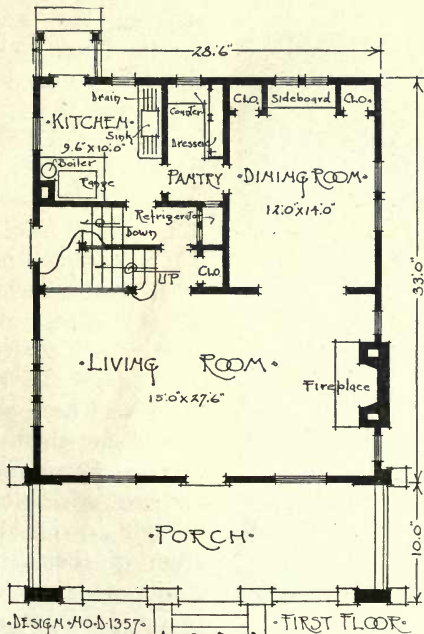
The brick work of the porch is effective.

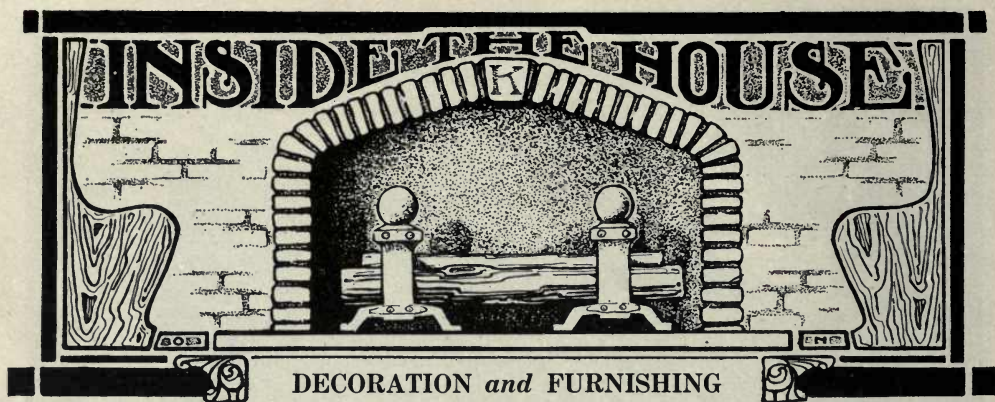
The kitchen itself is fully equipped and connects directly with the basement stairs in the side entry, which has a grade entrance, and is easily reached from the main stairs. The refrigerator is in this entry and a coat closet is convenient.

On the second floor are five bed rooms

and a bath. Each bed room has a good closet, and the linen closet opens from the hall.

The wide overhang of the eaves makes a very effective treatment. The dormer with its group of windows, gives height for the front chamber.





Simplicity and Suitability in Furnishings

CANNOT you recall having visited at the home of a friend, a home of wealth where cost need not be considered, the different rooms littered with a hodge podge of expensive furniture, some in the mission style, others in fine old mahogany and Circas-

sian walnut, each piece a work of art and beautiful in itself, yet absolutely out of harmony with the other pieces in the rooms? Rare oriental rugs covered the floors, the windows were smothered with exquisite hand-made laces and deep toned velvet hangings, and beautiful pictures adorned the walls, yet the home lacked simplicity and harmony and the guest immediately becomes restless.

One of the American vices is said to be thoughtlessness or at least a lack of broad perceptions. It is evident that the furnishings of this home had been purchased for their individual beauty and without the least thought or consideration of their suitability to their future environment.



An example of simplicity and repose.

INSIDE THE HOUSE

To avoid such conditions may be the reason why decorators often insist upon following out a period style in the average day rooms.

But why should we strive for a style or period (except, perhaps, our own dear Colonial) of which the majority of home makers know nothing and care less. The architect in planning the interior of the average medium priced house of the 20th century is restricted, on account of cost, to a convenient and pleasing arrangement of living room, dining room, sun room and service quarters, and possibly a den or library, and the result is generally a charming ensemble without any definite architecture or period, and offering an abundance of repose and comfort. It is the simple yet suitable treatment of such an interior that we wish to dwell upon.

Treatment of the Wood Trim.

As to the treatment of the standing wood trim, if oak be used, as is so often the case, it may be finished in a fumed oak shade or a soft tobacco brown and rubbed with wax. If preferable it may be finished in varnish and rubbed down by hand (not with a stiff brush) to a dull soft luster. Above all things avoid the garish yellow oak with the high gloss varnish, as it will surely spoil any decorative scheme.

If the wood trim is of white oak a charming and inexpensive effect may be obtained by leaving the wood trim natural and applying wax well rubbed in. The result is a pleasing grayish tan shade that harmonizes beautifully with gray or putty colored walls and mulberry hangings. Old ivory finish with the doors, mantel board, tops of side-



The same fire gives comfort and cheer to both rooms.

board and radiator grilles done in mahogany is becoming a favorite treatment, especially where the interior of the house suggests the colonial. It is poor economy to apply this treatment to a soft wood trim as the sap or pitch (no matter how much shellac is used) is liable to work through in time and discolor the virgin purity of the enamel. Birch doors must necessarily be used to obtain a good mahogany effect and the additional cost of birch over soft wood for the small amount of woodwork remaining, is not worth considering.

INSIDE THE HOUSE

Selection of Colors

The study of color is a most fascinating one and will well repay time and thought. Figured paper of variegated colors presents great difficulties when the subject of draperies and floor coverings is to be considered.

It may seem strange, but a plain paper in a good textile or fabric weave is much more difficult to select than a figured one. As I have often said to our subscribers "always consider your walls simply as a background" and do not allow the wall hangings to represent over one-fifth of the decoration of the room. Color has a wonderful furnishing power and its possibilities are limitless. As vertical stripes will affect the height of the room so will different colors apparently increase or decrease its dimensions.

When the home builder is in doubt and cannot secure the services of one who knows, a "harmony of analogy,"—a one-color treatment is always a safe and satisfactory solution of the problem. A living room suggestive of repose, comfort and cheerfulness may be obtained by a gradation of tints and shades of one color relieved by touches of a contrasting color.

A living room all in shades of brown would be charming. The floor and wood trim in dark oak, the rug, a good domestic, in solid deep toned brown, perfectly plain, with the border composed of two plain bands of deeper brown, with a sharp line of black outlining the extreme edge, walls in golden brown, with the window hangings in plain velvet or sunfast slightly deeper than the wall color and the ceiling in deep cream. To relieve the monotony contrasting colors should be introduced in the smaller furnishings. Supplement with a few small but choice rugs showing tones

of olive greens or dull old blues with the sofa cushions in shades of olive green or tans and blues combined. Cover the lamp shades in a golden tan silk, edge with a dull gold metal galloon and in a far corner where the light will strike it, arrange a plaque or bowl of polished copper. Simplicity is the keynote to this charming room, yet it should be distinctive and beautiful.

The accompanying interior is an example of simplicity and suitability, where repose, charm and decorative interest are well set forth. Here it will be seen that the figured wall adds beauty and variety to this charming room without detracting from its quiet serenity.

The simple and pleasing wood trim is treated in fumed oak stain and waxed, while the narrow oak floor is in the same dark tone. The keynote of this livable room is the heavy Donegal rug with the figured field in soft two toned fawn and the plain border in a deeper fawn and mulberry.

The walls are hung with a figured paper in a two toned putty shade which is finished with a dull transparent overglaze which gives it a very soft luster, not unlike a silk and wool damask. The well executed stenciled frieze is in oil colors on a soft gray ground, carefully worked out by hand in mulberry, tan and ivory with a suggestion of dull blue.

The feature of the room is the unusual treatment of the fireplace of rug-faced brick, the hearth built up above the level of the floor with the gothic opening extending through to the sun room, the same fire giving comfort and cheer to both rooms at the same time.

The entire east end of the room is of glass hung with sheer lace and simple draperies of deep old rose velvet, this group of windows giving a profusion of sunlight as



well as a charming view of garden and parkway.

Before leaving this restful room attention should be called to the well designed library table of mahogany with the beautifully proportioned supports arranged in pairs at each end.

The Sun Room

Passing through French doors which are placed on either side of the fireplace we enter a most charming sun room with five large windows all set at different angles, as this room is octagonal in shape. These windows have one sash only, the sills raising on a hinge, permitting the entire win-

dow to slide down out of sight. With gay striped awnings at each window, can you imagine the cool comfort this room offers on a hot summer day?

The walls are hung in a cool gray green grass cloth paper with gorgeously colored Chintz curtains for the window hangings. Just enough drapery to relieve the bareness of the room and yet not enough to interfere with the sunlight and summer breezes.

The cool wicker furniture in natural color has thin loose cushions covered with the same chintz. Wicker fern holders containing movable metal boxes are arranged in front of the windows and on the mantel.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given *free of charge*. Enclose stamp for reply. Write on one side of the paper only.

Notes on Summer Furnishings



OO much care can hardly be taken in the selection of summer furnishings. The essentials are coolness and simplicity. The most pleasing feature of the season's offerings in chintz and cretonnes are their cheerful, refreshing colors and the large variety of patterns, especially in the bird and foliage treatments. Gorgeously colored birds on a black and white ground are shown in profusion in the leading shops. Slip covers of cool chintz to slip over hot stuffy chairs are very effective as well as economical. The majority of these fabrics are washable and will retain their freshness.

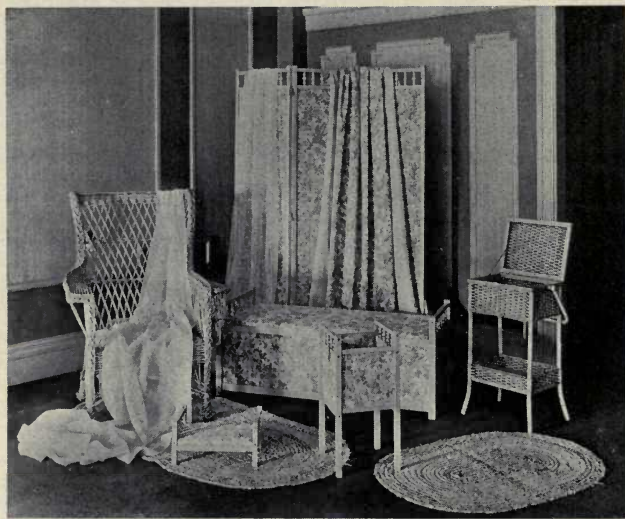
Reed and willow go hand in hand with

the fabrics and this light and cool furniture is now being shown in a wide range of shapes and finishes. It is surprising how attractive the low priced but serviceable willow in the natural color can be made with a thin pad of bright chintz. This popular make of porch and bedroom furniture can be found to match the thinnest purse.

Grandmother's "turkey mats" or the round and oval rag rugs of our childhood days are becoming "quite the caper." These pleasant reminders of days long past are made of strips of wool or bright colored cretonnes, braided by hand and securely cross-stitched and are offered in an unlimited variety of sizes and colors. They are much thicker than the old style square

INSIDE THE HOUSE

rag rugs, lay perfectly flat and are washable. The heavy wool rugs in deep rich colors are being introduced quite extensively in the day rooms while the delicate colored cretonne mats are more appropriate for sun rooms and chambers.



Three-fold screen, 18 x 72 inches, ivory enamel; filling of cretonne, in pink, gray and mauve, \$9.50. Domestic cretonne, 32 inches wide, pink, gray and mauve, 35c yard. Domestic taffeta, 36 inches wide, soft rose pink, 35c yard. Dotted white etamine, 45 inches wide, very fine quality, 60c yard. On extreme left, white "snow flake" with pink lover's knots, 36 inches wide, 30c yard. Willow arm chair in natural color, with magazine or sewing pocket on one arm, \$9.50. Dress box in old ivory enamel, covered with cretonne in pink, gray and mauve, 45 inches long, 16 inches high and 18 inches deep, \$10. Sewing basket of flat wicker in old ivory, \$4.50. Sewing stand, \$3.50, and foot stool, \$2.00; both in old ivory enamel and cretonne. Grandma's "Turkey Mats," pink and white with blue band; 30 x 60 inches, \$5.00; 24 x 36 inches, \$2.50.

The Window Problem

The tendency of this generation in the matter of window hangings is toward simplicity with the doing away with the stuffy, dust-collecting overdrapes of years ago. The new treatments with the shallow pleated valances or the stiff flat lambrequins and the narrow half-width side curtains is very favorably received.

Your architect has planned the windows as a feature of the house and if you are fortunate enough to have them over-

look a smiling garden or a bit of water, this charming vista should be as carefully handled as a valuable painting and the window sash should be considered the frame. Therefore, do not overload the window with superfluous hangings. Also

it is well to consider the effect from the outside as well as from the inside. The old time opaque window shade is being dispensed with to a certain extent and soft translucent draw curtains of amber colored casement cloth operated with traverse cords are being substituted. This material comes in soft silk, silk and wool and beautifully mercerized cotton in all colors, but the putty colors, soft creams and deep ecrus are preferable.

Casement windows from the standpoint of the architect are certainly very attractive but to the decorator, especially if they be in-swinging casements, they are a bone of contention. It is here that our old friend, the roller shade, proves him-

self a nuisance and we must relegate him to the store room. A small rod attached to each swinging window will take care of the simple lace curtains while to the frame a little above so as to clear the swinging windows may be secured the rod to carry the overdraperies. These draperies should be lined to shut out the strong light and arranged on rings to draw so as to take the place of the discarded window shade. The outward swinging casements give little trouble

INSIDE THE HOUSE

and are coming into more general use.

In the day rooms panels may be substituted for net curtains. In place of the rods small metal frames may be made of common band iron which is secured to each casement with screws. If these frames are galvanized the panels may be washed with soft sponge without removing them from the metal frames and without the danger of rusting. Sunfast and tubfast fabrics for the window hangings are very much in vogue and are proving a boon to the housewife who wishes to throw open the doors and windows and let in the fresh air and sunlight without harming the draperies. These sunfast fabrics may be obtained in a wide range of colors and patterns; the perfectly plain light weight gauze effects and poplin weaves being most in demand.

Door Treatments

How often do we see arches hung with masses of fabric, grotesquely draped and trimmed with heavy bands of galoon and elaborate dust-collecting cords and fringes that mean nothing but useless extravagance. The arch is not simply a passageway that should be concealed, but should be treated as an architectural feature, offering a pleasing vista between two rooms. If it is necessary to have portieres, they should be made of velvet or a heavy weight sunfast fabric and hung in simple, straight folds.

The portieres have a mission to fulfill and should be arranged on traverse rings and cords so as to close readily.

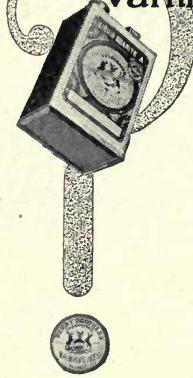
* * *

Happiness is not just a state of mind, but a state of mind does create the environment that makes happiness.

* * *

The world may owe us a living, but it is up to us whether we get it in the Dining Room or the Bread Line.

The Answer to the Varnish question-



THE question of varnish is vital for the home builder as the appearance of the interior depends more upon the finish on the woodwork than on the furnishings.

It is also true that the use of a poor or inappropriate varnish or enamel will spoil the general effect of an otherwise handsome interior.

The label of Berry Brothers is the mark of quality and a sure protection against inferior varnishes. We make a specially adapted varnish or enamel for every architectural use.

LUXEBERRY WHITE ENAMEL

Whitest White Stays White

This produces that rich permanent snow white finish that is so much desired but not always seen. Either gloss or dull effects. Sanitary, durable, washable.

LIQUID GRANITE for FLOORS

Lasting Waterproof Varnish

Makes a smooth satiny finish that is mar proof and is easily kept in perfect condition with a floor mop. Also adapted for all interior work where great durability is desired.

Write our architectural department for interesting literature on wood finishing for the home builder.

BERRY BROTHERS

World's Largest Varnish Makers

ESTABLISHED 1858

Factories: Detroit, Mich.; Walkerville, Ont.;
San Francisco, Cal.

Branches in all principal cities of the world.

(323)



ANSWERS TO QUESTIONS ON INTERIOR DECORATION.

Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

A High Ceiling.

J. U. Am writing for advice as to wall decoration in flat wall paint for our living and dining rooms. Both rooms are finished in natural curly birch and with ten-foot ceilings. The living room has triple windows to west and a square bay with five windows to south, one long narrow window to north. The dining room has triple window to the south and a terra cotta brick fireplace.

Ans. Answering yours in reference to decorative scheme, would suggest that you treat your dining room in an Empire green (not olive), which would harmonize nicely with your rug. A plate rail or chair rail may be placed about five and one-half feet from the floor with an Empire green burlap filling this space. The upper wall may be painted flat in a lighter shade with the ceiling in buff. If you do not care for so much green the upper wall may be in tan. A four or five-inch cove moulding in bass or white wood may be placed at the angle of ceiling and wall. This cove should be finished in the ceiling color and one or two fine green lines may be introduced in the angles of the cove moulding where the shadows would appear when nailed into place. This cove moulding is generally carried in stock by sash and door concerns and the cost is nominal. When properly treated this cove gives an effect of a heavy plaster cove and adds character to a room. This moulding may be given a more massive effect by adding a small pine picture moulding under the cove on the wall and a similar

moulding on the ceiling, treating it as part of the cove.

This color scheme would blend nicely with terra cotta brick mantel and the cherry wood trim. This room would also look well in dull old blue, old blue burlap below with the upper blended in a lighter shade with cove and ceiling in ivory. The draperies to be in velvet or sunfast in old blue. The rug for this treatment may be in an oriental pattern in cream and blue.

The living room has plenty of light and may be treated in soft warm gray or putty color with hanging in mulberry or deep old rose. An Anglo Persian or Hartford Saxony rug (both domestic) may be purchased that will harmonize beautifully with this scheme. Chintz or cretonne hangings in all-over floral design showing birds, parrots, etc., and carrying plenty of color, will look stunning with a gray wall. Dark tan or soft brown with hangings in solid brown of a deeper shade or chintz hangings will make a charming living room.

I would certainly use the same cove moulding in this room and treat it in the same manner. A plain pine seat built into the bay window and covered with a loose cushion and plenty of pillows will make a pleasant lounging place.

Mission Finish.

C. E. H. I would greatly appreciate suggestions in regard to the wall decorations, woodwork and furniture of the dining room and hall of the enclosed rough diagram. The house faces east and a porch extends across the entire front. Fireplace



More and more white enamel is being used in the better homes

—the room in the picture is one example. It is worked out in the highly popular Adam style.

The walls are Gray Tint Mellotone—ceiling a combination Gray Tint and White—floor white oak, finished natural with three coats of "Little Blue Flag" Durable Floor Varnish—woodwork, Linduro Enamel White.

Pearl colored net with mulberry overhangings—rug in which browns, reds and tans predominate—and mahogany furniture—complete this room, which to look its brightest and best should have southwest exposure. In the execution of high class work, there's never-failing satisfaction in

Lowe Brothers Linduro Enamel

Applied over poplar and other soft woods it produces an ivory-like finish without a trace of brush marks. The white, an exquisitely white white, and the tints of blue white, ivory and cream—all, are the perfection of daintiness and good taste.

Linduro Enamel produces a durable, non-absorbent, and easily cleaned surface and is just as practical as it is artistic. You can depend on it to hold its original beauty for years.

Write for the "House Outside and Inside" showing in the actual colors the room pictured above and others just as attractive, with information about the products used in the finishing.

The Lowe Brothers Company

465 E. Third Street, Dayton, Ohio

Boston New York Jersey City Chicago
Kansas City Minneapolis Toronto



Oak Flooring

BEAUTIFUL -- ECONOMICAL
DURABLE

Three Vital Qualities

THE woman of today wants OAK FLOORING because it will harmonize with any kind of furniture or color decoration, and is susceptible to any kind of finish. In color it is RICH and CHEERFUL and imparts an air of REFINEMENT and ELEGANCE to a home.

The owner demands OAK FLOORING because it increases the selling and renting values.

OAK FLOORING is made in 13-16 in. and $\frac{3}{4}$ in. thicknesses in different grades. $\frac{3}{4}$ in. can be used very economically over old floors in old homes or over cheap sub-floors in new homes. It is cheaper than carpets or pine flooring.

Any carpenter or handy man can lay OAK FLOORING successfully, and during the slack season it makes a very profitable line for any carpenter.

There is a solid satisfaction and lasting pleasure in the substantial and dignified appearance of OAK FLOORING.

Write for Booklet.

"America's Best Flooring"

The Oak Flooring Bureau
1348 Conway Bldg., Chicago

INSIDE THE HOUSE

in the living room of red tapestry brick. We had thought of mission finish. Is that as good as it has been?

Ans. Answering yours in regard to decorations, would say that "mission" finish applies mostly to a certain style of furniture which is heavy and massive and severe in treatment. Mission furniture is generally finished in fumed oak, Kaiser gray and occasionally black or Flemish.

If your wood trim is along these straight simple lines and in oak, would suggest that you finish it in fumed oak and wax. This is the most common treatment.

The living room and hall, stairway and upper hall may be papered the same, either in gray or tan. Gray walls with rose hangings will make a nice contrast. If the walls should be done in tan or brown, would suggest that the hangings be in a deeper shade of brown. In either case, wicker furniture in tobacco brown or old ivory with cushions covered in chintz or cretonne will be charming. Chintz or cretonne with lots of color will make a splendid contrast with the gray or brown walls.

The dining room will be very pretty if done in cream and blue with the cream predominating. If you have plenty of sunlight in this room it could be carried out in old blue with success.

A Cottage in the Woods.

A. K. I am enclosing sketch showing ground floor plan of cottage I am building in the woods in northern Wisconsin and also sketch showing end view of the living room.

This cottage is situated at the edge of a lake and is surrounded by pines.

Kindly suggest treatment for the living and dining room. This room has ceiling and sides covered with beaver board with fireplace in one end built out of concrete and cobble stone.

The doors and windows are not finished as I had not fully decided on how to finish the interior. I had thought of putting in seats in the corners under the windows next to the fireplace.

Will you help me further by advising as to proper dimensions for fireplace in end

of the living room (ground floor space 12x24 feet and 8 feet high). I had planned on making this fireplace with a cobblestone facing as I will probably have to do the work without the help of a skilled mechanic. I would like to have the fireplace be in keeping with the size of the room.

Ans. We should give the woodwork a simple finish, the one coat finish that stains and dull-lacs in one application. The charred or fumed effect without stain would also be very appropriate but much harder to apply properly.

Then, on the natural beaverboard we would use a stencil decoration of small pine trees running around the tops of the walls as a frieze. The paneling of the beaverboard could be so arranged as to fit this frieze. In the October, 1914, issue of KEITH'S MAGAZINE, page 265, such a decoration is illustrated and we have seen such effects in California cottages.

The seats you propose will be very good indeed and we would make cushions for them of green burlaps; also use it to draw across the windows in place of shades, pushing it up to the sides when shades are not needed. Then with some of the rugs having fibre backs and wool tops in plain green with a simple border in black, the room will be artistic. It would add to the effect if this room opened into the front bedroom with an arch and curtains of the green burlaps, instead of a door.

Since the living room is not a large room, though large enough, we think a chimney breast 6 feet wide with heavy oak shelf 5 feet from floor would be the proper outside dimensions. The size of the fireplace opening depends on the fuel you will use. If wood a larger opening than for coal.

Bed Room Draperies.

C. E. B. There are two large windows in the southwest bedroom, and the furniture is in the "two-tone" ivory enamel with cane panels. The overdrapes to be in a deep rose, silky material and the shade of the bed-side lamp is lined with the same.

I also wish to make a spread and bolster cover for the bed and pillows for the shirt-waist box and reed chairs. Would you ad-

Keep Your House Always New

Dirt begins to do the work of destruction the first day the new home is occupied. With ordinary cleaning devices you can remove only the coarser particles of dirt. The rest escapes from your brooms, dusters and portables and settles in the fabrics of your rugs and draperies and on your walls and furnishings. It is this unseen dust that cuts the nap of floor coverings and makes the house and its equipment look old.

TUEC STATIONARY CLEANER

"For Health and Cleanliness"

Removes all the dirt—fine as well as coarse. It cleans as no other cleaner can ever clean because it removes a larger volume of air. It renovates the home and purifies the very atmosphere, making it sweet and pure and free from the microbes of infection.

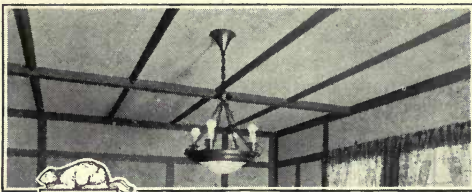
Out of sight in the basement, with 2½-inch piping connecting it with every part of the house, the TUEC is even more essential to clean and healthful living and the conservation of household economy than the stationary heating, plumbing or lighting system. The cost of TUEC Service is surprisingly moderate,—well within your means.

Write today for the TUEC BOOKLET. It is FREE

The United Electric Company

10 Hurford Street

Canton, Ohio



For Ceilings ALWAYS

Study the ceiling proposition—look into all other ceiling materials—and you'll agree with us that there's no excuse for any other kind of ceiling in your new home or the old one, but Beaver Board.

It's the one ceiling that keeps its shape—no lath shadows, because there are no laths, no bulges or cracks. Delightful paneled or beamed effect. Paneling can be as pronounced or as unobtrusive as you choose.

Beaver Board is the modern, sanitary wall and ceiling material—handsome in appearance, permanent as the wall itself. *Write for sample.*

The BEAVER BOARD COMPANIES
652 Beaver Road - Buffalo, N.Y.

Branches in Principal Cities

BEAVER BOARD

You will find "Keith's" Advertisers perfectly responsible.



**MORE
HOME
TO THE
HOUSE**

YOU can make your porch the favorite gathering place for all the family—a shaded, secluded refuge from the summer sun, an ideal sleeping room on summer nights, by equipping it with

AEROLUX

NO-WHIP
PORCH SHADES

Made of Aerolux Splint-Fabric, they shut out sun, yet let in light and air. Aerolux No-Whip Attachment, an exclusive feature, prevents whipping in the wind. Furnished in different grades and colors at moderate prices. An architectural adornment to any home.

Aerolux Splint-Fabric Awnings do not absorb and retain heat, but keep it out. *Write for illustrated catalog.*

THE AEROSHADE CO., 522 Oakland Ave., Waukesha, Wis.

INSIDE THE HOUSE

vise me to make these of the rose color material or would a cretonne or chintz be better? And also, would it be permissible to use a gate-leg table in the living room by the open stairway (in the Jacobean finish)? The dining room is furnished entirely in Jacobean oak except for a reed fern stand and tea wagon.

Ans. The southwest bedroom in ivory and rose is lovely, but the deep rose is rather warm for those exposures. We advise a wall tint of either soft dull blue or soft green, with cretonne for the reed chairs, etc., combining rose and green in soft pastel tones. We do not admire the entire bedspread of cretonne, but would have an ivory cotton taffeta banded all around with the cretonne and a band on each end of the bolster. Then you should have a rug combining the two shades. We remember a room treated in this way that was very charming and Frenchy.

In regard to the living room, the reed chairs would not at all conflict with the mahogany pieces, but are frequently so combined. We suggest, however, one wicker fireside chair and for the other, one of the new combination antique cane and mahogany in the Jacobean finish, with rather a high back in three cane panels. The gate-leg table will be perfectly all right, but we should think one of the half circle gate-legs that set up against the wall would be better in that position.

The Nursery.

W. H. A. Will you please give me help with my new home? You have a sketch of the ground floor. I should like a columned opening. In the nursery I think I'll have ivory woodwork and tile fireplace; what color for walls and tile do you suggest? What about Dutch or French doors?

Ans. Dutch doors are divided across the middle, the upper half glass. French doors are glazed to the floor and in one piece.

We should advise you to keep the cased opening and use hangings, as there are always times when it is essential to shut off a dining room, especially with children. Or, you could use French doors glazed with small square panes, which would be still better. They are very much liked now between living and dining room instead of portieres and cost no more. You can have it open above the bookcases if you wish, but I would not. Another place where I would use French doors would be in the dining room opening on the porch instead of the large window you have there. We should not advise such heavy beaming of living room; cornice around ceiling and a cross beam each side the fireplace would be much better. Your sketch seems to show the nursery opening on the stair landing with two steps up, and of course a door there. We think the mirror on the coat closet door would be inconvenient for use, though it might look prettier than on the nursery door.

In this nursery, an old blue and pink color scheme would be pretty with fireplace tile in dull soft old blue and ivory woodwork.

**GAUMER GUARANTEED
LIGHTING FIXTURES**

*"Gaumer
Lighting
everywhere
follows
the evening
glow"*



GAUMER
FIXTURE
GUARANTEED
BIDDLE-GAUMER
PHILADELPHIA

Unusually beautiful designs with a finish that does not tarnish—substantially built for life-time service.

Tell your dealer you want the genuine

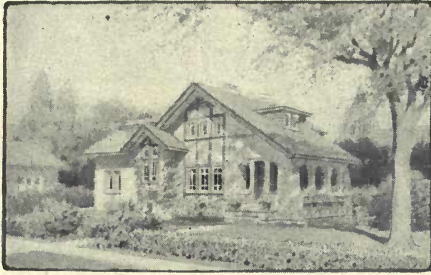
GAUMER FIXTURES.

Look for the **GUARANTEE TAG** before you buy.

Send us an idea of your rooms and we will gladly suggest designs.

ADDRESS DEPT. D.

BIDDLE-GAUMER COMPANY
3846-56 LANCASTER AVE., PHILADELPHIA



A typical little Casement Home

Will Your New Home Have Charm?

Casement Windows add to any home a delightful individuality—a homey charm.

Our interesting illustrated booklet tells how Casement windows may be made practical for your home.

Write to-day—its free

THE CASEMENT HARDWARE CO.
7 SO. CLINTON ST., CHICAGO



CAREY

Ceil-Board

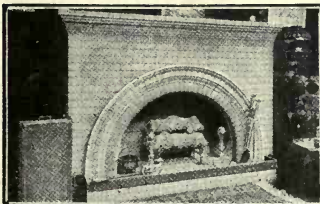
SUPERSEDES PLASTER FOR WALLS AND CEILINGS

Comes in panels ready for the job. No muss or dirt. Can be applied by any one. Hammer and nails the only tools necessary. Plain or hardwood finishes, can be papered or painted.

Samples and booklets on request

THE PHILIP CAREY CO

Gen'l Offices: 1024 Wayne Ave., Lockland, Cin., O.
Offices and Warehouses in Principal Cities.



Colonial Fireplaces ARE RIGHT

Made to Order from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

You will find "Keith's" Advertisers perfectly responsible.

FOR the exposed covering of a house no other wood so successfully withstands the ravages of time and weather as

WHITE PINE

And figuring value in terms of service it is the most economical.

White Pine does not shrink, swell, crack, twist, warp or rot—and once in place it "stays put," after years of exposure, even in close fitting mitres and in delicate mouldings and carvings. It takes paint and stains perfectly.

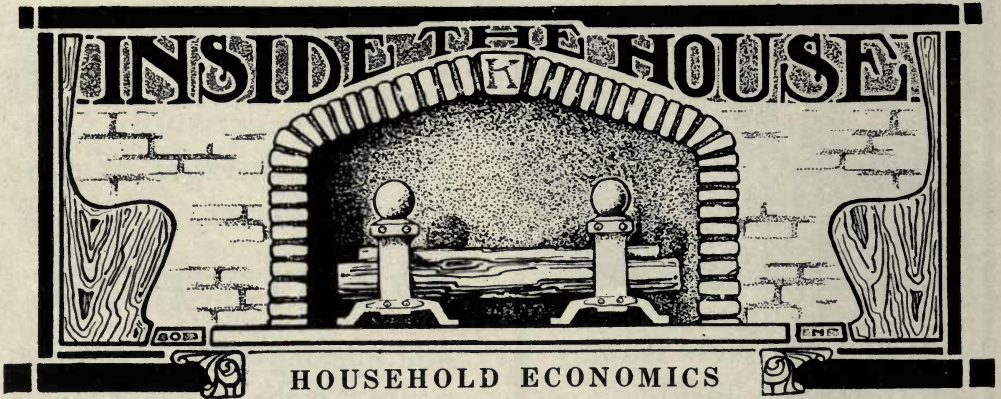


"White Pine in Home-Building" is beautiful illustrated and full of valuable information and suggestions on home-building. Send today for this booklet—free to all prospective home-builders

"Helen Speer's Book of Children's Toys and Furniture"—a fascinating children's plan book, from which a child may build its own toys and toy furniture. Prepared by Helen Speer, the toy expert. If there are children in your home, sent free on request.

WHITE PINE BUREAU

1620 Merchants Bank Bldg., St. Paul, Minn.



A Catch Clip for Holding the Ironing Board Cover.

ONCE upon a time, as they used to say in the old stories, there was a very busy woman. There were a good many things that she "didn't like to do." She frankly said that she was not of the class of women who were willing to sacrifice themselves to any extent in order to keep her house as her mother's house was kept. She did not neglect her house but she respected her own feelings in the matter. The little device which is shown here resulted from her policy of finding a way around the disagreeable things. For one thing she dreaded to take the cover off the ironing board and put on a fresh one. Each time, she would begin her ironing, instead, while she felt like it, and then she was too tired to do it when she thought about it again, and so the time would go until the cover was scorched and so brown that it really was not fit for the dainty clothes, and was not in keeping with her otherwise immaculate kitchen.

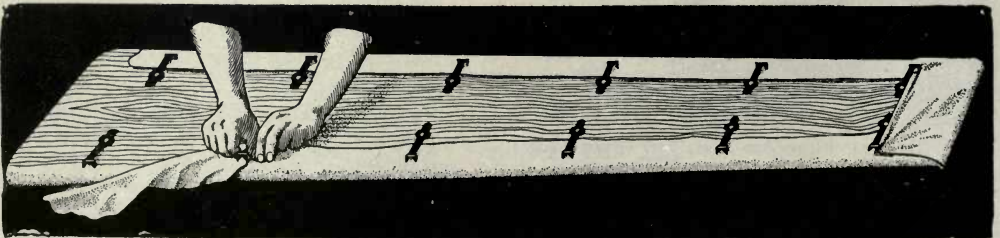
At last it occurred to her that if she had some kind of a simple little catch which would hold or release the cover easily it would not take such mental ef-



The clips hold both ends of the cover.

fort to change it. She began experimenting with a little metal strip which could be screwed to the under side of the board and which should have a grip either at one or both ends. The results she worked out are embodied in the small devices shown in the illustrations.

The clip shown under the magnifying glass in the first cut is made for use on a small board or one where the cover is wide enough that the edges come within a few inches of meeting when the cover is spread neatly around the board. The metal strips are screwed firmly to the board in the center and set closely enough to keep the cover taut when its edges are caught under the clips.



The clips catch the cover on one side only.



You'll need to shingle *only* once in a life time

If you are building new, remodeling or reshingling, you can be sure of 100% shingle satisfaction—that is an attractive artistic appearance and true economy in first and upkeep cost—by specifying the "CREO-DIPT" brand.

They are all selected cedar shingles, preserved by a special process against dry rot, decay, worms and weather; and permanently stained in any desired color. Will last a generation and save repairs and repainting.

Get your lumber dealer to carry three or four standard colors in stock. Write for Book of "CREO-DIPT" Homes and samples of Colors on Wood.

"CREO-DIPT"

STAINED SHINGLES

STANDARD STAINED SHINGLE CO., 1022 Oliver Street, N. Tonawanda, N. Y.
Factory in Chicago for West

17 Grades
16, 18, 24-inch
30 Different Colors



MONEY-SAVING PLANS

SAVE without skimping by building from our practical plans of up-to-date homes of distinction and charm. All waste eliminated by our experience as architects and builders of a great number of homes. Our plans have helped to beautify thousands of American cities. Send for our plan books: "Bungalows," 100 moderate priced bungalows; "Attractive Homes," 100 story-and-a-half and two-story houses.

Either Book postpaid, \$1; Both Books for \$1.50

LINDSTROM & ALMARS

290 Plymouth Building

Minneapolis, Minn.



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS

EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Catalogue "G-29"
showing a series of
new designs in

"Pergolas"

Lattice Fences
Garden Houses
and Arbors

When writing in-
close 10c in stamps
and ask for Cata-
logue "G-29."

Catalogue—"G-40"
—containing very
useful information
about Exterior and
Interior Gaiety, will be sent to those
who want it for 10c
in stamps.

WATER SYSTEMS FOR COUNTRY HOMES

Every country home should have a good water supply system. It provides comfort, affords fire protection, and is useful in many ways.

We have filled nearly 15,000 orders for tanks, towers, and water supply systems of all kinds and for all purposes. We can furnish you one to meet your individual requirements—ready to install. Your plumber or any good mechanic can do the work.

Complete Systems
for as little as **\$42**

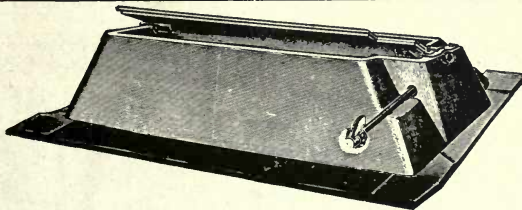
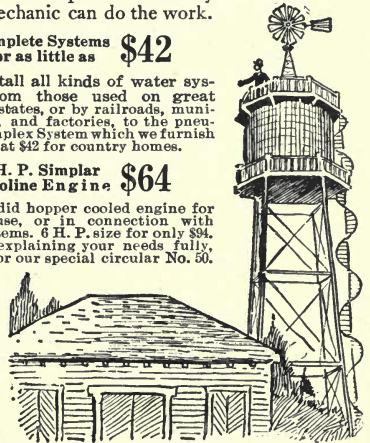
We install all kinds of water systems, from those used on great country estates, or by railroads, municipalities, and factories, to the pneumatic Simplex System which we furnish complete at \$42 for country homes.

4 H. P. Simplar
Gasoline Engine **\$64**

A splendid hopper cooled engine for general use, or in connection with water systems. 4 H. P. size for only \$64. Write, explaining your needs fully, and ask for our special circular No. 50.

The
Baltimore
Company

Baltimore,
Maryland



The Peerless-Drake Fireplace Damper

Can { Blow Shut
Not { Get Out of Order

MR. HOME BUILDER: Insist on your mason using the PEERLESS-DRAKE DOME DAMPER in your fireplace.

Costs No More Than Others Although Worth It

Ask for Descriptive Booklet

DRAKE MARBLE & TILE CO., 605 Second Avenue South, Minneapolis, Minn.
COMPLETE FIREPLACE FURNISHINGS

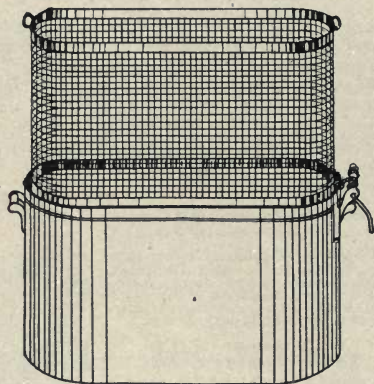
INSIDE THE HOUSE

Owing to the shape of the ironing board the edges of the cover are apt to come much nearer together at the small end of the board, in which case it may be better to fasten the edges separately, when the second form of the clip may be used. This is screwed fast at one end and has the clip on the other. The little points hold several thicknesses as well as they do a single thickness.

It takes no longer to put a set of the clips on an ironing board than it took to change the cover each time in the old

as much good syrup over them as the jar will hold, screw on the top of the jar, pack them in a wash boiler which you fill with water and boil for an hour or so? If so you will be interested in a wire basket which fits inside the boiler, in which the jars can be packed safely and easily.

Of course the real intention of this drain basket is for use on wash day so

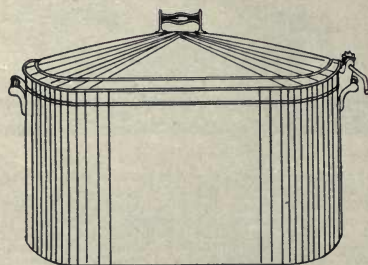


The drainer raised.

way, and when they are once on, the cover can be changed as often as you wish with little trouble and annoyance.

A Drainer With the Wash Boiler.

In the berry season do you fill glass fruit jars with the fresh berries, then pour



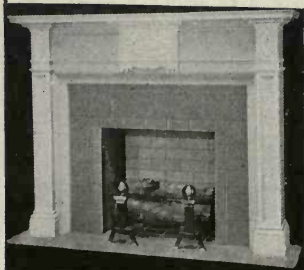
The device for raising is shown near the handle.

that the clothes can be drained and lifted out without the use of the broom handle or stick, according to the old fashioned usage. If you have scalded your hands and your feet through the unmanageableness of the unwieldy stick you may be glad to find another way to get the clothes out of the boiler.

By a simple device near the handle the drainer is raised to the top of the boiler without lifting. "A child can raise it" is a point made by the manufacturers.

The baskets are made to fit standard sizes, and can be made to fit any boiler.

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.



JACKSON Ventilating Grate

THE only open grate that warms and brings in outdoor air, and takes out the air of the room that is impure. It is a constant and perfect ventilator, having a fresh air supply on the principle of the hot air furnace. Will heat rooms on two floors if desired, and will burn coal, wood or gas. Keeps fire from fall to spring. Made in many patterns, to fit any fireplace. Catalogue No. K shows styles and prices. May we send you a copy?

*Special Catalog of Mantels, Andirons and
Fireplace Fittings, sent upon request.*

E. A. JACKSON & BRO., 25 Beekman St., New York



This Book On Home Beautifying Sent Free

Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

S. C. Johnson & Son, Dept. K. E. 6, Racine, Wis.
"The Wood Finishing Authorities"

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

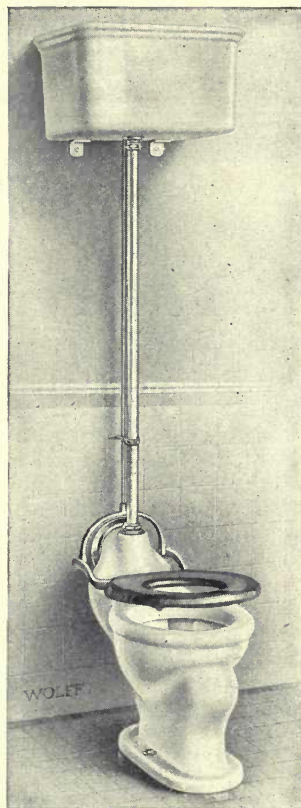
With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure.

Fifth edition "HOMES, not HOUSES," 123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

"WOLFF SOLIDON" CLOSET

For Schools and Institutions



This Duroware, automatic, seat-operating closet is meeting with great approval wherever it has been installed.

It has a wash-down, jet bowl with a large, local, Boston vent, and is staunchly built.

Write for Catalog

L. WOLFF MFG. CO.

601-627 W. Lake Street,

CHICAGO

Showrooms, 111 N. Dearborn St.

INSIDE THE HOUSE

THE TABLE AND ITS SERVICE

Conducted by HELEN F. LITTLE

The Perfect Cup of Tea

SOME time ago we had a good deal to say about coffee making, an art in which instruction is much needed. Making good tea is less complex but the process is not always understood. And afternoon tea, getting to be so popular, is too often a rubbishy decoction.

There is an old rule, "a teaspoon to each person and one to the pot," but tea made in that proportion, if the leaves are of the best quality, is apt to be unnecessarily strong. The better the tea, the less required, and the heavy India and Ceylon teas are impossible if made too strong. So it is well to experiment with the tea of your choice and then decide upon a rule for making it, which gives just the proper flavor.

It is a good plan to have a special tea kettle for boiling water for tea. Otherwise you are never certain of freshly boiled water. If your family is not too large you can buy a tin tea kettle holding perhaps a quart for ten or fifteen cents.

Such a kettle is not, of course, a permanent possession, but with care will last a good many months, and as its bottom is thin it boils very quickly.

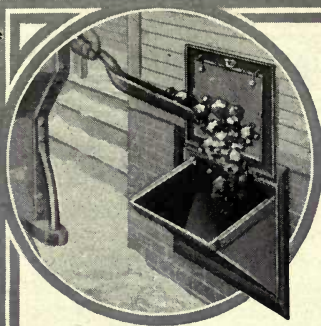
If you are fastidious and do not have to be economical, you will remove the tea grounds or have the tea poured off the leaves into a well-heated pot as soon as it has steeped from four to six minutes, and make a fresh pot of tea later. If you are frugally minded the tea pot will be

filled up with boiling water as soon as the first cups are poured. But whether you have the tea served in the pot in which it is made or poured off the leaves, use an earthen pot, because it retains the heat so much better. If you have a cherished silver tea service use



The tea tray and service.

the tea pot for boiling water. You can find all sorts of passable looking earthenware teapots, the dull green ones being very pretty, but for afternoon tea you need something more ornamental. You can find very pretty flowered china pots with tea cups to match, which are the best



Majestic Coal Chute

Protects Your House and Lawn

It prevents your house, lawn, walk, flowers and shrubs from being littered up and ruined with coal dust and stray lumps. It minimizes depreciation on your home. When the chute is not in use for coal, a glass door serves as a window, giving splendid light to the basement.

Locks from the inside and is absolutely burglar proof.

It is extra durable, has a heavy steel body—semi-steel door frame and boiler plate hopper. It will last as long as the building. Arrange for one when you build, or can be used in place of cellar window. We make the Majestic in all types for houses, hotels, store and office buildings, apartments, etc. Sold by hardware and building material dealers.

Underground Garbage Receiver The Only Sanitary Way to Keep Garbage

It can be placed close to the kitchen door with only the top and cover exposed, where it is convenient but never unsightly. It is water tight—snow and frost proof—emits no foul odors and keeps contents free from mice, dogs, cats. It is always closed, and the can easily lifts out for emptying. The dumping door opens with the foot lever. It closes itself.

Write for Catalog of Majestic Specialties
The Majestic Company, 606 Erie St., Huntington, Ind.

Manufacturers of Coal Chutes, Garbage Receivers, Milk and Package Receivers. All Metal Basement Windows, Rubbish Burners, Street and Park Refuse Cans, Metal Plant Boxes, Pipe and Pipeless Warm Air Furnaces, etc.



That Bungalow

which you intend to build next Spring
will need the soft, artistic tones of

Cabot's Creosote Stains

to make it complete and harmonious.

Paint doesn't suit bungalows. It forms a hard, shiny coat that is foreign to their character and "atmosphere." The Stains produce deep, rich and velvety colors that harmonize perfectly with the style of building and surroundings. They are 50 per cent cheaper than paint, and the Creosote thoroughly preserves the wood.

You can get Cabot's Stains all over the country. Send for free samples of stained wood and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists

Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



*Stained with Cabot's Creosote Stains
Sidney Lovell, Architect, Chicago, Ill.*



"The Telling Bungalow Plans"

A small book of bungalows showing 41 floor plans together with half-tone reproductions of exteriors.

The cream of Southern California Bungalows.

If you expect to build, be sure to order a copy at once.

Price only 25c per copy postpaid to anywhere.

GEORGE PALMER TELLING

124 W. Colorado Street

Pasadena, California



SIGN THE COUPON

and we will send you,
without obligation, our new catalog showing

**OUR SELECT LINE
&
AND IRONS**

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc. These will interest all who are building or improving their homes.

We Make Only High Grade Goods, But Our Prices Are Right

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

STOVER MANUFACTURING CO.

704 East Street, Freeport, Ill.

Send me your Catalog No. 1550 I am

especially interested in.....

Name.....

City.....

State.....

Trade at home and prosperity takes no vacation.

INSIDE THE HOUSE

possible accompaniment to a silver tea service. If the tea pot does not match the cups and plates it must harmonize with them. If you have one of gray green cameo Wedgwood you should use green and white cups, blue ones with blue Wedgwood, and so on.



The tea cart.

Tea Trays and Covers.

Now that the permanent tea table in the drawing room has gone out of fashion the tea tray has come to its own. It is a very simple matter to have it already arranged in the dining room so it can be brought in at a minute's notice.

Everyone would like to have a Sheffield tray, and those of us who cannot may console ourselves with the thought that a metal tray is extremely heavy. Next in the order of elegance is one of the oval mahogany ones, antique or reproduced. Care must be taken not to set a hot tea pot on such a tray or to spill liquids, as they develop ominous white stains. Trays with a mahogany edge and a bottom of glass covered cretonne are very pretty,

and to be had in great variety, and the cretonne can match the furnishings. They, too, require care, as heat may crack the glass. Trays bought in the wood can be painted and enameled in delicate or brilliant colors, mauve, apple green, turquoise blue, sealing wax red, as suits the china. The various wicker trays have bottoms of solid wood and are very good looking as well as serviceable. Last are the circular trays of woven bamboo splints, light, strong and inexpensive.

To supplement the tray have a wicker "curate's assistant," the little stand with a handle at the top and rings supporting three or four plates for cakes, sandwiches or bread and butter. The plates should match the other china.

Even more convenient is the tea cart, as it saves so many steps. This ingenious device is made in several types. First it was a little tea table with wheels under one end. The other end must be lifted in order to move it. This tilting of one end was likely to spill the cream if the pitcher was quite full or make trouble in moving it so that many prefer a four-wheeled model of which the front and rear wheels merely guide and support the table. The difficulty with this type is that unless there is a lock on the wheel it sometimes moves when it is not intended to do so. A surprising amount of room is afforded by the upper and lower trays.

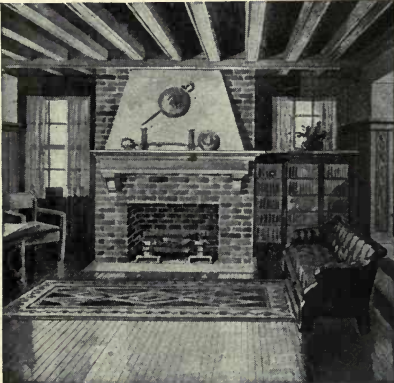
A handsome tray cover adds much to the looks of the tray. It should be carefully fitted, of heavy linen or damask, with embroidered edges and a monogram or initials at one side, and similar doilies should be provided for the cake plates.

Plate Doilies.

When a handsome tablecloth is discarded there are always pieces of border and at the ends which are not worn at all. They are just the thing for making doilies for bread, cake and cheese plates. The edges can be scalloped or edged with a narrow linen lace, and the making is good pick-up work. Sometimes a whole luncheon set can be gotten out of the good part of a tablecloth.

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size $7\frac{1}{2}$ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price \$1.00, Postpaid

With a Year's Subscription
to Keith's Magazine---\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

The Very Best Equipment for Temperature Control

Comfort, convenience, economy and safety in the heating of the home are the advantages which are perfectly obtained with

The "MINNEAPOLIS" HEAT REGULATOR "The Heart of the Heating Plant"

The success of this device covers a period of over 30 years. It is the best regulator made and is absolutely guaranteed to prove satisfactory to every one in every way.

WITH THE NEW MINNEAPOLIS DUPLEX THERMOSTAT MODEL NO. 55

the mechanism is so arranged that at night by an entirely automatic operation the thermostat pointer is moved back to the desired night temperature and again in the morning moved forward to the desired day temperature. In other words, the "throw" of the pointer is adjustable to any exact degree on either side of 70. This is not possible with any other thermostat, and these exact night and morning changes take place automatically during every 24-hour period for 8 days with one winding.

Our absolute guarantee of satisfaction obtains on all our models (Nos. 35, 40, 47, 55, 60 and 65), and we claim each to be the best of its type.

Our booklet shows all models, explains details and gives prices

MINNEAPOLIS HEAT REGULATOR CO.
2725 Fourth Ave. So., Minneapolis, Minn. Model No. 55



Your Home should be equipped with the modern, sanitary way of handling ashes, garbage and refuse. Eliminate the ash dust nuisance, prevent danger of fire from hot ashes. Provide an odorless, sanitary receptacle for garbage and waste material. No dirty ash or garbage cans in sight. This size

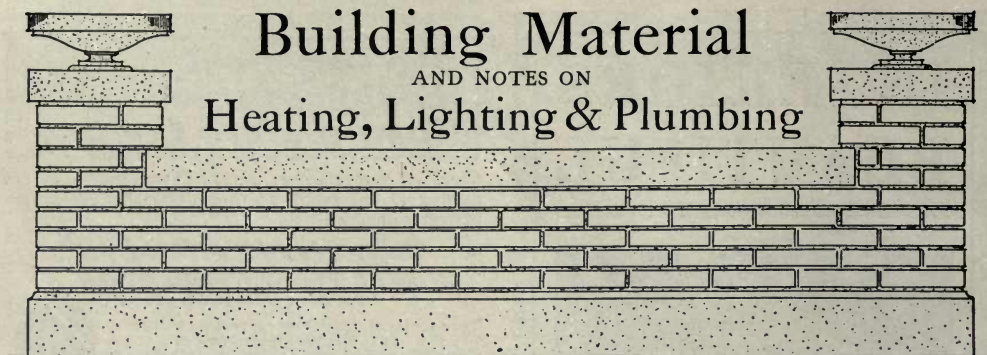
SHARP ROTARY ASH AND GARBAGE RECEIVER

contains five steel cans on a revolving frame. Capacity 6 bushels. Use separate cans for ashes, garbage and refuse. Installation very simple and inexpensive.

We manufacture a complete line of Rotary Ash and Garbage Receivers which can be installed in connection with any size or kind of heating plant.

Complete catalog will be gladly sent you by return mail. Write today.

SHARP ROTARY ASH RECEIVER CO., Inc.
Department 17, Binghamton, N. Y.
Districts open for representatives.



Painting Our Modern Lumber

John Upton



IN the early days when great forests of white pine covered the part of the country which was developing and must be "cleared," the trees were cut and sawed into boards, formed into rafts and floated down the rivers, remaining in the water from six to eighteen months. The result of this immersion was the removal of the sap and the liability to shrinkage and other deteriorating influences. After being removed from the water the lumber would be stacked and air dried, becoming the ideal lumber for building and painting.

One need not be an old man to recall the time when it was expected that the lumber on the outside of a house would be good, clean, white pine, and there were no especial problems of adapting the paint to the lumber as we have now. It was then the common practice to use lead and oil paint, generally mixed on the job. The painter could know what materials he was using in those days, before we had so much mixed stuff, called "paint."

We are told that we can still get white pine if we care enough about it to do so, but when we look about us, and see what kind of wood is being used for houses today, we find Western Soft Spruce, Red Cedar (which is red but not cedar), Arkansas Soft Pine, Red Wood, Cypress, Douglas Fir, Basswood, Gum, Yellow Pine and Hemlock, all of which are used to some extent on the outside. Besides these, we find Poplar, White Wood, and Cottonwood used on the inside.

These may be divided into three general classes in regard to painting.

First; White Pine and those of a similar nature, as Basswood, Poplar, White Wood, and some of the Arkansas Soft Pine which is practically free from pitch. Some of the Western lumber as Douglas Fir might come in this class if free from pitch, which is simply resinous oil in the wood which prevents other oil from penetrating.

Second; there is the pitch pine class of lumber, Yellow Pine, Hemlock and Spruce, in fact any lumber having much pitch.

The third class consists of Red Cedar, Redwood and Cypress, as each presents difficulties of its own. In some cases they might be put in with the pitch class.

The first, or White Pine Class is not difficult to paint, as any good paint should give good results if properly applied. The main point is to use plenty of oil. The White Pine of today is not like that of former days, and we must shellac the knots, make the priming coat thin, and use three coats.

In some places Basswood is used for outside work. For this the primer should be thin without much drier so that the oil can penetrate the wood.

It makes a difference whether the pitch is in knots and streaks, or whether it is evenly distributed through the lumber. In the former case we can shellac the knots if they are not too numerous or too large but sometimes where the wood is exposed to the sun this is not a good



THE BEST TIME TO BUY A HEATING EQUIPMENT

is right now. The busy time will soon come and then prices will be advanced, even if the continual advance in the cost of materials does not make an earlier increase necessary.

We can handle orders deliberately, at this time, with our regular force of men, who are trained in our work. When the rush time comes, the employment of new men is necessary, and, in spite of every effort, errors creep in, and delays occur.

Take up the matter now. "DO YOUR SHOPPING EARLY" and save money and annoyance.

You can buy HESS STEEL FURNACES now, ON TRIAL TILL JANUARY FIRST, so you run no risk of disappointment, and we are not paid till you are satisfied. Or, if you prefer, you can buy ON INSTALLMENTS, spreading the payment over twelve months, with no extra cost except 6% interest.

A new list is in the printer's hands, of users of HESS STEEL FURNACES, with their experiences and opinions. It's a safe guide for a furnace buyer. You'll find in it the names of some of your friends. Send for one. Send also for our general furnace booklet. It describes our method of heating and our WELDED STEEL FURNACES, the kind with separate pipes and registers, and also our new PIPELESS furnace which does away with the ordinary horizontal pipes and air ducts.

It outlines our terms for dealing DIRECT FROM FACTORY TO CONSUMER, to the consumer's great advantage.

We Make Special Concessions to Contractors

HESS WARMING & VENTILATING CO., 1217 Tacoma Bldg., CHICAGO

We make also STEEL MEDICINE CABINETS, in white enamel

Stillwell Bungalows



SUIT EVERY CLIMATE
3 BIG For \$1.
PLAN Books Postpaid

—containing photos, plans, descriptions, costs. Stillwell Homes are reproduced from original California designs—combining beauty, individuality, comfort and economy—and can be built substantially and economically in any climate.

"REPRESENTATIVE CALIFORNIA HOMES"
50 ideal homes, \$2,000 to \$6,000—Price 50c

"WEST COAST BUNGALOWS"
51 inexpensive homes, \$1,000 to \$2,000—Price 50c

"LITTLE BUNGALOWS"
31 perfect little homes \$300 to \$1,700—Price 25c

WESELL BOOKS & BLUE PRINTS ON A MONEY-BACK GUARANTEE

E. W. STILLWELL & CO., ARCHITECTS

453 HENNE BLDG., LOS ANGELES

**ALL 3
BOOKS
FOR \$1
(Postpaid)**

A Free Book —on Concrete Machinery

Porch
Vases
Chimneys
Flower Boxes
Building Blocks
Fence Posts
Drain Tile
Sewer Pipe
and others

Not exactly a catalog because it gives the cost of making many concrete products—Blocks, Bricks, Porches, Chimneys. Also tells about the profits in making Drain Tile for farmers; describes the advantages of farm drainage, etc.

Get this book if you are interested in concrete. Contains a lot of valuable information and interesting reading. Sent free upon receipt of a postal card.



W. E. Dunn Mfg. Co.

417 24th Street

HOLLAND, MICH.



BAYONNE

Forestalls
Complaints

When the ordinary roof-covering begins to warp and buckle, expand and contract with heat and cold; when metals rust and bulge, tars blister and crumble—then the owner will ask some pertinent questions of Architect and Builder. And consequent repairs will only make matters worse.

BAYONNE

forestalls all complaints as well as repairs. It is practically indestructible. Laying is cheap and simple—after that it stays flat. Never corrodes. Never leaks.

BAYONNE gives a well-finished, neat and attractive appearance to the roofs of verandas, porches, decks, etc. And it is the easiest roofing to keep clean and neat because it can be sluiced with water.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's Page 426.

JOHN BOYLE & CO., Inc.
112-114 Duane Street—70-72 Reade Street
New York City

Branch House—202-204 Market St.
St. Louis

idea for the pitch will work out and break through the paint so it would be better to get rid of it, either by the torch and scraping, or by using benzol as a wash brushed into the knots the same as shellac and afterward the paint scraped off.

If the work can wait a month or more before painting the sun will draw out some of the pitch so that it can be scraped off. In fact, much of the trouble coming from our modern lumber could be avoided if it were left to the weather for a time before painting, or even if it were given one or two coats of paint and then left for a time to show how it would behave. Then it could be treated with the torch and scraped when necessary and finished as desired to give a good and lasting result. Taking into consideration a term of years this could be done at less cost and look better than if it were finished up at once with three coats of paint and then left, with all the defects which may develop, in the first painting of new lumber. The main point is to get a good foundation or priming coat that will stay, not only in places but all over. Then the finishing coats are a simple problem.

"The two woods that stand out prominent as trouble makers for the painter are Cypress and Southern Yellow Pine, the former being of a resinous nature and quite largely inoculated with a greasy oil, which makes it practically prohibitory to paint by the usual method and procure results. Southern Yellow, or pitch pine is truly what its name implies. We often find it so charged with pitch and resin that it actually becomes over-fat. In such cases when exposed to a strong sun in its natural state, it may be doubted if any known process can keep the pitch from coming through to the surface."

This applies to a less degree to all of the second, or pitch pine class of lumber. It is not necessarily more difficult to paint, but it needs a different treatment. "The real problems of painting must be met in the use of twenty-five per cent material and seventy-five per cent man." In other words there must be an intelligent diagnosis of the trouble. In this class the pitch or resinous matter is all through the lumber and when the sun shines strongly on it, the pitch softens and works to the surface and will loosen the paint unless precautions have been taken to prevent this. Some claim that

straight white lead paint will do the work and so it will if the wood has first been properly treated.

One way is to paint it over first with Benzol and then rub off the loosened resinous matter but this is somewhat expensive.

Another way is to harden the pitch by using a coat of liquid dryer. Some would add red lead to the white lead priming coat using equal parts by weight of white lead in oil and dry red lead. This would give a pink color but could be made darker. As the red lead is a drier no other should be used.

Some would use a straight red lead priming coat with a little turpentine. This makes a good foundation for the next coat. I think this is the method used for freight cars when sided with yellow pine.

If one does not wish to use the dry red lead it can be had in paint form the same as the white. When white lead is used in the priming coat it is well to add a little Benzol ($\frac{1}{2}$ pint to a gallon) just before using. This will help the paint to penetrate more and get a better hold. If it were not for the expense the best way might be to use the torch over the entire surface to draw out the pitch, and then scrape it off. While we must consider this question of expense we should at the same time remember that it is cheaper to get the lumber in proper condition for paint, before the paint is applied than it is to lose the cost of the paint and the labor of applying it to a surface where it will not stay.

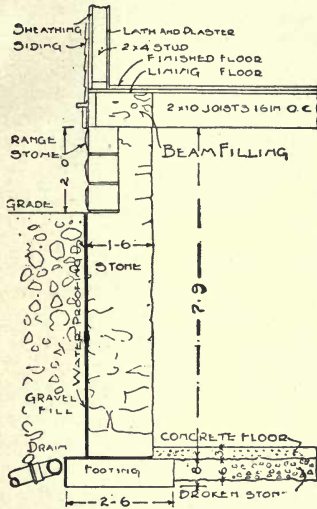
Spruce presents some problems of its own. There is likely to be some pitch in this wood, somewhat more than others. In being run through the planer it is compressed in places. These places will rise when wet, and if they are wet before being painted, they will not only loosen the paint as they do when they swell up after it is applied. A little turpentine and some 5 per cent of Benzol can be used in the primer for spruce.

Of the third class the wood called "Red Cedar," when kiln dried, is very porous and requires special care that the pores may be filled. The paint must be thinned so that it will penetrate, and should not dry too quickly; in fact, rather more than the usual time should be allowed for this.

The pigment of the priming coats

BUILDING *the* HOUSE

*A Handbook Every Home-Builder
Should Have*



(Fig. 6)
SECTION THROUGH BASEMENT WALL

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition
Price, One Dollar

Published by

M. L. KEITH

McKnight Bldg. Minneapolis, Minn.



The "Kno-Burn" Book is Chuck Full of "Reasons Why"

Whether the house you build is brick, frame or stucco you'll use some kind of lath as a base for the interior plaster work on walls and ceilings.

The "Kno-Burn" book tells you in a simple way just why it is economy to insist that the wall base in your house is

Kno-Burn
TRADE MARK
Expanded Metal Lath

The lasting qualities of "Kno-Burn," as a base for interior plaster work or outside stucco, far more than offset the fact that in first cost it is a little higher than the cheapest wall bases.

The fact that it prevents cracking, forms a wall that is fire resisting and will never rot out, makes it obviously the lath that appeals to the man who pays the bills.

Write us today for booklet 659.

Northwestern Expanded Metal Co.,
Manufacturers all Type of Expanded Metal
965 Old Colony Building, Chicago, Ill.



The National Builder

FRED T. HODGSON, Editor

A COMPLETE BUILDING JOURNAL

IT PROVIDES:

Full Building Plans every month, up-to-date cottages, bungalows, houses, apartments, etc., plans 36 x 24 inches—quarter-inch scale, with photos of exteriors and interiors.

Complete Estimates and Bills of Materials—covering every part of the work; a great help in figuring—you can use the prices of material in your town.

Construction Details—Of the utmost practical value.

Consulting Service—Free to subscribers, reliable information on any and every building subject desired.

Every kind of building is covered by *The National Builder*—concrete, tile, brick, frame; and it is full of expert information concerning every type of modern construction. A complete building encyclopedia.

**24 Big Numbers with Full
Building Plans for \$2.00.**

(The regular price is \$1.50 per year—
\$1.00 for 8 months)
(Sample Copies 15 cents)

USE THE COUPON—Save \$1.00

PORTER-HODGSON CO., Publishers
1305 Ellsworth Bldg., Chicago, Ill.

Enclosed find.....for which
send *The National Builder* for.....years.

Name.....

City.....State.....

(If you live in Canada send \$2. for one year, \$3. for two years)

should be fine so as to be absorbed into the pores, not merely close them at the surface. Then the second coat should have a little more turpentine to get more penetration.

Redwood may be primed with 20 per cent of turpentine, 70 per cent raw oil, and 10 per cent Benzol, for the liquids. The paint should be quite thin and brushed well into the wood.

Cypress is in some respect different from other woods. It contains a large amount of soft resinous matter which prevents ordinary paint from penetrating. It acts something like Yellow Pine only more so, as the troublesome resin is all through it. This could be removed by a wash of Benzol or may be hardened by a coat of Japan drier, to which a small amount of oil might be added. Or the primer may consist of equal parts white and red lead with the liquid 60 per cent raw oil, 30 per cent turpentine, and 10 per cent Benzol. If red lead is not used more Benzol may be needed. Cypress dries out unevenly and so is apt to deceive one. It may be dry in some places and not in others. All paint for Cypress should be rather thin and have plenty of time to dry.

These ideas can sometimes be carried out where the exterior of the house consists of one or two kinds of lumber but in some cases we find several varieties and all the different classes of wood used on one house, and if one were to treat each differently, he would need, not two paint pails, but several; yet if one gets the general idea that the pitch must be taken care of and the pores of the wood well filled he can do good work under most conditions.

Save Expensive Beveling

on that new house by using

KEES Metal Building Corners

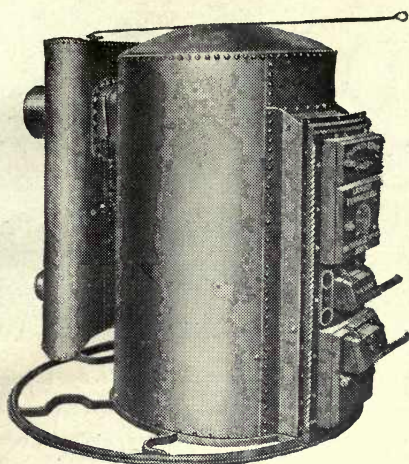


These little galvanized iron pieces fit on the ends of the weather boards, forming a perfect mitred corner. They look better than corner boards, cost less, hold paint like wood and are quickly and easily put on.

Write TODAY for Free Samples

F.D. KEES MFG. CO. BEATRICE, NEB.
Box 202

Let us send you Free samples, too, of
Kees-Gossett Window Screen Hangers



Lennox Torrid Zone

All Steel Furnace

*"The House Beautiful" should
be a House Comfortable*

Pay more attention to your
Heating Plant

Built like a power boiler—in one piece
Riveted Dust and Gas tight

The degree of comfort depends upon the quality and size of the heating plant. The fuel consumption likewise. Do not make the mistake of buying a small inferior heating plant.

Write for catalog and address of nearest dealer

LENNOX FURNACE CO., Marshalltown, Iowa

Make Country Life Modern

with Kewanee Outfits. Every one complete in itself, semi-automatic, requiring little attention and no repairs. Kewanee Private Utilities include

Kewanee Water Supply System, Sewage Disposal Systems;
Gasoline Storage System, Vacuum Cleaning Systems,
Gasoline Engine Systems, Electric Lighting Systems.



Formerly Kewanee Water Supply Co.

123 S. FRANKLIN ST.
50 Church Street
New York City

KEWANEE, ILLINOIS
1212 Marquette Bldg.
Chicago



Design No. 524, by Jud Yoho
Estimated cost \$2800

All About Bungalows

BUNGALOW BOOK
1916 De Luxe Edition

Contains the cream of 1000 practical and distinctive bungalows actually built for \$400 to \$4000, suited to any climate, with photos of exterior and interior views, plans, size of rooms, cost, etc. Also valuable suggestions on bungalow building written by an expert.

The Largest exclusive
Bungalow Book published. 112 pages, Price **\$1.00** Postpaid

Worth many times its cost to any prospective builder. A smaller edition of same, only 50 cents. Send check, money-order or stamps. Money back if not satisfactory.

JUD YOH0, THE BUNGALOW
CRAFTSMAN
465 Craftsman Bldg., Seattle, Wash.

Cut Next Winter's Coal Bill 1/2 to 2/3

Yes, a coal saving of 1/2 to 2/3—guaranteed. That's "The UNDERFEED Way." The famous "candle principle" makes the Williamson New-Feed UNDERFEED furnace sootless, smokeless, clinkerless.

Over 35,000 enthusiastic users are saving fuel money. Find out how you can, too. Write today for valuable book, "From Overfed to UNDERFEED."

The Williamson Heater Co.

256 Fifth Street Cincinnati, Ohio



WILLIAMSON CUT
NEW-FEED COAL
UNDERFEED BILLS
Furnaces and Boilers 1/2 to 2/3



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH'S staff of wood experts.

This department is created for the benefit of KEITH'S readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

More Interesting Treatment for Wood Exteriors.



IN a late number of the *Minnesotan*, the publication issued by the Minnesota State Art Commission, is a very interesting article by Mr. William Gray Purcell, A.I.A., advocating a better knowledge of local materials and the greater use which would follow the greater knowledge. This applies equally to other states than Minnesota. We quote the following: "I would like to include in any consideration of materials a plea for some real constructive experimenting in new methods for using wood as exterior material in domestic work. Not because we are anxious to find novel combinations for wooden siding but because the ordinary types of siding in common use are so very uninteresting, and if wood is to hold its own in popular favor with brick and plaster some really decorative use of the material must be found. In Switzerland, Norway, Russia and Japan wood is used in really beautiful ways and on our own Pacific Coast much interesting experimenting with wood has been done. With us the field is virtually unexplored. If someone will make a start others will follow.

All these paragraphs about good business, real sentiment, joy in the thing we have made, are not worth writing and less worth reading unless we put them into action.

Neighbor—home builder—with small funds and a small problem, are you going

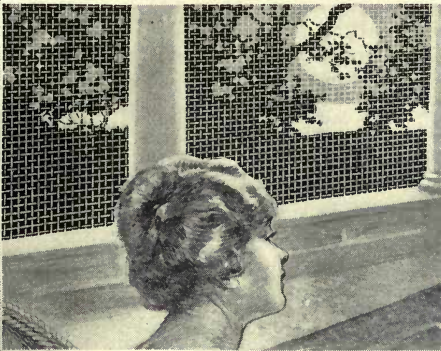
to leave the thinking to someone else, and content yourself with another repetition of the clapboard box, or are you going to show us how to use white pine with some charm and distinction?"

The Forests of Alaska.

The supervisor of the Chugach and Tongass national forests in Alaska, Mr. W. G. Weigle, has given some information about Alaskan forests which is very interesting to those who fear for the life of our national forests.

Logging in Alaska can be carried on the year around, according to Mr. Weigle, and as yet the industry is in its infancy and hand logging prevails. The fact was noted that several donkey engines are now in operation, though logging operations have not extended more than four thousand feet from the waterfront, even with the use of machinery.

The area under this supervision is so vast that it extends from a longitude three hundred miles west of Seattle to a longitude west of Honolulu. Excluding the barren mountain peaks and the world's greatest glacier,—which lies in these regions,—these forests comprise about twenty-one million acres in the two units, and occupy the coastal regions of Alaska. Mr. Weigle noted the fact that the removal of the forest cover was immediately followed by the almost total erosion of the soil down to bedrock during the rainy season, the rainfall in this region is very heavy, thus the reforesta-



Insist On Genuine G. & B. PEARL—

If you want the one screen material that ends paint and repair expense—that really resists rust, look for—ask for—and insist on genuine G. & B. PEARL Wire Cloth. To make sure of the real article look for the two copper wires in the selvage and the Round Tag bearing the name Gilbert & Bennett—you'll find them on every roll of the genuine article.

G. & B. PEARL is beautiful, smooth surfaced and absolutely sanitary—easy on the eyes and the longer it's used the less visible it becomes. The one reason why imitations fall far short of the genuine lies in the fact that the metallic rust-proof coating of PEARL, which does away with painting and repairs, is a secret process, exclusive with the Gilbert & Bennett Co.

The Best Hardware Dealer in Your City Sells "PEARL."

The Gilbert & Bennett Manufacturing Co.

Established 1818

Dept. D. 277 Broadway, N.Y. Dept. D. 38 S. Dearborn, Chicago
Georgetown, Conn. Wireton, Ill. Kansas City, Mo.

Beautiful tiled bathroom and kitchens are no longer a luxury. Even the most unpretentious homes can afford



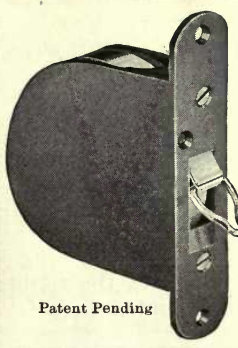
UPSON

FIBRE-TILE



Looks like expensive tile. Lasts longer. Costs far less. Really artificial lumber with deeply indented tile pattern. Nail it over old plaster or to studding, and enamel. Send 2c stamp for sample and interesting booklet.

THE UPSON COMPANY 156 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.



Caldwell Sash Balances

Uniform Mortises
For use in all classes of new work

Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counter-balance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular
Caldwell Mfg. Co.
6 Jones St., Rochester, N. Y.

Patent Pending

For Simplest and Grandest Homes



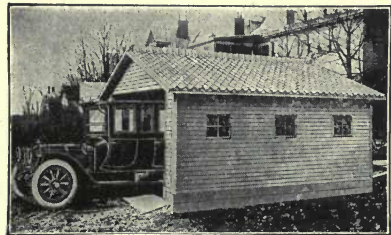
EDWARDS Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of Metal Spanish Tile is yours for the asking. A postal will bring it.



Own Your Own Garage

All Sizes—All Prices

An Edwards METAL Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and safe! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

\$69.50
and up

Write today—right NOW!

The Edwards Manufacturing Co.

The World's Largest Makers of Metal Ceilings, Metal Shingles, Metal Roofing, Siding, Rolling Doors, etc.

521-541 Culvert St.,

Cincinnati, Ohio

tion problem must have early consideration.

"Sitka spruce is the principal species logged; it forms about ninety per cent of the annual cut on the national forests in Southeastern Alaska. These trees often reach a diameter of eight feet and a height of 200 feet, while the spruce that is logged will usually average about 2,600 feet. Salmon canneries in Southeastern Alaska consume the greater portion of this output of spruce. The slowly-grown Western red cedar of Alaska produces such excellent shingles that no measure of its durability has yet been obtained, according to Mr. Weigle, for no shingled roofs in Alaska have ever failed. Little use has been made of the excellent stands of Alaska yellow cedar.

The popular conception of interior Alaska as a barren ice field with arctic temperatures is not borne out by the stories Mr. Weigle told of the luscious to-

matoes grown in Fairbanks. The summer temperature in this region, according to Mr. Weigle, while warm, is much more comfortable than that of the summers in the Middle Western states, and where forest fires have not ravaged the country, heavy forests of birch, spruce, larch, pine and poplar cover the hills as far back from the rivers as the eye can reach.

Sanitary Handling of Timber.

Wood which has become infected with rot-producing fungi during storage is becoming a serious danger to the building industry. Mr. C. J. Humphries, pathologist, Bureau of Plant Industry of the Department of Agriculture, has issued a warning to builders and to lumber dealers. He says, "Timber which shows any traces of decay should never be sold or accepted for building purposes, as even dormant fungi in dry timbers can often start into active growth when placed under moist, comparatively warm conditions."

"The investigations of this Department during the past two years have revealed many deplorable conditions in the storage of timber and, coincident with these, have disclosed many serious outbreaks of rot in important structures. While many of these cases of rot in buildings may be due to faulty construction, particularly to insufficient seasoning of the timber before use and to the failure to provide for sufficient ventilation in basements, the fact remains that infected timbers placed in buildings are far more likely to cause trouble than sound ones."

"One of the most important problems confronting the lumberman, then, is the storage and marketing of his product in as sanitary a manner as possible, both to prevent direct loss to himself through deterioration of his wares, and to protect the consumer against many avoidable outbreaks of rot after the timber is incorporated into buildings."

Why Wood Rots.

Decay is due to the growth of wood-destroying fungi through the timber. These fungi consist of fine cotton-like threads which penetrate the wood cells and by the secretion of ferments dissolve many of the constituents of the wood. For their most active growth the timber must be moist and the temperature favorable.

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912,

Of Keith's Magazine on Home Building, published monthly at Minneapolis, Minn., for April 1, 1916.

State of Minnesota, County of Hennepin—ss.

Before me, a Notary Public in and for the state and county aforesaid, personally appeared M. L. Keith, who, having been duly sworn according to law, deposes and says that he is the owner of the Keith's Magazine, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, to-wit:

1. That the names and address of the publisher, editor, managing editor, and business managers are:

Publisher—M. L. Keith, Minneapolis, Minn.

Editor—M. L. Keith, Minneapolis, Minn.

Managing Editor—M. L. Keith, Minneapolis, Minn.

Business Manager—M. L. Keith, Minneapolis, Minn.

2. That the owner is:

M. L. Keith, Minneapolis, Minn.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are:

None.

M. L. KEITH.

Sworn to and subscribed before me this 23d day of March, 1916.

MARCUS P. STARK.

(Seal)

My commission expires Jan. 25, 1922.

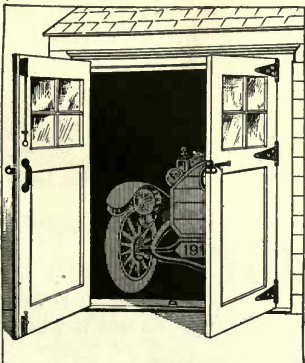
Special Subjects

Published in
KEITH'S in
1915

As long
as the file
lasts,
any single
number will
be furnished
at the
single copy
price, 20c
or three
copies for
50c

SUBJECT	Month
Investment Value of Forty-Foot Lot	December.....
Planning the Fireside Corner.....	"
A Complete Kitchen	"
Our Experience in Remodeling	"
The Ranch House.....	November
A Woman's Workshop—The Kitchen.....	"
Treatment of the Narrow Lot.....	"
Building Two-Family Houses	October
Home Building in California.....	"
Colonial Entrances.....	September
Willow Furniture	"
A Dutch Colonial House	August
The Breakfast Room.....	"
English Domestic Architecture	"
Use of the Pergola.....	"
Landscaping the Corner Lot.....	"
Remodeling a Country House	July
Bungalow Furnishings.....	"
Planning the Music Room	"
Rustic Fences and Gates	"
Furnishing with Willow	June.....
The Attic Bedroom	"
The California Bungalow.....	"
Planting Plan for a Forty-Foot Lot.....	"
Brick Colonial Homes.....	May
Arranging the Furniture	"
Picturesque Porches and Seats.....	"
Planting Scheme for Double Grounds.....	"
Everything About Bungalows.....	April
Remodeling An Old House.....	March
Fixing the Mantel.....	"
A Little House That Solved a Big Problem.....	"
Planting Plan for a Fifty-Foot Lot.....	"
The Newer Domestic Architecture.....	February
Sofas and How to Use Them.....	"
Decorative Wall Paneling	January
The Farmer's Cottage.....	"
A Talk on Woods—Oak	"

Send Orders to **M. L. KEITH, McKnight Building, Minneapolis, Minn.**



For Your New Garage—

Stanley's No. 1776-J1 Set contains complete Hardware "Trim" for garage with double doors. Write for Circular "T."

THE
STANLEY WORKS
New Britain, Conn.

IXL ROCK MAPLE, BIRCH AND BEECH FLOORING



"The Finest Milled
Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address
Wisconsin Land & Lumber Co.
Hermansville, Mich.

SPLINTERS AND SHAVINGS

Gaining an Hour of Daylight.



THE advantages of a daylight day have been discussed on this side of the water, but without any result in the United States. According to comment in the current press, Germany and probably Austria and Holland set their clocks ahead one hour on the first day of May, as does the city of Winnipeg, where the railroads find it necessary to keep their old time.

This will mean that the man who gets up at seven by the clock, (if the clocks had not been changed he would think himself terribly abused in getting up at six), will go through the day in the usual way, but will find it still light at ten o'clock of the long day, as light, naturally, as it usually is at nine o'clock.

Without apparently changing their daily routine as ordered by the clock, the inhabitants of these countries will, in fact, arise an hour earlier each morning, and retire an hour earlier each evening. They will have an hour more of daylight for recreation in the late afternoon.

The time-tables will not have to be changed in the least. All the ordered things of life—the hours for meals, for evening gatherings, and so on—will be precisely as before, except that in fact an hour of light will be redeemed from slumber, and an hour more of darkness devoted to it.

This change of time continues for six months. The first of October the clocks will be set back an hour and the short days of the winter will have the same adjustment of daylight to the working day that we have always known.

Window Box Suggestions.

Flower boxes at your windows require only plain wooden boxes, nine inches deep, twelve inches wide and of proper length to fit the window. Inch holes should be bored through the bottom, and small pieces of charcoal and broken pots placed in the bottom to insure proper drainage, which is very important. Fill with sifted soil, one-third sand, two-thirds top soil from the garden.

Before putting earth in the box white-wash the inside of the box. This not only keeps a wooden box from rotting, but prevents insects.

Lucky He Did Not Put in a New Furnace.

He was renting a small house which the landlord had refused to repair. One day the owner came to see him.

"Jones," he said, "I shall have to raise your rent."

"What for?" asked Jones, anxiously. "Have the taxes gone up?"

"No," the landlord answered, "but I see you've painted the house and put in a new bathroom. That, of course, makes it worth more."—*Exchange.*

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, moldings, porch-work, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement machinery and interior woodwork—ALL AT WHOLESALE PRICES DIRECT TO YOU.

Don't plan to build, repair or overhaul until you see these two great books. Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

CHICAGO MILLWORK
SUPPLY CO.
1421 W. 37th St.
Chicago, Ill.

Material Complete
for Houses from
\$375.00 up

Catalog
of
8000
Price
Bargains

Beautifully
Illustrated
PLAN BOOK

Books
Are Free

KEITH'S MAGAZINE

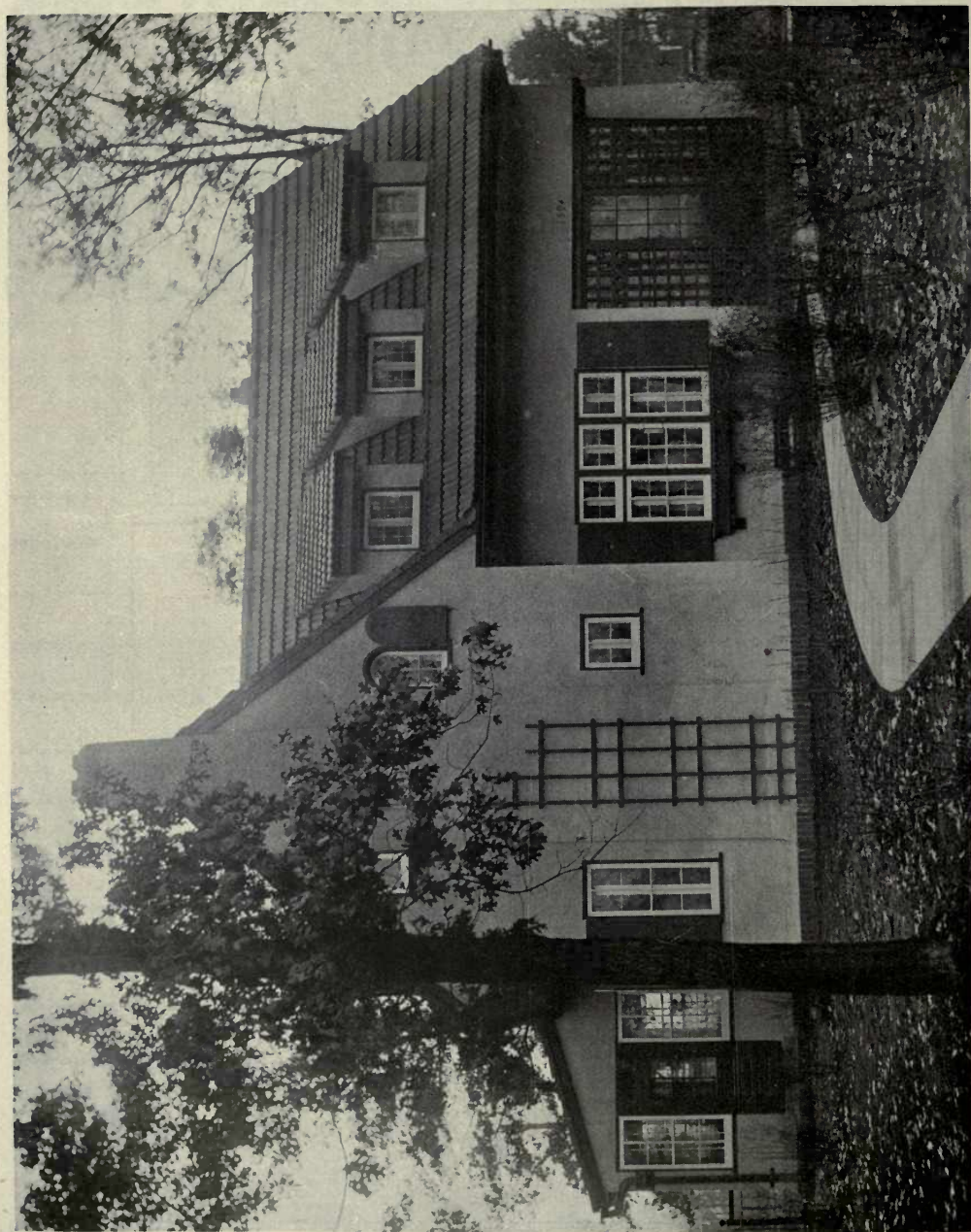
ON HOME BUILDING

CONTENTS FOR JULY, 1916

Just a Word	6
The Appeal of Individuality— <i>Anthony Woodruff</i>	9
Some Built-in Bookcases— <i>Charles Alma Byers</i>	13
The Child in the House— <i>May Keene Tucker</i>	17
The Convenience of a Service or Breakfast Room— <i>Edith M. Jones</i>	20
My Garden.....	23
More Shrubs and Vines Without Cost— <i>M. Roberts Conover</i>	24
Cobblestone Hall— <i>John Teller DeGraff</i>	25
One of the "Best Sellers".....	28
An Attractive Home	30
A Livable Home	31
Half Timber English House	33
The Luxury of a Single Floor.....	34
The "Bungalow Universal".....	36
Homes of Individuality.....	37

DEPARTMENTS

Inside the House—	
Decoration and Furnishing.....	40
Answers to Questions on Interior Decoration.....	46
Household Economics	52
The Table and Its Service.....	56
Building Material and Notes on Heating, Lighting and Plumbing.....	60
Woods and How to Use Them.....	64
Legislation	68
Splinters and Shavings.....	72



Set among the trees, this house has attracted much attention.

KEITH'S MAGAZINE

VOL. XXXVI

JULY, 1916

No. 1

The Appeal of Individuality

Anthony Woodruff

SOMETIMES a house attracts an unusual amount of attention. The passer-by stops and comments upon it. Some praise it and others comment merely; in either case it draws the attention and makes a reputation both for the owner and for the architect. It is called "cute" and "artistic" and "charming" as it fits into the different ideals. Yet, perhaps, no one can say wherein it is especially different nor perhaps essentially better in design than oth-

er houses of its class. Often the charming house is small, or at least neither large nor pretentious, but it possesses that power of attraction which is not laid out by rule.

The house which we are illustrating belongs to this class. It was designed by Mr. J. Walter Stevens, architect, of St. Paul, and built in a charming setting placed well back among the trees. It constantly attracts the attention of the casual observer. People stop in passing



The fireplace is recessed on one side of the living room.



The dining room is in white.

to look at it and not a few come to the door to make inquiries about it.

It is built of stucco and has a tile roof.

The woodwork has been given a dark stain, as have the wooden shutters.

The entrance is into the living room



Four doors, hinged in pairs, open the conservatory from the dining room.

which extends across the main front of the house. The fireplace is recessed, with book shelves under the high window and a seat under the large window, as shown in the interior views. The fire place is of brick and simply designed and with the big davenport in front of it makes a very inviting nook. The living room is large enough to permit of this as there is sixteen feet of width, and the room is twenty-

The exterior has a charming diversity, and yet a simplicity that is very satisfying. In this matter of simplicity, Mr. Harrie T. Lindeberg, one of the most successful architects of country houses, has this to say:

"In every house I build I find it more and more interesting—this study of simplicity. I no longer find it necessary to have large window frames, I have a sim-



The stairs open from one end of the large living room.

ty-seven feet long. The stairs are recessed on the opposite side of the room and this alcove adds also to the apparent size of the room. Beyond the living room is the dining room, and opening from it with four doors which hinge together and fold back to make a wide opening, is the conservatory.

The dining room has been given an interesting treatment all in white, as shown in the illustrations. One view shows the living room through the wide opening and the other shows the conservatory beyond.

ple gutter instead of molded eaves, I make my roof a waving line of beauty in many colors, my windows are not always strictly balanced, I do not demand absolute similarity in the two sides of my house, the porch is an opportunity for sunlight and air. I am not striving ever for impressiveness, but always to eliminate, to do away with every idle bit of wood or concrete or piece of brick, and constantly, as I am developing the outside to that of the inside, for the home side.

"I have one client who has brought this

forcibly before me recently. When I asked him just the kind of house he wanted, he said, 'I want it large, comfortable, sanitary, beautiful, and then I want the outside to look humble.' I consider this the perfect description of ideal American domestic architecture. By humble he did not mean poor or tawdry or inharmonious; he meant that he wanted the home quality everywhere. He did not want

the fatal errors of our first American houses."

The recurring revival of interest in Colonial forms of building give an especial interest to what Mr. Lindeberg has to say about Colonial architecture and its present-day adaptation.

"The first beautiful flower of architecture in America was the Colonial, with its many variations, from the old planta-



The charming home may be neither large nor pretentious.

the effect of St. James' Palace and the Madeleine and the cloisters at Bologna all combined in marble from Italy to overwhelm and shadow his neighbors."

"I no longer believe that a different kind of architecture is necessary for a large building. Whatever is good for the small house, whatever is wise in its construction, in its proportion, in its roof lines, in its grouping of windows, in its balance, is good on an enlarged scale. We do not have to change the style of architecture to suit space. This was one of

tion house of Greek inspiration to the Dutch Colonial in Pennsylvania and the Adam-Colonial in New England," writes Mr. Lindeberg. "It was an architecture suited to those days, born of the interest as well as the memory of the people, and furniture came from the hands of native craftsmen that fitted it, and silver to adorn the table, and fabrics and tapestries for the walls. This artistic state lasted just so long as the people were held in check; but once the freedom of the land was ours, with all its fairy wealth and undiscover-

ered beauty, we were up and away again. And all along the trail from New Amsterdam to the Pacific Coast we camped—we lived in wagons, in dug-outs, we contented ourselves for a month or two in log cabins, we developed new characteristics with this roving free live, we became a new race, a new nation.”

“Architecture as a fine art ceased to exist during this period. The man whose concern is to throw up quickly a place of shelter in the wilderness does not stop to think of the artistic.”

“The great difficulty with old Colonial architecture, the trouble I find when I am asked to revive it for a client, is the fact that its formality, its balance, the various external attributes that give it its classic beauty, of necessity impinge upon the interior of the house. One room after another in those lovely old houses resembled each other as closely

as one home did another. The rooms were arranged to conform to the windows and the gables and the entrance. No variation could be made without changing the exterior, and that would have been an architectural crime. Today I feel that the real builders of homes are thinking first of the charm and the beauty of the interior, of the fireplaces and the windows that will admit sunlight, of the opening of one room into another, making the hall light, of convenient bath rooms well ventilated, of nurseries in which little folks flourish. In other words, we are putting into our architecture (every man who is building well, and they are an ever-increasing number), the free, wholesome, enlightened spirit that should belong to a free, wholesome, enlightened democracy. Indeed, all architecture that matters must rise or fall by the spirit that fashions it.”

Some Built-in Bookcases

Charles Alma Byers

BUILT-IN bookcases have become decidedly popular with present-day builders of moderate-priced homes, and some very charming

ways of planning for them are to be found. They are always desirable features and aid considerably in enhancing the interior of the home. The proper place for locating them, so that they will be both convenient and decoratively effective, is sometimes quite difficult to determine. The accompanying illustrations show a number of possible locations, and also offer suggestions in the matter of design.

The first photograph re-

produced shows a particularly attractive and convenient arrangement. Here is introduced a sort of alcove that forms a part of the living room, and in this alcove



Bookcases in an alcove.



The fireplace, bookcases, and a seat.

are located the fireplace, a window seat and a great deal of shelf room for books. The seat extends the width of four windows, and into the wall space at each end, are built five shelves, each about two feet long. The end wall opposite the fireplace is devoted almost entirely to shelf space, and here divided into two sections. The larger section is nearly four feet wide and contains six shelves, instead of five. The lantern-like lighting fixture at the top of this case should also be observed, for it is excellently located for evening reading before the fireplace. Con-

sidered in detail, the alcove is cozy and inviting, and its rather extensive array of books are always conveniently accessible—just where one wants them.

The next picture illustrates a rather common arrangement, but one that, nevertheless, is very satisfactory, for here again the books are especially convenient for reading before the open fire. Located at one side of the fireplace, the bookcase is four feet three



An open bookcase by the fireside.



Book cases with leaded glass doors.

inches high and occupies wall space that is approximately six feet broad. The feature contains shelves for four rows of books, and is equipped with two sets of double doors, of leaded glass. The top of the bookcase, with two small windows above, constitutes an excellent shelf for pictures and bric-a-brac, and standing upright in its center is a stationary electric lamp. It will also be noticed that the

top of the bookcase is in line with the fireplace mantel-shelf and the plate rail which caps the paneled wainscoting.

The third illustration also shows a built-in bookcase located near the living

doors opening into the former room. The cases, helping to comprise the partition, reach to a height of four feet, and each is three feet four inches wide, inside measurement. They contain shelves for three rows of books, the shelves being eleven inches deep. Here again the tops form convenient places for bric-a-brac, and above each is suspended an artistic lighting fixture. This is a very popular location for bookcases of the built-in kind, and the space so utilized would naturally be of no value for any other purpose.



On each side of the French window.

room fireplace, although in this instance it occupies wall space between a doorway and the broad opening which connects the room with the dining room. This feature is four feet six inches in height, and the width is about four feet. It possesses shelves for four rows of books, the shelves being eleven inches deep. There are no doors to the case, but here again the top comprises a convenient shelf for various articles.

In the next illustration is shown a broad semi-colonnade opening intervening between the living room and dining room at each side of which is a low built-in bookcase, with the double leaded-glass



Bookcases separate living room from hall.

Another of the pictures shows two bookcases of equal size occupying the lower portion of the end wall space of a living room—one section at each side of double French windows. The cases are four feet six inches high, and each section occupies wall space approximately

four feet broad. Double doors of ordinary glass are used, and four rows of books are provided for. Here is furnished a convincing illustration of how built-in bookcases can be made to improve the appearance of an interior, for without them this room would be deprived of much of its present attractiveness.

The next photograph here reproduced illustrates two bookcases, of the same size and design, occupying two locations of different character. One of the cases is placed against the wall at one side of the living room fireplace, and the other helps to form the partition between the living room and the entry hall. In the latter arrangement a similar bookcase is also used on the other side of the passageway. The cases reach to a height of four feet, and are about three feet broad, inside measurement. The one at the side of the fireplace contains three shelves, and the others have four each, the shelves being eleven inches deep. Panels of ordinary glass comprise the doors, and the top of each constitutes a shelf for pictures and bric-a-



Filling the archway.



A pleasant nook.

brac and choice bits.

One of the next illustrations shows a particularly attractive book-case conveniently and effectively built into a section of the living room wall which intervenes between two arched passageways—one leading into the dining room and the other to the stairway. The case is four feet nine inches high and about five feet broad. It contains shelves for four rows of books, and is equipped with two doors, of leaded glass. It utilizes space that otherwise would be of no value whatever, and at the same time it does much to improve the appearance of the room in which it is located.

The last picture shows another alcove arrangement in which bookcases are used. The end walls here also run somewhat diagonally, the alcove, which is rather small as compared to the first one shown, being virtually nothing more than a large bay extension, with two windows comprising its one straight wall. The floor is elevated six inches above the floor level of the living room which the alcove adjoins, and the extension is approximately

three feet deep. In it is a window seat, and at each end of this seat is a small bookcase, equipped with two leaded-glass doors. The nook affords an inviting retreat for day-time reading, and at the same time constitutes an enhancing feature of the room of which it is a part.

Bookcases of the built-in kind add but very little to the construction cost of the home, and, when once provided, are always to be depended on. They are naturally designed and finished to correspond with the remainder of the woodwork of the room in which they are

placed, and this means that they seldom seem out of place or unduly conspicuous, on account of inharmonious styles and colors. Moreover, they utilize but little space—often, in fact, as shown, space that would be of no value whatever in any other way. And if they are properly located—toward which the accompanying illustrations should assist—they will unquestionably accomplish much in making the interior of the small or medium-sized home attractive and home-like, by giving a decorative touch to the wall space as well as providing for the luxury of books.

The Child in the House

May Keene Tucker



HE well known tendency of the child to desert his elaborately made toy when the first glamor of its newness has past and pick up a stick, an empty spool and a piece of string and play delightedly for hours, remaking his little world at his fancy and peopling it from his own imagination, makes him independent of his surroundings. His room may be exquisitely fitted up with a stencilled frieze from his (or his mother's) favorite stories and nursery rhymes, or it may be simply his mother's bedroom where he has a corner for his toys. Years later he may find that he was strongly influenced by his early surroundings, but the ordinary child makes his own world and

can be happy in any place where he can scatter his toys and where his play is not interfered with.

The cabinet maker has not been unmindful of the child. He can have his own little desk and chair to fit, and beside it a blackboard. He has his kindergarten table and chairs, small enough that



He can have his own desk and chair.



Sister's big doll can sit at the table.

sister's big doll can make one of the party. The dolls can have their own tea parties at the same time. All household furnishings are duplicated in miniature, to such an extent that "playing house" does not require the imagination that it did when a figure in the carpet must serve to represent the wonder-furnishings of

the play world, and when out door play was sought so that grass and leaves could be gathered and laid to outline the walls and to indicate the furnishings. Half the fun of his play, as later with his work comes from the exercise of his creative faculty and with it he builds his play world which is very real to him, often vastly more real than the ill-understood world of the "grown-ups"

about him. He lives in it so vitally that often he will tell the stories of his play world in the same way that he tells of his actual doings, and mother becomes very troubled that her small boy tells such "wrong stories,"—not realizing that they are simply "stories" such as she reads and tells to him, only that they are original stories.

This creative and imaginative faculty is one that he needs when he shall come to his maturity, and its understanding and direction is of great importance to him. The business of living will tend to suppress it as he grows older, while if he can retain it he is assured a freshness and spontaneity of his inner living, that still keeps him comparatively independent of his surroundings.



The cabinetmaker has not been unmindful of this child.

A plain toned wall gives a good background for the child pictures, which may be obtained in a fascinating variety, some of our best illustrators having given a good deal of attention to depicting child life and child interests.

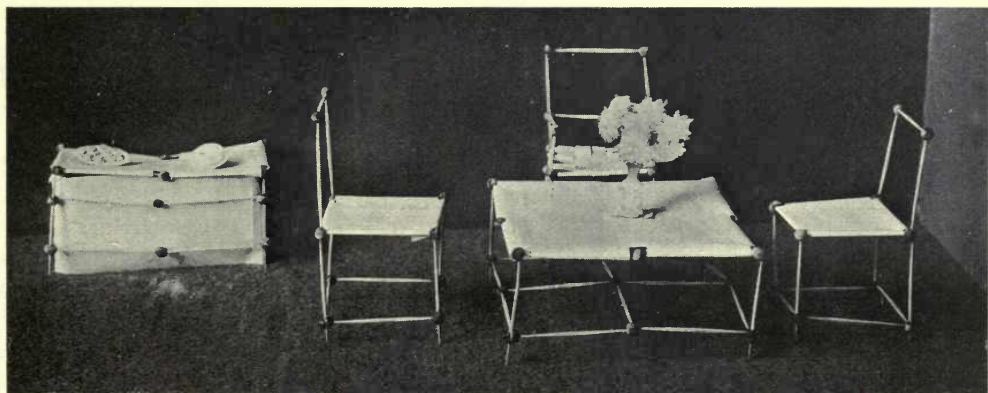
The mother who is able and wishes to make the child's room an ideal setting for the child life finds the possibilities in the way of decorations and furnishings are almost without limit, yet it may be done in a very simple and inexpensive way. In wall paper there are all kinds of designs, prepared for the child's room,

whole book world is open as subjects for the designs. The suggestion has been made that photographic enlargements may be made from the beautiful illustrations of a favorite story, simple in outline and color, and stencil patterns be made from these enlargements. If three or more pictures are chosen which can be used in a different order the repeat will not become monotonous and the pictures will make a gay procession.

Dainty miniature furniture as shown in the illustration may be made with a framework of wood-



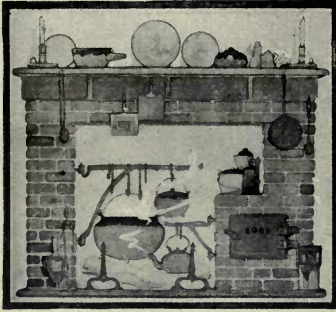
The frame made of toothpicks and peas.



One chair has a seat of woven strips of paper.

from figures more or less conventionalized in the design to a frieze which tells a whole story in its progress around the room. There are posters made for special places, to fill a panel between windows, or which may be placed side by side in a larger space. If she wishes mother may be able to stencil a frieze from the stories she especially chooses. To one who is an adept in the preparation of stencils the

en tooth picks and fresh green peas, when the child comes with his ever recurring plea for a new game. Some "designs" are shown in the illustrations, with white paper used for the covering material, held in place with a little paste. Potato cut into small cubes would serve the same purpose as peas and are in season all of the year. It is what the child does which gives him the greatest pleasure.



THE KITCHEN



The Convenience of a Service or Breakfast Room

Edith M. Jones

(Copyright, 1916, by Edith M. Jones)

OF course efficiency is not gained simply by installing a model workshop. We all realize the mastery of work demands efficient mental preparation as well as standardized industrial centers.

Perhaps one of the most hopeful signs of the times lies in the fact that we are learning to value and appreciate the importance of more systematic and scientific training and preparation for any given line of work.

Especially is this true in the business of housekeeping, the art of cooking and successful solving of the problems of homemaking.

Domestic science schools are doing much to arouse interest in household management and

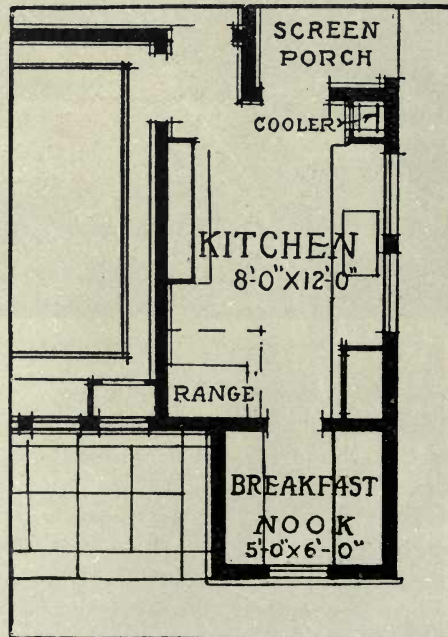
methods, and with the more efficient mental equipment better workshops are the inevitable outcome.

Until very recently in the kitchens alone of all the work centers of American life, have methods remained practi-

cally unchanged since our grandmother's time.

The economic and social conditions, however, are very different today than they were a hundred years ago. The large kitchens of Colonial times were necessary not only because the families were large, but also on account of many industries that were carried on in the kitchen. These made much work and often required many servants.

Official bulletins today say that only



A cleverly planned breakfast nook.

8% of the homes in the United States have trained servants and in a large majority of homes the hired service is reduced to one person.

It is not so much the change in labor and industrial conditions, however, that has made efficiency so necessary these days, but rather the high nerve pressure at which we are living. People are not so physically weary nowadays as they are mentally fatigued. The constant demands outside of the home and the constant problems of the high cost of living make it necessary for people to think and plan and work more carefully and most efficiently. We must learn to work in the easiest and most economical way and every unnecessary, useless wasted effort must be eliminated to make room for more work and for the necessary recuperative rest.

The homely old adage "All work and no play, etc.," can well be modernized to "All work and no rest makes Jill a dull girl." Authorities all agree that every opportunity of rest and relaxation should be utilized as far as possible.

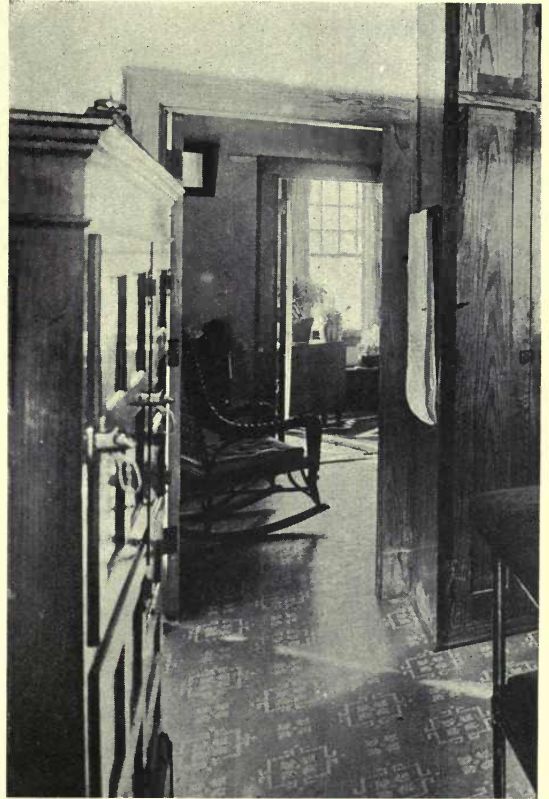
I am reminded of what Ruskin says:

"All one's life is a music, if one touches the notes rightly and in time, but there must be no hurry. There is no music in a 'rest' that I know of, but there's the making of music in it; and people are always missing that part of the life-melody, and scrambling on without counting—not that it's easy to count; but nothing on which so much depends is easy."

This question of the rest, fundamental in music, is of vital importance in living also, for in it lies the possibility of better work and finer living. There are many minutes during the preparation of the meal when a little rest can be gotten if a comfortable chair is near at hand, or,

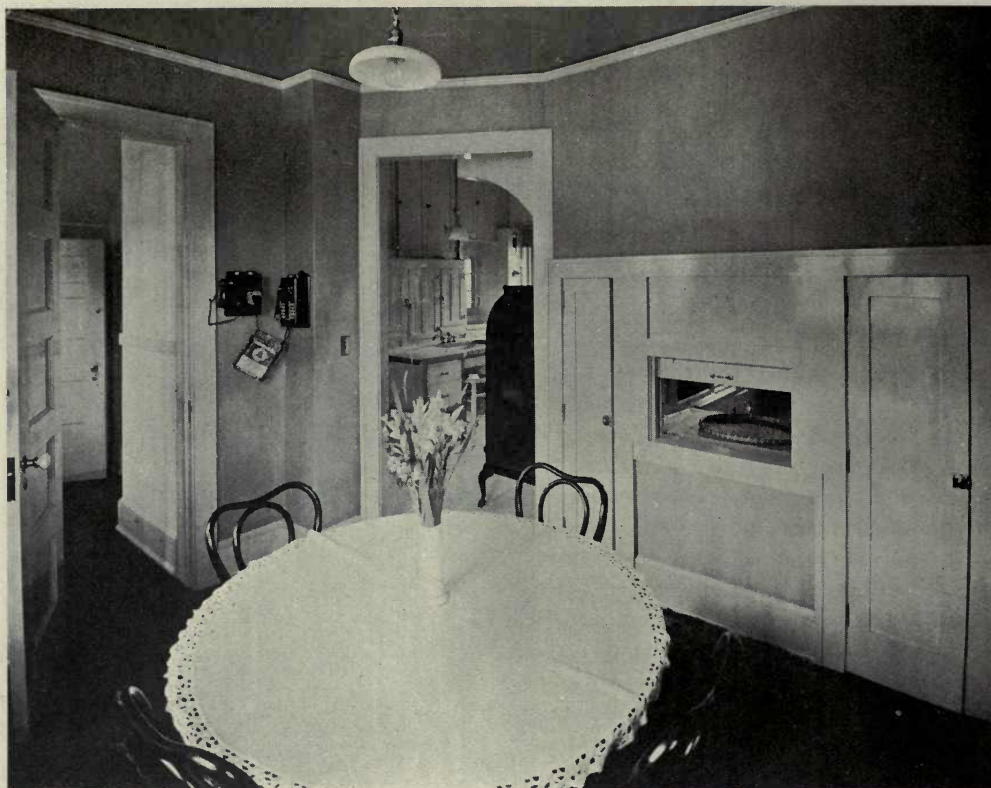
better still, a little room adjoining the kitchen where one may either rest or be free to think or do the necessary planning for the day's business.

This little room can be used in many ways, it can be the maid's dining and sitting room. It can be used for the family breakfast room, it can be the nursery



A glimpse of comfort and rest.

for the children. In case the mother spends much of her time in the kitchen it is always the greatest comfort to have a place so near for the little people to play and yet not be in the way of the work. Then, too, this room can be the office where the necessary household business can be attended to. The book shelf for the cook books, the filing case for the daily delivery slips, the desk for the account books and receipted bills, etc.



The careful appointments of a maid's dining room.

Altogether experience is proving that the old time large kitchen is a thing of the past and the space can be best utilized by the small compact kitchen and the maid's sitting room, breakfast room or nursery, as the case may be, or simply by the alcove recess.

Many of these appointments can often be arranged in a breakfast nook, when more space is not available. This convenient kitchen alcove is modeled on the Pullman seats with the table set between, and may be arranged in a nook or corner anywhere adjoining the kitchen. It gives a restful place for all sorts of work, from preparing vegetables to rendering accounts. In the April number such an alcove was more fully described. The cut shows in plan a breakfast nook

with built-in seats, where a table can be placed between them under the windows.

The first photograph gives a glimpse of the comfort and rest such a little room affords. The large and comfortable rocking chair, the desk, the fresh air and sunshine are restful. The French doors open into a small sunporch which the maid enjoys as her own or the family may use for the breakfast room. The blossoming plants and the pleasant outlook make this an enviable place for anyone. These small details are sometimes of the greatest importance. We are all beginning to realize that family welfare, spiritual as well as physical, largely depends upon the home freed from every unnecessary annoyance.



MY GARDEN

I will have a garden, set beyond the reach of strife, where Nature will abide content and radiant, Her beauty undisturbed. I will be Her handmaiden and spread out a carpet of flowers, like a prayer rug whereon I will sing psalms of praise.

I will have a harp of pine trees, and the Winds will love to come and tenderly touch its sensitive strings.

Fountains will be there to laugh melodiously as little children.

Flowers that exhale sweetness I will grow in this garden, and those that are bright and sunny. Those that are simple or stately or graceful, shall flourish, and those that hold dear memories.

There will I hold tryst with my soul and renew my strength.



More Shrubs and Vines Without Cost

M. Roberts Conover



It is easy to increase our number of shrubs, rose bushes and vines either by cuttings or in some instances by layering. Honey-suckles and many of our roses are very readily propagated by layering or burying pliant branches attached to the parent plant. Layering may be done at almost any time and succeed. After July 1st is a good time. Layered branches of younger growth require longer to root than if

older growth is used but the older growth is so often in an unfavorable position and so much less pliant that they are not always so available. Branches that I have layered from rambler roses have taken root and been successfully removed the following spring after midsummer layering. Layered branches should have their terminal parts cut back. When new growth appears from the buried portion, its connection with the parent plant should be severed. Cutting the connecting stem half or three-quarters through, three or four weeks after layering makes the layer less dependent upon the parent plant and sooner induces it to root for itself.

The layers should be covered with about three inches of earth and the terminal parts exposed for about four inches after cutting back. They may be fastened down with curved pegs or weighted with stones.

Cuttings should be taken when the wood has ripened or matured late in the summer. Hot, drying sun is fatal to the project if the cuttings are planted where they get the sun through the middle of the day. This is because the cutting has no way of sufficiently replenishing the water evaporation from its exposed parts previous to root development. The north side of a building is a good location or any place



Roses may be propagated by layering.

where the sun reaches only in the morning or late afternoon. Sand is the best medium but not salty sand as from the sea shore. It should be kept moist, not wet. The cuttings are made about eight or ten inches long, with two or three good eyes to go under ground and one or two above. The buds at the base are the strongest because of earlier development and therefore tend to earlier growth than those near the tip. This tendency favors quicker rooting.

Cuttings should be made with a very sharp knife. An intact, healthy bark is essential. Cuttings carelessly made and stabbed into the soil will have the bark loosened at the base, inducing decay. In the case of those that root from the base,

the life of the cutting will be entirely destroyed.

On rose bushes and wherever possible a small piece of older wood at the base of the cutting seems to insure rooting. In trenching them lay the cutting in so that the required number of buds are well covered with soil.

Slips or cuttings should not be disturbed in the fall, but mulched with straw and left until spring, when those that have lived may be removed to the desired location. Weak or doubtful ones should not be moved but allowed to remain where they are during the season. Many amateurs turn a glass fruit jar over their rose slips until signs of growth are evident.

“Cobblestone Hall”

John Teller De Graff

A Building Experience by One of Keith's Readers



MY twenty years' experience in banking business was of no benefit to me when I came to building except to make the outdoor labor a pleasure. Each step, which often looked puzzling in the beginning, was worked out as we progressed. I followed nature as much as possible, and nature was kind to me in many ways. A short time before I started the excavations, an hydraulic dredge began to pump sand, gravel and cobblestones of all sizes from the bottom of the Mohawk River, for the barge canal that was being built across the state.

As it was near my home, I soon made arrangements to secure what I needed in the line of sand, gravel and cobblestones, at a very small cost outside of my carting, which I did with my own team.

Under most conditions cobblestone construction is comparatively expensive, but as I laid all stones myself with the aid of day laborers, I was able to eliminate the two costly points of masonry, and

make it possible for me to build this style of a house without spending much for material or expert labor.

The largest part of this house was practically pumped from the regions below, and the water washed sand was of the finest grade. I doubt if a finer lot of hard, water-polished cobblestones could ever be secured, as they seemed to have every color imaginable, and were polished as smooth as marble in many cases. I built all parts of the foundation 2 feet thick with unquestionable base so there could be no possibility of cracks in the walls above, even though they held a great weight. There are no signs of weakness in any part today, which shows that the work, although done by an amateur, was properly done, and this may encourage others to attempt what they may fear they could not accomplish from lack of experience.

The walls of first floor are a foot thick while the round tower has 16 inch walls,



Cobblestone Hall, showing the fountain.

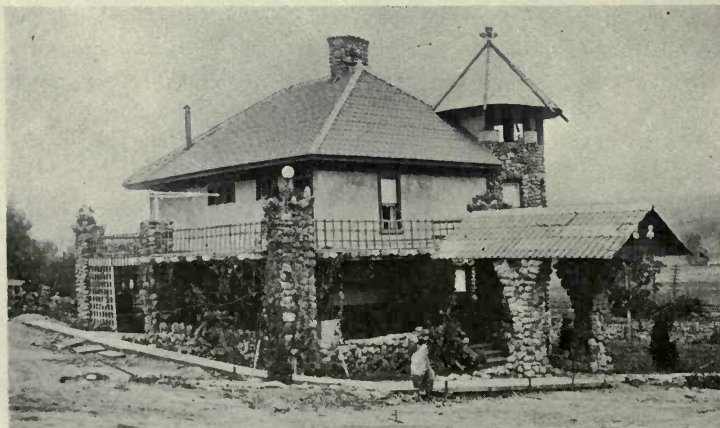
and must weigh hundreds of tons, as it is all concrete from cellar to top of roof which is also water proofed concrete.

All walls are backed by hollow tile on which the plaster is placed making it as windproof, dampproof and fireproof as possible to construct.

The laying of cobblestones is a perpetual study, if the best results are to be obtained. Every stone is adapted for some special place and many times will

not work at all in some other part, so that it pays to have an experienced workman sort all stones as delivered. Large arches demand oblong stones wider at one end, while arch window tops take a similar shape of smaller size, and it requires a large number of stones having one square corner to make the sides of windows and all corners.

If you will study the pictures with a magnifying glass, you can understand better what I mean to convey. The beauty of the finish depends much on the pointing between the stones, which can be done in natural gray, black or red by adding color to mortar. Some critics prefer all cement washed away, so that very little can be seen between the stones, but a much stronger job can be obtained by having all cracks

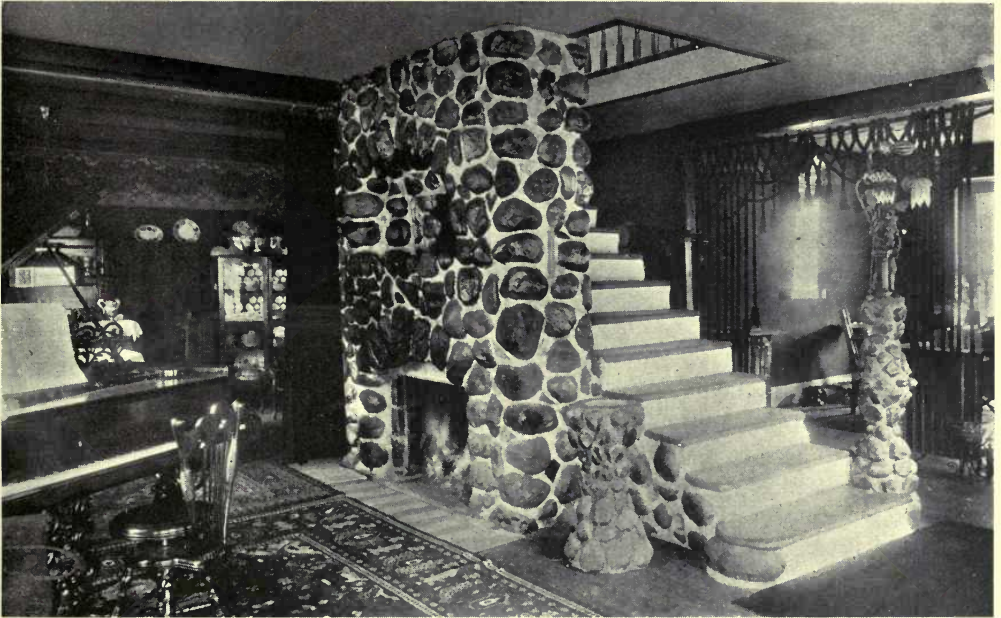


The cobblestone piers support balconies.

properly filled and smoothed down to look right. The front wall of the house, is made by using only flat or split stones, which come as near to each other as possible, making something of a crazy quilt effect, as the very finest colors are obtained this way, and I prefer it to any rubblestone work I have ever seen done.

I have always studied the construction of pillars and columns built by others in

There is nothing more suitable to plant in these stone pockets than the old-fashioned dusty miller, as it looks well all the season and stands dry weather. It grows very luxuriantly, and is easily slipped. I value piazza room as much as inside room during the warm weather so I provided ample two-story piazzas on all sides of house, making it possible to get a comfortable location at all times of



Solid concrete stairway and fireplace.

various parts of the country, and I have found they nearly always finish up a well made piece of work with a very unsightly top. I adopted a style made by placing long pointed stones, flaring out at top which, when properly set, leaves a large flower pocket which, when filled with blooming flowers, is very ornamental. Each cobblestone pillar has a large flower pocket at top with 18-inch center of rich dirt reaching to ground, which gives moisture to all pockets in square piers. When an electric light is added you have double returns from your flowers as they look even better at night than by day.

day, no matter which way the wind may be blowing.

I found it would cost considerable to build as large a rear piazza as I had planned, but good luck favored me again, as I was offered a damaged platform car from the railway if I would take it apart which I gladly did, securing long, seasoned timbers of the very finest pine, which nearly completed my roof timbers.

I concreted the floors above and below with hard surfaced material so they are easily washed, and are free from dust, one of the draw backs of common concrete.

A cobblestone fountain plays here all summer long, and the overflow supplies a water barrel enriched with liquid manure, both of which are very practical to water flowers and shrubs near the house.

A concrete circular table at the rear makes it possible to serve meals out doors in the shade whenever desired, under most ideal conditions. The room on the third floor of tower is circular, 10 feet in diameter, with concrete floor, making an out-door pavilion type where, owing to the wide overhang of the room, neither rain nor snow ever does any damage.

I get more real enjoyment out of this room in summer than all the rest of the house, as there is always a breeze, and I can get the view of traffic which is always interesting on this "main highway around the world," and at the same time get a fine view of the beautiful Mohawk Valley. I have 5 strong lights on under side of roof which make this pavilion lighter than day, and at the same time light the whole front and side of house, giving a most effective display, at barely any extra cost.

As the question of economy had to be considered in my case, after figuring up the cost of the inevitable points that I must have: namely, front stairway, furnace chimney, two fireplaces with separate flues, and inside partitions of house,

I decided I would design a cobblestone chimney from cellar to top of roof that would hold up all of the inside of house, and supply three flues for different fires and at the same time construct a concrete stairway, all in one job, which saved me considerable money, and made what is considered the finest piece of work in the whole house.

I built a double faced fireplace under the stairway that can be burned from the living room side or the den side, or both, and then I built another using all the freak stones of the whole job, in the third floor bedroom, which I furnished in antique colonial furniture of the family, making the most desirable bedroom in the house. I found this inside chimney a very practical arrangement as far as heating is concerned, as the chimney naturally radiates the waste heat from hot water boiler, and the fireplaces, which warm the interior of house considerably at no expense whatever. Many visitors have told me they never knew the possibilities of cobblestone construction until they had seen this inside work. I have oak flooring on all three floors. This was made by using my own oak planks two inches thick, by simply cutting off $\frac{3}{8}$ -inch strips and having them dressed on all four sides. This makes one of the best wearing floors which can possibly be made.

One of the "Best Sellers"

THE architect characterizes the design for this home as one of his "ten best sellers." House plans are like books; some please the fancy of a large class of home-builders and become very popular. It is inexpensive, and it is attractive, both qualities recommending it to the home-builder. It is 26 by 46 feet, making it available for a narrow city lot. The porch is of cement with a broad

view unobstructed by center post supports. The walls are covered with rough bungalow siding stained brown. The roof shingles are stained green. The roof is gabled up in front—enough to get head room for a nice attic—while the rear portion has a hip roof.

The plan is a model arrangement for a bungalow, having the accessibility characteristic of the best California type of



Vines seclude one end of the porch.

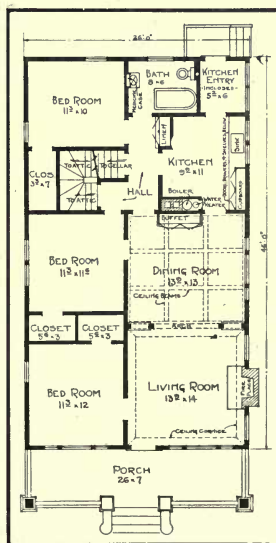
E. W. Stillwell, Architect.

bungalows with the added feature of a stairway to the attic. There are all the built-in necessities—a beautiful buffet, a kitchen cabinet that goes clear to the ceiling, a linen cupboard of the same design and a medicine case. The pressed brick fireplace contributes much to the interior cheerfulness while the columned arch with its broad opening gives spaciousness to the two principal rooms.

The entrance is into the living room, with a bedroom opening beside it. The living room has a fireplace with windows on either side. The arched entrance to the dining room is the full width of the two rooms. The living room has a beamed cornice while the ceiling of the dining room is beamed both ways. Facing the living room is

a built-in buffet, with a door on either side. One of these doors leads to the kitchen, which is well fitted with cupboards and drawers. The hot water tank and heater are enclosed in an asbestos lined closet, protected from dust.

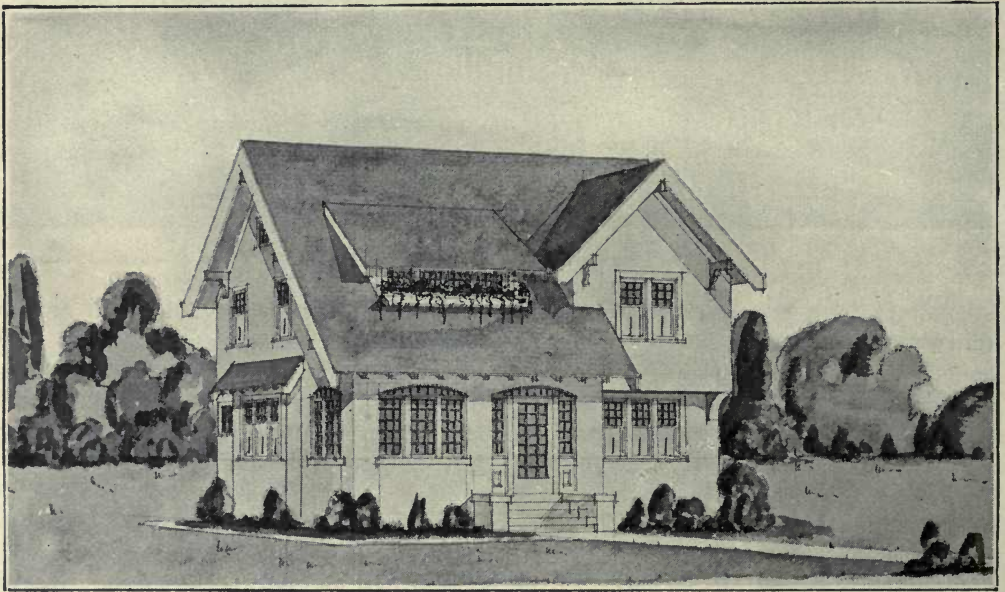
The door on the other side of the buffet leads to the small rear hall which connects the sleeping apartments and the bath. A door from the kitchen also opens into the hall and the stairs both to the attic and to the cellar are from this convenient hall. Each bedroom has an unusually large closet. The front bedroom can be used as a den if desired. By a slightly different arrangement of the closet space it may have a well lighted dressing room, with the inside closet opening to the middle room.



An Attractive Home

IN this design we have a two-story house which yet has the appearance of a modest cottage home. The exterior details are very simple, yet extremely pleasing. The walls are covered with white cement plaster put on over metal lath. Roof shingles are stained a deep red. The main roof extends out over

across the entire end of the house. An attractive brick fireplace with built-in bookcases fill the rear end of the room. On the opposite side of the hall is the dining room. The kitchen while small is very convenient, with its built-in work table, sink and range. Adjoining the kitchen, is an attractive little breakfast



The arched transoms add an attractive feature.

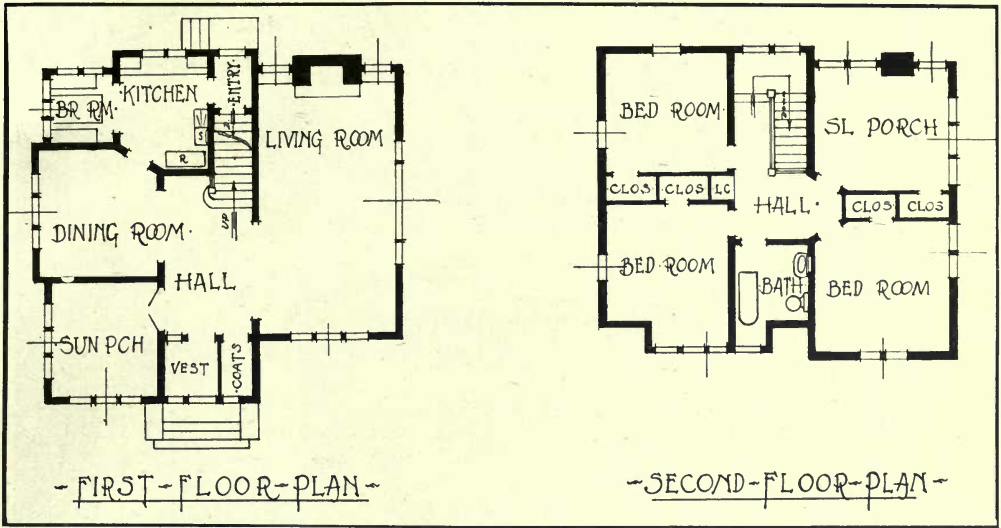
W. W. Purdy, Architect.

the sun porch and vestibule and the arched window heads makes a very effective treatment. The second story bedroom overhangs the first story and is supported by plaster brackets, which adds further interest to the exterior and increases the size of the bedroom.

The floor plan is a little unusual. It is of the center hall type with a good-sized coat closet in front adjoining the vestibule. To the left of this hall French doors open into a pleasant little sun room, while on the right is a large living room

alcove, with its built in table and benches all finished in white enamel. The rear entry is under the stair landing with the stairway to the basement underneath the main stair.

On the second floor are four good-sized, well-arranged and well-lighted chambers opening off a center hall. The rear chamber with its six windows, serves as a sleeping room, but is heated so it can be used in winter months as a regular bedroom if desired. The second floor is finished in egg-shell French gray enamel,



and the doors stained a tobacco brown, with birch floors. The bathroom has a tiled floor and wainscot, recessed tub, and pedestal lavatory. The finish of the first story is of white oak with white oak floors, pine floors on kitchen and breakfast room

for linoleum. The sun room is finished in Washington fir.

The basement is the kind that should be seen to be appreciated, with its white walls and ceiling, concrete fuel bin, light airy laundry, etc.

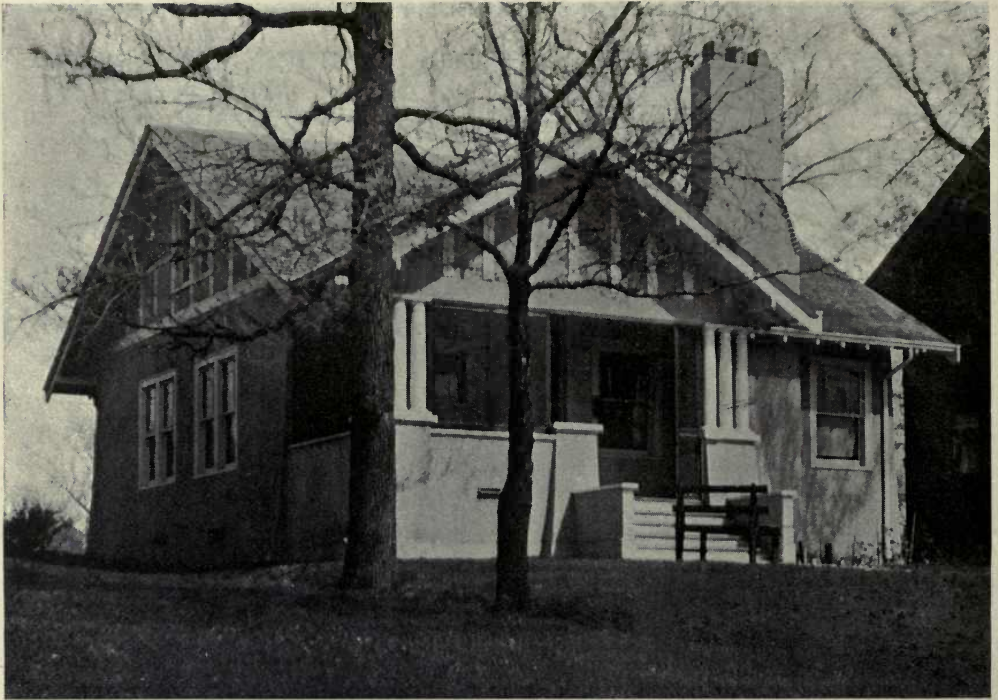
A Livable Home

THE small, compact, well arranged home is always in demand. It is livable, comfortable and economic in living expenses. Oftentimes the first cost becomes a matter of less moment than the continued running expense. A house that is easily cared for, easily heated, and compact, is a cheap house, irrespective of its first cost.

The exterior is finished in stucco over metal lath, giving a bright sunny tone, yet without the necessity of constant repainting. The porch, cornices, timber work, and trim are in white, with the simplicity of colonial treatment. The stucco chimney with the projecting tile, really effecting the purposes of the good old chimney pots, makes an interesting and effec-

tive feature in the design of the facade. The home here shown is very compact, the parts communicating together in a very satisfactory way. The wide opening to the dining room gives an excellent vista from the living room. The grouping of windows in both rooms is quite effective.

As indicated on the outside the key to the living room treatment is the fireplace. A short hall connects the living room with the bedrooms and bath. A closet opens from this hall. Each room has a closet and each room also has windows on two sides, and wall space so arranged as to accommodate the furniture. Oftentimes the well planned wall space in a bedroom is of more importance than floor



The porch, cornices and timber work are white.

Lindstrom & Ainars, Architects.

space. That is the principle on which compact houses are planned.

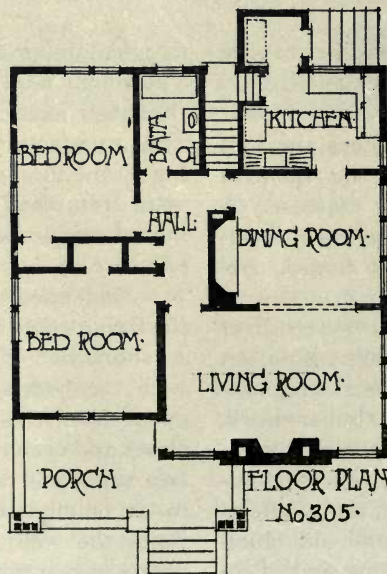
Two good rooms may be finished in the space under the roof if desired. The stairs open from this small hall, while the basement stairs, opening from the kitchen, with a grade entrance, are under the stairs to the second floor.

The kitchen is especially well planned. The sink is placed on an inside wall where it is close to the other plumbing, but it is well lighted from the window at the side. There are good cupboards and working space, also well lighted, and the

range is convenient to the sink. There is space for the refrigerator in the rear entry where it can be iced without intruding on the kitchen.

The porch treatment is interesting with its grouping of columns, with simple Doric caps, in keeping with the white cornices and trim. The house is set quite high and plastered to the grade line without a break.

There is a full basement under the house, with well equipped laundry and storage space, a room for the heating plant and fuel bins, and the usual needs of the city dweller.



A Half Timber English House

THIS English half timber house was recently planned for a home in a Canadian city. It was built with a frame construction and very substantial. Oriental brick was used from the grade line to the window sills and the walls above are finished in cement stucco with half timber work in the bays and gables.

good rooms, amusement hall, etc. The basement also is finished complete.

The plan is adapted to a south and west frontage. The house is 48 feet across the front by 35 feet of depth, exclusive of piazzas. There is a central porch and entrance with a porte-cochere and driveway in front, and with open terraces on either



An interesting half timbered treatment.

Chas. S. Sedgwick, Architect.

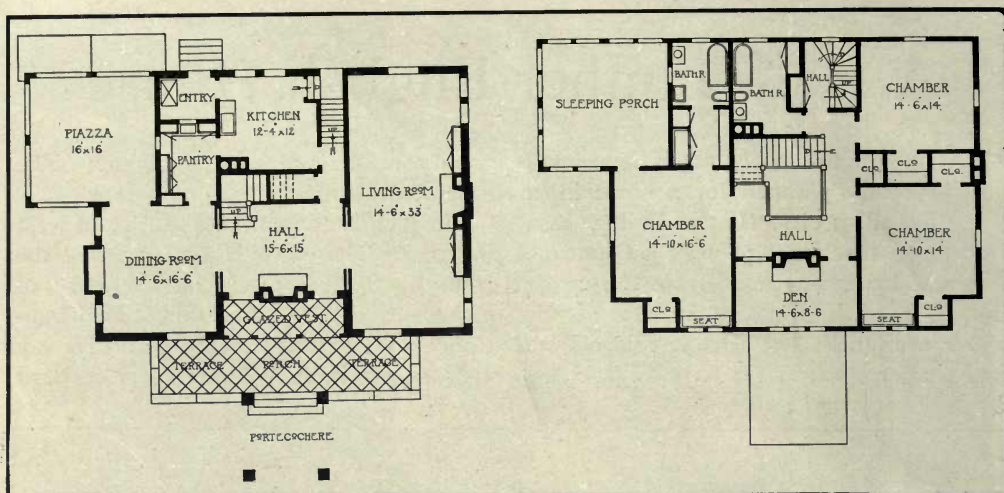
The cement was given a cream tint and all of the half timber work, cornices and other outside trimmings were stained dark brown. The roofs are shingled, the shingles dipped and brushed with a dark red Creosote stain. The half timbered treatment of the exterior is nicely handled and the symmetry of the front is dignified and pleasing.

The main story is 10 feet in height and the second story is nine feet, while the attic story is finished complete, with

side of the entrance, all with tiled floors.

One is admitted into a wide central hall with the main stairway opposite. A fireplace between the entrance doors gives quite an unusual arrangement. Sliding doors connect with the large living room, which is 14 feet by 33 feet, with windows on three sides. A wide open fireplace with bookcases on either side occupy the center of the long outside wall.

Across the hall from the living room is the dining room and beyond, the butler's



pantry is cleverly tucked in between the dining room and kitchen. The pantry has two windows. A sink and cupboards are here so that dishes may be washed and put away without being carried to the kitchen at all. Opening from the dining room is a large screened piazza with a sleeping porch above and a garage under it, entered from the rear.

The principal rooms on the first floor have beamed ceilings with oak finish.

On the second floor are three large chambers, ample closets, a den with a

fireplace in front of the central hall. The owners' suite of rooms is very complete including the sleeping room, dressing room, private bath, and sleeping porch and a smaller closet. The rear stairs extend from the basement to the attic story. There are additional linen closets in the second bathroom and rear hall. The whole second floor is finished in white enamel, mahogany doors, and birch floors. The third story is finished in white with fir floor. This home is beautiful and has been much admired.

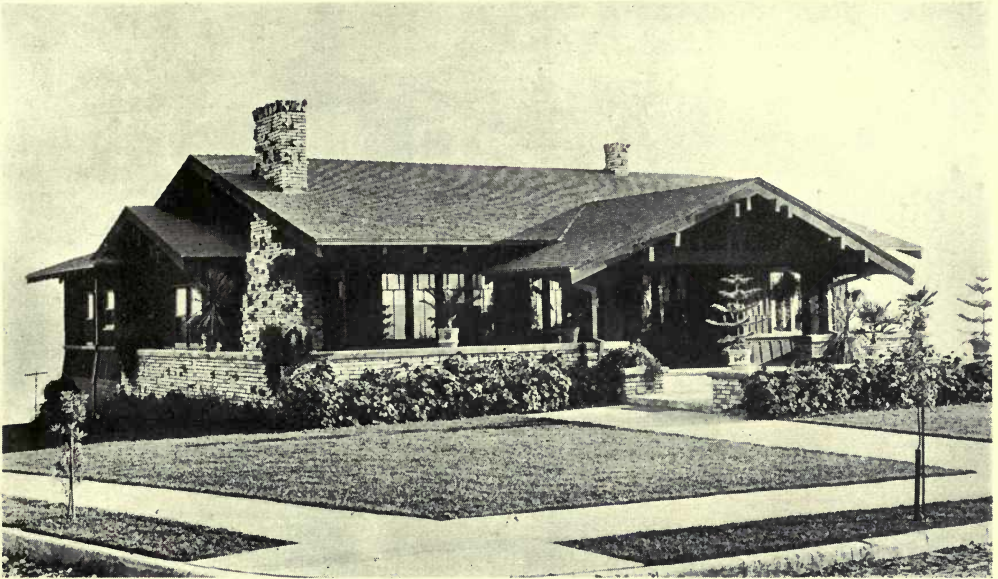
The Luxury of a Single Floor

THE convenience of having the whole house on one floor, with no tiresome stairs to climb has been one of the special features which has given the bungalow its popularity. So strong is the appeal, in fact, that it has even made duplex and flat buildings possible.

A great merit of the two-story building lies in the ease with which the sleeping apartments are separated from the living room giving, perhaps, a greater privacy. But modern planning has in large part solved the problem of secluding the sleep-

ing rooms from the day rooms so that one can have as much privacy as though they were placed on the second floor.

The bungalow home here illustrated is a good example of such planning. The living room and dining room extend across the front of the house, separated only by low bookcases and posts, and beyond the dining room is the service wing. The outer walls of these two rooms are almost entirely filled with windows. In one end of the living room is the fireplace, with French doors on either side



No tiresome stairs to climb in this bungalow.

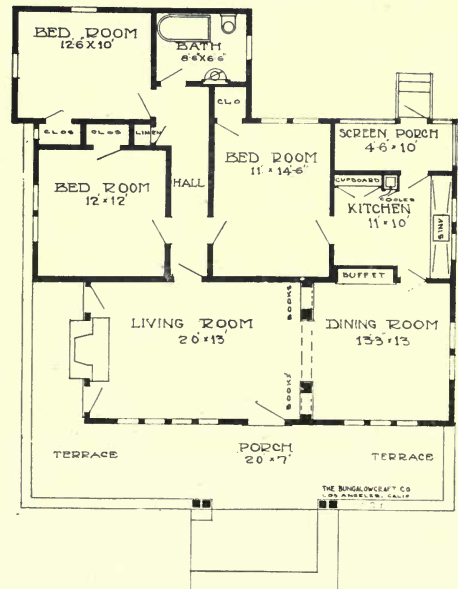
Bungalowcraft Co., Architects.

opening onto the terrace. In the dining room is a built-in buffet with a double swinging door to the kitchen beside it. A sink with long work tables on either side fills one side of the kitchen and is well lighted by the double windows over. A "cooler" and cupboard are built-in. A screened porch gives working space as well as a rear entry.

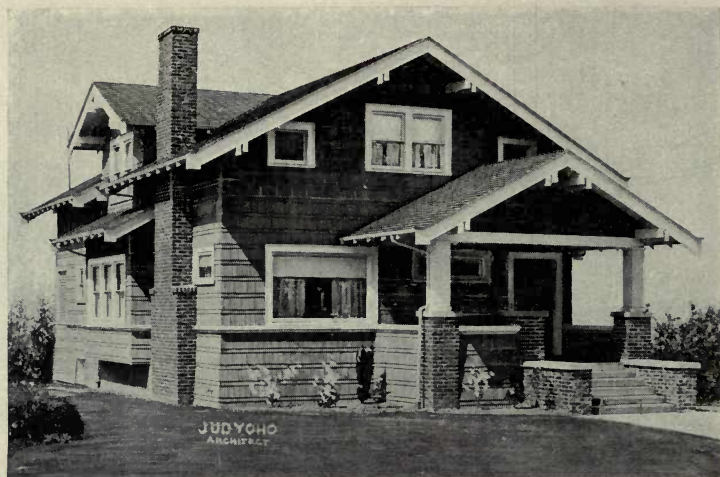
The sleeping apartments comprise three bedrooms and a bath, each bedroom with a good closet, and a linen closet opening from the hall. A private hall connects these rooms and is closed from the living room by a door. These rooms are of good size and may be completely shut off from the rest of the house. At the same time the large chamber has a door to the kitchen, presumably prepared for "my lady" to be her own cook, and giving her immediate access from her room to the kitchen without loss of time or steps. The living room and the bath room are equally accessible from her room.

A wide spreading roof covers the porch at the main entrance. At either side are open terraces walled with clinker brick

with a cement coping. The wide overhang of the eaves gives a considerable protection to the terraces. The outside chimney is also built of clinker brick. Dark stained "shakes" cover the main walls of the house, set on brick foundations.



The "Bungalow Universal"



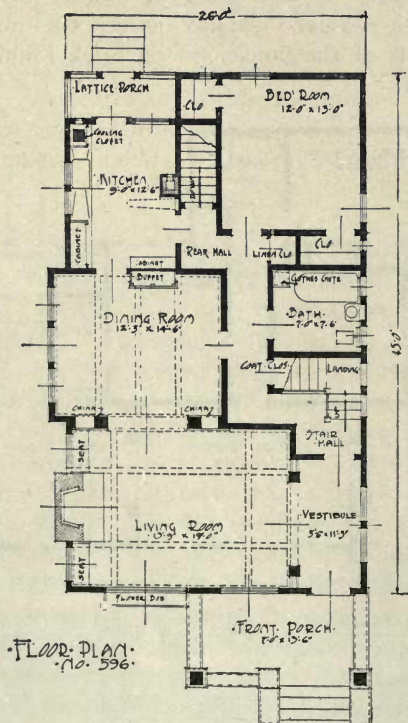
With alternating wide and narrow shingle courses. *Jud Yoho, Archt.*

A LOW-LYING, inexpensive, attractive home is the kind which is brought to mind when a bungalow is mentioned. For this reason their admirers believe that "bungalows" are fast becoming the homes of the world. This

particular bungalow has attic space finished under the roof without losing the bungalow feeling. The exterior is of wood with shingles in alternating wide and narrow courses. The shingles stained silver gray, with white painted trim and the burlap texture of the red brick make a combination which is very attractive. The outward flaring wall below the heavy sill course, gives a stable and substantial base.

In this plan we have the sleeping quarters entirely separated from the living room and by the same token have made it possible for one to go from front to rear of house or upstairs without passing through any of the rooms. Upstairs we have sufficient space for one large bedroom, a smaller one and a sleeping porch.

The built-in conveniences in this bungalow are very complete and very conveniently placed. In the living room seats on either side of the fireplace add much to the enjoyment of life. Provision has been made for attractive china closets where the proud housewife can display her dainty chinaware. At the opposite side of the room is a handsome buffet with the proper place for everything, whether it requires a drawer or space



in a cupboard,—silver, china, or linen.

The kitchen has every feature for saving steps. Here we have cabinets aplenty, a splendid cooling closet and a built-in ironing board as well.

The bath room, not to be outdone, has a

roomy medicine case, with a mirror door, rightly placed between the two windows. In the corner is a clothes chute to the laundry built to serve as a seat, with a hinged top, and a linen closet is provided in the hall.

Homes of Individuality

Selected by W. J. Keith, Architect



A cottage which is homelike and restful.

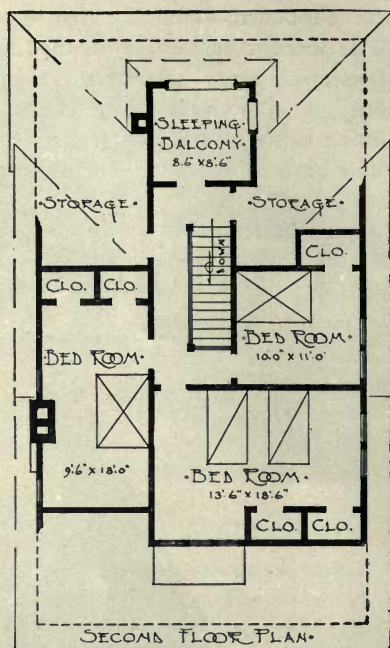
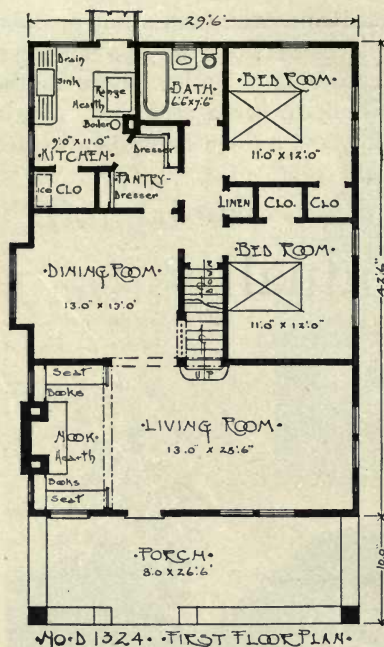
The Atmosphere of An English Cottage

THE quiet and homelike atmosphere of this cottage is most agreeable and the quaint little dormer against the rather steep slope of the roof, gives quite the feeling of an old English cottage. The floor plan, however, is vastly more compact and convenient than is usually accredited to the old country houses.

A porch extends the full width of the house as does the living room, making a room 13 by 28 feet. A fireplace with flanking bookcases and built-in seats makes an effective nook at one end of

the living room. Beyond it through a broad arched opening is the dining room, with a recessed bay. The dining room connects with the kitchen through a pantry fitted with cupboards. An adjoining closet makes a place for a refrigerator on an outside wall and is of itself a roomy pot closet. The kitchen is fitted with the usual conveniences.

Stairs to the attic space lead up from the living room with basement stairs under. Beyond this is the bedroom hall connecting the sleeping rooms and the bath and with doors from the dining room and pantry. There are two good bed-



rooms and a bath and linen closet on the second floor. On the third floor under the roof are three bedrooms with good closet space and a sleeping porch.

A Low-Roofed Bungalow

The photograph shows the low roofed type of bungalow which has been built in California, and which has also been built in the more severe climates and

made seasonable there by raising the house some two feet on a brick or concrete foundation to provide for cellar windows and for a satisfactory basement and heating plant. The use of concrete or a white cement for the beautiful outside chimney and the porch columns and rail, makes a very distinctive and attractive feature of the design.



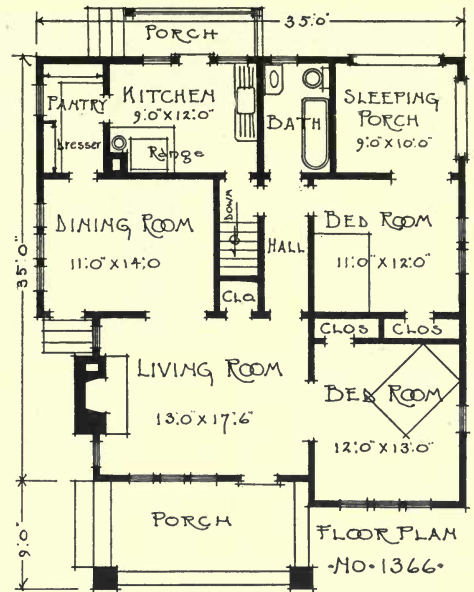
The stucco and brick treatment is effective.

This effect could be secured in a frame construction by the use of stucco, and a wooden cap for the porch rail instead of brick, and if this were done, probably the porch floor would be of frame construction instead of being paved with brick, as is here shown.

The shingles covering the exterior are laid alternately one very wide course, and one very narrow, giving a very attractive effect.

In floor plan arrangement, the rooms open up very nicely together and are a very good size, but if larger rooms were desired, it would be a very easy matter to simply build the house two or three feet wider and deeper.

The plan is practically square, 35 feet each way exclusive of porches. The living room, dining room, pantry and kitchen communicate conveniently. The dining room has an outside entrance, there is a fireplace in the living room. The rear hall separates the sleeping apartments from the living rooms, and communicates with the basement. There is a good sleeping porch and each room has its closet.



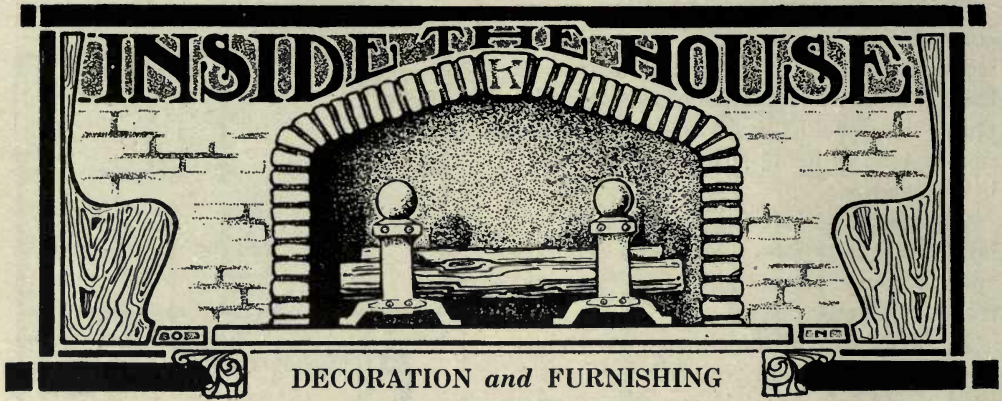
The plans of this design are drawn for a full basement upon a concrete foundation, letting concrete show above ground and providing good basement windows. There is also provided an outside rear cellar entrance, making the house practical for a severe, as well as for a milder climate.

City Ordinances and the Narrow Lot

BUILDING ordinances are taking cognizance of the fact that houses should receive sunlight from the sides in making their general restrictions. In many cities houses may not be built nearer together than from ten to fourteen feet. A house must set at least five feet from the lot line on either side; under other conditions it may not be set nearer than seven feet from the lot line. With this last restriction on a forty foot lot, only twenty-six feet may be built upon. While such ordinances restrict the width of a building they insure better housing

conditions with regard to light and sunshine. Slums grow and are propagated through ignoring such conditions. "Dark rooms," as a general thing, had windows, when they were built, but the windows expected to steal light from the adjoining property. When the neighboring lot took what was its own, the slum began.

While our typical narrow lots require a narrow house plan, the design can be so arranged that each room in the house may be light and airy, and the owners are not at the mercy of the house which may be built on the next lot.



A Suite of Rooms with Colonial Treatment



HE accompanying photos illustrate a suite of rooms in a stately Colonial home pleasantly situated between two beautiful lakes in the midst of a wonderful city park system. The site upon which this house has been built is an estate of considerable

size which provides the space required for expressing the dignity of a home planned and developed upon somewhat ample lines. This charming abode is a combination city and country home, far from the noise and dust of the city, yet only ten minutes auto ride to the office over shaded boulevards and well paved streets.

The Sleeping Chamber

There are certain types of architecture that require that the style be carried throughout the interior decoration. In a Colonial house the artistic eye instantly searches for the beautiful details, the white wood trim with mahogany doors, paneled walls and well balanced cornice with the furnishings to harmonize.



The sleeping room is large and airy.

INSIDE THE HOUSE

This large and airy apartment is treated in the pure Colonial and the windows offer entrancing vistas of stately trees and shimmering lakes. The wood trim is done in enamel with a soft ivory overglaze which lends at once an effect of mellowness that is pleasing to the eye. The walls are panelled with delicate wood mouldings, the spaces so formed being hung with a dainty Colonial paper in soft gray, rose and Nile green. The stiles surrounding the panels are done in a flat paint in French gray with the cornice and ceiling in soft ivory.

Built across the corner of the room is a mantle of beautifully carved wood and cream colored faience tiles, such as one finds in the Colonial homes of Boston and Salem. A handsome triple mirror in dull gold further enhances the beauty and dignity of the mantle.

The windows are treated in soft rose colored velvet and sheer grenadine glass curtains, the over-drapes being carried to the outside of the window casings so as not to interfere with the sunshine and fresh air. Candle sidelights arranged in pairs and topped with pretty shades of rose silk suffuse the room with a soft mellow glow.

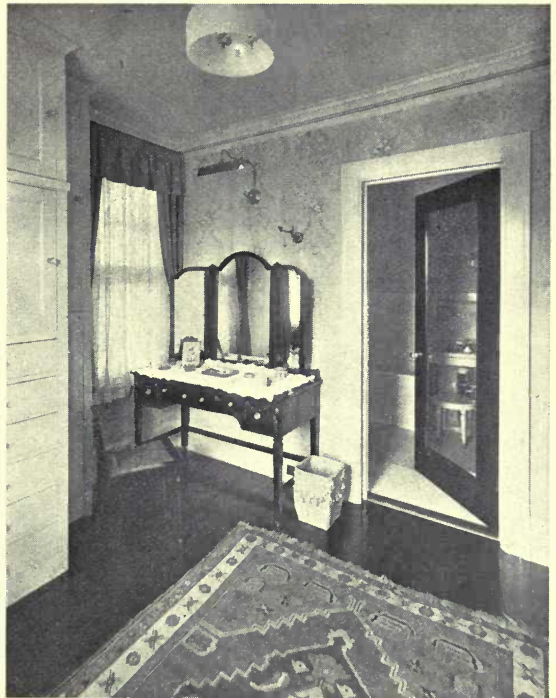
The handsome twin beds and spacious dresser are of West Indian mahogany and the many small rugs scattered over the floor are gems from the Oriental looms of the Far East.

Dressing Room and Bath

This practical little room has built-in cabinets, some containing shallow drawers, long enough to hold delicate gowns without folding and spacious hat boxes

with swinging doors capable of holding the largest product of the milliner's art. Other cabinets are high and deep after the style of a wardrobe and equipped with poles and hangers the whole being practically dustproof.

Plenty of daylight is admitted through



The dressing room has built-in cabinets.

two large windows while by night the triple swinging mirror of the dressing case is illuminated by a powerful tube light placed behind a reflector at a convenient height. An electric heater for the curling iron is seen projecting from the wall above the dressing table.

The full length plate mirror in the door reflects the wash stand in the bath room. This dainty bath is done in white and

INSIDE THE HOUSE

blue with tile floor and wainscot while the walls are in flat white paint and blue stenciled decorations.

The Morning Room

Adjoining the master chamber is a charming morning room done in cool gray grass cloth and ivory enamel. Two pairs of French doors hung with amber colored Austrian shades give access to a



A charming morning room.

spacious balcony overlooking lakes and gardens. This delightful room is furnished in old ivory wicker and English chintz with the same chintz introduced in the door valance. The room is dainty and restful, inviting the spare moments of its fortunate occupants.

The chaise lounge and glass topped wicker table holding the current magazines offers a delightful place to read and day dream.

Summer Furnishings

Year after year the subject of summer furnishings becomes of greater importance to those interested in household adornment. Fresh sources of inspiration are to be found in the shops, this season's offerings being more diversified and decorative than ever before.

Summer furnishings for the home require quite as much consideration as does the treatment for the winter months. The long sultry days of summer demand cool surroundings and necessarily, the hangings, floor coverings and furniture must be of lighter materials, and with the wide and varied stocks of furnishings of fascinating color and design now offered by the progressive merchants and decorators one can scarcely go astray in making the home cool and attractive for the Summer Season.

Ideal Summer Furniture

There is nothing quite so refreshing as a well appointed veranda or sun room and in selecting the necessary furniture the main considerations should be simplicity and comfort. This cannot be achieved where the chairs are hard, and stiff or stuffy with heavy upholstery.

There is now on the market a bewildering assortment of reed and rattan pieces and pleasing but inexpensive willow in

INSIDE THE HOUSE

many different finishes. This woven furniture may be obtained in old ivory enamel and in the natural colors which appear to be the favorite treatments; also many shades of brown, cool greens, bright vivid reds and also white outlined in dead black.

Lunching and dining on the veranda is becoming very popular and for this purpose nothing is so practical as a gate leg table with a muffin stand placed conveniently at hand. Of course we must not forget the tea wagon which was once considered a luxury but is now a necessity. This may be obtained in reed to match the furniture or in mahogany with the movable trays and a convenient shelf underneath. It is surprising how many steps may be saved by the use of this stunning piece of furniture.

If space is available we might become quite reckless by the addition of a chaise lounge which is very picturesque as well as convenient on which to dose away the long hours on a sultry afternoon. A large veranda to be well furnished requires a comfortable swing seat suspended from the ceiling by chains and when piled with bright colored chintz covered cushions offers a delightful place for an afternoon nap. Swing seats are to be had in a wide range of materials; inexpensive ones of painted wood which stand the weather nicely and others of kahki cloth and canvas. The more artistic swings are of reed and finished in spar varnish to withstand the elements. A clever conceit is a book and magazine holder with woven reed back and ends and containing a couple of shelves large enough to hold a dozen or more popular books and current magazines. This handy piece of furniture may be suspended from the wall with

two small hooks and will prove very useful.

Light Weight Draperies

To me the most interesting feature of this season's offering in drapery fabrics is the endless variety of imported and domestic chintzes, cretonnes and printed cottons and linens. A decade ago these printed fabrics were unknown; now the shops are featuring these beautiful materials which bring into the home an atmosphere of outdoor freshness, a reflection of the verdure and bloom of the fields and gardens. With chintz and cretonne hangings each room of the home may receive a different treatment, each with a clearly defined atmosphere of its own, yet all equally charming. This should apply particularly to the sleeping rooms which should receive an abundance of fresh air and sunlight and be treated in refreshing colors.

For the chamber windows charming printed cottons may be had as low as 30 cents per yard for the 36-inch widths. The colors of these inexpensive fabrics are thoroughly set and washed before leaving the mill and will withstand any reasonable washing where no injurious chemicals are used. With the window hangings and loose furniture covers made up in a floral pattern, charming bedspreads may be made of a plain cotton taffeta or drill either in a soft cream or a delicate tint and ornamented with braids and borders cut from the flowered material and applied in the form of panels.

For the living room, dining room and library there are beautiful 36-inch printed cottons as low as 65 cents per yard in perfect imitation of expensive hand-blocked linens both in color and weave with the background in a neutral tint

INSIDE THE HOUSE

which will not soil easily. Very stunning yet very decorative are the bird and floral combinations on black or blue background. The black chintzes are startling at first but like old wine they improve

with age and in a few days they sneak into your affections in the same manner as a choice rug from the Orient. The chintzes and printed linens seem to satisfy the craving for color which is upon us.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing
Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given *free of charge*. Enclose stamp for reply. Write on one side of the paper only.

The Spinet Desk

MANY home builders, even though not afflicted with the craze for collecting old furniture, will find it hard to resist the temptation to possess a charming desk smacking of Colonial days. This desk was built from an old grand piano of fine old rosewood, the rich mellow flame of the wood which can only come with age being preserved in all its virgin purity.

These desks conform to the old time spinet or melodeon styles following the traditional lines and the simplicity of Colonial days. It is surprising how perfectly at home this charming desk appears, whether placed in the oak trimmed living room or library, or in "my lady's chamber" with its enameled woodwork. Like an oriental rug one



A desk of antique rosewood.

learns to love it and will not willingly replace it with a modern piece.

A modern reproduction of a spinet desk which can only be purchased in soft mahogany would cost from \$75.00 to \$125.00, while the genuine antique spinet or melodeon desks are extremely difficult to find at any price.

The Wall that Won't Fall



Beaver Board walls never crack, chip or fall. You can bank on Beaver Board to last as long as the building and give constant satisfaction. No other wall material decorates so handsomely and gives so wide a range of service.

Beaver Board takes the place of lath, plaster and wallpaper. It's completely sanitary.

If you're planning to build or remodel, ask our Design and Decoration Department to help you plan. The service is free.

BEAVER BOARD

The Beaver Board Companies, 653 Beaver Road, Buffalo, N. Y.

Branches in Principal Cities

Will Your Windows

Give You Real Summer Comfort?

Will you be able to throw them out to catch the lightest passing breeze, yet lock them at any angle—and with strength enough to defy a hurricane?

All this you can do, and more, with the C-H equipped casements described in this booklet.

It's free to those who want the better homes.



The Casement Hardware Co.

7 S. Clinton St., Chicago



Satisfaction Is Assured
When You Use

Oak Flooring

BEAUTIFUL - SUBSTANTIAL

¶ Owners always emphasize OAK FLOORING in newspaper ads when they offer their homes for sale or for rent. They know OAK FLOORING increases the selling and renting values besides attracting a better class of buyers or renters.

¶ For bungalows and moderate cost houses 3 in. OAK FLOORING, Clear Plain or Select Plain, is the ideal flooring because it is very economical in cost and when laid, has all the appearance of 13-16 in. OAK FLOORING.

¶ There is a solid satisfaction and lasting pleasure in the substantial and dignified appearance of OAK FLOORING.

¶ 3-8 in. OAK FLOORING is very adaptable for covering old pine floors in old houses, as well as in new houses over cheap sub-floors.

¶ Nature has given OAK FLOORING that peculiar favor that appeals to the artistic as well as the demand for the distinctive and substantial.

¶ 3-8 in. OAK FLOORING will fill every requirement where economy is a factor. It comes in 1½ in. and 2 in. faces. It is tongue and grooved and end-matched in like manner so that the nailing is done through the tongue, or blind-nailing.

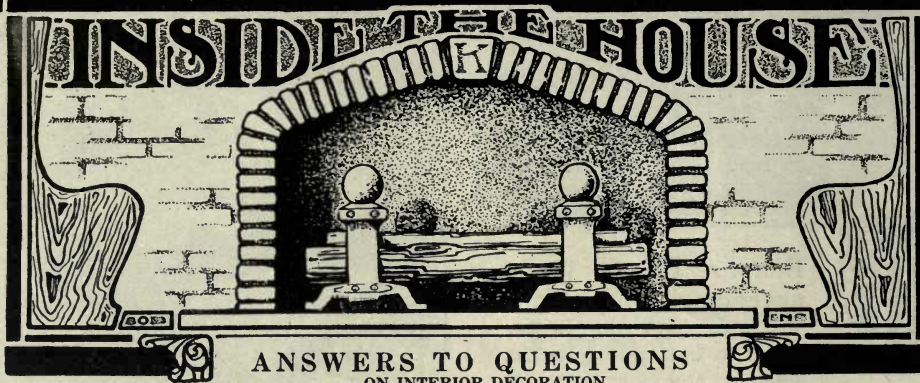
All reputable lumber dealers sell OAK FLOORING

Write for Booklet—

"America's Best Flooring"

The Oak Flooring Bureau

1348 Conway Bldg., Chicago



Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

Furnishings That Can Be Moved.

H. S.—As an interested reader of your magazine I would like to ask your help. You may, however, consider my questions too indefinite for answer by your department. I am going housekeeping in the fall in an apartment in Washington, D. C. There will be but three rooms—sleeping room, combination dining and living room, and a kitchen. I don't know the size of the rooms but they probably will not be very large. I am anxious to have these rooms suitably and artistically furnished. My fiancé is an army officer so the furniture should be of a sort to stand moving every few years.

We have several oriental rugs of the reddish brown sort but I do not care for a red color scheme. Would brown wicker furniture be suitable for the living room? Or do you think wooden furniture would be more suitable? I am very fond of quaint old-fashioned things, Sheraton and lighter weight Colonial furniture, but don't know enough about it to trust myself to "pick up" pieces that would harmonize. Could you offer some suggestions or tell me of some inexpensive way to find out about it? I want curtains, picture frames, etc., to harmonize with whatever scheme you suggest.

We will not need much furniture so can afford to have it good.

I like white or ivory enamel furniture in a bedroom, but does it stand moving well?

I realize my questions don't give you much to go by but I don't know what I

want and I would like some ideas. I have been living on a farm in Texas for several years and haven't much confidence in my ability to select the right, suitable things.

Ans.—We are interested in your letter but as your plans are so tentative, can only offer some general suggestions.

We think you will find your own innate good taste and sense of the fitness of things, as evidenced in your letter, will carry you through the task of furnishing quite successfully. As you say, you are not now in the way of seeing things and when you first begin to look them up it will be confusing. But take plenty of time; don't try to furnish in two or three days. Do nothing but look for a day or two and at night sort of sift things out. You really must see your apartment before you can tell what to put into it.

In view of the probable moving about, we think wicker furnishings would be very desirable as they can be crated so easily. But not brown wicker; we should aim at carrying out a scheme of grays mostly, with color contrast of greens or blues if your apartment has south or west exposure, and of rose or mulberry if it faces north or east. We would have no mahogany as this is the most easily marred of all furniture. But very delightful oak pieces are now finished in a silver gray stain or a Kaizer gray. You could get for the dining room a round table, a buffet sideboard, etc., and furnish the living room end in gray stained wicker, upholstering the chairs, wicker davenport,

INSIDE THE HOUSE

etc., in old blue or mulberry velvet, according to the color decided on. But if it were our own case, we would use wicker for the whole thing. The round wicker breakfast tables with glass top over cretonne, are delightful. They have chairs to match. You could use doilies on this top for most meals.

We have arranged a scheme of old blue velvet for the living room wicker with a cretonne for the dining room, which showed blue and rose and gray. There are Scotch rugs with gray centers and blue and old rose in the border for the dining room end, with a plain blue Chaumont rug for the living room end. A mahogany piano would be entirely harmonious with these furnishings or any odd mahogany piece you chanced to receive as a gift. The trouble with the scheme is in the brown and red oriental rugs; but oriental rugs can always be exchanged at about their face value.

Ivory enamel furniture will move if carefully packed. There are packers who make a specialty of this.

A Charming Interior.

K. P.—I would like your advice in regard to wall paper, curtains, and woodwork in our new home. Living room, entrance hall and dining room are all connected by sliding glass doors. Living room has windows on south, east and west sides. Dining room faces east, one window to south. We have rugs for these rooms in which I would like to plan the wall paper and drapes. Dining room furniture is all fumed oak. For living room we must use mahogany grand piano and music cabinet, several wicker chairs and settee stained a light brown, fumed oak reading table with cane work in doors at each end, and two fumed oak chairs. Woodwork will be white cedar, stained a light Flemish oak, or can you suggest anything better? Can we get a light oak effect with a grayish or greenish tinge? There will be built-in bookcases and desk. I would greatly appreciate any suggestions for wall paper and draperies in these two rooms, materials to be of moderate cost. Floors will be of oak, natural.

What would you suggest for wall paper, curtains and rug in a bedroom facing



EVERY DOLLAR put into varnish by the home builder should be regarded as an investment.

The dividend paid by good varnish is a finish on the woodwork that satisfies completely and lasts indefinitely.

Poor or unsuitable varnish pays no dividend, but soon goes bankrupt and the finish has to be done over.

It costs as much to apply a poor varnish as a good one, and the difference in the price per gallon is nominal as compared with the cost of refinishing.

The infallible guide to what is best in Architectural Finishes is the label of Berry Brothers which has for many years protected the buyer against inferior wood finishing products.

We would like to mail you some instructive literature on wood finishing for the home builder. Write our Architectural Department for it.

BERRY BROTHERS
INCORPORATED
World's Largest Varnish Makers

Established 1858

Factories: Detroit, Michigan; Walkerville, Ontario;
San Francisco, California.

Branches in all principal cities of the world.

(351)

INSIDE THE HOUSE

east, one window south? Furniture is gum wood stained a beautiful soft tan with a tiny decorative design in green painted on, just a line outlining edge of different pieces. I am very fond of blues and yellows and would like to use one or both in this room. The woodwork will be painted cream-white.

Ans.—Your very pretty furnishings can easily be given an artistic setting. In regard to finish of woodwork, either we would stain the cedar a fumed brown to the tone of the furniture, or we would leave it natural. We should not care to give it a greenish tinge, though this would be easy to do by using a green weathered oak stain. We have often admired the white cedar woodwork in California homes, but of course, it wholly depends on whether you prefer a rich, dark effect in your rooms, or a bright, light one. We think the natural white cedar would be very lovely with natural wicker and green or blue furnishings; but considering your fumed oak and mahogany, we think the brown stain the better choice.

Since you are fond of blue and there is much blue in the rugs, why not use in living room, a rich blue velvet or corduroy on some of the furniture, and blue silk rep or poplin of a slightly lighter tone for hangings at windows, with a soft grayish tan paper in self-toned design on the walls? Then in dining room a blue and green and tan foliage design on the walls with pale tan ceiling in both rooms. Not a yellowish tan at all, but it is impossible to describe just the tone. The glass doors will need to be veiled with some sheer net, same as the window curtains. The bedroom furniture you describe must be very soft and lovely. We should like soft dull blue with it very much, but not yellow. The cream woodwork will be just right and cream ceiling. Rose also would be lovely with this furniture and a wall paper in soft creamy tan and rose. If you carry out the blue scheme on the first floor we would suggest the rose and tan in this bedroom.

Window Shades.

E. B. M.—As a reader of your magazine, am asking your help as to window shades for our new bungalow which is of light gray stucco with green trimmings. My idea was to have green shades, but as we have always had white, my husband does not like the idea of green. He said, "Our windows were always the prettiest and most cheery of any in the block." Now my only object in changing is that I don't see the white ones much in use. Then, too, they soil so quickly. Please give your opinion of brown.

Ans.—In reply to your inquiry, we should not advise white shades on the exterior you describe. You are quite right in thinking they are now seldom used. A medium green would be in harmony with your house, or a gray. We do not think brown would be a good choice. You can, of course, have the Dutlex shades, green or gray outside and white inside.

A Color Scheme with Wicker Furniture.

F. S.—I have been an interested reader of your suggestions to correspondents and now that we are building our new bungalow I am taking advantage of your offer of assistance. I am enclosing small print of floor plan and ask your advice on the following subjects. The exterior is frame with cement porch and chimney—the sides to be gray with white trim and the roof a moss green. The interior woodwork will be ivory enamel and mahogany.

Will you tell me if my proposed color schemes for living room and dining room are at fault, and if so, how to change them? For the living room—gray walls, rather simple, unfigured paper, cretonne hangings with old rose and gray predominating and, if possible, a gray rug with some old rose in it. For the dining room, which will probably be paneled to a plate rail, I wanted to use a blue frieze with splashes of golden yellow and either old rose or deep yellow hangings at the windows and an old blue rug with mahogany furniture.

What furniture shall I get for the liv-

INSIDE THE HOUSE

ing room. I would prefer wicker chairs with cretonne upholstery to match the hangings. If I use wicker, what stain should they be, dark or light? Where can I place a davenport to best advantage and where should the library table be? I want my furniture to be fitted to my house and not elaborate, but strict economy need not be considered.

Will you kindly tell me where to put the beds in both bed chambers and where to have the dressing tables so that I can have the electric light brackets placed on the sides of the dressing tables?

The fireplace in living room will be brick—what kind and what color will be best with white woodwork and mahogany trim?

Ans.—Your color scheme as regards both exterior and interior, is most attractive and we find little to change. Your plan of furnishing the living room in wicker is excellent for a bungalow with white enamel trim and mahogany doors. We think a dull but not dark sage green would be very artistic for the color of the wicker in combination with gray walls and cretonne in gray and rose. We think a Saxony or Chaumont rug in plain reseda green, the center a medium shade, the border in both darker and lighter tones, would give more character and beauty to the room than the gray and rose. We would also upholster the seat in nook in corduroy or velvet in the plain reseda green and the davenport, as there will be enough of the cretonne when used for chairs and curtains and the plain upholstery on seat and davenport, will not only be more substantial, but will give more character. We are returning your floor plan with pencil suggestions for placing the furniture.

One of the extremely pretty wicker desks would be admirable in the nook, placed so as to use the seat instead of a chair, and a wicker fern or flower box in the group of windows. The method of placing the davenport in front of the fireplace with library table backing up to it, is well adapted to a long, narrow room like this. We should choose gray brick for the fireplace, sand mold.

If carried out, this will be an unusual and charming room. We infer it has an

For Simplest and Grandest Homes



EDWARDS

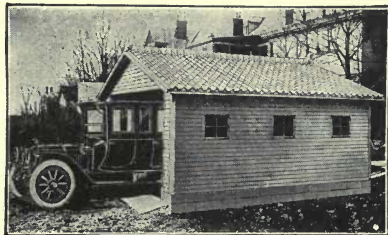
Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of Metal Spanish Tile is yours for the asking. A postal will bring it.



Own Your Own Garage

All Sizes—All Prices

An Edwards METAL Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and safe! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

\$69.50

and up

Write today—right NOW!

The Edwards Manufacturing Co.

The World's Largest Makers of Metal Ceilings, Metal Shingles, Metal Roofing, Siding, Rolling Doors, etc.

521-541 Culvert St.,

Cincinnati, Ohio

INSIDE THE HOUSE

east and south exposure. The dining room in blue and green and dull yellow, will be good. There should be some green introduced with the blue to bring it into relation with living room.

North Light.

H. C. D.—Enclosed you will find a sketch of first floor plan of the new home which I am building. I would like your advice as to the decoration and furnishing of same.

I intend to have hall, parlor and dining room woodwork in a dull, flat finish; bedrooms and kitchen in the natural finish. Would it be in harmony to use mahogany furniture in parlor and golden oak in dining room, as these rooms are only separated by columns? Would like your suggestions as to what furniture to get for den. The exterior of house will be painted in slate color with white trimmings.

Ans.—Examination of your floor plan shows only north lighting in living room and group of east windows in dining room. These rooms will need all the help you can possibly give them in wall treatment and furnishings. It will be necessary to use a light fumed brown stain on the woodwork, which must of course, be the same through hall, living room and dining room. If furniture is to be bought, we should not use mahogany with golden oak. We should prefer some of the combinations of oak with antique cane, now so much in favor.

The walls best be in a pale soft putty or sand gray with white ceiling, using warm dull rose or mulberry for rug and furnishings in living room and soft dull yellow curtains in dining room with blue and yellow rug. We should furnish the den with light brown wicker upholstered in green, brown and rose cretonne and

should stain the woodwork a dull but not dark green. The walls soft ecru with cream ceiling.

We regret you will finish the woodwork in bedrooms natural as it is quite impossible to make a pretty room with such wood trim, no matter how you furnish it. Take our advice and have a white or cream trim.

A Colonial Hall.

F. T. S. I have purchased a set of plans and have asked the architect to turn them over to you.

Attached to this letter is what information, jumbled I will admit, that I can think of that would be of use to you in suggesting some ideas for finishing, decorating and furnishing the house. I will greatly appreciate any suggestions.

Ans. We should be sorry to do this whole house in painted or tinted walls, as it is impossible to get the best effects with solid surfaced walls everywhere.

In the hall we should particularly like to use a colonial style tapestry paper above the wainscot, as this is typically a colonial house. There are charming papers for a music room, too, in the new black and white effects, that would be ideal with old blue hangings and carpet. But we have followed your instructions.

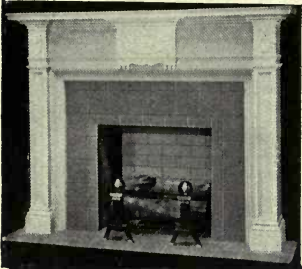
We have given the northeast dining room a rich, warm treatment and with the dark furniture and woodwork it will be a very handsome room. The soft browns and ivory of living room we have relieved with green to bear out the upholstery of the davenport, using the green velvet or mohair for cushions for window seats and making the carpet in the soft shaded green. The paper border can be used on the tinted wall and will be a great addition.

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.

CAREY

Ceil-Board
SUPERSEDES PLASTER FOR WALLS AND CEILINGS

Comes in panels ready for the job. No muss or dirt. Can be applied by any one. Hammer and nails the only tools necessary. Plain or hardwood finishes, can be papered or painted.

Samples and booklets on request

THE PHILIP CAREY CO

Gen'l Offices: 1024 Wayne Ave., Lockland, Cin., O.
Offices and Warehouses in Principal Cities.



Design No. 327 by Jud Yoho, Estimated Cost \$3200.

If you are planning a real home—plan a bungalow and consult my

NEW BUNGALOW BOOK

1916 De Luxe Edition

Compiled and written by a man of experience and reputation. Illustrated with exterior and interior photos, plans, sizes of rooms, cost, etc., of the cream of the 1000 pretty, distinctive, practical BUNGALOWS, actually built for \$400 to \$4000, suited to any climate. Get this largest exclusive bungalow book, 112 pages of invaluable building suggestions. Price.....

\$1.00

Smaller edition of same only 50c. Send check, money order or stamps. Money back if not satisfactory.

JUD YOH0, *The Bungalow Craftsman*

466 Bungalow Bldg.,

Seattle, Wash.

Beautiful tiled bathroom and kitchens are no longer a luxury. Even the most unpretentious homes can afford

UPSON FIBRE-TILE

Looks like expensive tile. Lasts longer. Costs far less. Really artificial lumber with deeply indented tile pattern. Nail it over old plaster or to studding, and enamel. Send 2c stamp for sample and interesting booklet.

THE UPSON COMPANY 157 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.



Residence in Roselle Park, N. J.

Harry Firth, Esq.,
Architect

Roofed with Hudson Asphalt Shingles

HUDSON ASPHALT SHINGLES

Red : Mottled : Green

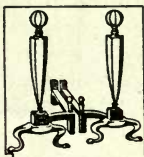
BEAUTIFY THE HOME. Need no painting or staining, and make a permanent, leak-proof, fadeless, fire-resisting roof.

Samples of Hudson Shingles and our book, "Shingling and Roofing," sent free, postpaid, on request.



ASPHALT READY ROOFING CO.

Dept. 479, 9 Church St., New York



SIGN THE COUPON

and we will send you, without obligation, our new catalog showing

OUR SELECT LINE OF AND IRONS

Fire Buckets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc. These will interest all who are building or improving their homes.

We Make Only High Grade Goods, But Our Prices Are Right

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

STOVER MANUFACTURING CO.
704 East Street, Freeport, Ill.

Send me your Catalog No. 1550 I am

especially interested in.....

Name

City

State



A Problem in the Fourth Dimension

AS the people recognizing only two dimensions, the supposititious "flat-land people," moving in the surface of a sheet of paper could not pass a pencilled line, so the present-day philosophy is trying to solve the "fourth dimension." In some way it must find space in what we now consider a void. A commercial solution which has been suggested,—and it rather tickles the fancy placed under this heading,—is a disappearing bed which converts the sun parlor as a day room into a sleeping porch by night.

With the growing feeling for "efficiency" we are almost getting to begrudge the space which the extra bed fills up in the day time, even in its usual place. On a sleeping porch which, without the bed, would be the finest day room in the apartment, it seems a positive "economic waste." In response to this feeling comes the "ceiling bed." A very clever device

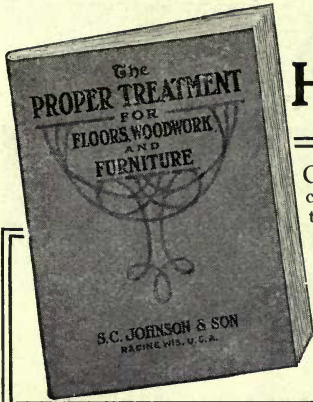


The sun porch as a day room.

which by a crank and a system of leverage and balanced weights, draws the whole bed, pillows and all, into a panel in the ceiling, accommodated between ten-inch beams, is shown in the accompanying illustrations.

In the first cut a portion of the porch roof has been taken away to show the bed in place under the rafters. The second shows the bed ready for use. Another shows the bed just below the ceiling as it is being lowered. The plaster board panel provided for the purpose has dropped into place closing the panel in the ceiling. The sturdy legs which support the bed on the floor are folded up beside it before it is raised to the ceiling panel. A weight pocket is provided at some convenient place in the wall, and the weights are so adjusted that the bed is perfectly balanced and moves as easily as a weighted window. The four cables which carry the bed are wound on a windlass in the

This Book on Home Beautifying Sent Free



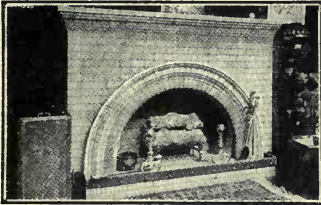
Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

S. C. JOHNSON & SON, Dept. K. E. 7, RACINE, WISCONSIN

"The Wood Finishing Authorities"



Colonial Fireplaces ARE RIGHT

Made to Order
from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are economical both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO



MONEY-SAVING PLANS

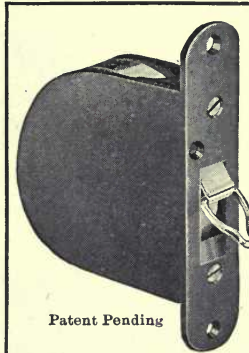
SAVE without skimping by building from our practical plans of up-to-date homes of distinction and charm. All waste eliminated by our experience as architects and builders of a great number of homes. Our plans have helped to beautify thousands of American cities. Send for our plan books: "Bungalows," 100 moderate priced bungalows; "Attractive Homes," 100 story-and-a-half and two-story houses.

Either Book postpaid, \$1; Both Books for \$1.50

LINDSTROM & ALMARS

290 Plymouth Building

Minneapolis, Minn.



Caldwell Sash Balances

Uniform Mortises

For use in all classes of
new work

Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counterbalance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular

Caldwell Mfg. Co.

6 Jones St., Rochester, N. Y.

HESS MEDICINE LOCKER

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free



The Recessed Steel
Medicine Cabinet

SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price.....1.00
50 Design Book "Bungalows and Cottages," Price......50
One Large and One Small Book, Together \$1.25, Three Books.....2.00

Many pretty one-story Bungalows and Cottages. Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

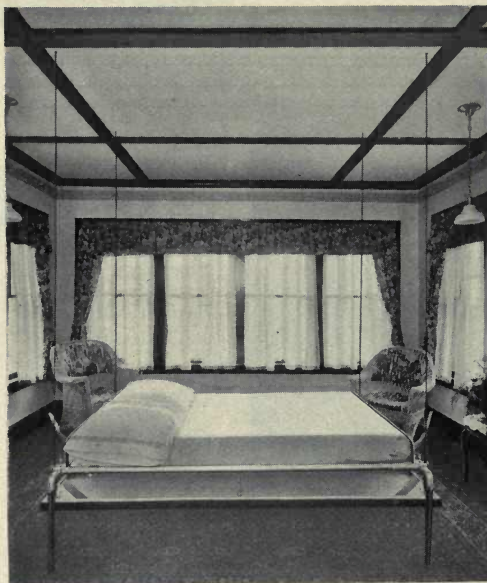
CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA



Square dealing by our advertisers is guaranteed.

INSIDE THE HOUSE

wall, with only a small plate showing in which the crank handle is inserted. The turning of this handle draws the bed into the opening in the ceiling. Below the bed is a panel, the under side of which is finished to match the ceiling and fits exactly between the beam strips on the ceiling. The cables which carry the four corners

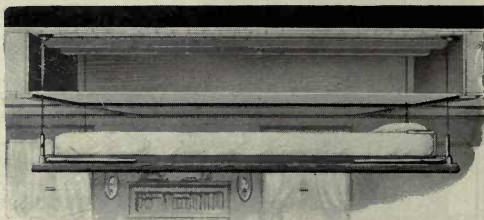


The bed lowered into place.

of the bed are attached to this panel. When the bed is in place on the floor this panel is lowered further, to be entirely out of the way of the bed.

In the morning the bed is spread up just as though it were a stationary bed, the legs are folded up and the wide geared crank soon takes the bed up to the ceiling. The duplicate panel keeps its place in the ceiling until it rests on the frame of the bed when it is carried up, followed by the bed, and the lower panel takes its place in the ceiling.

While a "ceiling bed" seems especially convenient and appropriate for use on a sun porch this bed has been arranged for installation between ten-inch floor beams, such as are generally used. The bed,



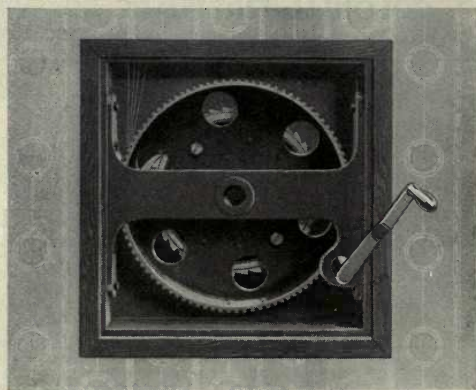
The bed lowered so that ceiling panel is in place.

frame and mattress can all be confined in that space, between floor and ceiling.

The device is certainly ingenious and answers one of the economic requirements which the pressure of the times tends to put upon people demanding the utilization of every bit of available space.

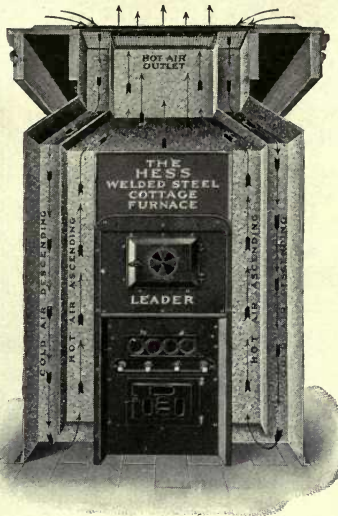
Comfort and sanitation have been considered in the manufacture of the bed. An iron frame has been used and a sagless spring.

Such a bed can also be installed in any room in the house if desired. It will allow



The crank handle and windlass.

the small family to have a guest room,—that relic of the luxury of a decade ago,—by turning the den into a guest room, when so desired. The boy's room can be made to accommodate his friends, instead of their having to go out—some place—to find a place where they can get together without being disturbed or being in somebody's way.



Forty Contractors,

who have used hundreds of **Hess Welded Steel Furnaces**, all over the United States, have recently written us letters telling of their experience and satisfaction with **Hess Furnaces**, and with our system of dealing direct-from-factory-to-contractor and consumer.

We have published these letters, with several hundred more from other customers, in a small booklet. Without one word from us, this booklet would convince you that **Hess Furnaces** are in a class by themselves, as a heating proposition.

The contractor and the consumer are safeguarded, not only by guarantees, but by a **trial plan** which holds back the purchase price **until the furnace is tested out to the customer's satisfaction**. The expense is reduced and limited by the **"direct-from-factory"** purchase, which cuts out middlemen's profits and expenses.

When you need another furnace, secure our estimate and free plan showing how to lay out a furnace system. Write now while you think of it; a postal card will do.

HESS WARMING & VENTILATING CO., 1217 Tacoma Building, **CHICAGO**

White Enameled Steel Medicine Cabinets, also.

Make Country Life Modern

with Kewanee Outfits. Every one complete in itself, semi-automatic, requiring little attention and no repairs. Kewanee Private Utilities include

Kewanee Water Supply System, Sewage Disposal Systems,
Gasoline Storage System, Vacuum Cleaning Systems,
Gasoline Engine Systems, Electric Lighting Systems.



Formerly Kewanee Water Supply Co.

123 S. FRANKLIN ST.
50 Church Street
New York City

KEWANEES, ILLINOIS
1212 Marquette Bldg.
Chicago

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure.

Fifth edition "HOMES, not HOUSES,"

123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.



The economy of BAYONNE ROOF AND DECK CLOTH will make a particularly strong appeal to your client at this time of high costs of copper roofings.

But economy is not the only claim to superiority over copper, tar and prepared roof coverings.

BAYONNE

needs no setting in wet paint—is tacked only on the edges and requires but one coat of paint for ordinary purposes.

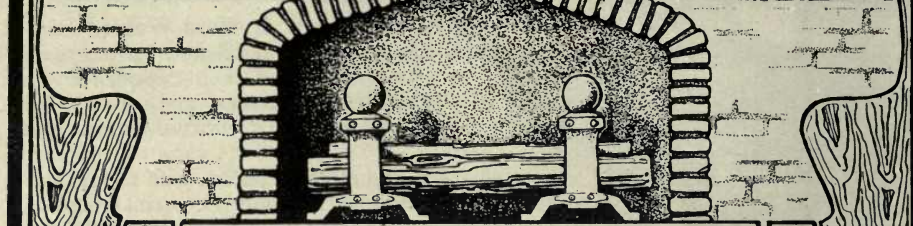
Once laid it stays absolutely flat. Does not bulge, warp, crack or blister—and never leaks. Can be sluiced with water without the slightest danger of corroding or crumbling. The hardest and most constant wear will not affect it—BAYONNE is practically indestructible.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's, Page 426.

JOHN BOYLE & CO., Inc.
112-114 Duane Street—70-72 Reade Street
New York City

Branch House—202-204 Market St.
St. Louis

INSIDE THE HOUSE



THE TABLE AND ITS SERVICE

Conducted by HELEN F. LITTLE

A Dinner in Violet and Yellow



IN response to a request for suggestions and directions for a six-course dinner with a color scheme in violet and yellow, the following menu was sent, with directions for the preparation of the various dishes. As it may be of equal interest to others, it is presented complete.

Crabmeat Canapes

Consomme Royal

Ripe Olives

Toasted Wafers

Celery

Fillet of Fish, or Fish Souffle
with Hollandaise Sauce

Breadsticks or Small Rolls

Cucumbers or Endive with French
Dressing

Chicken Breasts with Ham

Glazed Sweet Potatoes

Asparagus Tips or Creamed Peas

Currant Mint Sauce
Rolls

Orange Salad

Cheese-sticks in Rings

Grape Ice

Small Cakes with Orange Frosting

Crackers

Roquefort or Camembert Cheese

Black Coffee

Recipes.

Amounts given are sufficient for six or eight persons.

Canapes.—On rounds of toasted bread spread a paste made from finely minced crab-meat mixed with lemon juice, and French dressing. In center of toast place one ripe olive, and sprinkle egg yolk, which has been forced through strainer, over the crab-meat. These are served on paper doilies, and eaten with little forks. Minced peppers, green and red, may be mixed with the crab-meat or used as garnish when cut in little strips. Small pickles may be passed with this course, which is intended simply as an appetizer.

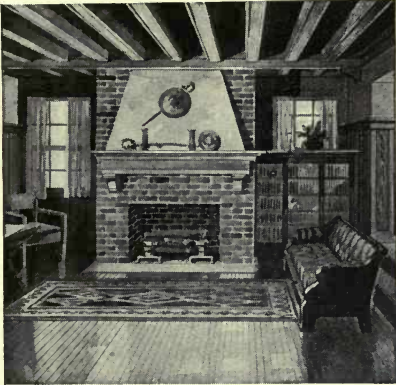
Consomme.—Any consomme stock which is usually made from three kinds of meat, and should be clear and sparkling, may be used. It should be carefully seasoned, and garnished at the last moment with small pieces of Royal Custard, cut in fancy shapes. A tablespoonful of whipped cream might also be added.

Royal Custard.—Three egg-yolks, 1 whole egg, $\frac{1}{2}$ cup consomme, salt and pepper. A slight grating of nutmeg. Beat eggs slightly, add consomme and seasonings, pour into buttered cups, or one shallow dish, which should be placed in hot water. Bake in oven until firm; cool, remove from pan, and cut into any desired shape.

Fillet of Fish.—Any firm, white-fleshed fish may be used. The flesh should be cut into pieces, as nearly round as possible,

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price \$1.00, Postpaid

With a Year's Subscription
to Keith's Magazine—\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

WATER SYSTEMS FOR COUNTRY HOMES

Every country home should have a good water supply system. It provides comfort, affords fire protection, and is useful in many ways.

We have filled nearly 15,000 orders for tanks, towers, and water supply systems of all kinds and for all purposes. We can furnish you one to meet your individual requirements—ready to install. Your plumber or any good mechanic can do the work.

Complete Systems
for as little as **\$42**

We install all kinds of water systems, from those used on great country estates, or by railroads, municipalities, and factories, to the pneumatic Simplex System which we furnish complete at \$42 for country homes.

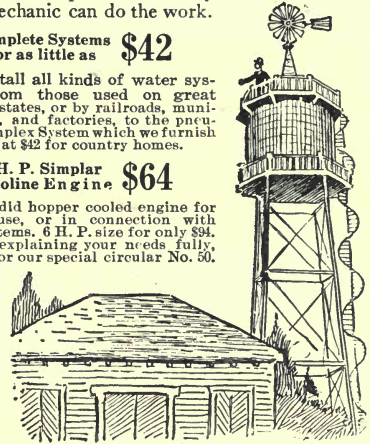
4 H. P. Simplar
Gasoline Engine **\$64**

A splendid hopper cooled engine for general use, or in connection with water systems. 6 H. P. size for only \$94.

Write, explaining your needs fully, and ask for our special circular No. 50.

The
Baltimore
Company

Baltimore,
Maryland



Famous For Shingle Beauty and Economy

For best appearance and wear of roof or shingled side walls do not decide on "just shingles"—buy

"CREO-DIPT"

STAINED SHINGLES

17 Grades
16, 18 and
24-inch
30 Colors



Come
Bundled
Ready-to-lay

Cut from selected live cedar; preserved against fading, dry rot, worms and weather. Permanently stained in thirty different colors. Save muss and fuss of staining on the job. Easiest to lay—no wedge shapes—no waste—all shingles perfect.

Write for Book of Homes and
Samples of Colors on Wood.

Name of Architect and Lumber Dealer Appreciated

Standard Stained Shingle Co.

1022 Oliver Street.

No. Tonawanda, N. Y.

Factory in Chicago for Western Trade.

INSIDE THE HOUSE

spread with melted butter, which has been seasoned with paprika and lemon juice, and baked in the oven. These are delicious with a rich sauce, made by adding to a plain white sauce recipe two beaten egg-yolks, and a cup of fresh mushrooms.

Fish Souffle.—This may be made with canned or fresh fish. Melt 2 tablespoonfuls of butter, cook in it 2 tablespoonfuls flour, $\frac{1}{2}$ teaspoon salt, $\frac{1}{4}$ teaspoon paprika, add 1 pint milk, stir until boiling, remove from fire and add $\frac{1}{2}$ cup soft, sifted bread

just before serving, but should not be allowed to stand.

French Dressing.—Three tablespoonfuls olive oil, 1 tablespoon vinegar, $\frac{1}{4}$ teaspoonful salt, few grains paprika, $\frac{1}{8}$ teaspoonful pepper. This may be varied by adding chopped parsley, minced onion, paprika, pimento, etc. The cucumbers or endive should be served on head lettuce, well marinated with the dressing.

Chicken Breasts with Ham.—Use one-half a chicken breast for each service. Trim

them neatly and place in a buttered agate or enamel baking dish, pour in a little hot cream, cover dish with buttered paper, cook in a moderate oven until tender, time depending on age of chicken. It runs from twenty minutes to an hour and twenty minutes. Baste often with cream or melted butter. Broil as many thin slices of ham as you have chicken breasts, having the



Fish souffle may be served in cups slipped into yellow paper cases.

crumbs, beaten yolks three eggs, and 2 cups flaked fish. Mix all together well, fold in the whites of three eggs, which have been beaten dry. Turn into buttered cups, or molds, set in a pan of hot water in the oven, and let cook until well puffed and firm at center. Other seasonings which improve the flavor are a teaspoon of onion juice, chopped parsley, and lemon juice. These individual souffles when served with the yellow Hollandaise form a very pleasing entree.

Hollandaise Sauce.—One-half cup of butter, yolks of 2 eggs, 1 tablespoon lemon juice, $\frac{1}{2}$ teaspoon salt, few grains cayenne, $\frac{1}{3}$ cup boiling water. Cream the butter, beat in the egg-yolks, cook over hot water until smooth, add lemon juice, water and seasonings. This must be beaten constantly and carefully mixed, and served at once. It may be beaten with a Dover egg beater

ham slices just a little larger than the pieces of chicken. Place chicken on ham, season, cream and pour around the chicken. Cream may be thickened slightly to form a sauce, or the currant mint sauce may be served, and the cream not used.

Currant Mint Sauce.—Beat up on tumbler of currant jelly, add to it the rind of half an orange, which has been finely cut up, and 2 tablespoonfuls of finely cut fresh mint leaves. Season to taste.

Glazed Sweet Potatoes.—Cut parboiled sweet potatoes into slices, place in baking dish, cover with paste made of butter and sugar, cook slowly, turning when needed.

Asparagus Tips or Peas.—Any green vegetable could be served with this course, with just a sauce made of melted butter, and parsley.

Orange Salad.—With a course dinner, the salad should be light, and if possible,

INSIDE THE HOUSE

should consist of either green vegetables, or acid fruits with either French dressing or fruit dressing. Oranges may be hollowed out, the pulp mixed with diced celery, and minced mint leaves. This should be lightly mixed with French dressing, and put into the orange cup. If desired a spoonful of fruit salad dressing may cover the top.

Fruit Dressing.—Yolks of 3 eggs, $\frac{1}{4}$ cup vinegar, $\frac{1}{4}$ cup sugar; mix well, and cook over hot water until thickened. Thin out with whipped cream, or add a little of it to whipped cream if a very light dressing is desired.

Cheese Straws and Rings.—The usual cheese-sticks which are made of a mixture of flour, bread crumbs, grated cheese, seasonings, may be put through rings made of the same mixture, and baked in the oven. These look very attractive when placed on the plate with the orange cup.

Grape Ice.—Four cups water, 2 cups sugar, 2 cups grape juice, $\frac{2}{3}$ cup orange juice, $\frac{1}{4}$ cup lemon juice. Boil sugar and water fifteen minutes, let cool, add fruit juices, and freeze.

If another salad than orange were used, an orange ice could be served, and the little cakes decorated with candied violet leaves to carry out the color scheme.

Decorations.—In carrying out a color scheme for a dinner, it is not wise to try to stick to it too closely so far as the food is concerned, but rather to suggest it. In the first course, the yellow is given in the egg-yolk garnish, and the purple in the ripe olive. The custard in the soup again is yellow, as is the sauce with the fish, the orange cup for the salad and the yellow dressing, and again we have the two colors in the dessert. Purple sweet peas would form a beautiful table decoration, as would also pansies or violets. Many summer flowers lend themselves to this color scheme and may be used in decorating the place cards, which might be lightly tinted yellow, with a spray of the chosen flower. Nut baskets could be tied with little bows of yellow or purple, and covered with either color of crepe paper.



Stained with Cabot's Shingle Stains.
Hollingsworth & Bragdon, Arch'ts, Cranford, N. J.

Cost Much Less Than Paint Wear Longer—More Artistic

"Your stains have proved most satisfactory. I have five lakeside cottages finished with them. My one painted cottage costs me almost as much as all the rest to keep fresh looking. My cottages are considered quite artistic."
Joseph H. Scranton, Washington, N. J.

Cabot's Creosote Stains

have proved their artistic effects and wearing and wood preserving qualities in every climate for thirty years. You are sure of them. Don't take substitutes made of kerosene and crude colors.

You can get Cabot's Stains everywhere.
Send for samples and name of nearest agent.

SAMUEL CABOT, Inc., Mfg. Chemists, Boston, Mass.
Cabot's Stucco Stains—for Cement Houses.

Special Offer to Contractors

EVERY building contractor will be interested in securing two of the best journals on building, together with a fine book of plans under my "Special Offer."

12 Big Monthly Numbers	KEITH'S	\$2.00
12 " " "	Nat'l Builder	1.50
1 " Book of Plans		1.00
		\$4.50

Special Price for all three \$3.00

Select Your Book From This List

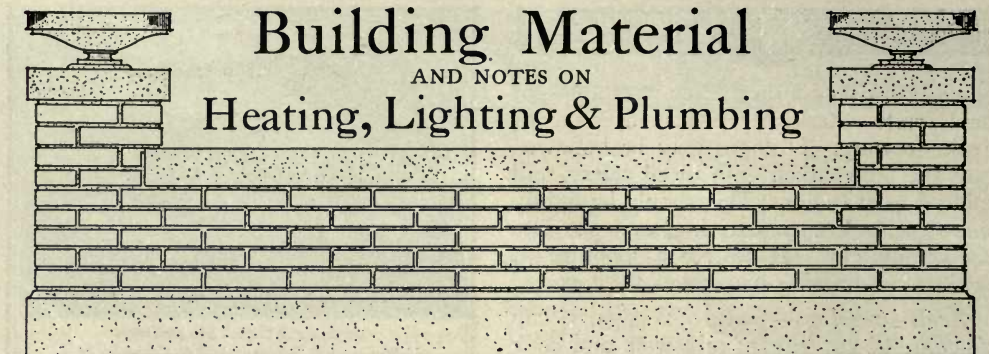
Vol. 1—136 Designs	Bungalows.....	\$1.00
Vol. 2—100 " "	Cottages.....	1.00
Vol. 3—125 " "	costing below \$4,000.....	1.00
Vol. 4—175 " "	" " 5,000.....	1.00
Vol. 5—175 " "	" " 6,000.....	1.00
Vol. 6—125 " "	" above 6,000.....	1.00
Vol. 7—100 " "	Cement and Brick.....	1.00
Vol. 8—50 " "	Garages.....	1.00
Vol. 11—40 " "	Duplex and Flats.....	.50
Vol. 12—100 " "	Artistic Homes.....	.50

Send all orders with remittance to

M. L. KEITH

828 McKnight Building

Minneapolis, Minn.



To Prepare Plastered Walls.



IN a paper read before a Master House Painters' and Decorators' Association, by H. C. Schubert, directions are given for sizing the walls and preparing the plastered surface which will be of interest to the home builder and which we quote in part:

"To prepare plaster walls and finish same in water and colors it is essential to examine the walls and determine in what condition the same are. First of all, remove all dirt, then find out how strong the suction is, for the mixture of sizing depends on this, and as we have many mixtures of this kind you must determine which will be the best for the walls. You may use glue and soap, boiled separately, and add a little alum to harden the surface. The proportions are as follows: 1 pound glue, 1 gallon water; 1 pound soap, 1 gallon water; 4 ounces alum, 1 quart water. When mixing put soap into the glue and when properly mixed, pour the alum in slowly, but mix while hot, stirring constantly. If the suction is not strong, dilute the size with cold water. This is very good for hard finished walls, and you can immediately calcimine. This same size can be used for sand finish, but I prefer the glue size: Boil good glue and add sufficient water to it so that it will still jell when cooled. Add 2 quarts of plaster of paris to a 10-quart pailful of size and mix well. The jellied glue will carry the plaster and keep it from settling to the bottom of the pail.

After this is applied it will not only stop suction, but will whiten the walls and all tints applied on this size will dry lighter and cleaner than on all other preparations I have used heretofore. But care must be taken before calcimining that all

stains are properly treated. All stains will show through the above mentioned size.

After the stains are touched up with either shellac, gloss oil, flat oil paint, or quick-drying varnish, when dry, touch up spots one extra coat of the plaster size. Should the stain come through again, repeat the above operation.

One coat is sufficient. Soak your whitening a day before you wish to use it. When mixing, get your tints right before adding glue. When all is ready, let mixing stand until it is jellied and if then too stiff, add cold water, but beware not to get it too thin. I use it so stiff that the brush will stand in it, and when applying spread it well. Use a great deal of elbow grease. Never use calcimine when warm, for it will suck in a poor plaster much quicker than if it were jelled. This will slip like grease and you run no risk of getting laps.

If sand finished walls are new and no dirt is on the same, one coat of calcimine will do for a good job. I have finished many a wall without sizing by using the above mixture with good results. Old walls of hard finish that have been calcimined must be washed clean before any sizing is done. If you do not, you may have to pay dearly for it before you get through with the job.

For a very smooth wall, I add a little plaster of paris in my size. This will give tooth to the calcimine, but leave the soap out of the size, for soap will stop the plaster of paris from setting. On sand finish, washing is not required, but a penetrating size must be used to get good results. Should the plaster be so poor that when you rub your hand

over it sand will fall, I would advise you to use the following size: Two parts of gloss oil, 1 part of benzine. Load the benzine with plaster of paris to the consistency of cream, then mix both together. Apply with stiff brushes (or old calcimine brushes). Rub the same in well. The plaster of paris in this size will make the walls much lighter and one coat of calcimine will give the best satisfaction. Care must be taken when gloss oil plaster size is used not to daub the wood-work, for this will not wash off.

Sizes.

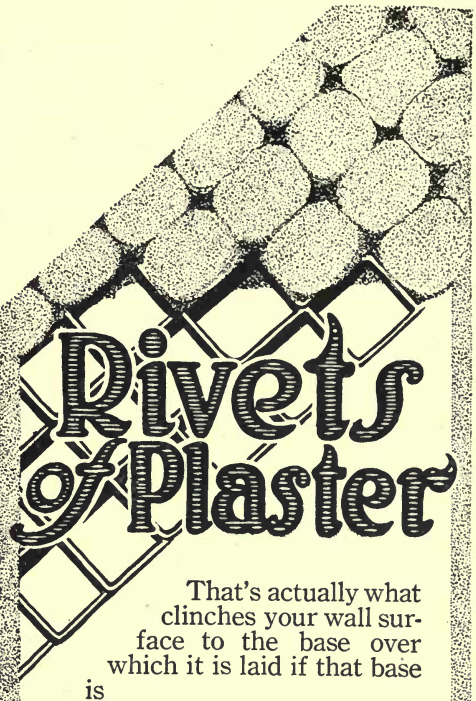
There are many different sizes in use today, but all can be divided into two groups: One for water color and the other for oil. To the first group belongs such material as soap, alum, glue, plaster of paris, lime, sweet milk and cow tea. The latter is the best of all. This is made of one-half cow manure, one-half water, stirred well, and when the same has settled, take the brine and use for sizing. This will kill all suction and pretty nearly all stains that disturb us so much.

Oil Finish.

To begin with hard plaster walls, you must examine the plaster, clean the same from all blemishes, give it a thin coat of oil paint, not too fat. If oil paint is used, thin well with turpentine. After applying, leave stand two days. This will show fine check cracks. Give the same a light coat of glue size. Let stand until next day, then give it one coat of lead, oil and turpentine, properly mixed. Stipple lightly, let stand twenty-four hours, then give it another coat to any finish that you may desire, such as gloss, semi-gloss, egg shell or flat finish. For egg shell, use pure lead, two parts of linseed oil, six parts turpentine and a little dryer, then stipple.

For flat finish, use pure lead and turpentine and stipple. If dead flat is wanted, add a handful of dental plaster. This will absorb all the oil and make it dead flat. Do not use glue size first on plaster, for this is apt to peel, but by first painting the wall one coat of oil paint, then coat of glue size, this can never peel and will stop the suction of the little check cracks.

For sand finish I prefer to use first two parts of gloss oil, part benzine, loaded with plaster of paris or whitening. This will fill well and stop suction at the same



Rivets of Plaster

That's actually what clinches your wall surface to the base over which it is laid if that base is

Kno-Burn

Expanded Metal Lath

— for interior plaster or outside stucco.

The soft plaster oozes through the fine mesh, spreads out and hardens. The rivet-like knobs are bigger than the openings that they came through. The result is a wall of permanent smoothness. Ask your architect.

We all are interested in homes. That's why you should send today for "Practical Homebuilding," a treatise on building, in simple, readable form, from the selection of the lot to the finishing touches. Contains photographs, floor plans, comparative cost figures.

Send 10c to cover cost of mailing and ask for Book No. 659

**North Western
Expanded Metal Co.,
965 Old Colony Bldg.
CHICAGO**



time. Then giving the walls two more coats of pure white lead. The first parts oil, one part turpentine, the last coat pure white lead and turpentine. Mix and tint with the above and you will get satisfaction."

Protection.

The following suggestion is made for the protection of highly decorated walls: "I would also recommend for a highly decorated job to give it a coat of boiled starch, made in the same manner as used in the laundry. One coat is sufficient. This starch coat will protect the paint from being specked by flies, which will not penetrate through the starch. When the walls get badly soiled, wash the same with warm water. This will wash off dirt, starch and fly specks. When the wall is clean, give it a new coat of starch for future protection."

Extension and Dull Season Classes in the Building Trades.

In response to the need for a training which shall replace that supplied by the old system of apprenticeship, has come the work of the trade and industrial schools all over the country, but which are being especially developed in the great industrial centers. Many of these schools have developed from evening classes, originally started at the request of those needing their aid, and are therefore very closely in touch with the workers and very responsive to their needs.

The Dunwoody Industrial Institute lately established in Minneapolis is perhaps typical of what is being done in this way, and home builders will be interested

in the assistance that is being extended to the building trades. Take the course in bricklaying as an example. Evening classes began the first of October and were attended not only by students and apprentices but also by workmen of more or less experience, ambitious to know more of their work and to get ahead faster than they are able simply from the work day by day. A young fellow must be ambitious to spend two hours or more of his evening in the "night school" after a day of hard work, even with the shorter working day.

During January and February, "Dull Season" classes were held giving the same opportunities during the day for those who were out of work. The courses take up the making of bricks, concrete and cement, the values of sand, and technical principles connected with the problems of building. The Institute works in co-operation with the Master Builders' Association and the Builders' Exchange.

Courses are given in Plastering, Carpentry, Mill running, Cabinet making, Painting, etc. The principles of building contracting and estimating are also taught in a systematic way.

Such training must result in intelligent workmanship. No one knows better than the home builder what that will mean when it shall come to be the rule rather than the exception.

Laying the Porch Floor.

Don't lay a porch floor without making it waterproof; paint the tongues of the boards with white lead before forcing them into the grooves. This will preserve the floors to a good old age, for a porch floor rots because the water gets into the joints. Also remember that a slight slant is desirable to prevent water from standing and soaking in.—*F. H. Sweet.*

Fire Started from Slaked Lime.

Wood can catch fire from the slaking of even poorer grades of lime. Very poor limes may produce a temperature of 300 degrees C., which is sufficient to char the wood on exposure to air. The best limes can produce a slaking temperature of 400 degrees C., so it is dangerous to ship them in contact with wood.

Stillwell Bungalows



SUIT EVERY CLIMATE
3 BIG BOOKS For \$1.
PLAN Books Postpaid

—containing photos, plans, descriptions, costs. Stillwell Homes are reproduced from original California designs—combining beauty, individuality, comfort and economy—and can be built substantially and economically in any climate.

"REPRESENTATIVE CALIFORNIA HOMES"

50 ideal homes, \$2,000 to \$6,000—Price 50c

"WEST COAST BUNGALOWS"

51 inexpensive homes, \$1,000 to \$2,000—Price 50c

"LITTLE BUNGALOWS"

31 perfect little homes \$300 to \$1,700—Price 25c (Postpaid)

WE SELL BOOKS & BLUE PRINTS ON A MONEY-BACK GUARANTEE

E. W. STILLWELL & CO., ARCHITECTS

454 HENNE BLDG., LOS ANGELES

**ALL 3
BOOKS
FOR \$1**

Solve Your Roofing Problems
with
UNDERFELT ROOFING
AND SHINGLES

Underfelt is a moderate priced Roofing that can be used for any purpose. It is made of the very best materials possible at the price and is unexcelled in wearing qualities.

We absolutely guarantee every roll to be waterproof and the equal of any standard Roofing made at a similar price



DI-MACK WALL BOARD

Colors in Cream and Brown or Oak Grain Finish

The Modern Wall and Ceiling Finish. It is less expensive than lath or plaster, *Warmer, Stronger, Artistic, more Durable.* It is a non-conductor of heat and cold.

Ask for our special offer to dealers for 1916

Samples and Prices on Request

McCLELLAN PAPER COMPANY, MINNEAPOLIS, MINN.



Cut Next Winter's Coal Bill $\frac{1}{2}$ to $\frac{2}{3}$

Yes, a coal saving of $\frac{1}{2}$ to $\frac{2}{3}$ —*guaranteed*. That's "The UNDERFEED Way." The famous "candle principle" makes the Williamson *New-Feed* UNDERFEED furnace sootless, smokeless, clinkerless.



Over 35,000 enthusiastic users are saving fuel money. Find out how you can, too. Write today for valuable book, "From Overfed to UNDERFEED."

The Williamson Heater Co.

266 Fifth Street Cincinnati, Ohio

WILLIAMSON NEW-FEED UNDERFEED CUT COAL BILLS Furnaces and Boilers $\frac{1}{2}$ to $\frac{2}{3}$

Catalogue "G-29" showing a series of new designs in

"Pergolas"

Lattice Fences
Garden Houses
and Arbors

When writing inclose 10c in stamps and ask for Catalogue "G-29."

Catalogue "G-40" —containing very useful information about Exterior and Interior Columns, will be sent to those who want it for 10c in stamps.



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS

EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, mouldings, porch-work, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement machinery and interior woodwork—ALL AT WHOLESALE PRICES DIRECT TO YOU.

Don't plan to build, repair or overhaul until you see these two great books. Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

Beautifully Illustrated PLAN BOOK

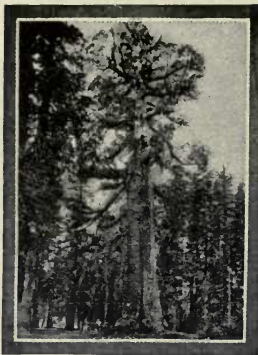
Catalog of 8000 Price Bargains



Material Complete for Houses from \$375.00 up

CHICAGO MILLWORK SUPPLY CO.
1421 W. 37th St.
Chicago, Ill.

Books Are Free



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH's staff of wood experts.

This department is created for the benefit of KEITH's readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

Hardwoods of the Future.



AUTHORITIES assure us that the supply of wood necessary for all of our reasonable and logical uses will not fail us, if reasonable foresight and care is exercised as to the future supply. There is plenty of wood for use, though the time is past when it can be wasted. Nevertheless one is beginning to look to the virgin forests of the undeveloped places, and government authorities in many places are taking steps to prevent their exploitation when they are opened to use.

Mahogany, as one of the most important woods in use, is especially an object of search in new forests. It is only a comparatively short time since the only mahogany used in commercial quantities in this country was imported from Santo Domingo in the West Indies, and this wood established a reputation which has outlived the wood which has long since been exhausted, although the name still stands for a very fine grade of mahogany.

As this variety of mahogany began to grow scarce other islands of the West Indies were gone over and Cuban mahogany began to establish itself as a rival to Santo Domingo. This in turn became very scarce. At about the same time that Cuban mahogany began to be generally known there were quantities of logs being cut in various parts of Mexico and Honduras, which were found to produce lumber in most respects equal to Santo Domingo or Cuban except, gen-

erally speaking, these Central American varieties were softer in texture. We also began to get mahogany from Africa which so closely resembled the Mexican that in many cases the most expert could not distinguish a difference.

The only American mahogany is that grown in the Philippines, which therefore has the advantage that it can be cut into lumber where it grows, shipping only the choicest portion of the lumber, leaving the waste and sawdust at the mill and allowing the low grades to be disposed of at the point of production. Mahogany lumber shipped from a foreign country is subject to a duty of ten per cent, though mahogany logs may be shipped in without duty. So the purchaser must either pay duty on his mahogany finishing lumber, or he must pay the freight charges on the low grade parts of the log which will not pay for itself. Philippine mahogany is softer than Mexican, and runs through a wider range of color. Many kinds of mahogany lumber must be very carefully selected and properly treated as there are defects which may come out in the finishing. There are cross breaks and wind breaks in some of the African mahogany which seem to develop in the finishing. Some of the Philippine mahogany has tiny needle holes, which are easily taken care of by a filler prepared for the purpose.

The government of British North Borneo, in order to classify and develop the timber industry, has appointed an Ameri-

can expert from the Forestry Service of the Philippines as chief forestry officer. On account of the dense vegetable growths of the tropics the word "jungle" is generally used instead of forest. The names of the trees in these tropical forests are strange and the woods different, but they seem to possess the qualities necessary to a good hardwood and it is interesting to note some of the woods which we may use in the future, and their peculiarities as given by the consul, George M. Hanson.

In British North Borneo that part lying back from the coast, except along the rivers, is covered with forest and not jungle. The trees are large and the undergrowth of vegetation is not so great as in the low-lying country. The higher ground is covered with many kinds of forest trees, particularly rare hardwoods.

The most valuable of all Borneo timber is billian, or ironwood. This is an extremely hard timber. It takes a fine polish and is not affected by the elements. It is comparatively plentiful all over Borneo. It is sand-colored when newly cut, but darkens with age, and is so heavy that it sinks in water, and for that reason cannot be rafted down the rivers. About two inches of the outside of the tree is soft and worthless, as is the case with many tropical woods, but the inside is a solid, strong, and durable wood.

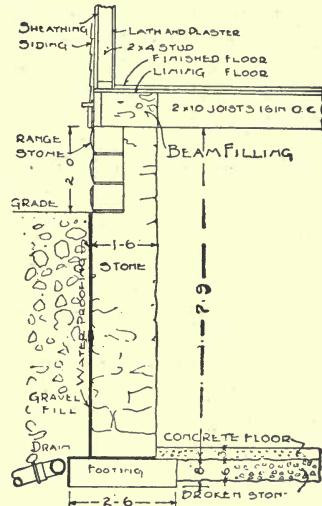
The only objection is its great weight; but that is counterbalanced by its great strength.

Another valuable hardwood is russak or selangan batu. This is a dark sand color and has many of the properties of billian wood, though it is not so heavy nor does it take so high a polish. Billian is more like reddish-brown ebony, if the description may be allowed. Russak is used for general building purposes. It is an admirable wood for interior finish in halls and churches for wainscoting and paneled woodwork. The supply is practically unlimited.

The most common timber is sirayah or redwood, a comparatively soft wood, very similar to California redwood. Sirayah proper is so easily worked that it is in very common use for all building purposes which do not require hardwood. Sirayah puteh is a white wood closely resembling American yellow pine.

BUILDING *the* HOUSE

*A Handbook Every Home-Builder
Should Have*



(Fig. 6)
SECTION THROUGH BASEMENT WALL

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition
Price, One Dollar

Published by

M. L. KEITH
McKnight Bldg. Minneapolis, Minn.

A very valuable timber is known by the local name of urat mata. It is a dark-red color, grained, not dissimilar to American mahogany, and much desired for shipbuilding, masts, and planks. It is very durable and impervious to ants and other insects.

Greeting is a wood which closely resembles Indian ebony, though the black inside is sometimes relieved by streaks of brown or red. It may be used for many purposes, including furniture, though it is almost as heavy as billian. Greeting looks much like English black oak, and might even take the place of walnut. In a new country it is the first wood to disappear.

Another wood similar in texture and grain to greeting is rungas, a dark-red wood with a black stain. The heart is a beautiful dark red. Two or three inches of the outside is soft and worthless, but the inside has all the qualities of the most desirable hardwood. It is not so heavy as billian or urat mata, as it floats. This wood is not found in forests, but grows as isolated trees. It is found all over Borneo.

To Prevent Moth Damage.

"The various substances used to keep away moths, such as tobacco, camphor, naphthalene cones or balls, tarred paper, and cedar chips, have no effect if the eggs are already present in the clothes. Entomologists in the department therefore recommend a thorough beating, shaking and brushing of all articles likely to attract moths before they are laid away for the summer. The brushing of garments is especially important in order to remove eggs which may have escaped notice. If the articles are quite free from eggs or larvae when laid away, the odor from the various repellants already mentioned or from cedar chests and wardrobes will serve to keep the moths away. This odor, however, lessens with age so that the protection it affords is greatly decreased after a few years. For this reason when furs and other valuable garments are wrapped in tarred paper or placed in sacks of tarred paper these containers should be renewed every year or two."

"GUM HAS COME"

SURE ENOUGH!

RED GUM

(AMERICA'S FINEST HARDWOOD)

at its *present prices* is the most notable purchase in the entire hardwood field. Insist on it and *recommend it* for interior trim and special order furniture.

Anyone planning to build apartment houses, office buildings, hotels, residences, or specially designed furniture should defer final arrangements and correspond at once with the undersigned regarding samples, general or specific information, and lists of important buildings of ALL TYPES wherein RED GUM has been used with eminent practical success and with signal artistic satisfaction.

GUM LUMBER MANUFACTURERS ASSOCIATION

1316 Bank of Commerce Building

MEMPHIS, TENNESSEE

Special Subjects

Published in
KEITH'S in
1915

As long
as the file
lasts,
any single
number will
be furnished
at the
single copy
price, 20c
or three
copies for
50c

SUBJECT	Month
Investment Value of Forty-Foot Lot	December
Planning the Fireside Corner	"
A Complete Kitchen	"
Our Experience in Remodeling	"
The Ranch House	November
A Woman's Workshop—The Kitchen	"
Treatment of the Narrow Lot	"
Building Two-Family Houses	October
Home Building in California	"
Colonial Entrances	September
Willow Furniture	"
A Dutch Colonial House	August
The Breakfast Room	"
English Domestic Architecture	"
Use of the Pergola	"
Landscaping the Corner Lot	"
Remodeling a Country House	July
Bungalow Furnishings	"
Planning the Music Room	"
Rustic Fences and Gates	"
Furnishing with Willow	June
The Attic Bedroom	"
The California Bungalow	"
Planting Plan for a Forty-Foot Lot	"
Brick Colonial Homes	May
Arranging the Furniture	"
Picturesque Porches and Seats	"
Planting Scheme for Double Grounds	"
Everything About Bungalows	April
Remodeling An Old House	March
Fixing the Mantel	"
A Little House That Solved a Big Problem	"
Planting Plan for a Fifty-Foot Lot	"
The Newer Domestic Architecture	February
Sofas and How to Use Them	"
Decorative Wall Paneling	January
The Farmer's Cottage	"
A Talk on Woods—Oak	"

Send
Orders to

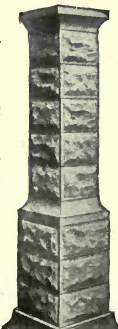
M. L. KEITH, McKnight Building, Minneapolis, Minn.

A Free Book

—on Concrete Machinery

Porches
Vases
Chimneys
Flower Boxes
Building Blocks
Fence Posts
Drain Tile
Sewer Pipe
and others

Not exactly a catalog because it gives the cost of making many concrete products—Blocks, Bricks, Porches, Chimneys. Also tells about the profits in making Drain Tile for farmers; describes the advantages of farm drainage, etc.
Get this book if you are interested in concrete. Contains a lot of valuable information and interesting reading. Sent free upon receipt of a postal card.



W. E. Dunn Mfg. Co.

417 24th Street

HOLLAND, MICH.

IXL ROCK
MAPLE, BIRCH
AND BEECH
FLOORING



"The Finest Milled
Flooring in the World"

One important feature is the wedge shaped tongue and groove which enters easily, drives up snug and insures a perfect face at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.

LEGISLATION

A Rural Credit Bank.



MINNESOTA has taken steps looking toward the establishment of a new system of rural credits. A tentative plan for a Rural Credit Bank is being discussed by various organizations including the All-Minnesota Development League, State Federation of Farmers' Clubs, State Bankers' Association, Civic and Commerce Association, and the State University. Additional state legislation will be necessary to enable any such plan to be carried out.

It is generally recognized that farmers should be able to get loans for longer periods than now available, with the privilege of gradual repayment, at lower rates of interest. It is believed that funds for such loans, if conservatively made, can be secured at low rates through the issue of debenture bonds against the collective security of the mortgages. It is also recognized, however, that new settlers, tenants and others desiring to enter upon farming or recently entered upon it often need loans up to a larger proportion of the value of their property; and that special methods must be devised for furnishing what may conveniently be called "colonization" loans to them. The proposed federal legislation makes no provision for this class of borrower.

It is believed that the greatest efficiency and the lowest rates of interest can be secured through a single large state bank, of a semi-public character, in the management and supervision of which the state participates, though not making itself responsible for the bank's obligations.

The company should be empowered to issue both common and preferred stock.

The bank should be a semi-public institution. For this purpose its board of directors to include 3 public officials, the superintendent of banks, the attorney general and the dean of the state agricultural college. In order to make the management of the bank more representative of the general interests of the state,

three directors should be chosen by semi-public organizations, presumably one by the All-Minnesota Development League, one by the State Federation of Farmers' Clubs and one by the banking and commercial interests acting jointly. The remaining directors, 3 or 6 in number, to be elected by the stockholders, the preferred stockholders, who would probably consist largely of borrowers, having a vote as well as the common stockholders.

The bank to be authorized to issue debenture bonds against the collective security of the farm mortgages taken by it, other than those for colonization loans. Mortgages used as such security to be taken only upon land in Minnesota; the ratio of the loan to the value of the land and improvements thereon to be limited to 50% (or possibly 60%). The law to provide means of assuring conservative appraisements. These loans to be on the amortization plan, requiring a definite rate of gradual repayment but permitting larger payments to be made at any time. Loans to be for periods to suit the borrower, not exceeding 30 years.

As a safeguard to the debenture holders, the mortgages underlying them to be kept in the custody of the state superintendent of banks, who must see to it that the amounts remaining unpaid thereon at all times equal at least the amount of debentures outstanding.

The debentures to be a lien upon all assets of the bank as well as upon the specific mortgages pledged, and, in order to strengthen their security, the amount of debentures to be limited to 20 times that of the common stock.

Provision to be made for the accumulation, out of profits, of a reserve fund to protect both debenture and stock holders, the amount of this reserve fund, however, not to exceed 25% of the common and preferred stock. Provision to be made for returning any excess of profit above the requirements on dividends and reserves to the borrowers.

To increase the demand for debentures

the law would be expected to make them legal investments for all fiduciary funds, including those of savings banks, trust companies, insurance companies and similar concerns. The law might perhaps also require that banks which deposit securities with the state as a condition for receiving state funds should make these deposits in debenture bonds, and that corporations which are obliged for any other reason to deposit security funds with the state, should also use these bonds for that purpose.

Under existing constitutional provisions the state's educational funds must be invested in specified classes of public securities. A pending constitutional amendment, if adopted next fall, will permit their investment in mortgages on improved farm lands up to 30 per cent of the value thereof. In that case the law creating the bank to authorize such investment to be made through the bank, or to authorize the state to acquire such debenture bonds of the bank as are based exclusively on loans not exceeding 30 per cent of the value of the mortgaged property.

The bank also to be authorized to make "colonization" loans in limited amounts up to the full value of the lands and buildings mortgaged. These colonization loans not to be used as security for debentures but the funds for them to come from the proceeds of stock, reserve funds and other sources. Loans on the same farms up to the legally specified proportion 50 or 60 per cent of their value could, of course, be included with other loans used as security for debentures.

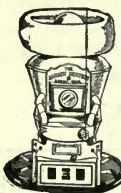
Colonization loans should be made only to actual farmers or settlers entering upon

farming for the purpose of acquiring lands and of developing and equipping them. To assure that such colonization loans are made only to those who need and deserve them and who may reasonably be expected to succeed as farmers, they are to be made only by the authority of special local boards and a special central board of the bank. These boards to be required to give careful consideration to the conditions of settlement, the nature and location of the land and the character of the borrower, and to afford him advice with regard to the use of the borrowed funds.

The bank should be subject to the thorough-going supervision of the state superintendent of banks; his approval to be required for the plans of amortization and the rates of interest to be charged; he is also to have custody of the mortgages underlying debenture bonds. The bank to be required to make detailed annual reports which must be given general publicity.

The rural credit bank should aim to conduct its business largely through existing country banks, the latter to be allowed reasonable compensation for their services in placing loans, making collections and the like. In order to facilitate such co-operation, the law to authorize state banks to invest not over 10 per cent of their capital in stock of the rural credit bank and to invest not over 10 per cent of their deposits in its debentures. As such debentures would command a ready sale in open market, they would obviously constitute even safer investments for state banks than the farm mortgages themselves in which they are now permitted to invest.

BUY YOUR FURNACE NOW PAY US AS CONVENIENT



Satisfaction guaranteed, or money refunded. Our patented "down draft system" furnaces make them best for residences, schools, hotels, churches, etc., because they deliver plenty of heat wherever and whenever desired, at a saving of one-third to one-half in fuel bills. The

Jahant Furnace

is easy to install. You can do it yourself. We send complete outfit, freight prepaid, with special plans, detailed instructions and all necessary tools for installing. You may pay as convenient.

Write for Free Illustrated Book

THE JAHANT HEATING CO., 125 Steiner Ave., Akron, O.

Save $\frac{1}{3}$ to $\frac{1}{2}$ on Fuel Bills

Swing Your Screens Open

from the bottom on window washing days.

You can if they are hung with

Kees-Gossett Hinges

These hinges lock the screens securely, opened or closed. They are durable, handy, cheap—nothing to rust tight or work loose. Use them, too, for storm windows. They make screen and window hanging easy.

Write TODAY for Free samples and illustrations.

F.D. KEES MFG. CO. BEATRICE, NEB.
Box 102

We'll send Free samples of Kees Metal Building Corners, if you write for them.



"You Build for a Life-

KEITH'S BIG OFFER

A Year's Subscription to "KEITH'S" with a Copy

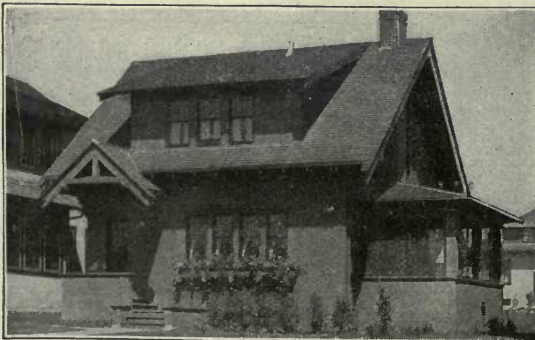
Your Choice

FOR
\$2.

Vol. 1.	140 Bungalows and Cottages . .	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D-1321 from "KEITH'S"



Design D-1309 from "KEITH'S"

What You Get

From 250 to 300

DESIGNS

by leading architects

From 75 to 100

Practical Articles

on timely subjects of
Home-BuildingDecorative Schemes for
Your New HomeMany Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,
Editor and Proprietor

KEITH'S MAGAZINE

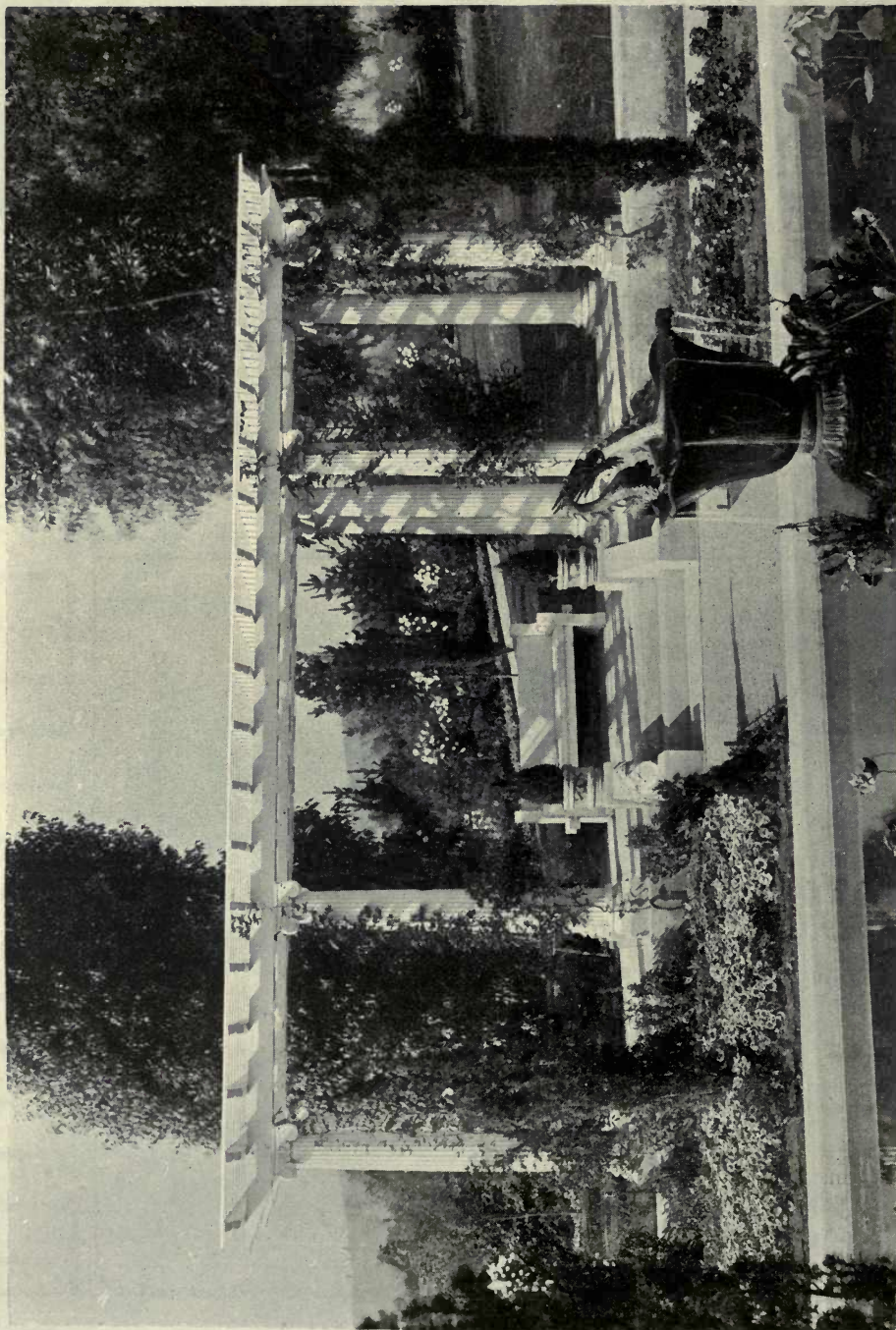
ON HOME BUILDING

CONTENTS FOR AUG., 1916

Just a Word	78
Some Garden Seats That Allure— <i>Charles Alma Byers</i>	81
Some Western Homes— <i>Kate Randall</i>	87
Modern Colonial— <i>Anthony Woodruff</i>	90
Simple Devices for the Kitchen— <i>Edith M. Jones</i>	94
The Good Old Rag Carpet Again— <i>W. R. Holbrook</i>	97
The Mary and John House.....	100
A "Fire-Resisting" House	101
An Inexpensive Bungalow	103
The Successful Floor Plan.....	105
The Personal Element in the Home	106
The Charm of the Bungalow.....	107
Homes of Individuality.....	109

DEPARTMENTS

Inside the House—	
Decoration and Furnishing.....	112
Answers to Questions on Interior Decoration.....	118
Household Economics	122
The Table and Its Service.....	126
Building Material and Notes on Heating, Lighting and Plumbing.....	130
Woods and How to Use Them.....	134
Legislation	138
Splinters and Shavings.....	144



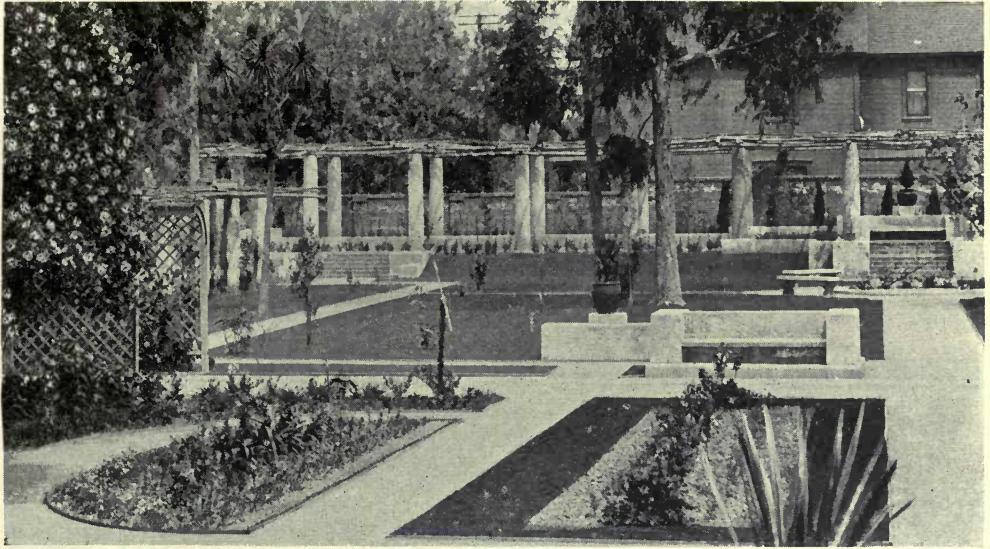
A Pergola of Classic Design.

KEITH'S MAGAZINE

VOL. XXXVI

AUGUST, 1916

No. 2



Where one may sit to admire the garden.

Some Garden Seats That Allure

Charles Alma Byers



ORDINARILY, in garden planning, the matter of seats receives too little attention. Often, in fact, it is entirely ignored or forgotten. If you start out on a tour of investigation, visiting home grounds of all sizes and kinds, you will be surely surprised at the great number, proportionately speaking, of gardens that possess no seats at all. Also, if you study the matter more closely still, you frequently will discern that the seats you find are actually misfit affairs, evidently used solely because they were either already possessed or easily obtained.

No other one feature so readily enables

the garden to be appreciated and enjoyed as does a good garden seat. This is true whether the grounds be planned to be largely lived in or to be merely attractive to the eye, whether they be either of formal or of informal character. Where the garden is primarily intended to invite one into the open, seats, of course, are virtually a necessity, but, even if it be created as only a beautiful picture, some resting place into which one may sink for a moment's admiring inspection is also quite necessary.

It is claimed that the most of us are prone to neglect our opportunities, afforded by leisure moments, to spend as

much of our time as we can in the health-giving air of the out-of-doors; that, although our working hours may be spent in cooped-up offices, we fail to avail ourselves of our opportunities at other times to get out into the open. Therefore, to wean us of this habit—for it is but a habit—nothing for us who live in the city or in close-in suburbs can wield a more potent influence than a well-planned garden, be that garden large or small. And no garden can be exactly well-planned unless it contains a retreat of some kind with a seat or two—some place where we are invited to sit, perhaps to read or to work or to merely rest.



With a canopy of palm leaves.

Of first importance, perhaps, in furnishing the garden in this respect is the matter of selecting or building seats of such character as will correspond with the nature of the grounds. Consideration should be taken of the garden's general design as to whether it is rustic, semi-rustic or formal. Neither a rustic seat in a formal scheme nor a formal seat in a rustic scheme is quite the

proper thing, as can be readily appreciated, and yet such misfits are frequently seen. There is, however, much more to the seat problem than is contained in this truism. For instance, the seat should match in structural lines the remainder



A charming seat in a bay of the wall.

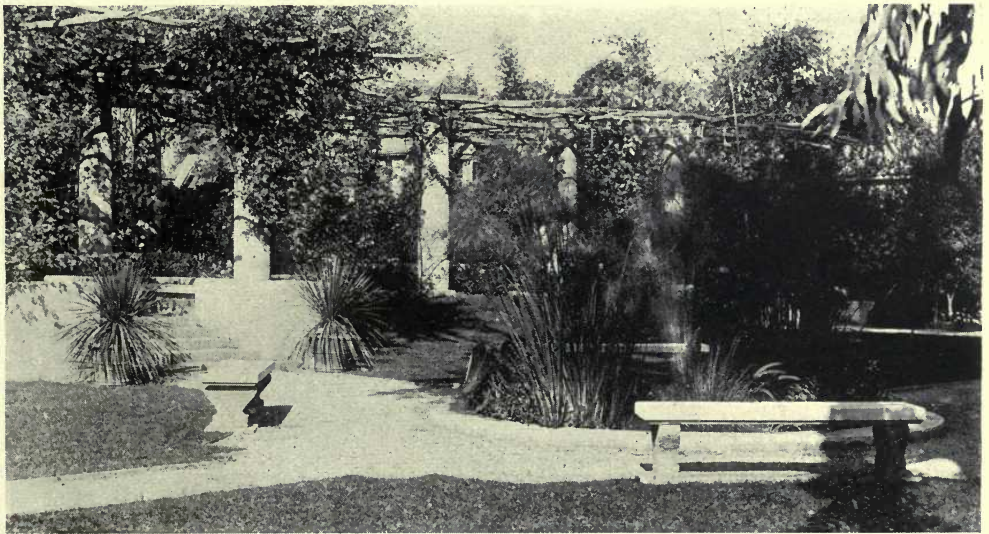
of the garden architecture, and that it may do so it, in most cases at least, should be specially constructed. In this way can be avoided the using of such improperly fitting creations as an ornamental formal seat in a garden, of even formal design, whose architecture in every other respect adheres to straight lines. There is, moreover, even a way of giving a certain dignity to a rustic seat, to the better fit it into certain schemes. In

are often effective. The accompanying illustrations show some interesting solutions of the problem.

Locating the garden seat is likewise important. In some arrangements, where it is intended to command some charming vista of the grounds, it will need be placed in the open, perhaps without means of protection, especially in the formal creation. In the rustic environment, however, it can often be so located



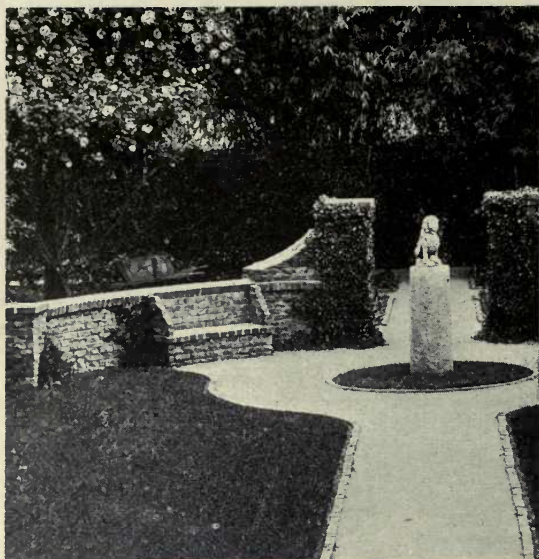
Between massive piers.



With concrete benches.

this connection, also, there needs be considered the matter of using harmonizing materials, although a certain amount of liberty in this direction is permitted. Cement seats, for instance, may be used in a scheme that, in its architecture, shows a predominance of concrete or cement work, and the same is also more or less true when the prevailing material is brick, though combinations of the two

and yet be given overhead some sort of shield from the sun, such as the branches of a tree or even a constructed covering. In other instances the seat will be desired for out-door lounging purposes, and then it invariably should have protection, preferably from both the sun and the wind. This often means that it is located in a garden nook, either wholly or partially secluded. Some rose-covered



A brick seat built in.

pergola, some crook in the garden wall, some rustic bower or summer-house, or some foliage walled-in spot will then offer it harborage. Again it may be employed as a resting place before some fountain, some mirroring pool, or some other garden feature. In fact, there are possible locations without number, but perhaps the ideally located seat will both command some bit of interesting landscape and be, at the same time, more or less protected and secluded.

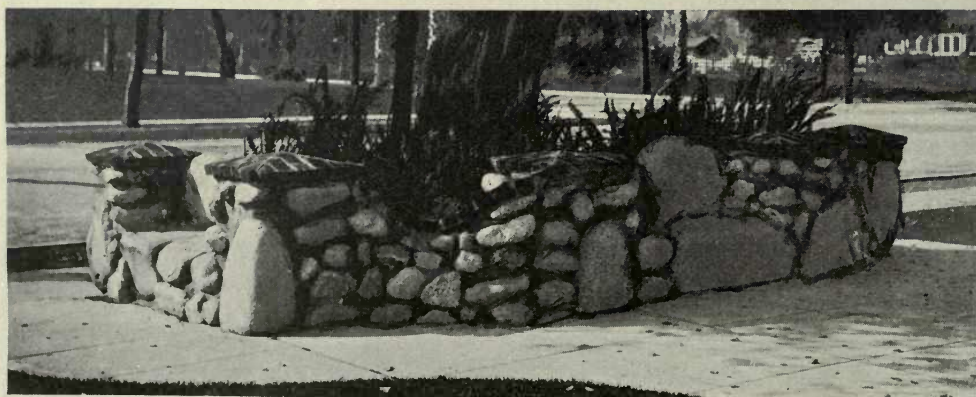
To further emphasize some of the possi-

bilities in the matter of designing and locating the garden seat, some of the photographs here reproduced may be briefly referred to.

One of the illustrations shows a seat charmingly located in a bay-like curve in a high concrete wall. The wall alone, with its pillar extensions, gives the seat a considerable degree of seclusion, and further aid in this direction is contributed by a well-planned and very attractive arrangement of planting. The seat itself is constructed of wood, and each of the pillars at the ends is equipped with an electric light. The nook not only affords a certain amount of privacy, but from it is also commanded a delightful view of garden landscape.

Another picture shows a bit of garden wall built of brick, with a built-in seat of the same material comprising a prominent feature of it. This seat, however—which is quite low, like the wall—is unsecluded, but its location, so far as view is concerned, is excellent. The wall is sparingly decorated with *figus repens*.

If you have been in the habit of spending too much of your time in summer indoors, it might be well to analyze the character of your garden, especially in respect to seats.

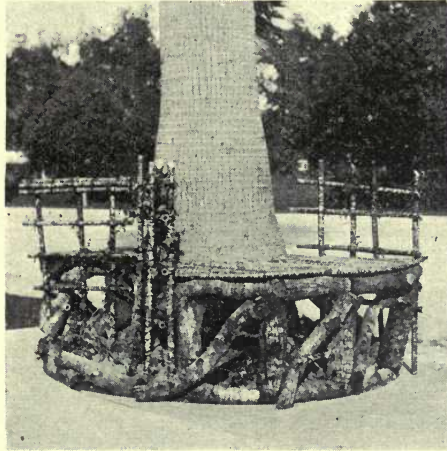


Of cobble-stones and brick.

Three of the illustrations are of formal and semi-formal gardens, and each of them shows one or more seats that are excellently adapted to such schemes. The first of these presents a small pergola of classic design, created by the use of white cement columns for the up-rights and white-painted wooden lintels, cross beams and lattice; and in the center of it is located a cement seat, of formal and artistic design, to match. By training climbing rose bushes over the pergola, the retreat can be provided with as much or as little seclusion as may be desired, and from it is afforded an excellent view of the grounds. The next formal view, showing an undecorated pergola in the background, includes a white concrete seat of severe but harmonious design in the lower right-hand corner, and just over the back of this seat may be seen two small benches, also of straight lines and of concrete construction. All of these seats are placed in the open, and are intended to serve merely as places to sit whilst the garden is being admired. The remaining picture of the formal trio illustrating grounds of less formal character, shows three concrete benches similar to the two just previously mentioned. These

are placed so as to face a papyrus-bordered fountain, and the pergola in the background in this case is decorated with climbing rose bushes.

Other illustrations present seats that are provided with overhead shelters. One shows a massive creation constructed principally of boulders and cobblestones, having a brick foundation and a covering of brown-painted timbers. Between the massive piers are two wood seats—one facing in each direction; and over the whole is trained a light rose bush mantel. Another of these pictures shows an ordinary wood seat with a wood framework above, over which is provided a covering of palm leaves. One might suggest another extremely rustic arrangement in which seats of two different kinds are used. One of these is of the ordinary hickory settee type and is movable, while the other is created from cross



Seats which have the shelter and protection of the large trees which they encircle.



sections of huge tree trunks pinned to the tops of stumps. The latter may be used either as a seat or as an out-door table, to which the movable seats may be drawn. These may all be enclosed by a veritable wall of trees and sheltered above by both the branches of the trees and a framework of rough poles, more or less covered



A rustic seat.

with vines, giving an ideal place for an outdoor tea table.

Four of the other illustrations may be grouped as showing seats constructed beneath trees. The first of these portrays a seat, built of short pieces of rough tree limbs and Japanese bamboo, that circles the trunk of a large palm; the second shows one, constructed of two-inch boards, encircling the base of a giant oak;

another illustrates a rather massive arrangement, with a seat on each of three sides, created, beneath a smaller oak, of cobblestones and brick; and the last pictures a uniquely designed settee, constructed of barked poles, that is sheltered beneath an oak of stately bearing. The last illustrations are of still further interest on account of their profuse and attractive arrangements of ferns.

Still another illustration shows a rustic seat of the settee type. The seat portion, in this instance, is constructed of two-inch dressed timber, but the framing is of rough poles. The seat is conveniently placed beside a garden walk, and is practically embowered in a mass of foliage.

As seats of the swinging kind may be hung from the ceiling of porches so may they be suspended from the limbs of a large tree. A well-planned garden offers two sources of enjoyment—one is as a thing to be admired and the other is as a place to be lived in as much as possible. And a few properly designed and suitably located seats will materially aid toward a fuller realization of either or both of these.



A seat made of barked poles.

Some Western Homes

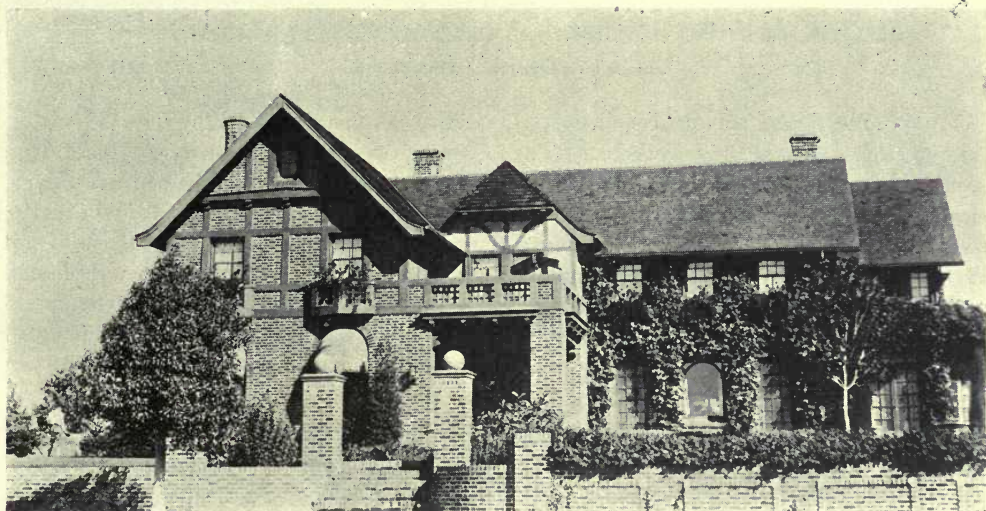
Kate Randall

OUR architects in California are spared many problems that the eastern architects must face—problems of heating in particular.

Here rooms may be arranged, at will, about central halls and courts, and windows be large, and as many as one wishes, and yet the house be easily

woods, and inexpensive plaster, but best of all, the growth of trees and shrubs, that makes possible, in a year, a setting that would require ten in a less fortunate climate. Those who visited the Panama Pacific Exposition last summer will understand what may be done in one year.

The homes illustrated are not over two



Built of tapestry brick and plaster.

F. L. Kegly, Architect.

heated, consequently our homes are exceedingly unique and artistic. Where an outlook chances to be particularly fine, whole sides of the rooms are often of glass, and wide glass doors open anywhere. The houses illustrated are not expensive but a home need not be expensive to be very attractive and comfortable. The home of a man of small means may even lack plaster, yet be so artistic that he is the envy of his neighbors. All he needs is an eye to see the possibilities of what he has at his own door—ready to be utilized boulders, beautiful native

years old and yet are already framed in vine and shrub. The first one shown was designed by F. L. Kegly of Los Angeles, and is built of reddish brown, hard tapestry brick and plaster. The exposed beams are stained brown, the shingled roof green. It stands on a slight terrace and the retaining wall is built of the same brick, nearly covered with vines. The interior is very plain, the walls and work on the first floor are nearly all tinted brown, but gay chintz hangings, in the different rooms make it most attractive.



Shingle thatch for roof and shingled walls.

Arthur Kelley, Architect.

The second house was designed by Arthur Kelley, also of Los Angeles. The shingled siding is left in the natural color, simply oiled. The shingled thatch of the roof is green and all the trimmings white. It, too, stands on a slight terrace and the walls and walks and steps are all of large red bricks, set in cement. This seems to be a dark brown year and the living and

dining room are in shades of this color. Walls, woodwork, and large made rug are in brown tones, the furniture coverings and portieres a deep brown satin, the window curtains soft cream and yet the room is not somber, for one whole end of the living room opens on a beautiful garden, where the flowers are selected to harmonize with and brighten the brown



This house is very home-like.

room, and are a scheme in yellow and white. In front, too, one looks out of wide windows on hanging vines of yellow jasmine, and off over brown hills. The whole is very charming. The bedrooms are very attractive—one in gray walls has enameled furniture, the twin beds with cane insets in head and foot boards. The windows and doors are hung with Chi-

either our black walnut or the French wood. It is much redder, and has a beautiful grain, but has one drawback, it does not harmonize with other woods. When the house was built the owner had furniture made of the same wood and the house was beautiful, but later, I saw it furnished with oak and black walnut and the effect was not good.



An unusual home of gray concrete and boulders.

nese cretonnes, pink and white lined with pale gray silk. Two chairs are also cushioned with this cretonne. Other bedrooms are finished in white and flowered papers.

The next house is very homelike. The siding and exposed beams are stained brown; all the other trimmings are white. The stone work is very good. The interior is beautifully finished in Mexican walnut, which is quite different from

The last house shown is strictly original and very unique. It stands half way down a rocky hillside, which slopes to a mountain stream, and the boulders were all found on the banks of the stream. It is wonderfully well suited to the location. The gray concrete walls, the gray of the boulders and the sage covered hillside—all in harmony. A perfect seaside home, for every window looks out on the Pacific.



Modern Colonial

Anthony Woodruff



HE bond of the Colonial builder is still upon his successor, though it is only in small part a bondage.

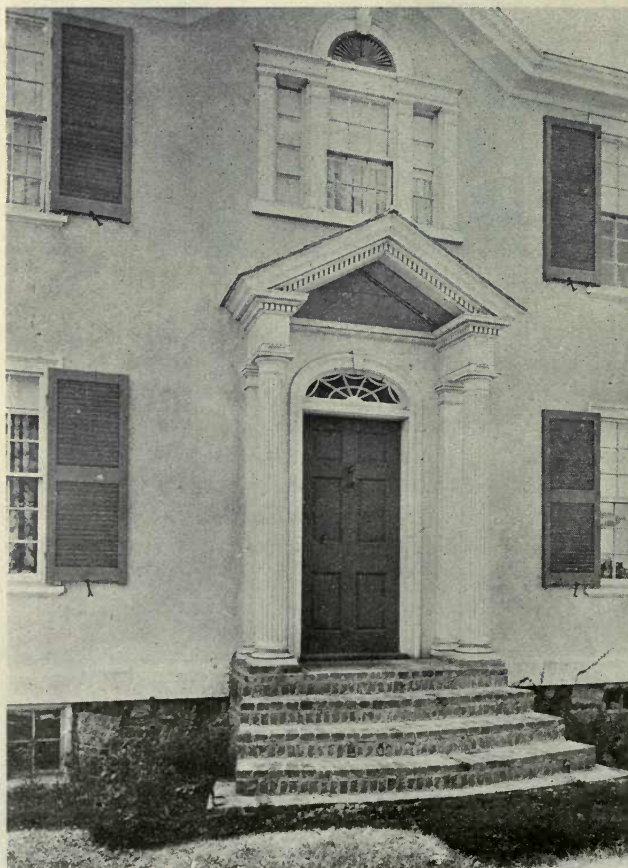
In a few points it may cramp the modern householder, but in many ways it gives a happy solution for most of the difficulties, and the assurance of results which have long been tried and approved. Samuel McIntire and men of his time and class were master craftsmen; in their own way they were artists, and the wood

they worked responded to their touch with a vitality which can only come where the cunning fingers create something which satisfies the creative instinct. Most of our modern work only copies what has been done by some one else. Our modern methods of building have made men into machines and they have not the power of initiative which was the heritage of the early builders, who were not directed from without. At the same time they avoid

some of the incongruities sometimes noted as proving that the work is antique; little irregularities which a present day workman would not allow himself to do.

In nothing else was Colonial work more successful than in its entrances, and these are very satisfactorily copied in modern work. The American porch, so popular today, was unknown to those early builders and the term was used in its original meaning. It was simply a protection to the entrance, and being small, was made as beautiful as the circumstances allowed, to accent the entrance as the chief feature of the house. The special window over the entrance generally received its share of the study devoted to the entrance itself.

While in some localities, notably in Pennsylvania and New Jersey, many of the early houses were built of local stone, the best known



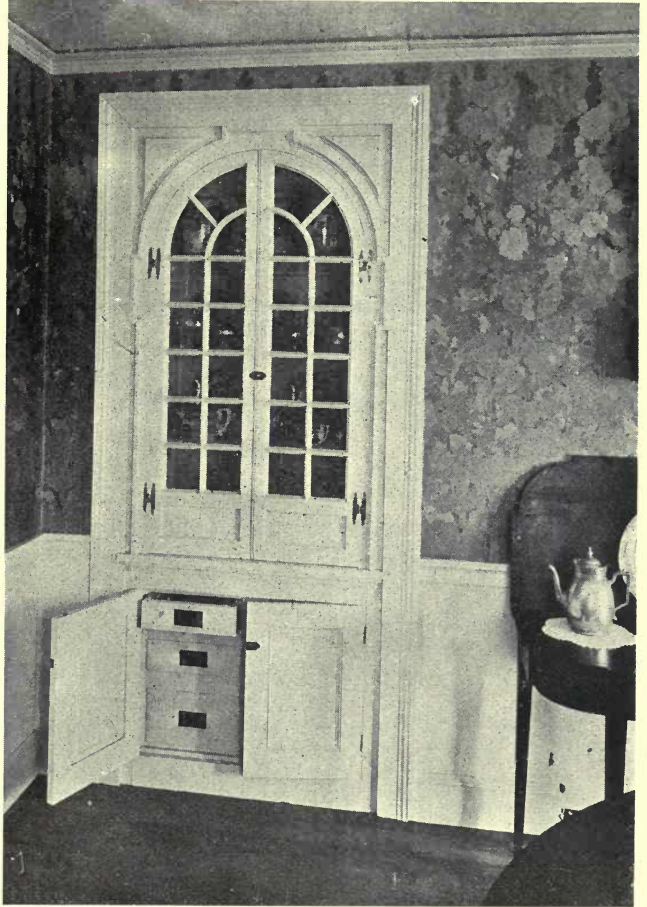
The Colonial entrance.

Colonial houses were of either wood construction or of brick, and this difference in construction had little effect on either the exterior or interior details, which were almost invariably of pine painted white. There seems to be no incongruity therefore, in building the modern house with stucco and finishing with colonial details as they are not in any case a structural part of the building. The old-fashioned shutters with movable slats are still generally painted green and used oftentimes chiefly for their decorative effect, it would seem. To any one who has grown up under the pleasant shelter of a closed shutter, which while giving protection from the brilliant light, yet allows a free circulation of air, it seems unfortunate when their usefulness is not more fully appreciated.

The whole interior of this house is given a Colonial treatment with its delicately moulded wood finish all painted white, the mitred casing and low unpaneled wainscoting.

In the dining room is an unusually successful example of a Colonial china cupboard. The round heads of the doors are received by paneling fitted in rather an interesting way to its lines, yet making a square head to correspond with the doors and windows. The cutting of the glass is very good. The white lines frame the glass and china within and a deep, paneled lower rail of the doors fills a space often given to a drawer, in a very satisfying way. A fine set of antique "H" hinges are well placed and recall the fine crafts-

manship of the early metal workers. Back of the doors of the lower cupboard are the silver and linen drawers. The plain wainscoting, with its delicate cap and base follows the manner of some of the best old houses. The cornice moulding.



A cupboard which has more than usual interest.

which serves for the picture hooks, is even more simple than was usual for Colonial rooms.

The hall and stairway generally make a center of interest for the Colonial interior. The most elaborate carving found in Colonial work was often in the newel post and slender spindles of the balustrade. Many of these were so intricate in



The newel post and rail are mahogany.

the carving that modern work has not attempted to follow the originals. While so difficult to copy, yet even these stairways are not fussy nor do they seem over ornate. Beautiful as are the Colonial halls, modern work simplifies the stair details and indeed the whole treatment of the hall. In most Colonial stairs the hand rail and the cap of the newel post was of mahogany even when, as in this case, all of the other wood was painted white.

The newel post and rail are mahogany in the house shown and the lines are extremely simple. The spindles show only a turned base with no cap mouldings. The plain white wainscoting is carried up the stairs. The landscape paper on the wall above the wainscoting is interesting and reminds one of the French wall paper which was made in squares and brought over from Paris to decorate the walls of some of the houses of Colonial times and is still in fair condition on the walls of these well kept old houses.

As was the custom with Colonial houses the living room occupied one end of the house, having windows on three sides. During the period of the "eighties" when the householder demanded many small rooms this custom fell into disuse and this space, when not further cut up, was divided into front and back parlors. The revival of interest in Colonial building had much to do with the appreciation of larger, well proportioned rooms.



One end of the room is filled with book shelves.

One end of the room is filled with shelves for books. The cupboards at either end have solid paneled doors, making an excellent place for magazines and papers which are so apt to litter the room in which the family take comfort in living. The top of the shelves correspond with the mantel both in height and in detail, and with the high windows

over them make an interesting feature of the room. The mantel follows the design of typical Colonial mantels with their peculiar dentil and ball courses. The low wainscot is also typical.

The bedroom is perhaps quite as interesting for its furniture as for its finish. Under the windows at one end of the

with castors to be sure, but it has regained much of its lost prestige. In some of the more crude examples of four-post beds the head of the rough bolt which holds the side rail of the bed shows thru the foot posts at the place where the metal may be seen on this bed. The quaint "wash stand" may also be seen with just

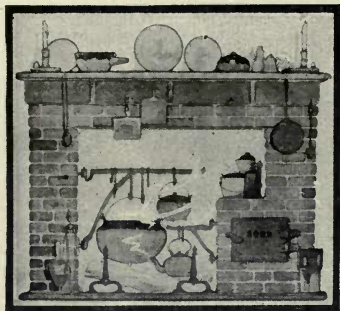


The interest of the bed room centers in the furniture.

room are cupboards fitted with a simpler pattern of antique hinges of the same type as those shown on the dining room china cupboard. The woodwork is all simple in line. The mantel follows the general lines of some of the old work. But the greatest interest in this room is the old-fashioned tester bed. This bed is an excellent example of the "four-poster" of our great grandmothers' time. Modern convenience has desecrated it

room on the top for the flowered or willow pattern bowl, and place for the pitcher to stand underneath.

The intrinsic beauty of Colonial work gives it a hold upon the people with New England traditions because it links the present-day life with their early ideals, and it makes perhaps an equal appeal to those who have never known it, and to whom its possibilities unfold into a surprising possibility of development.




THE KITCHEN



Simple Devices for the Kitchen

Edith M. Jones

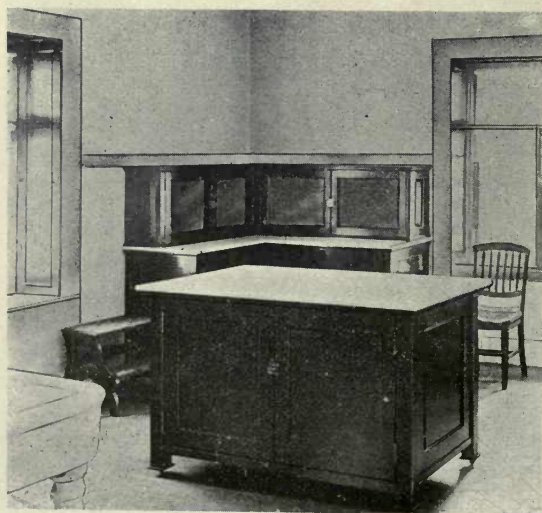
(Copyright, 1916, by Edith M. Jones)

 HERE are so many simple changes which can be made in a kitchen which cost little and help much. For instance a platter closet is such a comfort and is so easily made. Instead of setting platters against the back of the shelf and putting piles of plates in front to keep them from falling, try small upright rods—a row at the back of the cupboard and a row at the front of the cupboard and set two inches apart. The platters can be slipped easily in and out without chipping them or having to

move other dishes in order to get them out. The photograph shows a small cupboard and gives an idea of what I mean. If a larger number of platters or trays must be cared for, more rods and more space is all that is necessary.

Most good housekeepers feel that a chipped dish is worse than a broken one. It surely is no longer an ornament for the table and one hesitates to throw it away. Everybody enjoys the beauty of the convenient one-piece sinks, but many complain of the breakage and nicking of the dishes caused by carelessly allowing the dishes to hit against the hard surface of the sink. Have you seen the good looking white rubber mats that are made in any size and to your order? They are made to exactly fit the drain boards, are easily cared for and are not expensive. These are another simple addition to the kitchen equipment and quickly pay for themselves.

Speaking of dishwashing, there is a splendid draining pan on the market which is proving most satisfactory. It is a heavy oblong pan with a wire rest for dishes and a separate place for the silver. There is a hole at one end of the pan and it sets on the drainboard so that it overhangs the



A movable baking table.

sink and allows the hot water, used in rinsing, to drip directly into the sink. Many good housekeepers argue that dishes thoroughly rinsed and allowed to dry of themselves are more sanitary than dishes dried with a towel. Surely this is true unless the towels are sterilized after each time they are used. There are a number of other draining devices but this special pan has many things in its favor.

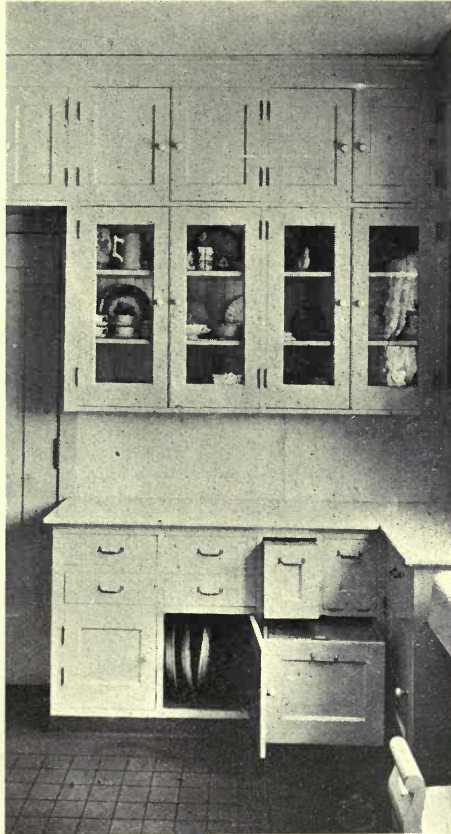
There are a lot of people in the world who do not realize the value of castors on kitchen tables, etc. The movable kitchen table is especially valuable in the old-fashioned, large kitchen because the table can be moved to any part of the room and save hundreds of steps. For instance, a table with sugar and flour bins on rollers can be used in front of the range and then moved back after the baking is done. This plan is very practical and has proven to be a great help wherever it has been tried. Sometimes a light frame work is built up over the table and hooks provided to hang the small utensils, aluminum dishes, etc. This pushed up near the range not alone saves many steps but many precious minutes in the process of a Saturday morning's baking. Of course, the table can be moved back against the wall when not needed.

The wood-box, where a wood stove is

in use, is another thing that can well be put upon castors. It can be more easily moved for cleaning and can be gotten out of the way when not in use.

Another movable thing that is worth while is the service cart. Where people are doing their own work and time and

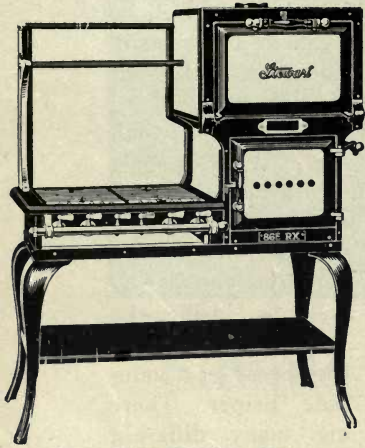
energy must be distributed over many activities outside as well as inside the home, the service cart becomes a valuable helper. There are many different kinds on the market but in selecting one test its running apparatus rather than the appearance. Experience with several has taught me wisdom in this matter, but any kind of a cart is better than none. They not alone save the steps in the setting and unsetting of the table, but in serving the different courses of the meal the cart can be so well utilized. Many people use the cart entirely for the Sunday evening lunch, and what can be



The platter cupboard is beside the bins.

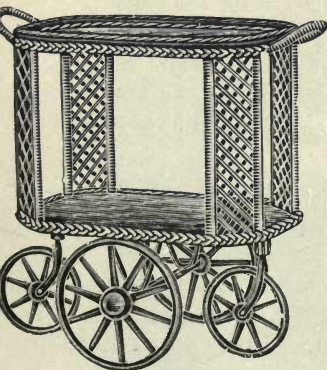
more comfortable or delightful than the cup of tea served in the glow of the open grate fire?

There is another simple device which is not in general use but is truly worth while—magic covers. Have you heard of them? They are helpers for baking day and consist of two parts, a small knit cover which fits over the rolling pin like a jersey sleeve, and a larger cover of Egyptian duck which is spread upon the



An all-over white enamel range.

dough from sticking. The material of the covers will absorb the flour but will not give it up again so the soft dough does not get too stiff in the working, yet cannot stick. A little flour is rubbed in each time before using, but be careful not to spill any liquid on the covers. They are easily washed, though with proper care this is not necessary often. They should be washed in cool water with a small brush. Every housekeeper should have a set because they save time in cleaning and the softest dough can be handled without the slightest possibility of sticking to moulding board or rolling pin, and they are a great saving of materials as well. This really is why they are called "magic covers."



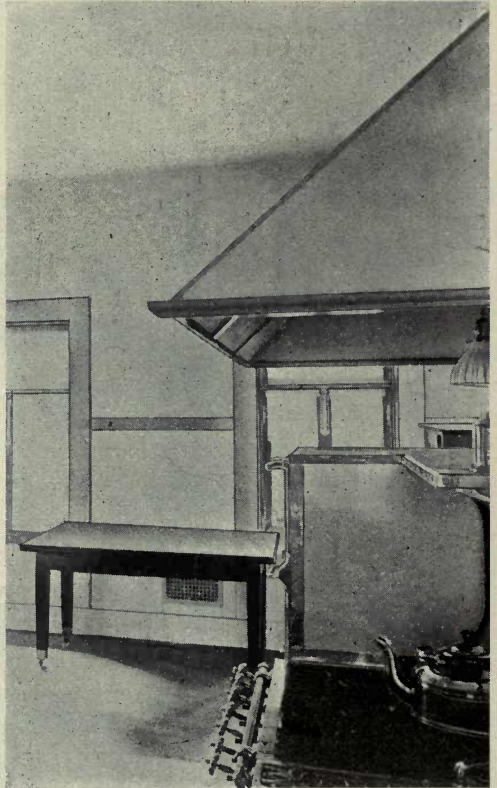
The service cart.

board or table.

These covers are chemically treated and are hygienic and they will last for years. To prepare for use, rub into the sleeve, a little at a time, as much flour as it will absorb, nearly a quart, just as you sprinkle flour over the board and rolling pin to prevent

hung up when not in use—trifling considerations, but quite worth while.

Much work is eliminated by the use of the all-over white enamel ranges which have proven such a delight to the housekeeper. Many people have asked me what to use for canopies or hoods over the range. Of course, the ideal canopy is the



Canopy over the range.

There is one simple thing which should be in every kitchen and that is a dust pan with a long handle. I know of no one small investment that brings larger returns than this one little improvement. It not alone saves stooping in the sweeping process but it can be

one built into the house, but very often people forget or neglect to plan for it until the house is too far along and then do not want to add an "extra." Canopies save the walls and ceiling much grease and discoloration but because they catch so much grease they require a good deal of care to keep clean. Have you seen the vitrolite canopies? They are beautiful and so easily kept clean. This photograph gives one style.

Several people have asked me what to do to prevent odors permeating the house especially when there is no butler's pantry. If the vent in the hood is not sufficient, I have recommended and in each case it has been proven that an electric fan in the five-inch flue is a success. This

operates with a push button when cooking. There are other remedies but this has proven the best so far.

So we can go on indefinitely with the simple changes and labor saving devices which can be made in the kitchen which cost little but are very helpful.

The Good Old Rag Carpet Again

W. R. Holbrook



THE fact that the rag rug is finding a place again in homes which wealth and good taste combine to make beautiful, is but another illustration of the thought that ideas as well as planets move in cycles and that there is nothing new under the sun. We all have, or wish we had, childhood recollections of grandmother's home back east, filled with quaint handmade furniture and carpeted with rags cut and sewed by grandmother's busy fingers and often, too, woven by those capable hands on the cumbersome hand loom in the attic or lumber room. Many of us no doubt still have odds and ends of that old carpet, used and beaten, and used and washed year after year, but still as homely and as solid as the day it was woven.

The modern housewife, with more time and opportunity to develop her artistic sense, has evolved creations that would refuse to acknowledge their relationship to their first cousin, the hit and miss rag carpet, but which are, in all essential details, the same in construction.

A certain club woman having acquired by purchase or inheritance or both, old mahogany with which to furnish a bedroom, decided that the only solution to the problem of the floor covering which would be in harmony with the furniture was the rag rug. She overhauled her attic and found a quantity of gay remnants of cotton and linen, gingham, chambrays

and such stuffs, accumulated in the course of years of dressmaking for her little daughters, now in college.

She put aside her engagements and even called in the help of her maid, and sorted and cut and sewed till she had enough to make not only rugs for the colonial room but another bedroom and a bath room besides, and declared she had had a fine vacation.

Having a definite color scheme, she sewed and balled the rags in solid colors, or at least, in harmonizing shades of the same color. Then she went to the weaver and said, "I want a rug of a size, thus and so, here are balls of light yellow for the body, and here are two shades of brown for the borders. Here are balls of solid blue, with smaller amounts of blue and white mixtures and some solid white." There was also a quantity of white, enough for two whole rugs, with a sufficient amount of some soft, filmy, green stuff, reminiscent of a fancy dress ball of bygone years, to make stripes on the ends of one rug; and a pretty lavender relic of a party dress, to trim the other.

When these rugs were finished there was still a quantity of material left, not enough for more solid color rugs, so she took these remnants home, pulled them apart again and sewed them hit and miss, in rather long pieces, five to six yards, and the weaver produced two very pretty rugs, suggestive of a Roman scarf in coloring. This woman is now planning to carpet her Lake cottage

and is aspiring to the dying of her rags to fit her color schemes.

There is nothing better than old sheets for washable rugs, and with the easily handled dyes to be bought ready prepared, it is a comparatively easy matter to get exactly the color combinations needed. Charming effects in browns, yellows and tans, or in pinks and rose colors, or blues and greens, can be obtained from these

employed their social afternoons in cutting and sewing rags, from contributed material, much of which was white. It was then home dyed and one of the Competent Ones designed and supervised the weaving of rugs which figured later in the annual church sale. Both the large churches representing homes of wealth and the smaller ones where rag rugs of this type present an opportunity for real and necessary economy have done this work.

One of the best materials for a soft, durable and artistic rug is outing flannel or cotton blankets. These, if cut rather wide, make up into a rug that "Lays down," well; and has a peculiarly grateful warmth to bare feet on a frosty morning. It also takes the dye very well and even if it fades some merely gives a softer effect. A gray body with blue or rose end stripes fits in well almost anywhere.

The writer has just completed a rug for a



For the floors of the "Colonial bedroom."

dyes, and if perchance they do fade some in service, it is generally to a more mellow and pleasing tone than the original one.

Another woman with artistic tastes has just furnished a bedroom for her young daughter, in the peculiar shades of blue and green found in an India block printed bedspread, about which the color scheme for the whole room centers. She took white material to the dyer's and had the colors in the bedspread exactly matched by an expert and the rugs complete what her little daughter calls, "A dream of a room."

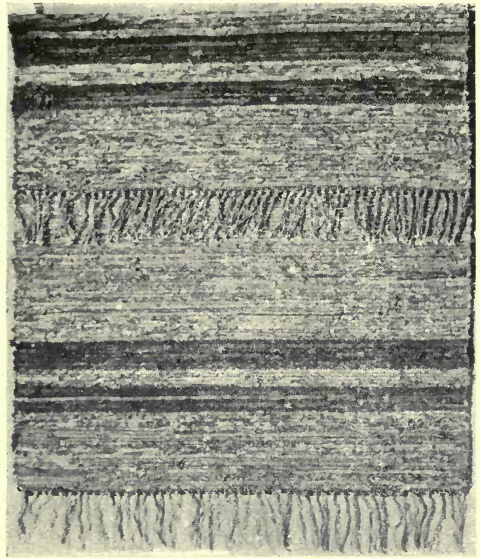
In a certain city there are a number of church organizations of women who have

woman who had a pair of plush portieres, brown, with threads of gold and green shot through it, with borders of darker brown. These were carefully cut and sewed (I don't like to call these just rags, the owner said when they were ready, so we called them "ribbons"), and they wove up into a very handsome, firm, heavy rug about 30x50 inches in size. The warp for this rug we stained brown, almost concealing it in the body, but making a harmonizing brown fringe.

To the housewife interested a few practical hints as to preparation may not come amiss. There are required, per square

yard, from one and a quarter to two pounds of rags, depending on their quality and width. For light weight rugs that may be easily handled in a wash tub, rags of the weight of old sheets should be cut an inch wide; if cut an inch and a quarter wide a heavier body is produced, which "lays down" better but is a little harder to wash. Outing flannel, if very heavy, may be as narrow as half an inch, but from three-quarters to an inch is better. The plush curtains spoken of were cut three-quarters of an inch and wove up as solid as a sleeping car blanket. In any case care should be taken not to leave any lumps, like seams or bindings as they will show up in the finished work.

There are many ways of sewing the rags; some authorities lay the two ends together and fold each edge to the middle, thus turning in all the raw edges, and sew firmly. This does not appeal to the masculine mind as reasonable, as all the rest of the length of the rag has raw edges, besides there is always a lump in the weaving where the splice comes. Others lap the ends about



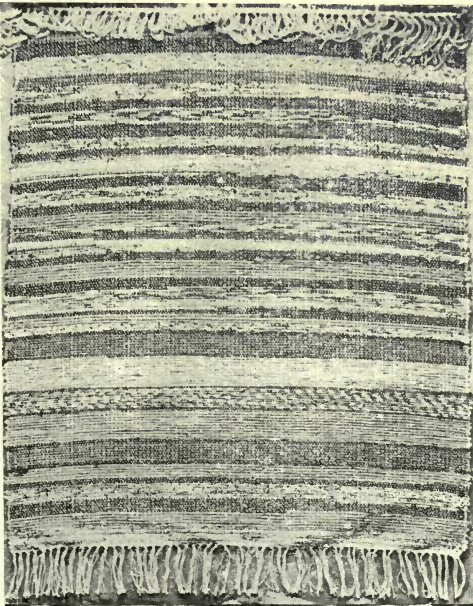
Woven from the "ribbons" of brown plush portiers.

an inch, fold them once and sew them, but in the opinion of the weaver, the best method is to lay one end over the other, flat, with about an inch of lap and sew across the two ends so there will be no loose corners. This may be done on the machine or by hand, only, if you have any regard for the morals of the weaver, sew them so they will not pull apart. He gets little enough out of it at best, and if he has to stop and splice broken strips he is very apt to lose his temper as well as his time.

It would be hard to find a community without a weaver of rags, but there are weavers and weavers, and to find one to intelligently co-operate with a particular customer, is not always so easy. As has been intimated the financial returns of the business have not been such as would attract artists and ambitious artisans. Many also are women who learned the trade in their Scandinavian or German homes and it is hard for them to imbibe the new ideas.

In some cases where there has been a good deal of church work, it has been necessary to take some likely person in hand and educate her to the new ways.

Rag rugs can be had in the department



Suggestion of the Roman scarf in color.

stores in considerable variety. Some are good and some very bad indeed. The prices range from 35 cents a yard to three or four dollars for a two yard rug, but the real interest and value in rag rugs is in the inter-woven personality.

Little fingers may be kept busy and older ones thriftily occupied, artistic talent and good taste may be developed and the fleeting memories of past years preserved by the rug that is prepared in one's own home and honestly woven by a skilled hand.

The Mary and John House

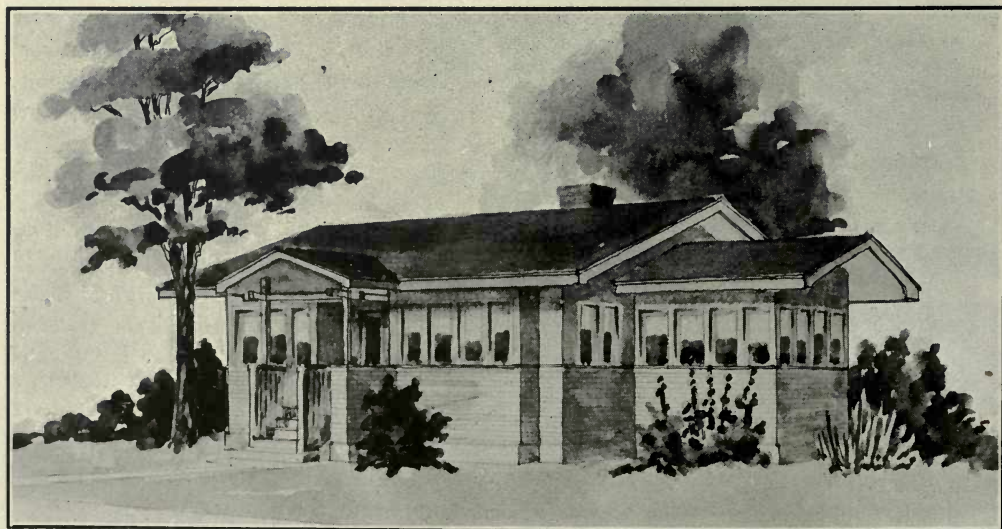
BEING a very sensible couple they had not taken a long and expensive honeymoon trip, but had put the money into the furnishing of a tiny home and now they were back and ready to enter into the full possession and enjoyment of their bungalow home.

It seemed very inviting to them as they came up the walk and when they opened their own front door and entered the living room they just sat down in the nearest chairs and looked about them with the greatest feeling of rest and contentment possible.

The room was in the tan shades, finished in birch stained and waxed a light brown, the fireplace brick and the raised hearth were in a creamy shade of Roman

brick, the new library table and two or three easy chairs were in walnut upholstered in a cool green and the walls were in a soft tan with a cream ceiling. The rug was a plain soft brown. The plain scrim curtains at the windows had on each side of each window group a soft green silk hanging arranged on a separate rod to pull at night time and the glass doors to the porch were curtained with the same green.

The dining porch was also finished in the birch with the same finish. It had a little English breakfast table and some rattan chairs for both the table and for easy chairs and all stained a deep cream. The green of the living room had added to it a touch of blue in the border of the



Very inviting as they came up to the house.

Marion Alice Parker, Architect

curtains and the blue and green rug on the floor and also in the pattern of the dishes on the table, for this fortunate couple discovered that good friends had made ready for them and that breakfast was ready to be served.

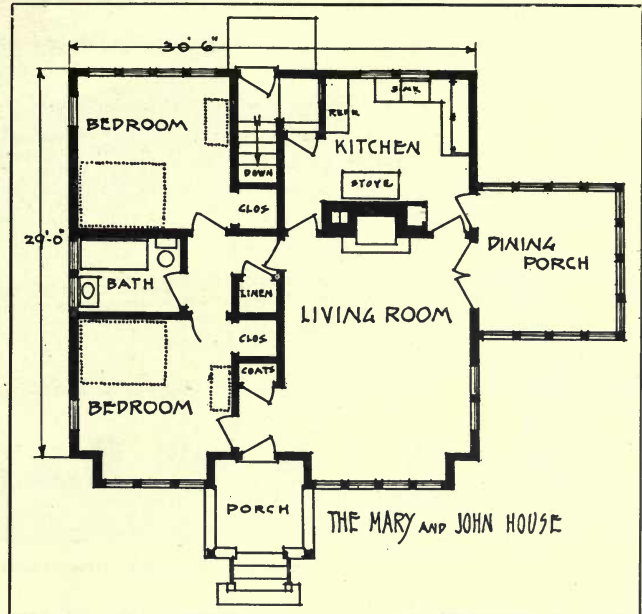
So they made just a hurried trip through the rest of the house to have just a look at things and then sat down to their first meal in their new home.

They were more delighted than ever with the casement windows and the light and airiness which so many windows gave and Mary must immediately try opening and shutting two or three of them.

Then they ran in the front bedroom for a peek and that was all in white with a touch of green and the rear bedroom in shades of pink, both with white enamel woodwork, as was also the spotless bathroom.

They inspected the closet for coats opposite the entrance, and noticed that John could go to his own room when he came in before appearing in the living room if he wanted to change his coat or wash his hands.

The kitchen was birch in the natural finish and the new housewife thought that with the easy passage to the outside



door, the laundry in the basement and the few steps to the bedrooms and the dining porch or the living room if the meal was to be served in front of the fireplace that work in the new house would be very easy indeed.

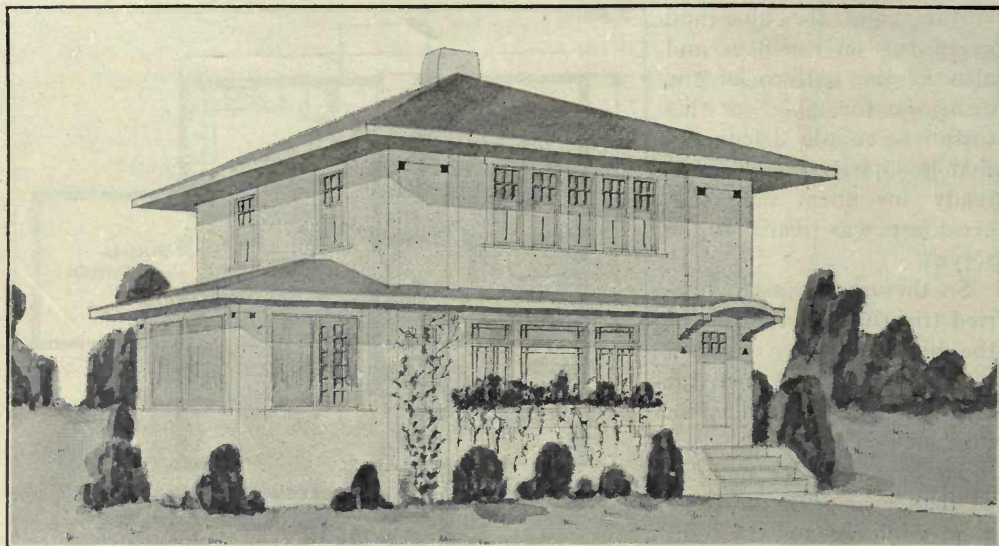
And while Mary was investigating the kitchen arrangements, John took a look at the new and up-to-date hot air furnace with its radiating pipes and thought he also would enjoy working about in the airy, clean basement with its convenient fuelroom.

So John and Mary took possession and we may wish that as in all fairy tales they lived long and happily ever afterwards.

A "Fire-resisting" House

IN getting the estimate of cost for this house the architect has also gotten the additional figure of the cost of hollow tile for the exterior walls. The roof is specified for asbestos shingles, which makes the house fire resisting from the exterior.

We will quote the figures which he has given as the cost of the house in Minneapolis and vicinity, not because these figures can be depended upon in any other locality, nor for longer than a few weeks time, for the conditions under which they were given,



A bracketed hood shelters the entrance.

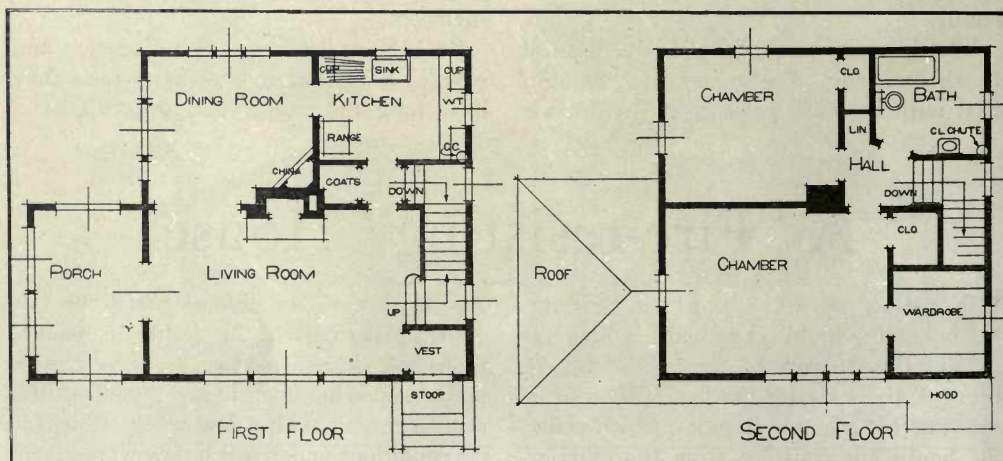
W. W. Purdy, Architect

owing to the possible changes in prices; but in order to give an idea of the relative cost of the materials.

The exterior walls of the house at first were specified to be of frame construction with metal lath applied to furring strips spaced 10 inches on centers, over which has been applied three coats of cement plaster, the third coat of white cement having been thrown on with a brush and left as rough cast work. With pine finish stained for the first story and white enameled on the sec-

ond floor, maple floors throughout, and hot air heat, this home should be built complete for \$3,250, in Minneapolis and vicinity. At an additional expense of \$350 the exterior walls could be built of hollow tile, and stuccoed. The roof is of asbestos shingles or some other non-inflammable material. This would give to the owner a modest little house that would be fire-proof from the outside.

A bracketed hood shelters the entrance stoop, the cornice of which extends across



the entire front, thus relieving the otherwise plain surface by giving to the triple window a bay effect without the added cost. This together with the wide pilasters on the corners, the flower box under the window, and the trellis at the side, makes a very attractive and pleasing composition which is at the same time inexpensive.

The entrance is through a vestibule into a good sized living room which extends across the front of the house, French doors lead to the screened porch from the opposite end. A wide fireplace faces the group of windows. The unusual treatment of the stairway beside the entrance makes this a very attractive living room. The porch is only intended to be screened. A cased opening with portieres between separates the living and dining room. In the

corner of this room is an attractive china closet with leaded glass doors. The kitchen is very complete with built-in work table, and china cupboards. The stair to the basement is underneath the main stair, the grade door serving the purpose of a rear entrance door as well.

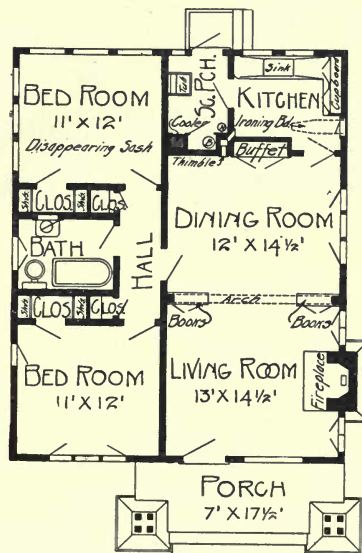
The generous stairway leads to the second floor, where two large chambers, a bath, and linen closet open off a small center hall, without an inch of waste space. In the corner of the front chamber is a large built-in wardrobe, in addition to the closets. If an extra bedroom is desired, the wardrobe might be omitted and the front chamber made into smaller chambers.

A light laundry, furnace and fuel room are partitioned off in the basement, the ceiling of which has been plastered.

An Inexpensive Bungalow

MANY home builders, before they are settled in the new home, have a strong tendency to question the proverbial veracity of figures. If it is true that "figures never lie," then one would like to know who is the guilty party. The figures definitely stated that the house would cost a certain amount. The final result proved quite a different thing. To be sure the family decided to make some changes, —but none of these amounted to anything, to speak of.

Here is a dainty little bungalow which the architect assures us has been built, at an actual cost—we dare not give the figure, it is so low. But the house is real-



ly very small and can be built for a figure which any modest home lover can afford if he wants to own his own home. To such as these a moderate priced bungalow is sure to make a strong appeal, provided it is conveniently arranged and of an attractive design.

The roof is of light colored composition and of moderate pitch. The architect tells us that the light color tends to keep the bungalow cooler during hot summer

days and also harmonizes with the color scheme.

The exterior walls are covered with siding of two different widths and laid alternately one wide strip and two nar-

row ones, which gives an artistic and attractive touch to the design. This siding is stained a pearl gray and the trim is painted white.

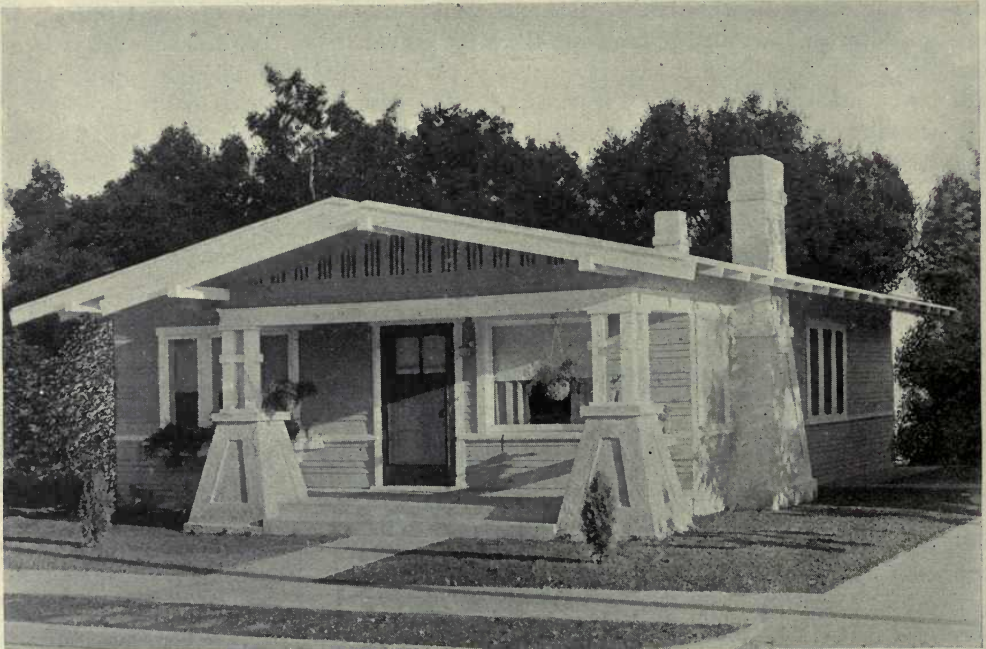
Cement stucco was used over common brick for the exterior of the chimneys and the porch piers, the broad expanses being relieved by artistic panels.

While the interior arrangement is not

drainboards under a group of windows. The sink is set three feet from floor.

The almost enclosed screened porch is a very convenient place to work. Here is placed a set tub, which may be converted into a work table by a hinged cover. Here is placed the "cooler" so characteristic of California houses.

Owing to the fact that the rear bed



A dainty bungalow.

George Palmer Telling, Architect.

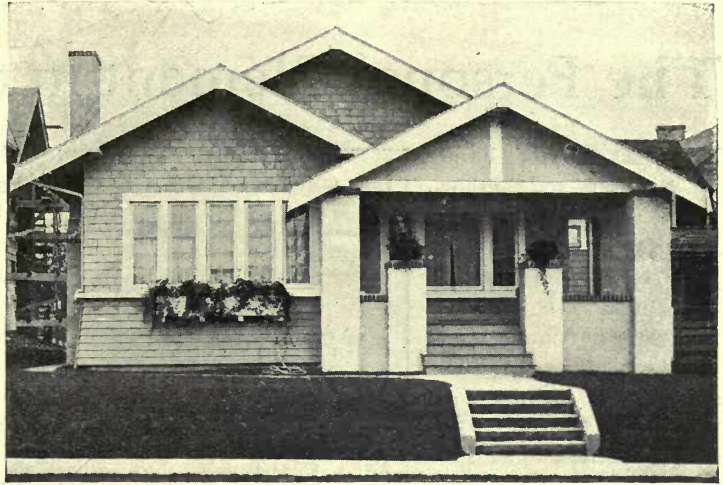
uncommon as a whole it is convenient and has some excellent features. There is a pressed brick fireplace in the living room and this room is connected to the dining room by means of an arched or buttressed opening, in the buttresses of which are built-in book cases opening into the living room.

The kitchen chimney is so located that a stove in the dining room may be vented into it or it may carry a furnace flue. In the kitchen are ample built-in cupboards with flour bin, etc. Also built-in folding ironing board and sink with good

room is equipped with disappearing windows, it is convertible into a sleeping porch by the simple means of opening the windows, which are arranged along the two exposed sides. These windows drop down into the walls below and as they are balanced with sash weights are easy to operate.

The bed rooms, bath room and kitchen are finished in white enamel and the dining and living rooms are stained a rich brown color. Oregon pine was used for finish throughout and the dining and living rooms have oak floors.

The Successful Floor Plan



The brick-capped wall and flower boxes add to its attractiveness.

—Jud Yoho, Architect.

THIS bungalow is 28 by 38 feet, and gives five rooms of good size and well proportioned. The furniture has been placed on plan and the windows located with reference to its accommodation. Good wall space for the furniture is often more important than large floor space.

In this plan, though they are just as closely connected as in any other five-room bungalow, the living room, dining room and kitchen are not placed so that one's guests in the living room can see straight through to the kitchen. Neither is the position of the dining room such that the passing peddler or agent, ringing the bell while the meal is on the table, can intrude into the privacy of the diners.

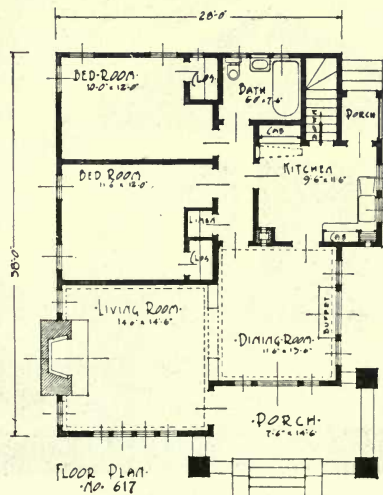
A very short hall taking but a very small amount of space connects all rooms and bath with exception of

the living room.

The kitchen has good cupboard space and the sink is well lighted. A place for the ironing board has been built in beside the cupboard. The basement stairs are located conveniently near the rear entrance. The linen closet opens from the small hall. The communication of the rooms is very good and centers around the kitchen, making it easy for the mistress of the house to be also her own maid, very often necessary.

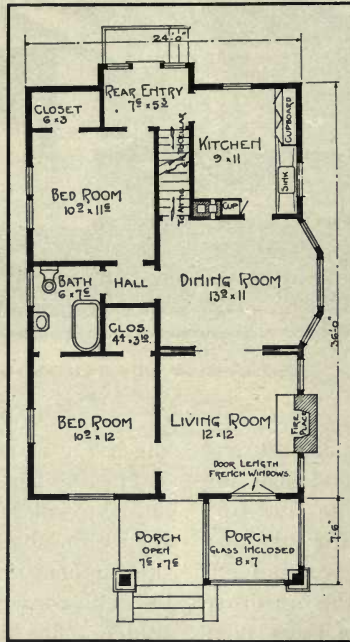
On the exterior, shingles laid six inches to the weather cover the body of the house and are stained a light gray. A very heavy sill course separates the shingles from a flaring base of rough siding which, being of a different wood, takes the same stain with a different result.

The basement may be made as complete as desired. The flue may serve for furnace.



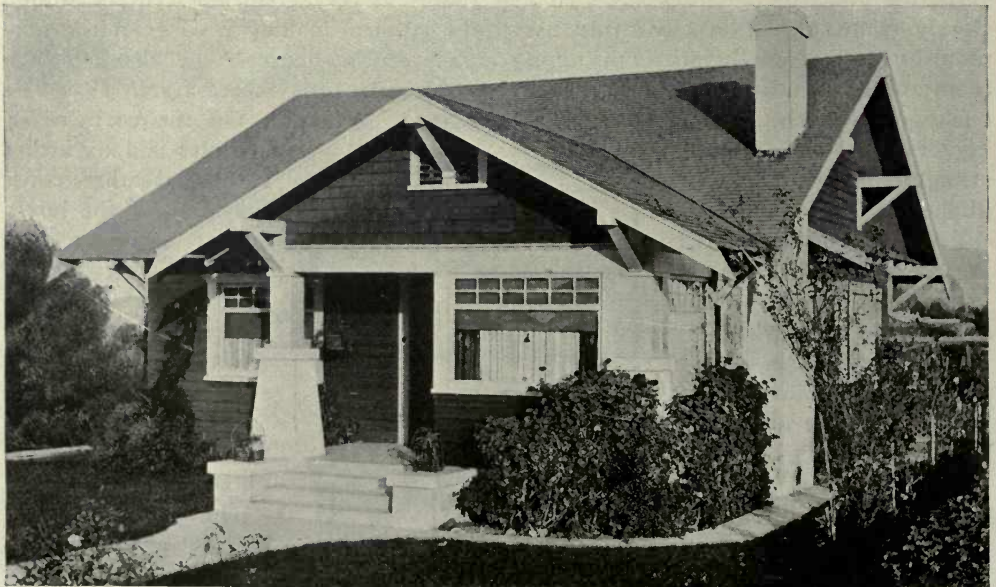
The Personal Element in the Home

WHEN you build your own home you will unconsciously build some of your own feeling into the house. If you are not very particular and most any house that will shelter and protect you from the weather will do for your home the house will show it. If the carpenter or builder knows that his attention to the smaller details will be appreciated, that some one will recognize the time and trouble he has taken he will be much more likely to struggle with some of



the knotty problems, and give the careful finish which makes the difference between a house and a home. As the architect says some houses seem, like Topsy, to have "just grown." It merely happened that such a house was built; it had not been carefully designed, and the fact is usually very easily recognized.

A house is beautiful because it has been planned to have that complete finished look which always compels attention from the passers-by. Such homes



Stained brown, relieved by white trimmings.

E W. Stillwell, Architect.

cost but a trifle more than the uninteresting product of those who build cheaply without thought for the beautiful. Well-planned homes are less expensive in maintenance and always command ready and profitable sale.

The exterior of this bungalow is siding stained brown, and the trimmings are a deep cream color. The foundation is solid concrete, and there is a cellar large enough for a furnace if one is desired. The floor plan gives an excellent arrangement. Part of the porch has been enclosed with glass and connects with the living room by French doors. The entrance is directly into the living room with a fireplace on one side and sliding doors to the dining room on the other side. This allows the dining room to be completely shut off when desired, giving a privacy to the dining room during the meal and to the living room during the preparation of the meal.

A bay fills one side of the dining room, the angle of the windows giving good

light and sunshine even though another house may stand near to the lot line. The kitchen, beyond the dining room, is well-fitted with cupboards and has a well-placed sink and good space for the range.

In the rear entry is place for the refrigerator. Here also are the stairs to the basement, though the entrance is on the level of the kitchen floor. A grade entrance makes it impossible to place the refrigerator in the entry on account of the steps to the kitchen level. This objectionable feature is found in many of the older houses, especially those which were "contractor built." The careful home-builder will arrange a place for the refrigerator which is easily accessible to the dining room as well as the kitchen.

The other side of the house is devoted to sleeping rooms, both of which connect quite directly with the bathroom, and by means of the small hall, with the dining room. The closets are unusually large and there is additional storage space in the attic.

The Charm of the Bungalow

CERTAIN requirements can be definitely expressed in words; rules may be laid down for accomplishing definite results. Those who know plot curves to express force and motion; chemical action may be shown by formulae; but who can lay down rules or plot a curve for a charming entrance, or write the formulae for a satisfactory home. The vocabulary does not seem to be properly equipped for stating all of the shades of meaning we often wish to express. When we try to praise any thing we are apt to overstate the facts, or the word which comes to the tongue has a shade of different meaning than what we have in mind. We have so many "thought-saving" expressions that we do not feel the necessity of a careful expression. The

pedagogue says that when we cannot express a thing it is because we do not really and definitely know it. Perhaps that is the difficulty, we do not really and definitely know what we want in our vague desire for a charming home. The elusive vision flees or fades as we approach and we allow it to escape.

While we may not define "charm," yet definite effects follow their justified causes, and to one who cares enough for his dream-home, and takes proper means to attain it, it will return, in a measure at least the thought and care he has lavished upon it.

The bungalow here shown has a charming approach and a beautiful setting. The plan has been well worked out and has several especially good points. The side



This bungalow has a charming approach.

Bungalowcraft Co., Architects.

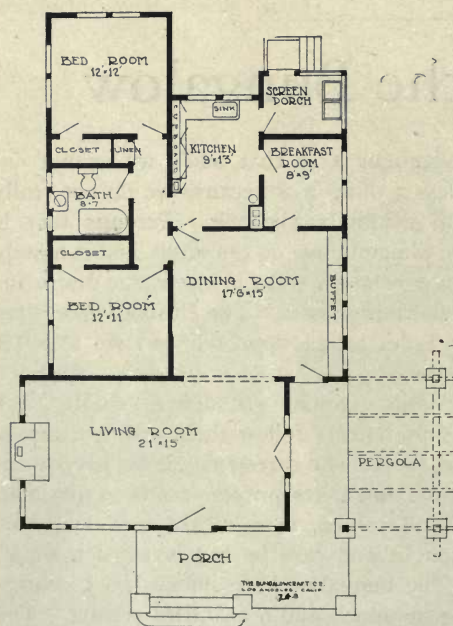
porch which makes the carriage entrance allows one to enter either the living or the dining room. The living room is well pro-

portioned, being 15 by 21 feet. French windows connect directly with the carriage entrance. The end of the living room opposite is filled by the fireplace and windows on either side. A wide opening connects with the dining room.

One end of the dining room is filled with windows with a built-in buffet under them. Beyond the dining room is the useful breakfast room, connecting with the kitchen. A double swinging door connects the dining room directly with the kitchen. A screened porch makes a rear entry and also serves for a laundry, having set tubs. The kitchen is of good size and well equipped.

The bedroom suite is nicely arranged, connecting by a small hall with both the dining room and kitchen. Each bedroom has a large closet on either side of the bath, and the linen closet opens from the hall.

This is a typical house for a mild climate and no provision has been made, as here built, for a basement, though such an addition is easily made.



Homes of Individuality

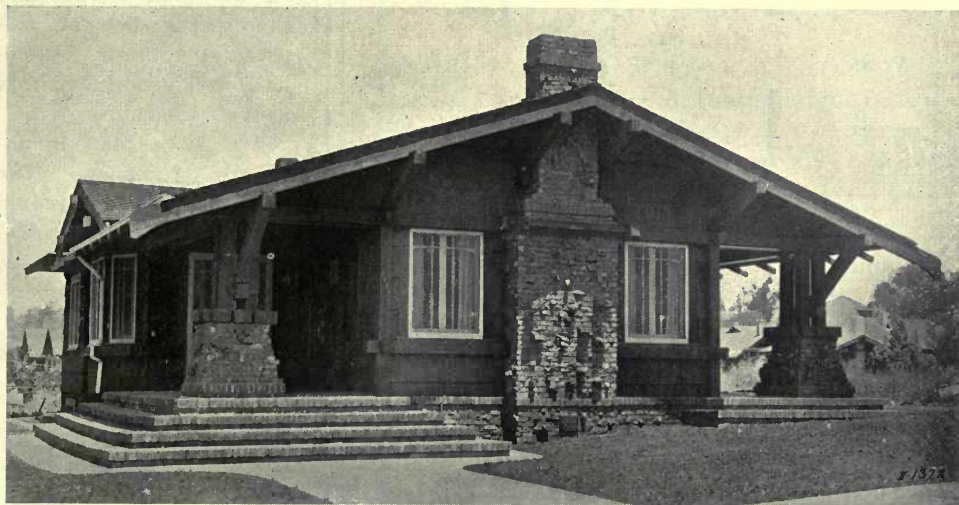
Selected by W. J. Keith, Architect

A Six-Room Bungalow

VERY attractive in design is this bungalow with its twin porches which so immediately suggest additional special uses to which they may be put. One may enter the living room from either porch. One porch opens to the dining room and the other to the bedroom. The outside chimney in the cen-

this design, making it available for a very good sized family, and full privacy is secured by means of a bed chamber hallway connecting these rooms with bath, etc.

Each bedroom has a good closet with additional closets opening from the hall, and the bathroom is very conveniently located. The room opening from the porch may be used as a den if desired.



The outside chimney is effective.

ter of the gable makes a very effective feature, the texture of its brick work repeated as it is in the pier of the porch on either side. The casement windows throughout the house allow the window space to be fully opened.

The floor plan has been very carefully worked out. The living part of the house is on one side, the sleeping apartments on the other while the small central hall gives very satisfactory communication and separation. The additional advantage of a third bedroom is provided for in

The dining room communicates with the kitchen through a pantry which is well equipped with cupboards, and has a working shelf under the window. The bay which fills one end of the dining room not only adds to the length of the room but gathers light and air from three directions instead of one, and makes the room comparatively independent of the nearness of neighboring houses.

In the kitchen the sink has double drainboards and a side light. The range is provided with a hood, vented through

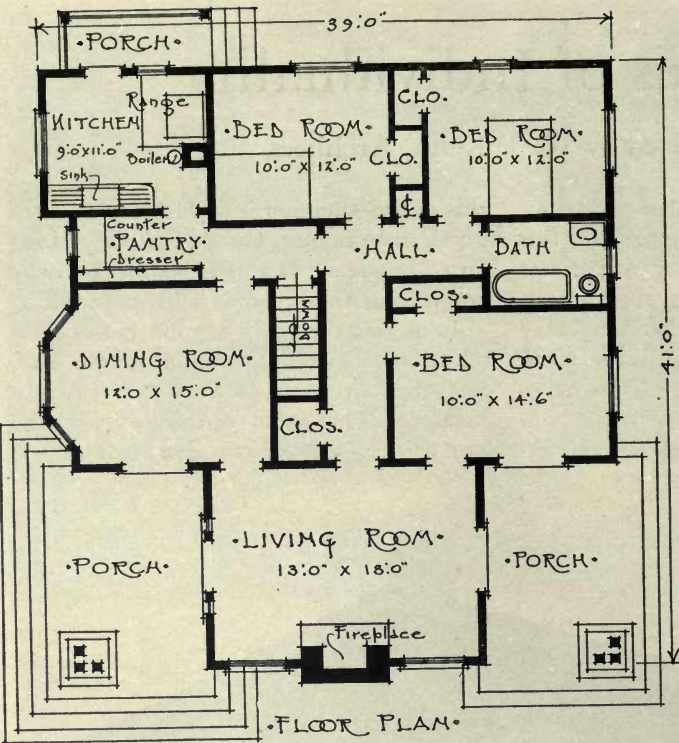
There is a basement under the house with brick walls above grade. The exterior is covered with "shakes" or large shingles, and the timber work is all stained the same color. The wide overhang of the eaves are carried on timber brackets.

A Southern Bungalow

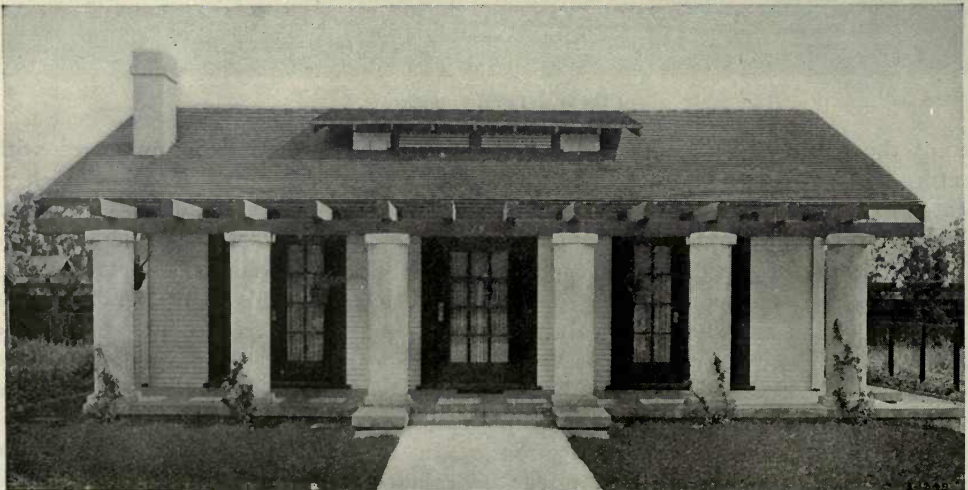
There is a pleasing quality to this low spreading bungalow. The French windows opening on the wide terrace and the sturdy cement columns give an air of openness and hospitality that is truly charming.

The floor plan is unusually compact. The kitchen and sleeping rooms are entirely separated.

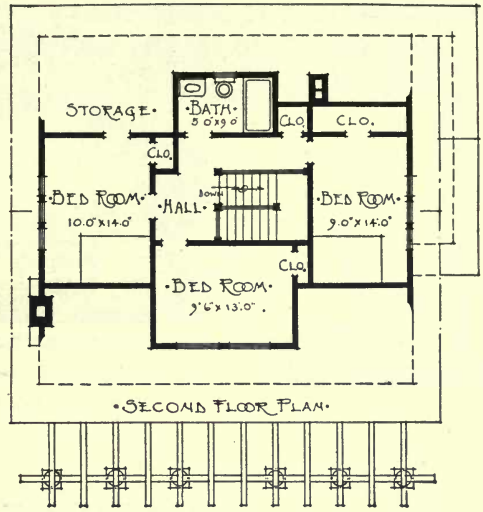
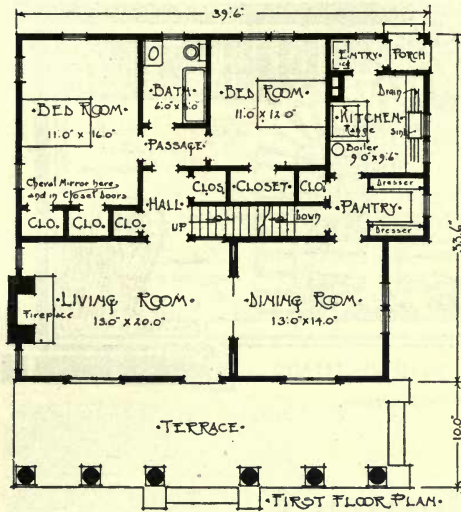
There is no waste space in the small but commodious passage connecting the sleeping rooms and bath, nor in the hall which connects these with the living room. The living room and din-



the chimney. When the housewife once comes to appreciate what a hood does in carrying off the odors and steam of cooking, she will not allow her kitchen to be built or her range set up without one.



The long windows and wide terrace extend hospitality.



ing room opening upon the porch with French windows, and into one another through sliding doors, give a most delightful interior. A wide archway opens to the stair hall where are two large closets for coats and linen, as desired. Off the hall is a passage connecting the two master bedrooms and bath, permitting complete privacy. The larger and corner room is intended for the owner. It has two large closets with full length mirrors in the doors, which, with one set in the wall between, provide for a practical triple mirror.

In the case where more than two bedrooms are desired, the adjoining plan for the second floor shows how by increasing

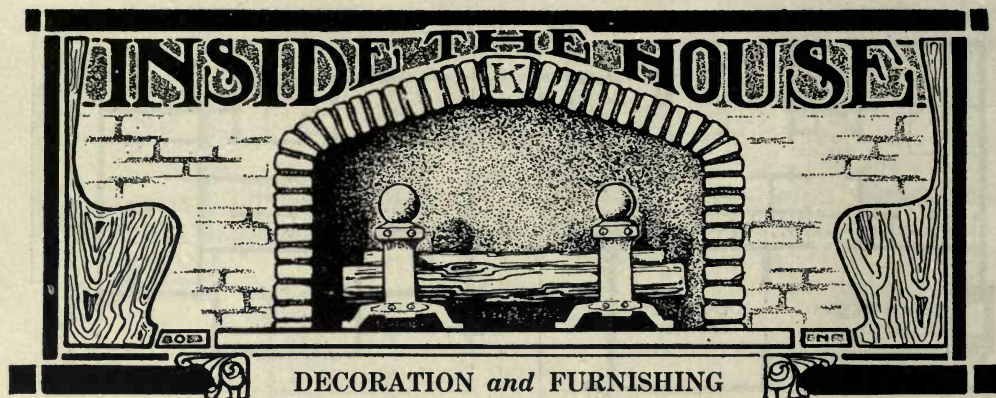
the pitch of the roof more than that shown in the illustration, three bedrooms and bath are arranged for on the second floor. The ceilings of the end rooms slope a little to the front and rear but this is not sufficient to interfere with full head-room.

The service portion of the house is quite complete and has a pantry, equipped with glass enclosed shelves, and counter with drawers, cupboards and bins below, which connects with the dining room. Here also is a stairway to the basement and commodious closets for pots and pans and the other culinary necessities. An entry from the rear porch furnishes a place for the refrigerator.

Getting Rid of Ants in Lawns.

An industrious colony of ants may establish itself in a lawn and ruin the grass over a large area in a single season. If mounds are built by the ants these have to be removed, and in such cases the ant colony may as well be destroyed with carbon bisulphide, boiling water or kerosene. These remedies are well known and are nearly always successful. Sometimes, however, the ants do not build mounds, but destroy the grass by constantly moving the soil particles from place to place about the roots. If an ant colony of this sort is noticed before the grass has been badly affected, a little bacon grease containing arsenic, paris green or tartar emetic, placed near the openings into the underground galleries, will cause the disappearance of the ants within a day or two. Some of them are killed and the others are frightened away. The ant nuisance is thus abated without the necessity of re-seeding or re-sodding. The only needful precaution in the use of this remedy is that if arsenicals are used in the bait, pet dogs and cats should be kept out of the lawn.

—F. H. Sweet.



DECORATION and FURNISHING

Conducted by Chas. Burdick, Decorator.

Summer Fabrics

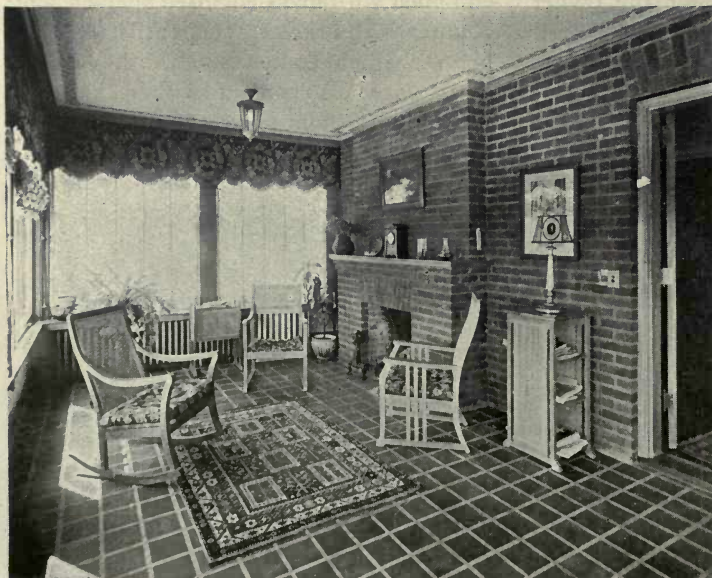
NEVER was there a season so pleasantly associated with chintz and cretonnes as this. So far reaching has been the demand that expensive and elaborately designed period tapestries, with their wonderful backgrounds of old gold, faded old blues and wood tones have been repro-

duced in the inexpensive cotton printed fabrics.

Many of the imported cretonnes, soft and rich in texture, yet very reasonable in price, have been brought out in the shadow effect and are fascinating to look upon. These fabrics are properly called shadow taffetas and those most sought

after, display upon a cream tinted ground a large floral and foliage design worked out in faded old rose tones, soft grays and cool greens and touches of tan, while over the fabric is a transparent overtone of either soft lavender, delicate heliotrope or rose.

A noticeable feature of this season's demand is the call for chintz and cretonnes which have black backgrounds with tropical foliage and grotesque birds.



An outdoor living room at Lake Minnetonka.

INSIDE THE HOUSE

These offer great decorative possibilities, and are very desirable for sun parlors and living rooms, especially where the designs are worked out in sharp, contrasting colors.

In this aesthetic age the spring sunshine must not be excluded from our sun

in a tone to match the predominating color in the chintz. The glazed chintzs used for shades are not always satisfactory when made up for cushion or slip covers so the manufacturers are now making the unglazed fabric in the same design and coloring, thereby permitting



The walls are hung in a gray silk tapestry.

parlors by crude opaque shades; neither must it stream in, to the detriment of our furnishings or our own comfort. While sunshine is a synonym for health and happiness it should be tempered with roller shades. These may be made of bright, gay colored chintz, which is a revival of an early English textile and can now be purchased by the yard in any of the up-to-date shops. For the open air sun room nothing is quite so effective as these chintz shades, supplemented with a flat scalloped valance across the top of the windows, made of a sunfast repp

in a tone to match the predominating color in the chintz. The glazed chintzs used for shades are not always satisfactory when made up for cushion or slip covers so the manufacturers are now making the unglazed fabric in the same design and coloring, thereby permitting

the home builder perfect harmony in shades and upholsterings. The photographs of living room and sun room illustrated in this issue were taken from a beautiful Colonial home situated on a high knoll overlooking two charming lakes, and overshadowed by stately old trees imparting an atmosphere of delightful retirement and repose.

A low paneled wainscot of dull rich mahogany extends around the living room and architectural dignity is given by the well proportioned plaster cornice and ceiling panel done in high relief.

INSIDE THE HOUSE

The walls are hung with an imported silk tapestry in a beautiful shade of gray and the window hangings are in velvet in a clear soft mulberry which very effectively accents the gray walls and harmonizes with the magnificent Sarouk rug with its border of deep mulberry and field

windows on three sides, offering charming views of lake and woodland in all directions. The hot sun is tempered with Austrian draw shades made of silk and wool casement cloth in a soft amber tone, while a graceful valance of fine hand-blocked linen extends across the win-

dows. A feature of this treatment is the lack of side curtains which permits an uninterrupted view in all directions.

The woodwork as well as the furniture is stained a beautiful silver gray and waxed and the loose cushions are covered with the same block printed linen as is used in the valance.

During the summer months choice rugs should be carefully put away for the season and summer rooms prepared

of old blue, rose and ivory. The ceiling is canvased and done in flat oil in a pure oyster white.

An interesting architectural and decorative detail is the handsome marble mantle delicately carved in the pure Adam period, supporting an Empire Colonial mirror of rare beauty. Rare antique pieces of furniture in the Colonial style have a fine setting in the apartment, while a few well-chosen pieces of silver and china serve as an accent in the treatment.

The sun room adjoining is built out from the house proper, with immense

to look cool and inviting. A sense of bareness is not necessary, for at a nominal sum rugs of thick yet soft, pliable matting may be substituted. These rugs are made in Japan, from a certain quality of sea grass, are reversible and the colors are absolutely fast. Some are in soft browns, others in dull old blues, but the favored ones are in cool gray greens with well defined lines of black and bright red in the border. They are quite inexpensive, wash easily and impart to the day room an outdoor feeling that makes them so well adapted for summer use.

The old fashioned round rag rugs of



The view from the sun room windows is not interrupted by side curtains.



Colonial days or—as our forefathers dubbed them—Grandma's "turkey mats," have been revived, with a few pleasing changes which will permit them to fit into any decorative scheme. These round and oval mats are not made from rags of discarded clothing, but from "skips" or misprinted strips of chintz and cretonne purchased from the print factories for a nominal price. The "skips" are new and some of them are of the finest quality of cotton. The fabrics are torn into long strips, braided by hand and after being formed into the desired shape and basted, are sewed by machine in a peculiar cross stitch which causes the rug to lie perfectly flat. Two or three of these pretty mats in different

sizes, carelessly thrown on the chamber floor will add a wonderful charm to the room. These oval rugs may be had in large sizes, a nine by twelve mat being sufficient to cover the floor of a large size bedroom.

Soft cotton damasks in dark colors, tan toned cotton taffetas and the heavier fabrics in crimson, green and blue make most effective mats for living and dining rooms and their coolness makes them desirable for summer use. This growing habit of taking up our choicest rugs and carpets during the hot months and substituting grass mats and rag rugs makes far more comfortable living, which the present generation is beginning to appreciate and follow.

Buying by Proxy

Keith's Guide on Home Decoration and Furnishing
Brings Some Notes from the Shops

Through this department we offer our readers, under "Buying by Proxy" and "Answers to Questions on Interior Decoration," a most practical and valuable service. Letters of inquiry will be answered and expert advice on House Decoration and Furnishing will be given *free of charge*. Enclose stamp for reply. Write on one side of the paper only.

Slip Covers.

WHERE cost is not a consideration, the late mode is to make slip covers of chintz or cretonne for the velvet window hangings and door portieres, in the same manner as furniture slip covers. These covers are made in the form of large flat bags, closed at the bottom and after being slipped over the hangings are closed at the top with small snaps similar to glove fasteners. Of course, a small overlapping flap must be arranged at the top in such a way as to exclude the dust. For the windows the bags have plain sateen linings next to the glass while for the door hangings

both sides must necessarily be of chintz.

Slip covers for the furniture either of chintz, cretonne or French striped linen prove to be really an economy as they save the upholstery many months of hard wear and also add a highly decorative note to the rooms during the summer. It is further economy to select good materials for this purpose on account of the hard wear and the many launderings they must necessarily receive. The making of slip covers is no easy matter and the work should be entrusted to an expert upholsterer and if they are well made they should last and be good looking for several seasons.

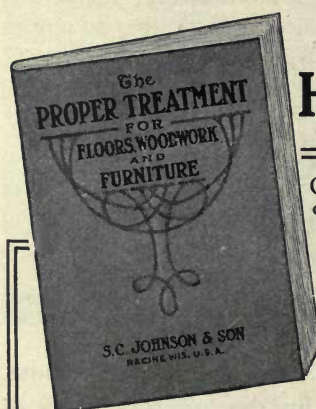
INSIDE THE HOUSE

Notes on Summer Furnishings.

Among those influences making for better living is a growing appreciation of life in the open. A casual glance at any of the new homes, no matter how large or how small, will disclose a generous porch or a well situated sun room. The popularity of these open air living rooms is becoming so great that manufacturers and importers are offering an infinite variety of furniture, drapery fabrics, floor coverings, etc., which enables the home builder to express her own individual taste in the most charming manner.

In the planning of an open air living

room or sun room, a special study should be made of the merits of casement windows and double hung sash windows. Where space will permit, "drop-head" windows may be installed allowing the entire sash to slide down into the wall below the sill, the opening being covered with a wooden flap which is a part of the sill. When the windows are thus lowered, the sun room is open on all sides and the sashes are out of the way, which is a decided advantage over the in-swinging casement windows. Furthermore, this style of window will not interfere with the window shades nor curtains.



This Book on Home Beautifying Sent Free

Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

S. C. JOHNSON & SON, Dept. K. E. 8, RACINE, WISCONSIN

"The Wood Finishing Authorities"

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price.....1.00
50 Design Book "Bungalows and Cottages," Price......50
One Large and One Small Book, Together \$1.25, Three Books.....2.00

Many pretty one-story Bungalows and Cottages, Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA

Advertisers in Keith's Magazine are reliable.

If You Have a Fireplace



You can secure four times the usual amount of heat by using a

JACKSON Ventilating Grate

These grates each heat two or more rooms on one or different floors in severest weather, and they will heat an entire residence with two-thirds the fuel of a furnace.

If You Have No Fireplace you can secure the effect of an ordinary open grate by the use of a *Mayflower Open Franklin*. Many people use them in preference to the ordinary open fireplace.

Catalog "K" shows the Ventilating Grate. Send for this, and also for catalogs of Mantels, Franklins, Andirons, or anything else you wish in the fireplace line.

EDWIN A. JACKSON & BRO.

25 Beekman Street

New York



Colonial Fireplaces ARE RIGHT

Made to Order
from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

CAREY

Ceil-Board

SUPERSEDES PLASTER FOR
WALLS
AND CEILINGS

Comes in panels ready for the job. No muss or dirt. Can be applied by any one. Hammer and nails the only tools necessary. Plain or hardwood finishes, can be papered or painted.

Samples and booklets on request

THE PHILIP CAREY CO

Gen'l Offices: 1024 Wayne Ave., Lockland, Cin., O.

Offices and Warehouses in Principal Cities.



YOU
CAN
SAFELY
TRUST THIS
TRADE MARK

THE label and trademark of Berry Brothers on a can is equivalent to a varnish insurance policy. It is a guarantee that all products sold under it are the best that can be made for the use intended.

Adaptability is as essential as quality and there is a suitable Berry Brothers varnish or enamel for every purpose.

A little personal attention to the finishing question is a profitable investment for every home builder.

It's a costly matter to rectify varnish mistakes. Adopt the riskless way by using Berry Brothers' Architectural Finishes.

LUXEBERRY WHITE ENAMEL

Whitest White Stays White

Makes a permanent, snow-white finish in either dull or gloss effects. Will not crack or chip, and washes like a china dish. Color can be modified when desired to shades of ivory or gray.

LIQUID GRANITE for FLOORS

Lasting Waterproof Varnish

Makes a smooth, satiny finish. Lasting, waterproof, mar-proof, also adapted for bathrooms, window sills and casings, and all interior work where great durability is desired.

We make a specially adapted finish for every architectural use, from basement to roof.

Our literature on wood finishing for the home builder will interest you. Write for it.

BERRY BROTHERS

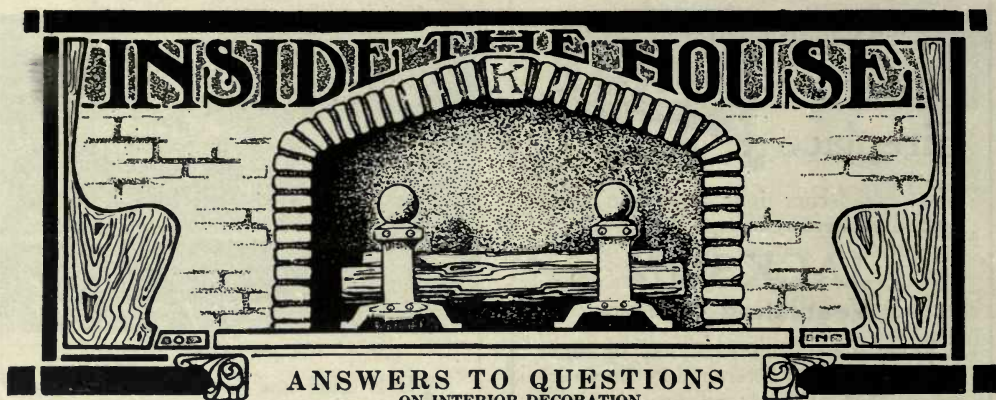
World's Largest Varnish Makers

Established 1858

Factories: Detroit, Mich.; Walkerville, Ont.; San Francisco, Cal.

Branches in all principal cities of the world.

(380)



Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

A Complete Layout for the Living Rooms.

H. L. N.—Enclosed please find plans of house we are building, and may I avail myself of your kindness in helping me to decorate and furnish same.

The house is built of best grade gray brick set in white mortar, green tile roof. What color shades would you suggest? I had thought of the slate gray. As to the interior, there will be a beautiful treatment of wood panel in living room, hall, music room and dining room. Should all this trim be finished in ivory and mahogany, or would you suggest some other treatments in the different rooms? Then will you suggest color scheme and material to be used for the rooms on first floor, as to wall decorations, rugs, curtains and draperies? As we have to buy nearly all new furniture for living room, will you suggest an attractive treatment in furniture for this room? Do you think the mulberry tones good for the draperies and rug for living room?

Ans.—Now we should like to run a scheme of warm gray tones as a groundwork, through these rooms, with complimentary colors in the different rooms. Beginning a general layout with the living room, we will use this gray paper grass cloth, an excellent imitation, on the walls, with mulberry in different shades and fabrics, for the hangings and furnishings. We do not advise the use of wood paneling on the walls of this room; it will be quite sufficient to panel up the hall and

dining room and the living room will be more correct and prettier without.

As there are columned openings into the hall, there is no opportunity for portieres, which is rather a pity. There are always times when it is desirable to shut off the hall from the living room, at least by a hanging, but perhaps in your climate this is not material.

The hall, done in this darker gray tapestry above the ivory wainscot, will be admirable with mulberry rugs and stair runner to contrast with the ivory. You will use a rod and portiere, we suppose, back of the stairs, of mulberry velvet. Furniture here should be the dark, rich brown of the Jacobean furniture, with antique cane panels in back and seat of chair and sides of console table. Upholster the seats in the mulberry velvet, ceiling should be ivory.

To return to the living room, unless you use the real oriental rugs, in their soft dull rose and neutral tones, we advise the new Kaizer gray with narrow black border and black lines running over the center. They come in the Bundhar Wilton. You would need two of these laid crosswise of the room. They are handsome for inexpensive rugs and do not show foot marks. We think mahogany furniture should go in this room placing the davenport in front of the fireplace with the library table backing up to it as we indicate on plans. We would upholster this davenport in the gray and mulberry tapestry with a lot of the mulberry colors that do not really show. A

INSIDE THE HOUSE

fireside chair in Kaizer gray wicker upholstered in plain mulberry velvet on one side of fireplace and a dark mahogany with antique cane back and seat on the other side, would be too lovely for words.

The mulberry Sunfast for over-draperies at windows and the printed linen to use for seat cushions beneath, or the cretonne if less expense is preferred. We hope the fireplace facing is gray brick.

The dining room in the blues, dull greens and gray tapestry paper above the wood paneling, will be very lovely. Blue leather on seats of mahogany chairs and the blue velvet over-draperies at window, using half a width on the outer sides only. Seat beneath windows cushioned in blue velvet and Wilton rug of mixed blues and greens. French doors veiled on sash with lace-like curtains.

The music room I think very elegant but not too expensive. I suppose your piano is mahogany and therefore the other furniture should be. It will need a small settee with loose cushions of the small figured brocade. The stunning velvet stripe is for use on seat of one chair only, preferably one of black and gold lacquer. If that cannot be afforded, you can, perhaps, find or have on hand, a pretty shaped small arm chair that you could paint black yourself and decorate with a few gilt lines. It would be a fetching note in the room. The narrower, poplin stripe is for side window draperies over the same striped lace net as living room.

Studying the New Bungalow from a Pasteboard Model.

G. A. P.—I enclose herewith rough sketch of the first floor plan of a cottage bungalow now in the process of building. I also enclose a print of a pasteboard model which we made from the architect's plans.

Will you please offer suggestions as to the color of paper to use in the living room which will be furnished in mahogany with a few willow chairs? The woodwork will be white throughout except in the kitchen which will be natural. The dining room furniture will be oak. The exterior finish of the house will be plain, something of a Colonial finish, with wood

IN every line there is one product that is recognized as pre-eminent. Among woods for home-building this position has for three centuries been accorded to

WHITE PINE

White Pine does not shrink, swell, crack, twist, warp or rot—and once in place it "stays put," after years of exposure, even in close fitting mitres and in delicate mouldings and carvings. It takes paint and stains perfectly.



"White Pine in Home-Building" is beautifully illustrated and full of valuable information and suggestions on home-building. Send today for this booklet—free to all prospective home-builders.

"Helen Speer's Book of Children's Toys and Furniture"—a fascinating children's plan book, from which a child may build its own toys and toy furniture. Prepared by Helen Speer, the toy expert. If there are children in your home, sent free on request.

WHITE PINE BUREAU

1820 Merchants Bank Bldg., St. Paul, Minn.

INSIDE THE HOUSE

finish on the inside to correspond. I had thought of using gray paper (plain) in the living room. I do not know what to use in the small entrance hall. Probably I would better use a tan in the dining room to make it in harmony with the oak furniture which we already have. Should I use portieres from the hall to living room and from living room to dining room? The rug in the living room which I already have is a Wilton of oriental design; the colors are red, tan, some light blue and considerable green. It seems to harmonize pretty well with the mahogany and also the willow pieces. I am wondering how it would look with gray paper? Will you also make suggestions for the curtains (to be inexpensive) for living room and dining room?

I have not asked for help in papering the upstairs sleeping rooms, as I shall be obliged to use furniture which I now have and as it is mostly white, do not feel that I should be apt to make a mistake in selecting paper for these rooms.

Ans.—Trying out the bungalow by means of a small pasteboard model shows in a very definite way what you may expect in your finished home.

For your color scheme a grayish wall would be excellent in your living room with the white woodwork and the best harmonizer of the mixed rug and furniture. We should make the green of the rug predominate in the hangings and upholstery of some pieces of furniture, using plain green material for this.

We do not think it necessary at all to make the dining room walls tan to harmonize with the oak furniture; in fact it would be too warm a wall for that southwest room. Old blue is a lovely background for oak and would open well from the living room in gray and green. We have used a putty gray crepe paper on living room walls with excellent effect as it looks handsome and is inexpensive. We should advise a wainscot of green burlap in the vestibule with this same putty gray paper above it.

Some of the Sunfast material is best to use in living room for over-draperies, over

any inexpensive net. For the dining room there are pretty madras materials, white with blue design.

Finish of Woodwork and Walls.

G. S.—We are building a bungalow and have your bungalow book and "Beautiful Interiors."

Now we have a couple of questions we would like to ask regarding interior finish and decoration. The living room, library and dining room open much together and are finished in oak. Between the living room and dining room there is colonade and wide opening and between the living room and library there are French doors. The dining room and library are not connected.

First as to the woodwork. We have thought of staining it weathered oak or brown oak. Or to your mind would a lighter oak or natural color be better?

As to the wall decorations. We do not want sand finish walls but want some kind of wall covering. Give your idea of what would be well to use. Of course there is paper; we hardly thought we wanted paper, yet we do not know; or burlap; or grass cloth; or would you suggest other fabric coverings?

The living room and dining room have beamed ceilings. If paper is used should there be a frieze or border at the top up to the beam or if a burlap, grasscloth or other fabric covering is used does it need any decoration at the top?

Also should the wall covering in living room and dining room be alike—or all three rooms referred to? Would it be all right to use the narrow strips to panel the dining room about four or four and one-half feet high, finishing around.

Ans.—In reply to your question as to your interior. First: as to finish of woodwork: The character of the furniture, rugs, etc., has much to do with this decision and you do not mention yours. We prefer the lighter, fumed oak finish if it harmonizes with the furniture.

Second, you do well to reject sand finished plaster on side walls, though it is very good for ceilings, tinted. As to cov-

INSIDE THE HOUSE

erings, you know there are all sorts and degrees of paper. There are papers as handsome as silk and that look well ten years without renewing. Personally, we should be sorry to decorate a house without paper in some rooms. Yes, burlaps are a good covering for some places. For a dado or wainscot there is nothing better, but we would not want it on the entire wall. In the panels of the dining room wainscot, between the oak strips, it would be very good. Also as a wainscot running up the stair.

Grass cloth we admire extremely. It is rather expensive. If you do not mind that, nothing could be better for the living room. You can get the texture of grass cloth in paper, at one-third the expense.

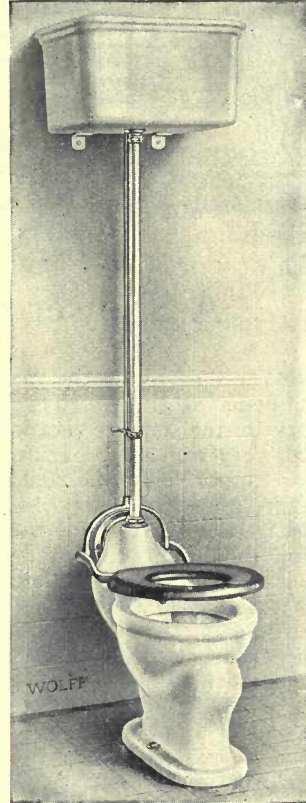
We certainly should not treat the walls of these rooms alike. As to frieze or border, we should not use such a decoration in living room or library, but something of a decorative nature is advisable in the dining room. In sleeping rooms, bands on a plain wall is very good.

Gray Walls with Mahogany.

Being a constant and interested reader of your splendid magazine, I am writing to get your very able advice for my bungalow. I send floor plans. Our living room has an east and south and west exposure; dining room an east and north. I plan to paint all woodwork ivory with mahogany stained doors. Have mahogany furniture for living and dining rooms. Would you approve gray walls for living room, with old blue hangings and rugs and plain shirred net curtains on windows and French doors? Also would you approve a blue and green effect in dining room with gray walls? Also in breakfast room, rose walls and black and white draperies with green wicker furniture?

We do not see how your own plan with regard to your interior can be much improved upon. In the treatment you suggest for the breakfast room, we would reverse your scheme, making the wall's black and white with rose hangings and we would use natural wicker furniture upholstered in deep crimson roses. Use tapestry paper, a black ground with dull rose, blue and green design, for the hall.

Contractors Win New Business by Installing WOLFF Plumbing



Any house owner appreciates the honesty and logic of a contractor who shows him that plumbing costs not by the piece, but by the year—and that Wolff Plumbing lasts as long as the house.

Economize on other materials, if you must, but don't take a chance on cheap plumbing fixtures. Nothing comes more quickly and more constantly to the unfavorable attention of owners and tenants than cheap plumbing.

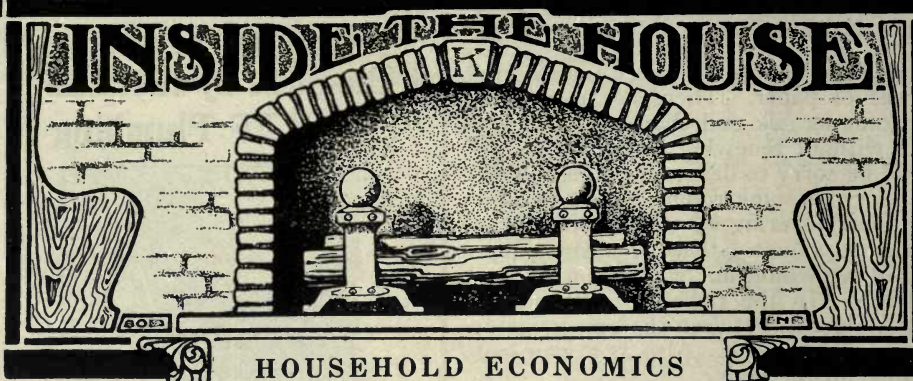
Use high quality "Wolff" plumbing in your new house.

L. WOLFF MFG. CO.

601-627 W. Lake Street

CHICAGO

Showrooms: 111 N. Dearborn Street



A Shower for the Vacation Trip

MANY people regret the "bath room at home" when they go to the country for the summer vacation. It is all very well to go back to nature for a short time if only one could take a shower-bath along. Country hotels and farmhouses are not noted for their luxuriously appointed plumbing arrangements, yet there is no time when such luxuries are so much a necessity as during the summer vacation.

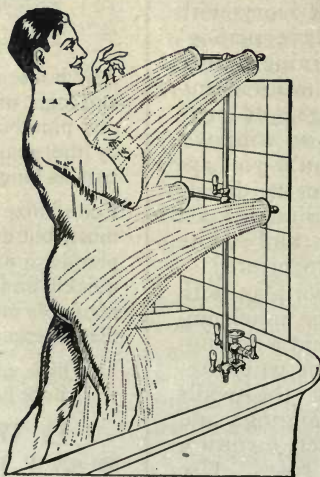
A detachable shower fixture has been put on the market which has four or six spray heads, so arranged that the spray converges in such a way that it can be used in an ordinary tub without a curtain. Moreover it can be attached to the fixtures of any tub without the aid of a plumber. They tell us that neither mechanical skill nor tools are necessary,—nothing but your fingers, and directions are packed with the fixture. It is only necessary to state, in ordering, the style of fittings of the tub to which it is to be attached.

The manufacturers made an especial point of the fact that the shower fixture can be adjusted to any tub and that the converging spray-heads, controlled

by the angle at which the heads are set, does away with the necessity for confining walls around the shower, either the shower stall or the curtain. This adds to the convenience of the fixture as well as reduces the expense.

"The whole secret is in the angle from which the water strikes the body—in the converging streams—a brand new principle, yet a surprisingly simple one.

"This principle is illustrated in the following way: Take an ordinary lawn or garden hose. If you turn it square against the side of a house—point it at a right-angle—the water splashes and bounces off in all directions. But if you hold the hose at a slanting angle, the bounce is eliminated—the water runs along the wall and down to the ground without any rebound or splash. It is the same way with this shower. Instead of a single spray head, there are either four or six. These spray heads are in pairs, with the spray heads of each pair set at converging angles. Thus the two streams from each pair of spray heads converge or come together. Each stream strikes the body from an angle that makes the water sort of hug the



The streams of water converge and do not spatter.



RED GUM

To a very large extent the modern home, even of modest and unpretentious proportions, may be given that sense of unity and permanent elegance felt when one enters one of the fine old European residences if dignified cabinet work is incorporated in the design. RED GUM makes wonderful trim, panelling and doors.

You can secure any color effect you wish with RED GUM as it adapts itself most readily to stains and finishes. On the other hand there are few cabinet woods which look as well as RED GUM in its natural finish—and besides it does not show finger marks and is easily kept clean and in good order.

*Let us send you the free RED GUM booklets—
you will find them most interesting.*

Gum Lumber Manufacturers Association

1316 Chamber of Commerce Bldg.

Memphis, Tennessee



The Beaver Board throughout this \$1700, seven-room bungalow was applied in one day by one man and a helper.



BEAVER BOARD

Write our Buffalo office for free plans of a really distinctive bungalow.

There's nothing like Beaver Board for bungalow and cottage walls and ceilings. It's not a substitute for lath and plaster—it's an improvement. But you can't expect Beaver Board results unless the Beaver Board trade mark is on the back of the board you buy.

Sold by lumber, building material and hardware dealers.

The Beaver Board Companies

654 Beaver Road Buffalo, N. Y.

Branch offices in Baltimore, Boston, Chicago, Cleveland, Detroit, Kansas City, Mo., Minneapolis, New York City, Omaha, San Francisco, Los Angeles.

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.

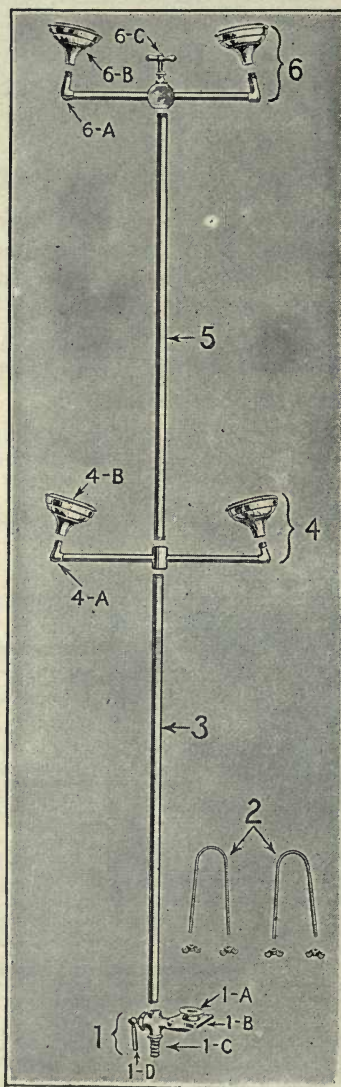
Trade at home and prosperity takes no vacation.

INSIDE THE HOUSE

flesh instead of spattering off—makes it run down your body into the tub instead of splashing out. There is no more need for a curtain than in taking an ordinary tub bath."

When the house is building the cost is apt to run so close to its possible margin, if it does not exceed it, that everything not absolutely necessary is cut out, and the shower is often the thing that is sacrificed, and its later installation means tearing out so much that both the expense and the trouble seem excessive. Sometimes the home builder has the forethought to have the shower "roughed in," in which case it can easily be installed at any time. To those who have failed to make such provision and who at a later time have felt the need of a shower of some kind to make the bath room complete, this detachable shower may bring a solution.

The cut shows the detachable parts in their relative positions. The base or faucet connection shown at 1 is made in different styles fitted to the different styles of faucets in general use on the tub, and are so arranged that any type of tub faucets may be fitted with its proper connection. In the cut this connection is turned from its proper position with relation to the other parts in order to show it more clearly. This includes the rubber washer which inserts into the mouth of the tub faucet, the strap-like holdfast with holes in each corner for inserting the U-shaped clamps above which hold the fixture in place.



Detachable shower fixture.

The extension nozzle is the outlet for filling tub and is also for attaching rubber hose to use in cleaning tub, etc.

The control handle turns the shower on and off. When handle is down, water runs direct into tub if turned on. To turn the shower on, simply turn the handle up.

2. The U-shaped clamps, fitting over horizontal bar of tub faucet and through the four holes in the holdfast of the base are tightened by the four wing nuts shown under them.

3. Lower section of upright pipe.

4. Lower cross-arm for spray heads, with control handle (not shown) attached to some models. With cross arm screwed in place so that this handle is on top, then the handle when turned out shuts the upper spray heads off entirely. But by screwing cross arm on upside-down—with handle underneath—then this handle can be used to turn all four spray heads on or off, instead of using the control handle at bottom of shower.

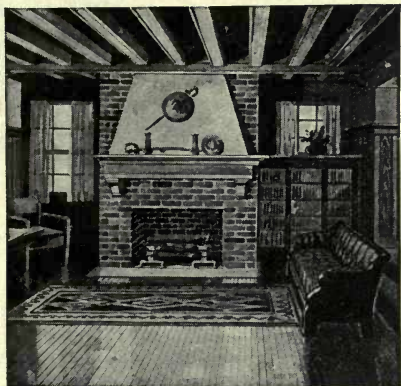
5. Upper section of upright piping.

6. Upper cross-arm and spray heads.

This shower may give a solution to the problem in the small farming community where the plumber does not live next door—nor, in fact, within several miles of the job. The visits of the plumber and his time installing the fixtures is no small part of any plumbing bill, which is even more true in adding to old work.

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price \$1.00, Postpaid

With a Year's Subscription
to Keith's Magazine—\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

TEMPERATURE CONTROL (RIGHT DAY AND NIGHT)

An even, healthful temperature automatically maintained is an absolute necessity if you are to enjoy home life during the cold unsettled months.

Uniform fixed temperature day and night not only insures health, but likewise comfort, economy and safety. All of these benefits are fully obtained with

The "MINNEAPOLIS" Heat Regulator

The apparent luxury of this device is in reality a marked economy. It has so proven itself for over 30 years in thousands of homes and is now universally specified in all modern residences. The Minneapolis can be applied to any type of heating system and is easily installed even in an already completed house.

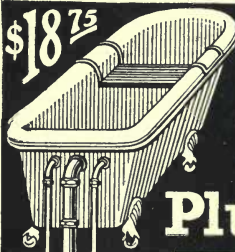
Sold by the heating trade everywhere and guaranteed satisfactory. Write for booklet describing our six different models and quoting prices.

**MINNEAPOLIS HEAT
REGULATOR CO.**

WM. R. SWEATT, PRES.,
2725 Fourth Av. S., Minneapolis, Minn.



\$18⁷⁵



Do Your Own Plumbing

We will show you how. Lend you the tools. Installation is a mere matter of following our carefully outlined instructions. Thousands have done it—are doing it—and saving 50 per cent of usual plumbing expense. Note this value:

18176437—Best quality, genuine White Porcelain Enameled Cast Iron Bath Tub. Enamel applied inside tub and over 3-in. Roll Rim, fitted with heavy brass nickel plated overflow and waste, supply pipes to floor, slip joint coupling connections. Fuller double bath rock, indexed handles. \$18⁷⁵
Width over rim 30 inches, depth 17 1/2 inches, length 5 feet. Usual \$25 value. Our price only

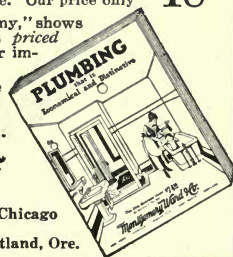
Our book, "Plumbing Economy," shows complete plumbing outfits priced especially low, and ready for immediate shipment.

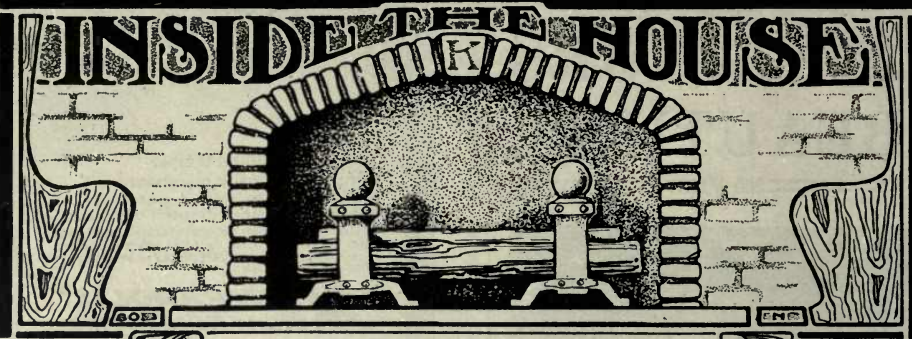
Write for it and learn of the money you can save by installing one of our outfits. Address house nearest you.

Montgomery Ward & Co.

Dept. A. J. 518
New York Kansas City
Ft. Worth

Chicago
Portland, Ore.





THE TABLE AND ITS SERVICE

Conducted by HELEN F. LITTLE

Summer Salads

"Oh, herbaceous treat!

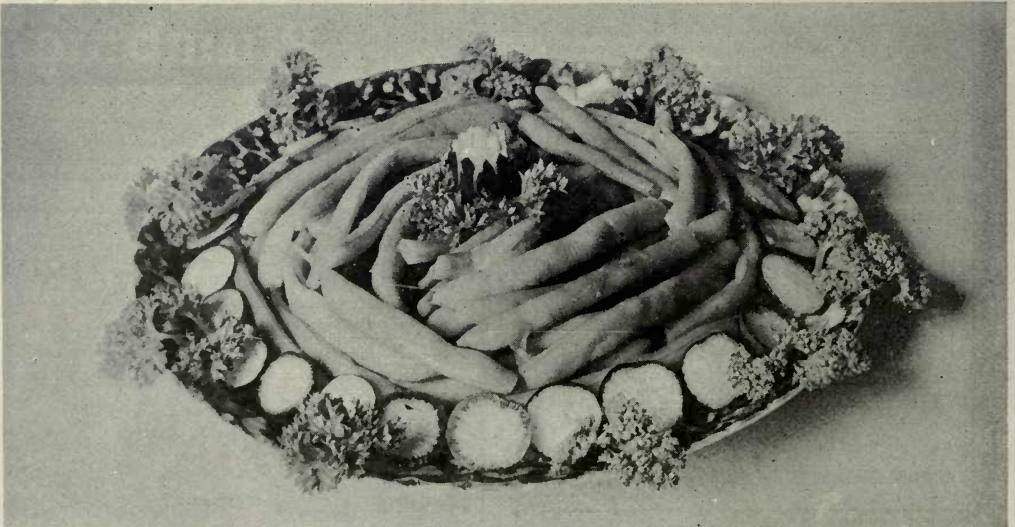
'Twould tempt the anchorite to eat."

IN the warm days of August a cool, crisp, daintily garnished salad makes the greatest appeal to both the eye and the palate. But, alas, how the word "salad" has been abused and made to cover all manner of weird combinations of fruit, nuts, and vegetables!

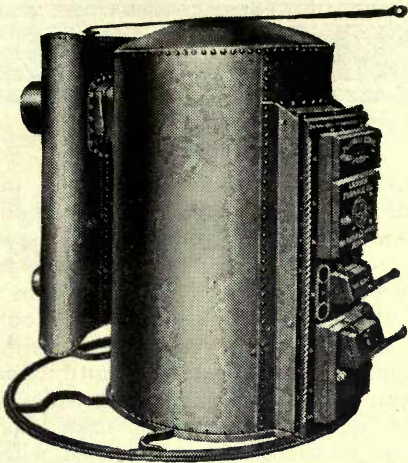
The original French "salet" consisted simply of a green vegetable, such as ro-

maine or lettuce with a dressing of oil and vinegar. It is indeed a far cry from this to a salad actually served at a Middle Western summer hotel, which consisted of canned salmon and canned cherries with a boiled dressing! One would need a vivid imagination to produce a combination more incongruous, either from the standpoint of color or taste. The closer one sticks to the original French formula, the less likely one is to overrun the confines of gastronomical good taste.

A most convenient way of making



A green salad.



Built like a power boiler—in one piece.
Riveted Dust and Gas Tight.

Lennox Torrid Zone All Steel Furnace

The pronounced success of the Lennox Torrid Zone warm air furnace has produced many imitators. It costs but a trifle more to secure the genuine, therefore little necessity for experimenting.

Insist on the Genuine

Write for catalog and address of nearest dealer.

LENNOX FURNACE CO., Marshalltown, Iowa

Beautiful tiled bathroom and kitchens are no longer a luxury. Even the most unpretentious homes can afford



UPSON
FIBRE-TILE



Looks like expensive tile. Lasts longer. Costs far less. Really artificial lumber with deeply indented tile pattern. Nail it over old plaster or to studding, and enamel. Send 2c stamp for sample and interesting booklet.

THE UPSON COMPANY 157 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.



See the Man!

What is the man saying? He is saying naughty swear words.

Why is he so vexed? Because his eyes, ears, nose, hair, clothes, food, watch, toothbrush, bookcase, silk hat, and everything else in the house are full of coal ashes. And his back aches!

But see the happy man next door! This man does not lose his temper in the ash pile. His ashes are in a

SHARP ROTARY ASH RECEIVER

And what is that?

It's the modern, sanitary and most efficient way of caring for ashes, garbage and refuse. Installed in connection with the heater you are free from the dirty, disagreeable bother of shoveling ashes, and you have a clean, dustless basement. The dread of fire from hot ashes is eliminated. You protect the fine furnishings of your home from the ravages of ash dust. You provide pure, dustless air for yourself and family. A sanitary receptacle for garbage and refuse (all odors go up the chimney) and the cost of equipping a building is so small that nothing should prevent you from installing a Sharp Rotary Ash Receiver in your home.

The Receivers have from 5 to 12 cans, according to size, and revolve in a Dust-tight, Fireproof vault. The ashes drop directly into the cans which revolve as each can is filled. Holds a wagon load and cries for more. Easy to install in connection with any size or style of heater. Write for complete information.

The Sharp Rotary Ash Receiver Co., Inc.
Dept. 18. Binghamton, N. Y.



Stillwell Bungalows



SUIT EVERY CLIMATE
3 BIG For \$1.
PLAN Books Postpaid

—containing photos, plans, descriptions, costs. Stillwell Homes are reproduced from original California designs—combining beauty, individuality, comfort and economy—and

**ALL 3
BOOKS
FOR \$1**
(Postpaid)

can be built substantially and economically in any climate.
"REPRESENTATIVE CALIFORNIA HOMES"
50 ideal homes, \$2,000 to \$6,000—Price 50c
"WEST COAST BUNGALOWS"
51 inexpensive homes, \$1,000 to \$2,000—Price 50c
"LITTLE BUNGALOWS"
31 perfect little homes \$300 to \$1,700—Price 25c

WE SELL BOOKS & BLUE PRINTS ON A MONEY-BACK GUARANTEE
E. W. STILLWELL & CO., ARCHITECTS
155 HENNE BLDG., LOS ANGELES

INSIDE THE HOUSE

salads quickly is to keep on hand in the ice-box a bottle of French dressing, to which has been added a small chopped onion or chives, a sprig of parsley, and several chopped pimentos. This poured over lettuce, asparagus, or any green vegetable forms a truly appetizing salad. Of course, it needs to be well shaken each time before using. Many people prefer to prepare French dressing just as it is to be used, but the new bottles which



A fruit salad.

show the measure of oil and vinegar to be used are proving to be very satisfactory. A good combination is hard-cooked eggs put through the meat-grinder, and chopped chives added to the plain French dressing. This also makes fine sandwich filling.

There are many varieties of canned beans, which many housewives seem to know little about, which make very good salads for warm weather. One such salad of beans garnished with radishes is shown in the illustration.

An attractive way of serving a fruit salad is in a hollowed-out orange or canteloupe, but beware of combining too many kinds of fruits and nuts. Two varieties are usually enough.

For the housewife who desires a more substantial salad, one which will form the "piece de resistance" of the meal, and can be made several hours before serving, the "Jellied Salmon Loaf" is recommended.

Jellied Salmon Loaf.

Soak one tablespoon gelatine in one-fourth cup of cold water. Make a boiled dressing by mixing one-half tablespoon salt, one-half tablespoon mustard, two tablespoons sugar and two egg-yolks till smooth. Add one cup cream, one-fourth cup vinegar, cook over hot water till of the consistency of custard or until it coats a clean spoon. Stir in gelatine while hot, when dissolved add one cake flaked salmon which has been seasoned with a little lemon-juice. Mix well, turn in a mold, or loaf pan, and place in ice-box until set. This may be sliced like a meat-loaf, and served with a "German Dressing."

German Dressing.

One cup sour cream beaten till stiff, add one tablespoon vinegar, one-fourth teaspoon salt, few grains cayenne, and one cucumber cut in slices or cubes. The pink loaf with the white and green makes an attractive warm weather dish.

Those who enjoy the various jellied salads may like to try this new recipe.

Make a lemon jelly, substituting vinegar for the lemon-juice. Add one can small German onions, one can pimentos cut in strips, and one sprig of parsley cut fine.

A Picnic Lunch.

The domestic science teachers in a large Western city planned a picnic-not long ago, and deciding that it was their duty to educate the public to the time and labor consumed in preparing elaborate picnic refreshments, they planned a menu which was certainly refreshing in its simplicity, and mighty good to eat. Raw tomatoes, cucumbers, radishes, onions, bread, butter and French dressing were brought, and when eating-time came, the vegetables were sliced into a big bowl, well mixed with dressing and eaten with plain bread and butter. Everyone had plenty, and the salad was truly delectable.



Design No. 524, by Jud Yoho
Estimated cost \$2800

All About Bungalows

BUNGALOW BOOK
1916 De Luxe Edition

Contains the cream of 1000 practical and distinctive bungalows actually built for \$400 to \$4000, suited to any climate, with photos of exterior and interior views, plans, size of rooms, cost, etc. Also valuable suggestions on bungalow building written by an expert.

The Largest exclusive Bungalow Book published. 112 pages, Price **\$1.00** Postpaid

Worth many times its cost to any prospective builder. A smaller edition of same, only 50 cents. Send check, money-order or stamps. Money back if not satisfactory.

JUD YOH0, THE BUNGALOW CRAFTSMAN

467 Craftsman Bldg., Seattle, Wash.



YOU can protect yourself against substitution in material and stain that is induced by high prices if you insist upon having

"CREO-DIPT" STAINED SHINGLES

17 Grades 16, 18, 24-inch 30 Colors

You cannot afford to buy inferior covering for roofs and side walls, especially since "CREO-DIPT" Stained Shingles cost less than staining on the job. Save laying expense—Save painting repairs.

The trade-mark on each bundle is your safeguard.

Write for Book of Homes and Sample Colors on Wood. Ask about that "Thatched Effect."

STANDARD STAINED SHINGLE CO.

1022 Oliver St., N. Tonawanda, N.Y.
Factory in Chicago for West



To Make Your Heating Plant Complete, Put in a KEES FURNACE REGULATOR

(For Warm Air Furnaces)

The KEES automatically opens and closes the drafts, keeping an even, healthful temperature all the time. It will pay for itself in a single season in fuel saved. Prevents dangerous overheating and lessens the care required for the furnace.

A card will bring our free trial offer

ED. KEES MFG. CO. BEATRICE, NEB. Box 102



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS

EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Catalogue "G-29" showing a series of new designs in

"Pergolas"

Lattice Fences
Garden Houses
and Arbors

When writing inclose 10c in stamps and ask for Catalogue "G-29."

Catalogue—"G-40"—containing very useful information about Exterior and Interior Columns, will be sent to those who want it for 10c in stamps.



NOTE how the Stanley Garage Holder No. 1774, shown in the above picture, does its work: holding the door open against the strongest gusts of wind: yet a slight pull on the chain, leaves it free to close. It is as essential to an old garage as to a new one.

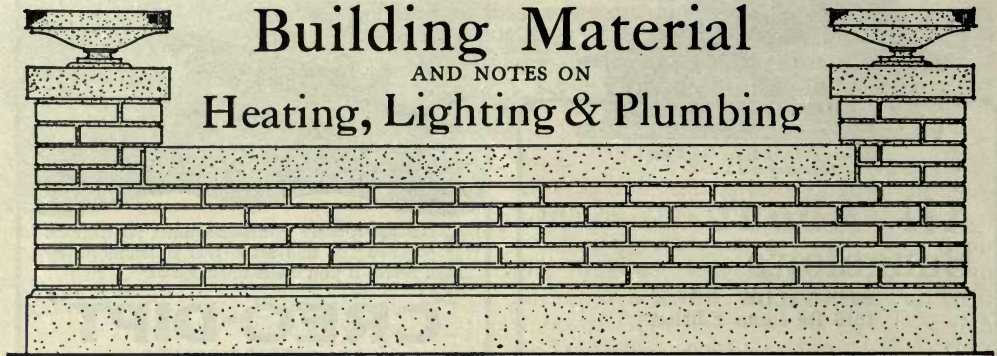
Stanley Garage Hardware and the No. 1774 Holder may be had of any hardware dealer. Write us for the Garage Hardware Book "T."

THE STANLEY WORKS

NEW BRITAIN, CONN., U. S. A.

New York
100 Lafayette Street

Chicago
73 East Lake Street



Structural Waterproofing and Dampproofing

FOR the classification given here-with we are indebted to B. Alfred Plumb, General Director of the Trus-Con Laboratories. The entire paper, which this classification accompanies, gives a very satisfactory and adequate discussion of the subject. We are able to quote only what is necessary to explain the classification so that the home builder can easily find the conditions under which the subject is of special interest to him. Oil-mixed concrete, lately announced by government bulletins as a waterproofed mixture, has not been considered.

"The general subject of structural dampproofing and waterproofing as it confronts us today involves the methods and means of protecting structural materials against the disintegrating action of water."

"This subject should, for the most

comprehensive understanding, be considered under the two general divisions of waterproofing and dampproofing."

The terms are self explanatory.

"In the absence of a classification of this subject, it is very confusing to the builder to know exactly what material to select for any particular condition. Naturally, each particular product or method has some special properties that make it advantageous for certain conditions, and at the same time may have limitations that would correctly prohibit its use under certain requirements. It is advantageous to the development of this important subject to carefully consider the properties and behavior of each particular method, and so classify it as to be able to select the material and the method that best suit a certain fixed condition."

The classification given below is quite

CLASSIFICATION OF THE GENERAL SUBJECTS OF WATERPROOFING AND DAMPPROOFING FOR THE PROTECTION OF STRUCTURAL MATERIALS AGAINST THE DISINTEGRATING ACTION OF WATER

DAMPPROOFING	{	A—Transparent coatings and treatments	{	(1) Sylvester process
		B—Opaque decorative coatings		(2) Hot paraffines and waxes
		C—Special bituminous coatings		(3) Special proprietary products
WATERPROOFING	{	M—Integral	{	(1) Various cement washes
				(2) Common oil coatings
		N—Membrane	{	(3) Special proprietary cement coatings
				(a) Repellent
				(b) Non-repellent
				(c) Metallic
				(a) Unsaturated colloids
				(b) Extended colloids
				(c) Concentrated colloids
				(1) Coal tar pitch
				(2) Natural asphalts
				(3) Special bituminous compositions

complete. The first section includes practically every treatment that has ever been suggested or used to any practical extent in connection with the treatment of exterior exposed walls above grade line.

The subject of waterproofing proper applies to the treatment of sub-terra construction and structures intended for retaining and containing water under hydrostatic head.

(1) "The Sylvester process, mentioned, while it is one of the oldest damp-proofing treatments, is at the present time very seldom considered. It provides for the alternate treatment of a porous masonry surface with solutions of soap and alum, preferably applied hot so as to insure good penetration and to accelerate the chemical reaction. It is necessary to make a number of alternate applications of the soap and alum in order to obtain a sufficient quantity of the aluminum soap to provide any repellent or damp-proofing action."

(2) "While a dampproofing treatment of melted paraffine or wax can be made very effective, its application is necessarily limited to special cases where the high cost of its application is not prohibitory. The application can only be made slowly, as the surface has to be heated with a blow torch, and only when at the proper temperature can the melted paraffine or wax be applied to insure the proper penetration and absorption of the repellent material into the pores of the surface.

A very representative incident of the use of this method for preserving masonry exposed to weather exposure is the application to Cleopatra's Needle in Grand Central Park, New York City, in 1885. This obelisk, while resisting the climatic exposure of old Egypt for ages, soon developed indications of rapid superficial decay when subjected to the climatic conditions characteristic of our country. The stone was quite absorbent, and as a result of the freezing of water in the pores the outer surface of the stone was slowly disintegrating. In cleaning the obelisk previous to the application of the hot paraffine, about two and one-half barrels of pieces, weighing a total of nearly 780 pounds, were removed. Some of the pieces were so much decayed and disintegrated that they would crumble easily when removed from the surface. After removing the outer crust of disintegrated

For Simplest and Grandest Homes



EDWARDS

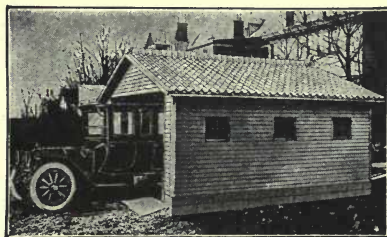
Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of **Metal Spanish Tile** is yours for the asking. A postal will bring it.



Own Your Own Garage

All Sizes—All Prices

An Edwards **METAL** Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and *safe!* Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

\$69⁵⁰

and up

Write today—right NOW!

The Edwards Manufacturing Co.

The World's Largest Makers of Metal Ceilings, Metal Shingles, Metal Roofing, Siding, Rolling Doors, etc.

521-541 Culvert St.,

Cincinnati, Ohio

stone, the entire surface of about 270 square yards was heated and then immediately treated with a hot solution of paraffine."

(3) "Practically all of the earlier proprietary transparent dampproofing products were nothing more nor less than low melting point paraffines or waxes which had been melted and fluxed back into a volatile solvent."

(B-1) The first conception of applying an opaque decorative treatment is evidenced in the use of a mixture of cement and water applied with a brush, producing an outer shell of a denser texture. This treatment scarcely possesses any great or dampproofing results, owing to the fact that when the water evaporates it leaves a porous surface which water easily penetrates. There is also difficulty in obtaining a satisfactory bond to the masonry surface, unless the material is applied to concrete that has not fully hardened.

(B-2) "Actual, and often bitter experience has indicated that an oil paint is not adapted in its constituency to a concrete surface, and so long as a concrete surface is characterized by the presence of alkali—which, in fact, is an inseparable property—it will be impractical to attempt to use a product containing an oil that is so easily saponified."

(B-3) "The third method of opaque dampproofing treatments, viz., specialized cement coatings, offers the greatest opportunity for producing effective and satisfactory dampproofing results. With a full knowledge of the physical and chemical characteristics of a concrete or masonry surface, it is possible to select raw materials and so treat and combine them as to produce a product that is in every sense a specialized cement coating."

(C) "The third class of dampproofing treatment involves the application of bituminous products to the interior of exposed walls. The treatments in the first two classes as outlined above are applied to the exterior of the superstructure, while the special bituminous products are distinct in being applied to the inside of the wall."

"It has become a very general practice in construction work to provide for the application of such a dampproofing on the interior of all exposed walls, as it gives an element in the wall that will pre-

vent the continuous penetration of dampness or moisture through the wall, which would injure and destroy the interior decorations and produce a damp and unhealthful condition."

(M) "The integral method of waterproofing involves the addition of compounds to the concrete at the time it is placed, and becomes a unit or integral part of the mass. This method is also known as the rigid method of treatment in distinction to the membrane."

The integral method has been received with a great deal of favor by engineers, and its application has been increasing quite rapidly. For all concrete construction work where proper reinforcing or provisions are made against cracking, the integral method is by far the most satisfactory, due to its greater general economy. Compounds used for general integral waterproofing may be divided according to the physical condition in which they are added to the concrete.

(M1-a) The repellents were the first integral waterproofing compounds to be generally used and were undoubtedly chosen on account of their characteristic water-repellent properties, but their repellent nature makes even distribution quite difficult. In practical application these dry repellent powders are mixed in proportions varying from 1 to 5 per cent with the dry cement. The treated cement is then combined with the aggregate and tempered with water to proper consistency. Great care must be exercised in the thorough dry mixing of the repellent powders with the dry cement, regardless of which they show the characteristic tendency to be expelled from the careful mixture when water has been added. The presence of quite a large percentage of hydrated lime is essential to serve as a ballast for the repellent material.

(1-b) Non-repellent products have been developed which do not show this repellent action. These products are usually constituted on a basis of some inorganic colloidal or gluey substance, but there is considerable doubt as to their permanency.

(1-c) To complete the classification of various integral waterproofings which are mixed with the dry cement, metallic compounds should be mentioned. These products consist primarily of very finely ground metallic iron, and are mixed dry

with the cement as are other dry integral products.

The theory of the action of such products is the increase in volume that occurs from the oxidation of the iron.

(M-2) The second class of integral waterproofing compounds which are added directly to the water, either in liquid or paste form, has the great advantage of absolute certainty in even, uniform distribution throughout the concrete.

Of the three subheads under this classification the first includes practically all of the unsaturated fatty acids that require reaction with the constituents of the cement to form a waterproofing compound. The objection to this class lies in the uncertainty of the effect on the tensile and compressive strength of the concrete.

The "extended colloids" have no reaction and their efficiency is contributed by their characteristic colloidal nature, but in the process of manufacture more or less inert material is added which does not increase the waterproofing quality, thus requiring a very rich mixture to be effective.

The "concentrated colloids" are a further development of the extended colloids containing only materials of a strictly colloidal nature which have waterproofing value. Being concentrated these may be used in leaner proportions, giving a maximum economy.

(N) "The second general division of the subject of waterproofing differs distinctly from the integral method in that it does not attempt to treat the concrete, but rather to insulate it from contact with continuous bituminous shield."

"It was early practice to simply coat the surface to be waterproofed with hot tar or asphalt, but it soon became evident that this was not sufficient as the coating would crack with any movement in the wall. It was therefore necessary to employ some material in addition to the bitumen in order to contribute the necessary toughness and tensile strength. Burlap and coal tar felt have been extensively used for this purpose and some very satisfactory waterproofing operations have been carried out with such materials. During the last few years considerably more attention has been given to the nature of the waterproofing felt and as a result there are now on the mar-

ket especially manufactured felts which are both saturated and coated with bitumen and possess greater pliability and strength. By means of these felts more perfect membranes can be constructed as the strength and toughness of the felt permit greater distortion and twisting to accommodate it to the design of the work.

The bitumens most generally used for cementing the felt together in constructing the membrane are coal tar pitch, commercial asphalt and special asphaltic compositions."



BAYONNE
Ten Years' Good Service

For ten years now BAYONNE has been used by Architects wherever decks, verandas, sleeping porches, etc., required a covering of tested quality, a covering positively waterproof and wearproof—at the same time neat, attractive and economical.

BAYONNE

has been given preference by architects ever since its superior process of treating was made known to them. This process renders it impervious to water—it never leaks; impervious to heat or cold—it does not shrink or expand, blister or crumble; impervious to the most constant use—it does not corrode.

And in addition, it is the simplest and cheapest to lay.

Write for Sample Book "C", giving prices and laying instructions. See Sweet's, Page 426.

JOHN BOYLE & CO., Inc.
112-114 Duane Street—70-72 Reade Street
New York City
Branch House—202-204 Market St.
St. Louis



MONEY-SAVING PLANS

SAVE without skimping by building from our practical plans of up-to-date homes of distinction and charm. All waste eliminated by our experience as architects and builders of a great number of homes. Our plans have helped to beautify thousands of American cities. Send for our plan books: "Bungalows," 100 moderate priced bungalows; "Attractive Homes," 100 story-and-a-half and two-story houses.

Either Book postpaid, \$1; Both Books for \$1.50

LINDSTROM & ALMARS

290 Plymouth Building

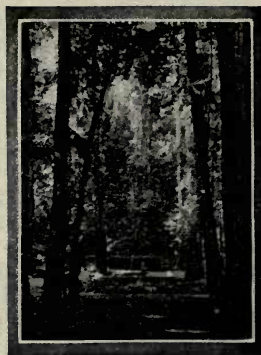
Minneapolis, Minn.



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH'S staff of wood experts. This department is created for the benefit of KEITH'S readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

Seasoning Lumber Artificially.

A Lumber Vulcanizing Process.



NEW process to rapidly season lumber artificially has been tested at Columbia university, New York, says the American Contractor, where, according to reports, it was demonstrated that black and tupelo gum planks, one inch thick, green from the saw, were thoroughly dried in 24 hours, the lumber continuing straight and free from cracks, the fibre of the wood at the same time becoming materially harder and stronger.

The new process, which is called a lumber vulcanizing process, it was stated, consists of drying the lumber in steel cylinders under superheated steam and in vacuum. The lumber, right from the saw, is placed on cars and the loaded cars are sealed in the cylinders, where the superheated steam is applied for a definite period. Explanation given of the working of the new method is that the steam penetrates to the heart of the green timbers, raising the sap water to boiling point and bringing it quickly to the surface of the lumber, thus eliminating the condition known to lumbermen as "case-hardening." The vacuum feature of the process, it was explained, makes it possible to bring about the result at a lower temperature than would be possible otherwise, thus not only avoiding injury to the structure of the wood, but actually making the lumber better.

The utilization of timbers heretofore considered practically worthless from a com-

mercial point of view, the conversion of millions of acres of timber-bearing swamp lands of the south into sources of wealth and immense additions to the revenue-producing possibilities of the lumber and timber industry of the entire south are made possible, it is asserted, by the perfection of this new process.

Vapor Kilns.

Twenty vapor kilns have recently been installed in one plant in Oregon, which involves, it is claimed, the largest outlay in investment of the kind on the Pacific Coast.

One unique feature of this operation, says the West Coast Lumberman, is the fact that the loads are placed in the kilns at one end only, the rear of the kilns being walled up.

This installation has proven very satisfactory according to the owners and builders because the stock is dried to a very low moisture content with soft outer surfaces, bright in color and very light in weight. The material is manufactured into sash and door stock as well as other items of interior trim used in the building trade.

The increasing popularity of this modern drying method is evidenced by the large number of installations that are found in all of the western states and provinces in Canada.

"A very important innovation has been developed in the demonstrations of the ability of this type of kilns to dry dimension lumber by the vapor process, as this is especially important to the lumberman who desires to ship his stock during the winter months when air-drying is impossi-

A Health Furnace

Hess Furnaces

Pipeless

For bungalows, cottages, stores, etc. One large pipe carries both hot and cold air. No horizontal pipes nor ducts.

Regular

Separate pipes and registers for the various rooms.

Hess Furnaces

are the gasless and dustless kind—every seam welded solid—never leaks.

Sold direct from factory to user, at factory prices. On payments, if you wish.

Special rates to contractors.

Hess Warming & Ventilating Co.

1217 Tacoma Bldg., CHICAGO

That Bungalow

which you intend to build next Spring will need the soft, artistic tones of

Cabot's Creosote Stains

to make it complete and harmonious.

Paint doesn't suit bungalows. It forms a hard, shiny coat that is foreign to their character and "atmosphere." The Stains produce deep, rich and velvety colors that harmonize perfectly with the style of building and surroundings. They are 50 per cent cheaper than paint, and the Creosote thoroughly preserves the wood.

You can get Cabot's Stains all over the country. Send for free samples of stained wood and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists

Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



Stained with Cabot's Creosote Stains
Sidney Lovell, Architect, Chicago, Ill.



Send for free samples to

ASPHALT READY ROOFING CO., Dept. 79, 9 Church Street, New York, N. Y.

Mottled Roofs Are in Fashion Now

HUDSON Mottled Asphalt SHINGLES

Surfaced with red and green crushed slate in varying proportions produce the variety of surface texture so much sought for.



SIGN THE COUPON

and we will send you, without obligation, our new catalog showing

**OUR SELECT LINE
OF ANDIRONS**

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc. These will interest all who are building or improving their homes. We Make Only High Grade Goods, But Our Prices Are Right

We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

STOVER MANUFACTURING CO.

704 East Street, Freeport, Ill.

Send me your Catalog No. 1590 I am

especially interested in.....

Name

City.....

State.....

You will find "Keith's" Advertisers perfectly responsible.

ble. The underweights derived by the use of this process makes it possible for the users to materially increase earnings without sacrificing anything in grade."

The Year's Work at the Forest Products Laboratory.

The report which has just been issued by the government summarizes the work of the year at the Forest Products Laboratory at Madison, showing the wide range of the work covered and the definite results obtained. The Laboratory is maintained by the Forest Service of the U. S. Department of Agriculture in co-operation with the University of Wisconsin, for the purpose of original research by means of tests and experiments which shall enable the department to advise and help both the industries which depend upon wood in some of its forms and the consumers of their products by bringing about a better and more economical use of wood. Many of the results have wide reaching effects.

Following a long series of tests and experiments the "density rule" for classification of the Southern pines was suggested as giving a more satisfactory classification than the usual grading rules, and this classification has been adopted by the Southern Pine Association and other associations affected.

Annually some thirty-three million dollars' loss accrues from goods damaged in transit by the railroads. The laboratory is conducting tests on the strength of shipping containers which should eventually help in saving much of these perishable goods. While a large part of the loss is paid by the railroads, it is an economic drain on the country as well as on the roads.

Experiments have been conducted on the kiln-drying of lumber; better methods of treating wood block paving have been evolved; a treatment to prevent sap stain has been found.

In its investigation of the effects of turpentine on trees the laboratory found that the lumber from trees that had been tapped for turpentine was of equal quality with that from trees that had not been tapped.

One of the most important series of experiments conducted at the laboratory has

been directed toward devising some means of fire-proofing wood.

Tests at the laboratory have determined that there are several paints on the market which act as effective fire retardants. Patents have been applied for, to be dedicated to the public, on a new fire-proofing compound developed by the laboratory.

Of value to the retail, as well as to the manufacturing trade, were the studies of lumber yard sanitation to determine the extent and cause of the decay existing in stored lumber. The majority of the dealers do not realize the full danger of supplying infected stock to the building trades, and take few precautions to maintain their material in sound condition.

When the real nature of dry rot is known and the conditions which foster it, a long step has been taken in its prevention.

The investigations cover a long line of products which may be obtained from wood. Wood distillation, dye stuffs, naval stores and chemical industries are affected.

An Outing on the Timber Reserves.

The National Forests are not withdrawn from use, but are under government supervision. It is of interest to tourists and others planning an outing to know that cottage sites on government land may be secured under 30 year lease at rentals ranging from \$5 to \$10 a year and timber for cabins may be had of the government at stumpage prices.

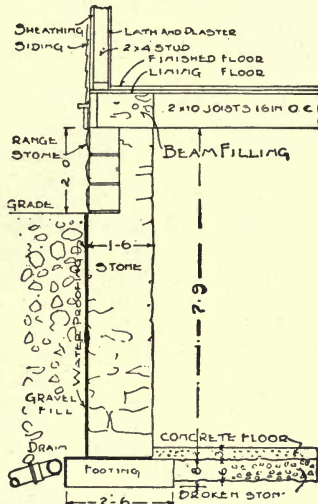
In the Superior National Forest in Northern Minnesota a ranger nursery is in operation at present for experimental purposes and is producing 50,000 seedlings for field planting each year.

Aeroplane for Forest Patrol.

The State Board of Forest Commissioners of Washington has been advised that the state of Wisconsin is using an aeroplane, or is experimenting with an aeroplane, in its forestry patrol work, and the secretary of the board has been directed to correspond with the forestry department of Wisconsin concerning the feasibility, expense of operating and advisability of maintaining an aeroplane in the forestry service of this state, and report at the next meeting of the board.

BUILDING *the* HOUSE

*A Handbook Every Home-Builder
Should Have*



(Fig. 6)
SECTION THROUGH BASEMENT WALL

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition
Price, One Dollar

Published by

M. L. KEITH

McKnight Bldg.

Minneapolis, Minn.

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, moldings, porch-work, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement machinery and interior woodwork—**ALL AT WHOLESALE PRICES DIRECT TO YOU.**

Don't plan to build, repair or overhaul until you see these two great books. Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

**CHICAGO MILLWORK
SUPPLY CO.**
1421 W. 37th St.
Chicago, Ill.

**Material Complete
for Houses from
\$375.00 up**

**Books
Are Free**

WILLIAMSON
NEW-FEED
UNDERFEED
Furnaces and Boilers

They Mean Prestige For You

It pays to recommend a Williamson UNDERFEED Heater or Boiler. Every UNDERFEED is guaranteed to cut coal bills $\frac{1}{2}$ to $\frac{3}{4}$. UNDERFEED coal saving performance makes every user a booster. Over 35,000 enthusiastic owners.

Write for Free Book NOW

A postal brings a copy of the helpful book, "From Overfed to UNDERFEED," also full information. Drop the card now.

The Williamson Heater Co.
356 Fifth Ave., Cincinnati, Ohio



**UNDERFEED
Furnace**

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"

California Bungalows



With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure. Fifth edition "HOMES, not HOUSES," 123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes. 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

LEGISLATION

Flood Control or Land Reclamation?



STUPENDOUS appropriations are no longer so unusual a thing on the records of the legislatures that they start a rigid investigation nor even much comment from the people who are to pay them. Perhaps that is the reason that we have heard no more popular discussion of the so-called Flood Control Bill which passed the house in May, carrying \$45,000,000 for the lower Mississippi river and \$5,600,000 for the Sacramento river, \$51,600,000 in all, as specified in the bill, but which it is claimed may amount to some \$200,000,000 for the work thus started.

The idea of a possible flood control which shall, in future, prevent the vast waste to life and property which has at times rolled the length of the great rivers, has made a popular and altruistic appeal to the people, who are willing to make considerable sacrifices in order to prevent its constant repetition. A bill, popularly known as a Flood Control Bill has at the start a favorable place in the minds of the people. Such a bill should be prepared by experts, and given the most careful and painstaking consideration, which should be country-wide in extent and non-partisan in scope.

A careful study of the bill now before congress popularly known as the Flood Control Bill tends to show that it is a reclamation bill even more than it is for the control of the floods. "Behind political levee boards, a gigantic private land reclamation scheme reaching 16,000,000 acres is discussed in the Committee report—all under the attractive slogan of 'flood control.' 'Local interests' are required under the House bill to contribute only \$15,000,000 toward reclaiming this 16,000,000 acres of flooded land which eventually is to be worth between one and two billion dollars." Congr. Record, page 8636.

The bill was hurriedly prepared as the committee was only appointed in February, 1916, and the members traveled from

Cairo to New Orleans to learn the conditions.

The bill passed the house in May. Three months seems a very short time for gathering of the data, and the careful solution of the great problems involved, carrying with it the expenditure of such sums of the government money, together with its presentation and discussion in the house, and the passage of the bill.

As a matter of fact, the levees along the lower Mississippi river have been built chiefly by the separate states concerned, but for years past a considerable part of the national appropriation used on the Mississippi river, ostensibly for the improvement of navigation, has been devoted to assisting in the work on the levees. This has been done apparently to aid navigation because Congress has never yet openly admitted that it would appropriate such money for any other purpose than as an aid to navigation. Still everyone concerned has known that the national funds were being used to some extent to assist the states in their efforts.

This bill contemplates a much larger use of national funds for this purpose than has been true heretofore on the Mississippi river. While it is proper to recognize that the nation has a direct interest in the river control, and that, therefore, the nation may well bear some portion of the expense, this bill would seem to put too large a portion of the cost on the national government and too little on the owners of the lands to be benefited. Probably 90 per cent of the lands most directly benefited is in large holdings, much of it being held by wealthy corporations.

It is desirable to prevent floods in the Mississippi river, and it is also desirable to reclaim the 16,000,000 acres. Those 16,000,000 acres of rich land will be worth conservatively many millions of dollars. They are privately owned, chiefly in large holdings.

It has been the policy of the govern-

Special Subjects

Published in
KEITH'S in
1915

As long
as the file
lasts,
any single
number will
be furnished
at the
single copy
price, 20c
or three
copies for
50c

SUBJECT	Month
Investment Value of Forty-Foot Lot	December
Planning the Fireside Corner	"
A Complete Kitchen	"
Our Experience in Remodeling	"
The Ranch House	November
A Woman's Workshop—The Kitchen	"
Treatment of the Narrow Lot	"
Building Two-Family Houses	October
Home Building in California	"
Colonial Entrances	September
Willow Furniture	"
A Dutch Colonial House	August
The Breakfast Room	"
English Domestic Architecture	"
Use of the Pergola	"
Landscaping the Corner Lot	"
Remodeling a Country House	July
Bungalow Furnishings	"
Planning the Music Room	"
Rustic Fences and Gates	"
Furnishing with Willow	June
The Attic Bedroom	"
The California Bungalow	"
Planting Plan for a Forty-Foot Lot	"
Brick Colonial Homes	May
Arranging the Furniture	"
Picturesque Porches and Seats	"
Planting Scheme for Double Grounds	"
Everything About Bungalows	April
Remodeling An Old House	March
Fixing the Mantel	"
A Little House That Solved a Big Problem	"
Planting Plan for a Fifty-Foot Lot	"
The Newer Domestic Architecture	February
Sofas and How to Use Them	"
Decorative Wall Paneling	January
The Farmer's Cottage	"
A Talk on Woods—Oak	"

Send Orders to **M. L. KEITH, McKnight Building, Minneapolis, Minn.**

Make Country Life Modern

with Kewanee Outfits. Every one complete in itself, semi-automatic, requiring little attention and no repairs. Kewanee Private Utilities include

Kewanee Water Supply System, Sewage Disposal Systems,
Gasoline Storage System, Vacuum Cleaning Systems,
Gasoline Engine Systems, Electric Lighting Systems.



Formerly Kewanee Water Supply Co.

123 S. FRANKLIN ST.
50 Church Street
New York City

KEWANEE, ILLINOIS
1212 McKnet Bldg.
Chicago



Get FREE Finished Samples
and Big Door and Trim Book

They show you how you can produce the most beautiful effects and finishes in hardwood trim, doors and floors in "beautiful birch." No wood finer though many cost more—birch furniture is standard. Ask your dealer. Send postal card TODAY.

NORTHERN HEMLOCK & HARDWOOD
MANUFACTURERS ASSOCIATION

203 F. R. A. Building

Oshkosh, Wisconsin

ment, set forth in June, 1902, when the reclamation act was passed, "that lands benefited should bear the burden of the cost of their reclamation when the improvement results from national expenditure."

"Now, 14 years afterward, we are asked, through this proposed bill, to reverse the determined attitude assumed by the House in opposition to reservoirs in the river and harbor bill and adopt a policy of national expenditure for flood control, which is really for the reclamation of overflowed lands, without repayment of the cost of reclamation."

If government aid is to be obtained in the reclamation of these millions of acres the aim should be to secure, through congressional legislation, a determination of the division of interest, and then endeavor to get the United States Government to stand its share of the cost which represents its interests as compared with local interests.

A New Punitive Law.

The new punitive state law which has been enacted in Minnesota against the fraudulent use of money received on one job applied to bills on another job, is be-

ing felt by the class of men against whom it was aimed. There are two cases now before the Supreme Court of the state and they are being watched with much interest. By the terms of this law if money received for the payment of bills on one job is applied to another, the owner whose bills should have been paid may place a lien on the building to whose bills the money was actually applied.

The Duty of Every Good Citizen.

Every man associated in any way with the building industries, together with every other citizen, should take a personal interest in seeing that only intelligent and honest men are elected to public office. Each year sees the adoption of much legislation throughout this country regulating business in one way and another.

Entirely apart from party politics it is necessary to see that the men who are elected to office are men of business ability, possessing the somewhat rare quality of common sense. Legislation vitally affecting business interests should be enacted only by men who are competent to understand the business needs of the people. Men of broad mental caliber who, by habits of thought and by experience, are able after considering proposed legislation to act according to the dictates of fairness to all, and with a comprehensive understanding of the probable results of their acts, are needed in political offices today.

Waste.

One of the greatest crimes in this world is waste. It may be of money or of the things money buys; of talent, of time, of strength.

Special Offer to Contractors

EVERY building contractor will be interested in securing two of the best journals on building, together with a fine book of plans under my "Special Offer."

12 Big Monthly Numbers	KEITH'S	\$2.00
12 " " "	Nat'l Builder	1.50
1 " Book of Plans		1.00
		\$4.50

Special Price for all three \$3.00

Select Your Book From This List

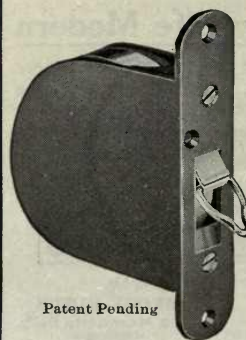
Vol. 1-136 Designs	Bungalows.....	\$1.00
Vol. 2-100 " "	Cottages.....	1.00
Vol. 3-125 " "	costing below \$4,000.....	1.00
Vol. 4-175 " "	" " 5,000.....	1.00
Vol. 5-175 " "	" " 6,000.....	1.00
Vol. 6-125 " "	" " above 6,000.....	1.00
Vol. 7-100 " "	Cement and Brick.....	1.00
Vol. 8-50 " "	Garages.....	1.00
Vol. 11-40 " "	Duplex and Flats.....	.50
Vol. 12-100 " "	Artistic Homes.....	.50

Send all orders with remittance to

M. L. KEITH

828 McKnight Building

Minneapolis, Minn.



Caldwell Sash Balances

Uniform Mortises

For use in all classes of
new work

Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counterbalance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular

Caldwell Mfg. Co.

6 Jones St., Rochester, N. Y.

They Outwear and Outlast Any Wooden Shingle Made



A Broad
Assertion
But True

—
Because

DI-MACK ASPHALT SHINGLES

are constructed of imperishable and non-fading materials. Only the very highest grade of felt, which is the real life of the shingle, is used in the manufacture. They are surfaced in natural crushed granite which not only gives a beautiful and decorative effect but makes them storm proof and fire-resisting. Permit us to send you samples and instructive literature, illustrating the many beautiful effects which can be obtained by the use of ornamental roofing and shingles.

McCLELLAN PAPER COMPANY

DI-MACK QUALITY
MINNEAPOLIS



HESS ^{MEDICINE} ^{SANITARY} ^{CABINET} LOCKER



The Recessed Steel Medicine Cabinet

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free

IXL ROCK MAPLE, BIRCH AND BEECH FLOORING



"The Finest Milled
Flooring in the World"

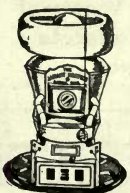
One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times **without after smoothing**, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.

BUY YOUR FURNACE NOW PAY US AS CONVENIENT



Satisfaction guaranteed, or money refunded. Our patented "down draft system" furnaces make them best for residences, schools, hotels, churches, etc., because they deliver plenty of heat wherever and whenever desired, at a saving of one-third to one-half in fuel bills. The

Jahant Furnace

is easy to install. You can do it yourself. We send complete outfit, freight prepaid, with special plans, detailed instructions and all necessary tools for installing. You may pay as convenient.

Write for Free Illustrated Book

THE JAHANT HEATING CO., 125 Steiner Ave., Akron, O.

Save $\frac{1}{3}$ to $\frac{1}{2}$ on Fuel Bills

A Free Book —on Concrete Machinery

Porches
Vases
Chimneys
Flower Boxes
Building Blocks
Fence Posts
Drain Tile
Sewer Pipe
and others

Not exactly a catalog because it gives the cost of making many concrete products—Blocks, Bricks, Porches, Chimneys. Also tells about the profits in making Drain Tile for farmers; describes the advantages of farm drainage, etc.

Get this book if you are interested in concrete. Contains a lot of valuable information and interesting reading. Sent free upon receipt of a postal card.

W. E. Dunn Mfg. Co.

417 24th Street

HOLLAND, MICH.



"You Build for a Life-

KEITH'S BIG OFFER

A Year's Subscription to "KEITH'S" with a Copy

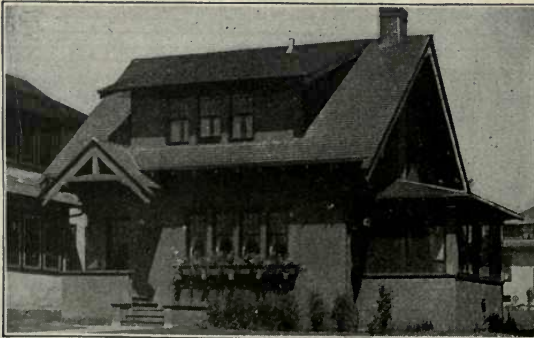
Your Choice

FOR
\$2.

Vol. 1.	140 Bungalows and Cottages . .	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D-1321 from "KEITH'S"



Design D-1309 from "KEITH'S"

What You Get

From 250 to 300

DESIGNS

by leading architects

From 75 to 100

Practical Articles

on timely subjects of
Home-BuildingDecorative Schemes for
Your New HomeMany Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,
Editor and Proprietor

Time---Do It *RIGHT*"

To The Homebuilder!

of the Big April Bungalow Number *EXTRA* and

of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" A POCKET HANDBOOK ON CONSTRUCTION	1.00
" 11.	40 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (\$3000 and Up)	.50

FOR

\$2.

for Two Dollars

12 Big House Building Numbers
of KEITH'S MAGAZINE, in-
cluding a copy of our recent
100-page

Special Bungalow Number

containing 25 plans of attractive
bungalows and authoritative
articles on bungalow building.

The service of our architectural
and designing departments in
in answering questions on con-
struction, design, interior plan-
ning, beautifying the grounds or
any subject pertaining to the in-
terests of home-building.



Design D-1305 from "KEITH'S"



Design D-1315 from "KEITH'S"

828 McKnight Bldg.
Minneapolis, Minn.

SPLINTERS AND SHAVINGS

Other Export Trade Greater Than Munitions.



ASTONISHING as it may appear to those who do not know the facts," said Dr. Edward Ewing Pratt, Chief of the Bureau of Foreign and Domestic Commerce, Department of Commerce, in a recent address, "the increase in the export of munitions has actually been less than the increase in the amount of secondary war supplies exported or the items that have no direct relations whatever to the war. As a matter of fact the largest increase in exports has occurred in the groups which might be called secondary war supplies, and those articles which have no direct connection with the war. The smallest increase in actual amount has taken place in the direct munitions of war. The actual amount of increase in the direct exportations of munitions of war to belligerent countries for the six months ending December 31, 1915, was approximately \$153,000,000. The actual increase in exports of secondary war supplies to the belligerent countries for the same period amounted to approximately \$195,000,000. While the total amount of increase of exportations which have no direct relation to the activities of belligerent nations and of all other products to belligerent and to neutral nations has amounted to approximately \$188,000,000."

Unburnable Cities.

There is one fact pervading half the dispatches from the western war zone of Europe which Americans would do well to take to heart—the fact that neither bombardments nor direct incendiarism has been able to start such conflagrations as those which have devastated so many cities and towns in America. The European cities and villages, especially in what may be called the Napoleonic area, simply won't burn. When the Germans wished to destroy a Belgian town, they had to set fire to each separate house. The woodwork in that house, the floors

and staircases, would be consumed, but the brick and plaster walls and tile or slate roofs kept the fire from passing on. In France it was the same. Rheims has been under fire six months and nothing more than local blazes have started in all that time. Try to imagine an American city subjected to such a trial.—*Rock Products and Building Material.*

"Don'ts" vs. Fires.

Pointing a lesson in a recent experience, where a ball of burning yarn tossed by a small boy into a vacant lot started a recent fire that totaled a \$1,500,000 loss of property, the state fire marshal suggested a few preventative "don'ts."

DON'T dump the refuse in a vacant lot and leave it.

DON'T fail to burn such rubbish and watch the fire out.

DON'T allow dry grass and leaves and other accumulations to remain between or around buildings.

DON'T allow rubbish to remain in attics or basements and particularly don't overlook oily rags in out-of-the-way corners.

To which might be added the following:

What kind of matches do you use; old time parlor matches or safety matches?

Do you know that rats are fire-bugs and eat parlor matches?

Do you own a good fire extinguisher? Is it in good condition at this time? Does each member of your family know how to operate it?

And lastly: Do you maintain the same general order—as far as rubbish and fire hazards are concerned—in your basement and attic that you do in your parlor or living room?

The importance of seeing that adjoining vacant property as well as their own is kept "fire proof" for their own protection is urged upon householders by the organizations for fire prevention.

KEITH'S MAGAZINE

ON HOME BUILDING

CONTENTS FOR SEPT., 1916

Just a Word	150
An English House in Oak Park	153
The Wall Around the Garden— <i>Alice Roberts Rollins</i>	157
Concerning Vines—Their Uses and Varieties— <i>Ida D. Bennett</i>	161
The Kitchen Cabinet— <i>Edith M. Jones</i>	166
Hanging the Hammock— <i>Ruth Fargo</i>	169
Utilizing the Waste— <i>W. R. Holbrook</i>	170
Under a Tile Roof	174
A Dutch Colonial Home	175
A Popular Design	177
A Half Timber and Cement House	178
Homes that Satisfy	180
Portfolio of Designs	185

DEPARTMENTS

Inside the House—	
Decoration and Furnishing	188
Answers to Questions on Interior Decoration	192
Household Economics	200
The Table and Its Service	202
Building Material and Notes on Heating, Lighting and Plumbing	208
The Architect's Corner	212
Woods and How to Use Them	216
Splinters and Shavings	220
Trade Notes	224



A Beautiful Home.

Frank Lloyd Wright, Architect.

KEITH'S MAGAZINE

VOL. XXXVI

SEPTEMBER, 1916

No. 3

An "English" House In Oak Park

Frank Lloyd Wright, Architect

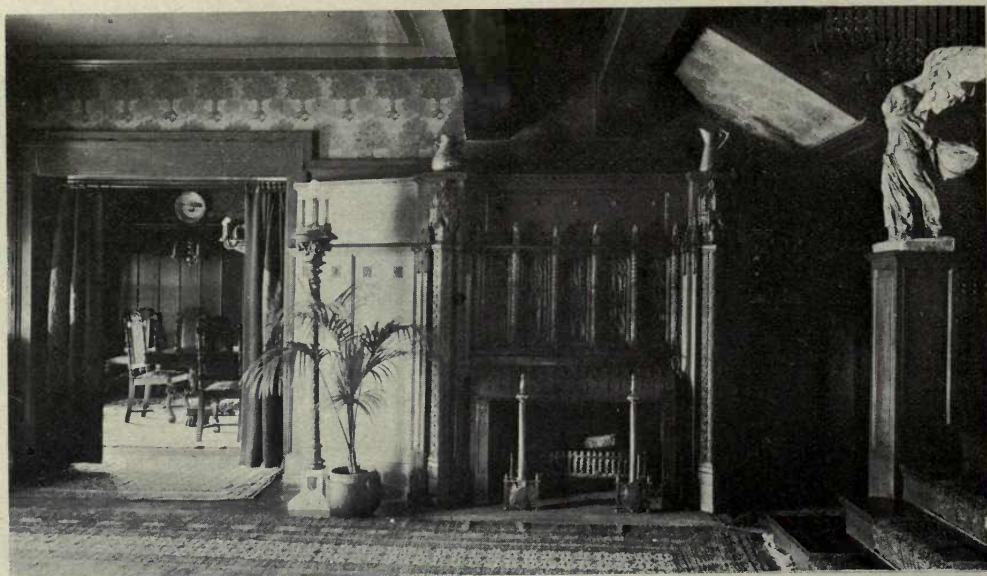
PERHAPS there is no other nation of people who have evolved a more satisfying expression of their feeling for "home" than the English, and Americans who have travelled much in foreign countries have been sensitive to this and so have often crystallized their own feeling for a home around this ideal; hence the many charming "English type" of homes in this country. This fact was even more noticeable a few years ago than it is at the present time.

To any one at all familiar with architectural affairs, and with residence work especially, the name of Frank Lloyd Wright as the architect of an "English house" will bring a question. The charming home here illustrated was built some time ago, and the general lines of the house were decided upon only after long discussion and careful consideration. The home builders had been much in England,

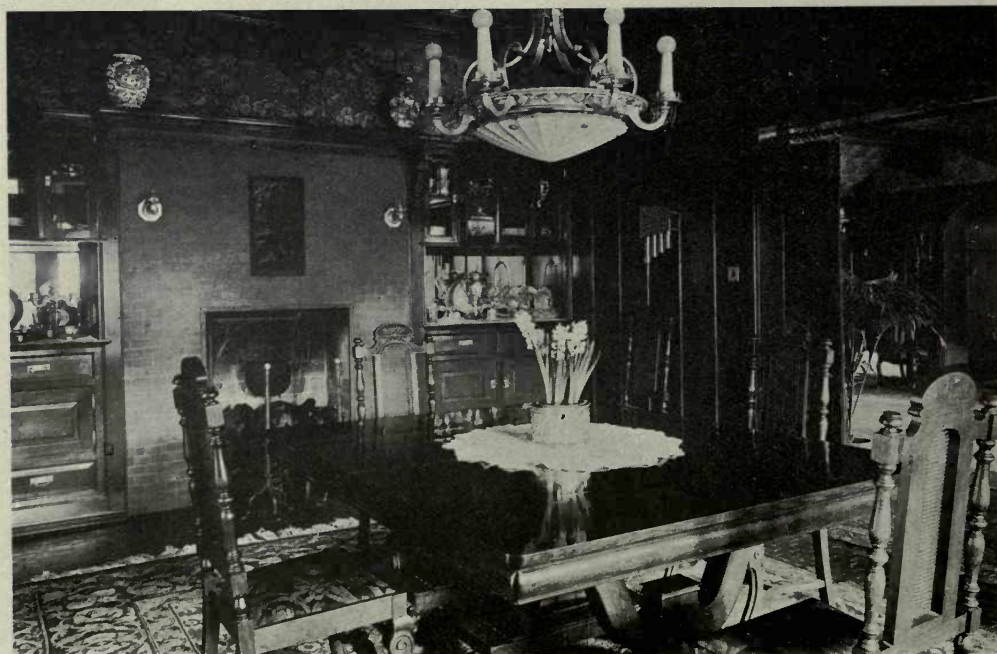


The charming pergola.

and were charmed with English details and the general lines of the English houses they had known. They felt that their own home must grow upon these basic lines, and the completed home shows essentially English feeling, especially in the exterior treatment. Only in the pergola does one find the strong feeling for the horizontal lines so characteristic of the work which Mr. Frank Lloyd Wright has developed. It is charming in itself and in its combination with the English details.



The fire place in the great hall with its beautifully carved over mantel and a glimpse of the dining room beyond.



Twin side boards with the quaint fire place between in the dining room.



The book and desk invite one to leisure.



The sleeping rooms have the convenience of running water.

As might be expected, the main rooms are wainscoted in oak with a decorated frieze above. The fireplace in the great hall has an elaborately carved over mantel relieved by the simple panel above. The metal work of the fire opening and andirons are quite unusual. Noting the design in the door beside the fireplace and the placing of the carved spots in the wainscot one recognizes the more characteristic note of the architect. The electric light standard is in keeping with the carved work of the mantel.

The view of the dining room as seen through the opening from the hall is in some ways more satisfactory than the view in the dining-room itself, especially as showing the beauty of the wainscoting.



The flower room.

The twin sideboards on either side of the quaint fireplace makes an unusual treatment.

Only two of the sleeping rooms are shown. The simplicity of the first room makes a strong appeal. The low desk placed in front of the group of windows and the small case of books are inviting. The convenience of the small shelf over the radiator may be noted.

The flower room which leads to the conservatory is of unusual interest.

One of the charming features of the English house is its windows. The casement sash filled with small panes of glass in lead, and with just a touch of color fill their traditional requirements in this respect, while the half timber work gives a quaint touch to the whole.



The seclusion of the porch.

The Wall Around the Garden

Alice Roberts Rollins



N old time poet wrote, "Who loves his garden still his Eden keeps."

A man's garden when walled about is his own bit of outdoors.

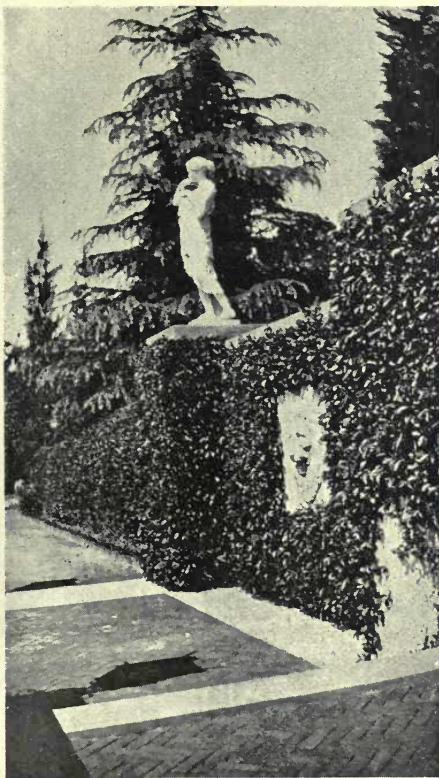
The blue of the sky is overhead, balmy sunshine covers it like a mantle and soft tempered breezes are wafted in upon the wind. Here a man can think his thoughts and dream his dreams, while only bright hued, fragrant blossoms nod at him as he walks its winding paths.

A garden enclosed with a high wall gives an air of seclusion, of quietness and charm, attainable in no other way; while it also furnishes an excellent background for the landscape vistas and effects. One may invite here a good friend for a quiet cup of tea while discussing the latest book, with only the songs of the birds for music. Garden and house should be in close harmony for each is an adjunct of the other. This key-note may be carried out in various ways—by the use of a pergola, terrace, arbor or other features, repeating the general scheme of the house. The same material and construction may be used in the making of the garden wall,

which furnishes the link that binds house and garden together. Infinite possibilities for beauty and even for utility, lie in this wall, and the success depends not so much upon the money and labor expended as upon careful arrangement and selection.

It is easy to have a wall—of some kind. The smallest garden space back of a house may have some sort of shield or hedge around it. If the space is small, a fence will give opportunity for training more vines and plants along this border wall.

Many of our garden walls or partition fences have been bare or without any special order or beauty. We have been content with mere fences and ill-kept hedges, which may be useful but add nothing of beauty or seclusion to the garden. A decided change in this re-



Walled about his own bit of outdoors.

spect is noticeable and now many houses are surrounded by well-kept hedges or vine covered walls that add much of beauty to house and garden.

The partition may be constructed of whatever materials are used in the house itself, or that will harmonize with the general architectural arrangement.

Again it may be of growing things of the garden. Small houses, more especially those of the bungalow type, are ideal, when the garden is enclosed with a neat hedge or vine covered wall.

In the photographs reproduced here are shown some attractive and harmonious hedges and walls as used in our Western gardens.

cover a wire fence with thick, glossy foliage in no time and a Cherokee rose hedge in full bloom is a sight worth going miles to see. Their pure white or delicate pink blossoms are so striking as to make them seem unreal. A hedge like this is a joy and it is a poor neighbor who will not appreciate such a division wall.

The Ragged Robin rose and white



A cement wall with vines and flowers.

Most brilliant is one of geraniums, all of six feet high, covered with masses of bright red blossoms and thick green leaves. It serves in this particular instance as a screen between a garden and some small shops which have encroached upon the residence section; and is far more attractive than a plain, high board fence, while the cost is little more than setting out the slips and keeping it trimmed.

White and pink Cherokee roses will

Cherokee make a beautiful combination for a hedge. Both have thick, heavy foliage and the Ragged Robin is in bloom almost the year round.

Pink ivy geranium is another inexpensively grown hedge which only needs a support of wire, and its glossy foliage and bright pink flowers will not fail throughout the year. This is also a hedge that calls for very little care.

The Pelargoniums or Lady Washington geraniums make an exceptionally

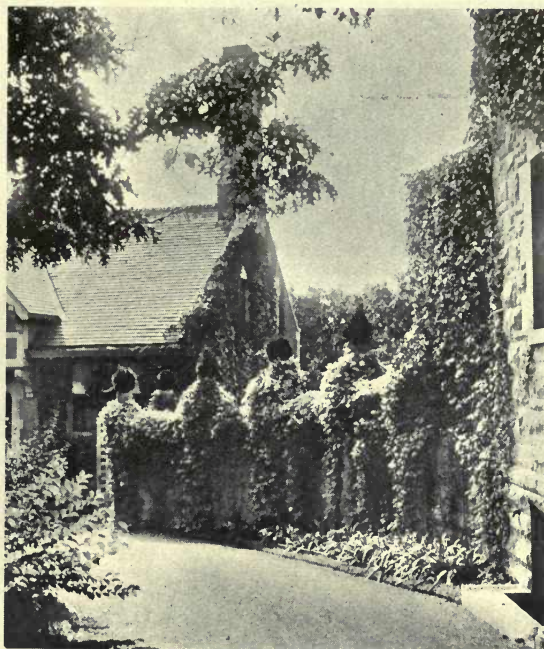
beautiful hedge but are more satisfactory trained or tied up to a wall. The colors to be found in this peerless flower are unsurpassed in anything used for this purpose. They have all the velvety shades of a pansy with many additional colors added.

The lantana with its pure white, shaded pinks and yellows makes another satisfactory flowering hedge. It may be trimmed high and box-shaped or in any way preferred. Then there is a dwarf yellow variety that makes a pretty low hedge.

The pungent odors of the lantana make it a favorite with many.

The honeysuckle is a vine that makes a beautiful enclosure, with its wealth of fine, thick, dark foliage and the fragrance of its sweet blossoms.

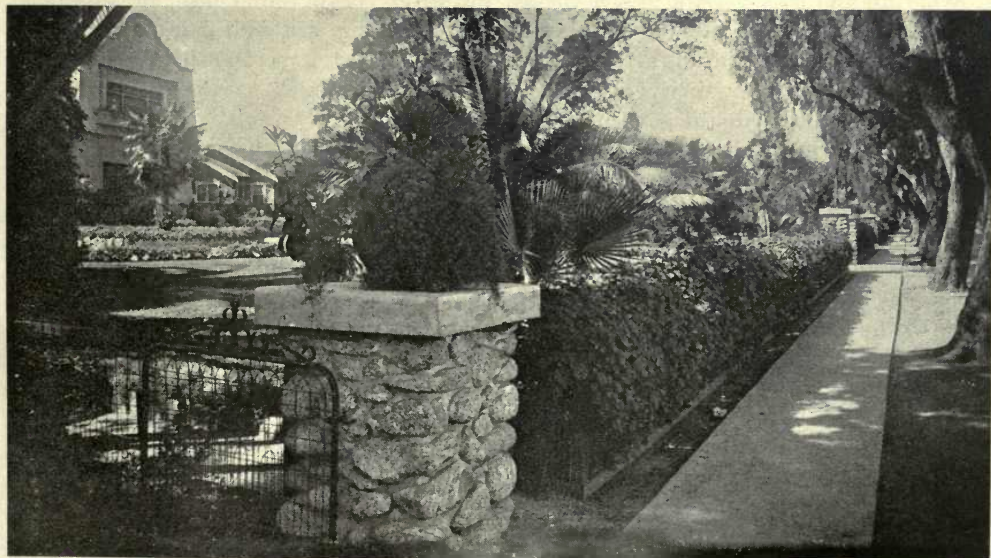
The ever satisfactory hedge of box always gives one the impression of a garden of long ago; as also that of cedar with its balsamic odor. Both of these may be trimmed high or low and your garden may be as secluded as you wish.



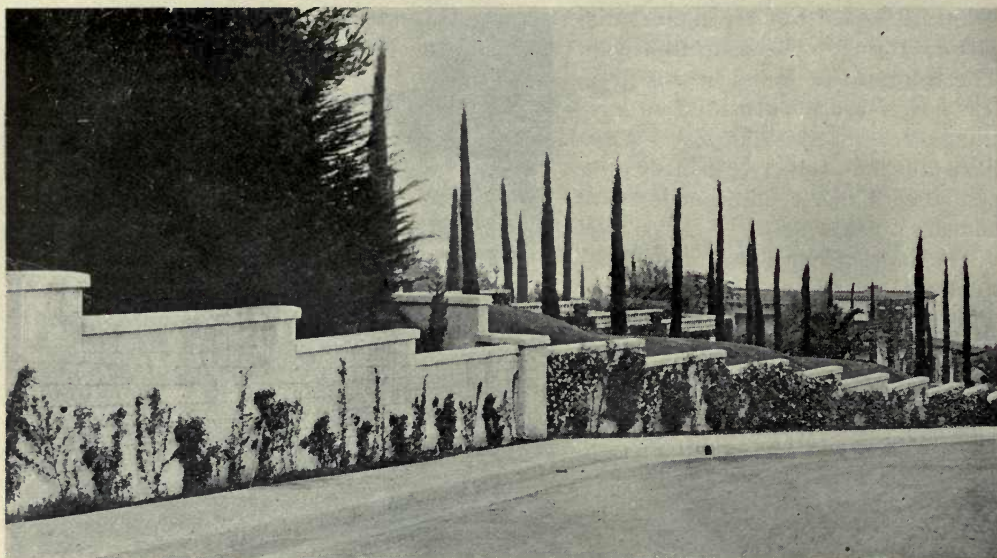
An ivy draped wall.

They are often cut into fantastic shapes; but always there remains that charming air of quietness and peace of an older day.

Perhaps the most picturesque of all is one constructed of brick, or a combination



A red geranium hedge.



A pleasing arrangement.

of brick with either stone or cement. The possibilities in form and ornamentation are almost infinite, and it is in a garden surrounded by such a wall as this, that one may dream and rest content.

Here, a part of the wall is ivy-covered; farther along are climbing roses which do not make good hedges yet are beautiful growing up and over a wall. Over there is a corner where hollyhocks grow erect and tall. They need the high wall as a proper background for their stateliness. On the sunny south side the garden bench is built against the wall and from its seat one has a commanding view of the garden.

If one's garden is in a country where cobblestones may be had for the picking up, a pleasing wall may be built of these. They may be piled up, building a wall broad at the bottom and tapering towards the top, or set in cement with flat coping of a dark red color for the top. For large grounds cobblestones are very satisfactory as there is plenty of room to build with a broad base and with corners and gateposts in the form of large squares. Vines take kindly to granite and a stone

wall is attractive with or without a clinging green drapery.

Cement is much used these days as a building material and it is surprising in what attractive forms it may be fashioned. A wall of cream-colored cement with square projecting posts at the corners and with a distinctive coping, is a beautiful background for any garden. Ivy will cling to it as if painted there. It makes almost a perfect background for the purple wistaria or the brilliant bougainvillea.

From a strictly utilitarian point, the garden wall may be used for growing many things for which one has not room in the open space of a yard. In the past few years excellent results have been achieved from tomatoes, blackberries, raspberries and grapes trained up a garden wall. It is also surprising what wonderful things have been done in trimming and training fruit trees to grow flat against a wall. Apricots, peaches, plums and pears respond exceptionally well to this treatment. By this method it is possible to grow fruit in a small space.

Concerning Vines—Their Uses and Varieties

Ida D. Bennett



THE longer I live the more I like vines and the more impatient I grow with them; that, I know, sounds rather paradoxical, but the truth is that the same vine may be so annoying or so satisfying, according to the use which is made of it, that one may well be in two minds about it. The ideal vine is one which just covers, sufficiently, the space allotted to it. A vine which covers its ground and then goes to work and does the same thing over and over again until there are sev-

eral layers of stem and leafage is a nuisance, but one which is quite generally in evidence. But the vine can scarcely be blamed for its over-exuberant growth if we have fertilized and watered it into luxuriance and then failed to supply it with sufficient room to develop the growth forced upon it. The mistake lies in selecting a vine too large for the space to be covered, or in failing to furnish the necessary support of wire, netting or trellis.

There are many vines of small growth which may be used to advantage in small



"Cobea Scandens"

spaces, but the majority of vines need a b u n d a n t room. Some large growing vines may be restrained by judicious pruning. The woodbine is especially tractable, and may be kept down to almost any requirement. Well trained it is one of the most satisfactory vines we have. The clematis-paniculata, virgin's bower, Montana rubens and the like, grow more rampantly for pruning. A well established vine will, when cut to the ground in spring, far exceed the previous season's growth and needs an enormous

amount of room in which to develop. The former is so beautiful and satisfactory a vine that one should always manage to find a place for it. The Boston ivy, though a strong grower, is tractable and once established needs little care. A member of this family, Vitis Henryana, is one of the most beautiful of vines and neat and restrained in its manner of growth. The dark green leaves seem cut from velvet and the silver veinings add much to its beauty; it is by far the most beautiful vine of recent introduction. Another member of the vitis family Ampelopsis

Tricolor, usually catalogued as a low grower, makes a fine free growth for me and is very lovely with its grape-shaped leaves splashed with white, grey and pink and covered, during late summer and fall, with peacock blue berries. Then there is the *Aristolochia Sipho* or Dutchman's pipe so useful for covering arbors, walls and broad spaces where a dense shade is needed. Usually one prefers a solid mass of foliage for arbors, porches and walls, but for pergolas I think the preference is rather for vines of more slender growth and conspicuous flowers. The wistaria seems to furnish just the qualities needed here and once established is a desirable

and lovely vine; it takes some time, however, for it to come into bloom and sometimes, alas, it never does bloom. It is a good plan to associate with it some good annual to fill up this enforced period of waiting; the *cobaea scandens* is an excellent vine for the purpose and may be raised from seed started in the house in early spring or bought ready started in pots of the florist for a few cents.

The various passion vines are extremely attractive when in flower, and as they are persistent and continuous bloomers during the summer months they may be employed to advantage wherever an ornamental vine is desired.

Another vine which I have found exceedingly ornamental in a way is the gourd. Usually I have grown this class of plants for their fruits, planting them in some out-of-the-way corner, but this last year being disappointed in some vines ordered for a small pergola over a garden seat and being in the act of transplanting a lot of mixed gourds which had been tucked into pots in the hot-bed at the last moment to take the place of some moonflower seeds which failed to come up, I tucked a couple into the ground behind the seat without expecting much of them or indeed, without thinking much about them. Both lived and one proved a large-leaved, orange fruited sort, enormously effective when trained across the front of the pergola where its golden fruit hangs in regular rows in the most decorative manner imaginable. It has a curiously decorative



"*Clematis Paniculata*"

effect often seen in mural painting or in certain stained glass work and I feel that I can recommend it very strongly for pergolas, and similar plantings. Seen at its proper distance overhead the leaves are beautiful in form and their coarseness is not so apparent as would be the case were it growing on a wall.

Another common vine which should be effective on a white or gray pergola is found in bryonopsis—a beautiful annual climber of the gourd species with elegantly divided leaves and simply covered with fruit about the size of a large gooseberry, green at first and striped with white, but turning as it matures to the loveliest crimson-scarlet which gleams like jewels among the glossy green of the foliage.

Most of the gourd family have large, coarse yellow blossoms much like a squash or pumpkin, but there are a few which have really lovely flowers of pale lemon or of pure white, the flowers divided into five or six fluted and crinkled petals, fragrant and as beautiful as any clematis, which, indeed, they somewhat resemble.

No flowering vine surpasses in beauty the Japanese morning-glory when at its best, but to attain this happy condition it should be planted on the west side of a building where it can grow upward to

ANNUAL VINES AND WHERE TO USE THEM

COLOR	NAME	VARIETY	SEASON	LOCATION
Brown and purple	Aristolochia	Elegans	Summer	Large sunny spaces
Flesh	Adlumia	Cirrhosei	Summer	North, or east, slender
White	Balloon Vine		Summer	Slender growth, sun
Scarlet	Bryonopsis		Summer	Pergolas, arbors, large
Yellow	Canary Bird Vine		Summer	
Scarlet-white	Cypress Vine		July-frost	Boxes, vases, slender
Purple	Cobaea	Scandens	July-frost	Pergolas, porches, walls
White	Dolichos	Lab-lab	Summer	Arbors, trellises, etc
Variegated leaved	Humulus	Japonica	Summer	Low trellises, banks
All colors	Ipomeas in variety		July-frost	Large spaces, west
White, blue, pink	Maurandia		August	Low trellises, boxes
Scarlet fruit	Momordica		August	Large spaces
Pink	Lopospermum		July to frost	
White, yellow	Thunbergia		July to Oct.	Low trellises, boxes

GREEN-HOUSE VINES SUITABLE FOR PLANTING IN THE OPEN

Brown and purple	Aristolochia	Elegans	Summer	Large, sunny spaces
Scarlet, white	Clerodendron	Balfouri	Summer	Boxes, vases, etc.
Yellow	Allamanda	Hendersoni	Summer	Strong grower
Variegated leaved	Glechoma		All season	Boxes, baskets, etc.
Variegated leaved	Ivy	In variety	All season	Low walls, boxes, vases,
White, pink, blue	Maurandia		July to frost	Low walls, boxes, vases,
Scarlet, yellow	Manetta	Bicolor	All summer	
Scarlet	Nasturtium	Double	June to frost	
Scarlet, white, blue	Passifloras	In variety	Summer	Strong growing, pergola
Pinkish	Saxifragas	Somentosa	Summer	Baskets, boxes
White	Solanum	Jasminoides grandiflorum	Summer	Boxes, low trellis, vases
Blue	Solanum	Azurem	Summer	
Blue	Solanum	Wendlandii	Summer	Pillars, pergolas
Variegated leaved	Vinca	Elegantissima	Summer	Boxes, vases, etc.
Variegated leaved	Wandering Jew		Summer	Boxes, vases, etc.

its full extent, otherwise the vines will turn back upon themselves, hiding all the lower growth and bloom, and as this morning-glory begins to bloom from the ground up this is a calamity. It should have not less than five feet of horizontal space—that is, the plants should not be planted closer than five feet and should have at least twenty in height. The Jap. commences to branch as soon as it commences to grow, throwing out laterals in every direction and blooming at every step of its ambitious, upward way. The colors are all beautiful, but the frilled and ruffled white flowers which come in clusters always win my warmest admiration. Then there are steel-colored sorts of ruffly and frilled, and smoked colored ones and

all the fine array of blotched and spashed white blooms and great blues and crimsons with their conspicuous white bands and many of the sorts show blotched and marbled leaves almost as effective as flowers.

Japanese morning-glories should have

ing never allow the plants to suffer for water. It is not enough that the ground be kept moist—when the plants are in bud the ground must be literally soaked every night, lots and lots of water if one would have notable flowers—flowers five inches or more in diameter. I have seen

the blooms double in size from the effects of one single, thorough soaking.

All vines are gross feeders and should be given the best soil at command. Whenever it is necessary to plant in poor soil or rather in a location where the soil is poor, sufficient soil should be removed and replaced with good to meet all the requirements of the plant. A position against the underpinning of a building or near the trunk of a tree is about as unfavorable as can be devised, and in the case of permanent plants the difficulty can be overcome by digging a hole for the vine two or three feet out from the wall, planting the root there

HARDY PERENNIAL VINES				
COLOR	NAME	VARIETY	SEASON	LOCATION
White	Actinidia	Arguta		Walls, arbors, etc., dense
Yellow	Actinidia	Chinensis	Summer	Pergolas, etc.
Violet-brown	Akebia	Quinata	Spring	Slender growth
Violet	Apios	Tuberosa	Spring	Slender, 8 to 10 feet
Variegated	Ampelopsis	Louwi	Spring	Slender, walls, brick or stone
Variegated	Ampelopsis	Englemanni	Spring	Slender, walls, brick or stone
Variegated	Ampelopsis	Quinquefolia		
Blue berries	Ampelopsis	Tricolor	Spring	Slender, walls, trellises
	Aristolochia	Sipho	Spring	Large spaces
Pink	Calestigia	Pubescense	Spring	Free grower
Orange fruit	Celastus	Scandens	Fall	Low walls, trees, pergolas
White	Cinnamon Vine			20 to 40 feet, but slender
Orange red	Bignonia Radicans		July	Arbors, pergola, strong
Orange red	Bignonia Heuteri			
White, red, blue	Clematis in variety		May to frost	Arbors, walls, porches
Variegated foliage	Euonymus	Creeping	May to frost	Low walls or stump
White-pink	Honeysuckle	Halls	May-June	Trellises, walls
	Ivy	English	May-June	Low walls
Yellow	Jessamine			Low walls
	Kudzu Vine		May-June	Trees, fences, ravines
Purple	Lycium	Barbarum	May-June	Large spaces
Scarlet fruit				
White	Madeira Vine		May-June	Large spaces
White	Moonflower	Ipomea Pandurata		Large spaces
White	Polygonum	Auberti, baldschuanicum	Summer-fall	Pillar
White	Schizophragma	Hydrangeoides	Summer-fall	Trees, walls
Variegated	Vitis	Henryana	Summer-fall	Walls, trellises, beautiful
White, purple	Wisteria	Chinese	June-July	Pergolas, arbors

the seed soaked over night in quite warm water before planting in pots plunged in hotbeds or in flats in the house. Usually I put the seed to soak in a tumbler of warm water set in a warm place and leave until the seed sprouts, when I plant it in pots, or, if the weather is warm, in the open ground. Never plant out until the nights and soil are warm and after plant-

ing and carrying the stem of the plant under the soil to a position against the house or tree, where it may emerge from the soil, and begin its upward way.

Vines are so often injured by the necessity of laying them down for protection in winter or for painting or repairing the structure on which they grow that a little preparation for this event,

when unavoidable, should be made when they are planted. Perennial vines do best on wire poultry netting and if this is attached to a frame and the frame hooked instead of nailed to the house it can easily be removed at will. The best frame consists of a simple strip of wood at top and bottom—no side strips. This should be stretched tight by the hooks and when released can be rolled up with little, if any, injury to the vine. Rolled up it is easily protected during winter and is out of the way of the painters when at work as they can easily place long trestles at either end over which planks can be laid to stand on, but it is the part of wisdom to oversee this operation personally as I have known these people to wilfully injure vines without the slightest necessity for so doing.

A convenient way to train annual vines on porches and places where a neat growth is desired is to drive a row of staples at the top and bottom of the space to be covered, setting the staples at right angle to the edge of the porch, then by taking a ball of twine and weaving it back and forth from bottom staples to upper staples the space is covered and tying the ends of the cord to the end staples a good support is furnished and when it is desirable to remove the vine in the fall it is only necessary to untie the cord and pull it out, instead of pulling out the vines.

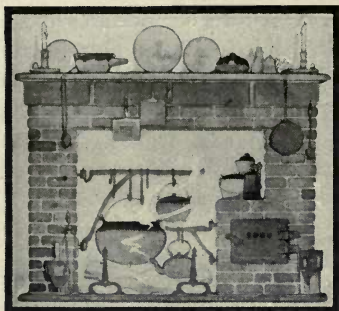
For covering rough places, ravines, stumps and brush heaps there is no better or more graceful plant than the wild cucumber. The color of leaf and flower is especially attractive, and if the precaution is taken to restrain it and to remove all withered leaves and the plant itself when its beauty is passed, it may be used to advantage in many situations, even in window boxes. It combines so beautiful-

ly with pink that I have sometimes used it in boxes with pink justinias, geraniums or double pink petunias, with any of which it is charming. When used in these restricted quarters it does not grow so rampantly and if well supplied with water behaves very well. It is well, however, to have a pot or two of some other vine coming on to take its place when it becomes necessary to remove it.

All of the solanums are useful vines for summer planting, in window boxes, vases and other places. *S. Wendlandii* is a vine of rather coarse growth and is most useful as a pillar plant or for a pergola. It makes a very long, but not excessively heavy growth and its great panicles of sky-blue flowers—a foot across, are very showy and conspicuous. *S. Aasmoinoides grandiflorum* is a more delicate vine well suited to window boxes indoors or out, it bears a profusion of delicate white flowers in large panicles, the reverse of the flower being tinged with violet. It combines beautifully with the scarlet flowers of the manetta vine or the *russellia elegantissima*. The white *swainsonia* may be used to advantage in east window boxes or in vases where the exposure is not too strong. For this kind of work it is always better to use the trailers than the climbers, but with a little care in training the latter may be used to advantage.

One can hardly have too many vines, but one can easily have too much of any one vine so that a strict watch should be kept on each straying tendril and spray and every superfluous branch ruthlessly sacrificed to the goddess of order.

The accompanying short list of vines for various places is suggestive rather than exhaustive, and may prove helpful to the amateur.



THE KITCHEN



The Kitchen Cabinet

Edith M. Jones

(Copyright, 1916, by Edith M. Jones)

IF course the ideal kitchen is the one with the built-in cabinets, planned and installed along efficiency lines. But there are many instances when these ideal conditions are impossible and it is then the compact kitchen cabinets of one type or another fills the necessary and long felt want.

One hesitates to recommend any one make or style of cabinet, as there are several splendid kinds on the market today any one of which will save countless steps and much useless labor.

In choosing a cabinet one must decide whether it shall be metal or wood, large or small, and always one must

consider the important question, "Can it easily be kept clean?"

There are some decidedly good points in favor of the steel cabinets, especially if they are the kind that are welded together instead of joined with bolts, etc.—the welding seals the cracks and crevices and this is very important for

apartments where there is often trouble with mice and water bugs. Oftentimes steel cabinets are desirable to protect against moisture, as is often the case at the lake or seaside and too,—metal cabinets are very easily kept clean because the surfaces are smooth and need no scrubbing, which is a consideration in time and energy.

The steel, however, are not as large as



With a low flour bin and sliding curtain.

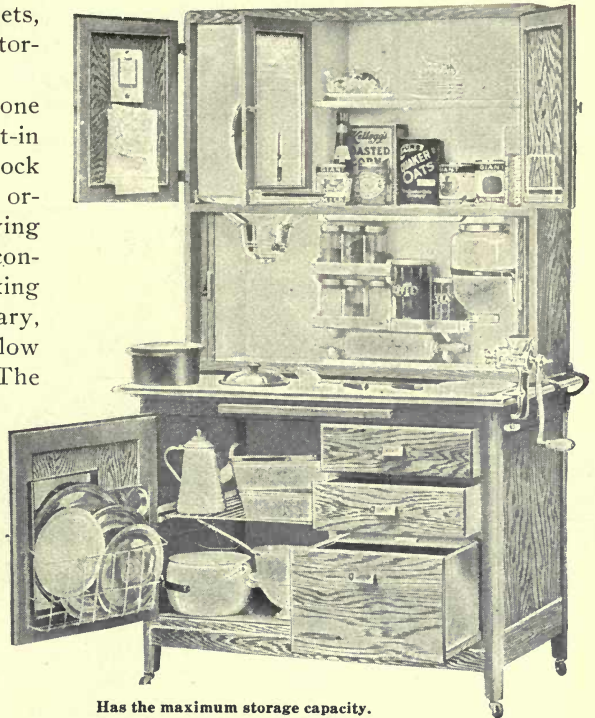
some of the other kinds of cabinets, and consequently the question of storage is not so well met.

This point of ample storage is one of the advantages of the ideal built-in cabinets. The receptacles in the stock cabinets are often too small for the ordinary sized family use and in buying this should be one of the serious considerations. If one does much baking the large flour bin is almost necessary, and with most housekeepers the low pull-out kind is much preferred. The cut shows the construction of this flour bin.

This cabinet is one of the latest types and has the easy running sliding curtains which are especially satisfactory as the working top can be used more freely.

The second type has many valuable points—it is very efficient, has the maximum storage capacity and can be very easily taken apart for cleaning. The extra heavy metal bread box has an easy running, sliding, ventilated metal cover which is vermin-proof. The metal shelving of the lower cupboard is sanitary as are also the metal pan cover racks. Little points like ball-bearing casters, rounded corners, the height of the working table top, the materials used, etc., etc. All are important when it comes to choosing the cabinet for the home.

When for one reason or another one does not care to buy the entire cabinet it is sometimes desirable to know



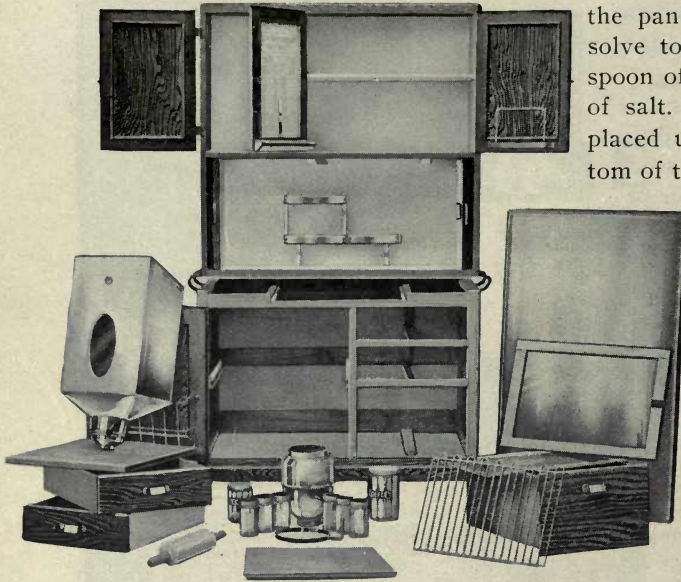
Has the maximum storage capacity.

that any of the parts can be supplied directly from the factory. For instance, the sugar bin can be hung over the working table near the stove and is really quite a convenience, or one of these receptacles can be hung near the range to hold a small quantity of flour.

This service table shown is very convenient and compact. It has the same metal bread box, drawer and cupboard that the larger cabinets have. It can be white enamel or oak and has a basswood, aluminum or porcelain top. It is on



White enameled, porcelain top, service table.



Ready for a "Fresh Air, Sunlight Bath."

casters and is convenient for either the kitchen or butler's pantry.

Of the same type are the white enameled porcelain topped kitchen tables which are the envy of housekeepers, because they are so easily kept clean and look so attractive. There are many other types of kitchen cabinets and tables all more or less desirable—but as I have said any one of them help to concentrate the activities of the kitchen and save endless, useless steps.

For something more than a year I have been using a simple device known as an electro silver-clean pan—I have

found it very satisfactory and it surely saves time and labor. The cleaning process is brought about by a galvanic action, consequent to the combination of metals used in the construction of the pan. In using

the pan fill it with hot water and dissolve to each quart of water one tablespoon of baking soda and one tablespoon of salt. The articles to be cleaned are placed upon the wire frame at the bottom of the pan and the slight electric current is communicated from one article to another. In 2 or 3 minutes the silver is taken out, rinsed and dried with a soft cloth. The process is simple, but the rapidity with which the work is done is a great improvement on the old-fashioned way.

I am frequently reminded by people whom I meet that "all these kitchen efficiency ideas are well enough on paper, but the old-fashioned methods and appliances have stood the test

of time and are good enough after all." Yes, they have stood the test of time, but the times have changed. Today the housewife has greater duties than ever before because she owes it to herself, her family and her community to attend to many questions outside her home.

The problems which the "Housewives' League" are solving,—problems of sanitary shop conditions, weights and measures, milk supply, adulteration of some food products and the sanitary preparation of others; all of these are vital to every housekeeper and need the co-operation and enthusiasm of all. The school and civic problems need the time and interest of all mothers and so on and on indefinitely. We see demands today, as never before are greater and constantly increasing. In order to do all the necessary things outside the home it does really seem as though every possible time and labor saving device is worth investigating and when proven worth while the added expense is as nothing when compared with the good accomplished in other ways.



Silver-clean pan.

Hanging the Hammock

Ruth Fargo

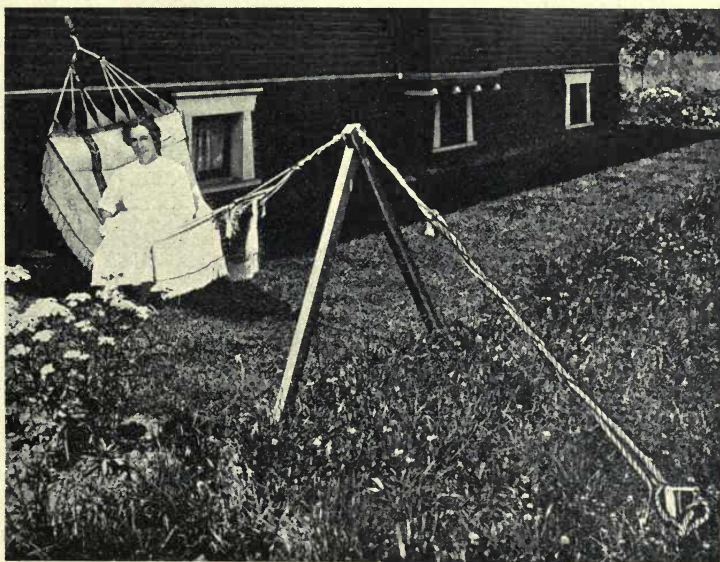
OUR new home in a new suburb was a delight. One thing only we lacked,—trees, trees big enough to invite the hanging of a hammock. True, trees had been planted, regular groves of trees; but—their years still numbered but three. And because of this, my wail went up before the Handy Man of the House. I had my hammock. I wanted it hung.

And the Handy Man listened. He said not a word, but he hied away to the lumber yard, where he invested in two $1\frac{3}{4}$ -inch square sticks of first quality lumber, each four feet long. Into each of these, beginning about three inches from one end, he sawed a slanting groove $\frac{3}{4}$ -inch deep and $1\frac{3}{4}$ -inch wide.

(Fig. 2 shows this cut notch at upper end of stick. Fig. 3 is the same stick, side view; that is, at a one-quarter turn to the right.) Both sticks are notched in the same manner, and are fitted together, as shown in Fig. 1, to form a simple, inexpensive hammock prop. To make the prop absolutely firm, four ($1\frac{1}{2}$ -inch No. 10) screws, two from either side, are put in where the sticks are fitted together marking the four points of a diamond. (See dots in Fig. 1.)

The hammock prop completed, and stained to match the color of our bun-

galow, my Handy Man next proceeded to place in the northeast corner of the house a heavy hook—northeast because this spot lures with its shade throughout the long sunny afternoon. Over this hook is thrown a loop of rope, which is attached to the ring in the head end of my hammock. A similar but longer rope fastens

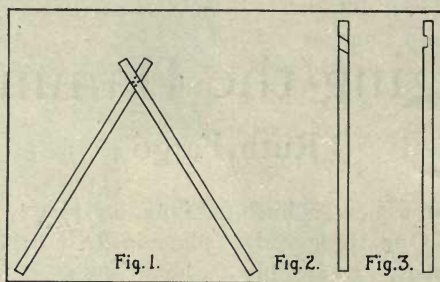


To swing the hammock.

at the other end of the hammock; and this rope passes over the three-inch notch in the top of the finished hammock prop, and on down to a heavy stake (a sharpened stick of stove wood) driven solidly into the ground. It, too, has been given a coat of stain; though it scarcely shows, tucked away as it is among the flowering foliage. The stake is driven in slanting, as shown in the photograph, and a wedge placed on the under side, under which the rope rests securely. It cannot slip. She who sways in the hammock is perfectly

safe. The hammock prop tilts in the way that will best hold the hammock secure, and at the desired distance from the ground.

All finished, the Handy Man invited my inspection. Needless to remark, my approval was hearty. More; my simple, inexpensive mode of hanging a hammock has appealed to all the neighborhood. It has been quite as contagious as measles or mumps. Similar exhibits are found on all sides. And this summer many of us will enjoy the comforts of a handy hammock for an afternoon hour of rest out of doors, at a cost of no more than 25 cents (lumber, screws, hook, rope).



The sticks are notched and fitted together.

The whole thing is exceedingly simple, yet I have never seen a hammock hung in this way until my Handy Man put mine up.

But since my hammock has been hung so easily, half the neighborhood,

it seems to me, have come to look at it, have sized up the idea, and have copied. As a result, all the housewives in a suburb where trees are yet small, have still the comfort of the outside hammock. Its popularity made me think that it might be worth while to pass the idea along to other neighbors in other new suburbs. The device is often convenient in putting up hammocks for a picnic party.

Utilizing the Waste

W. H. Holbrook



POPULAR poet, of a generation when poets were popular, once observed that nothing was lost and mentioned the dew drop, which changes its form but continues its usefulness.

In these days of endeavor to utilize waste of all kinds, he might have included in his list of transformations, the household discards that find their way too often to the rag bag for, to the person of resource and imagination, in these lie hidden infinite possibilities; draperies, pillow and couch covers, and floor coverings.

To the thrifty and energetic housewife who really is infected with the germ, rags to be woven become a mania, and nothing in the house is sacred, from Mary's last year's party gown to father's blue jeans or Tommy's outgrown underwear.

Faded gingham aprons and old sheets,

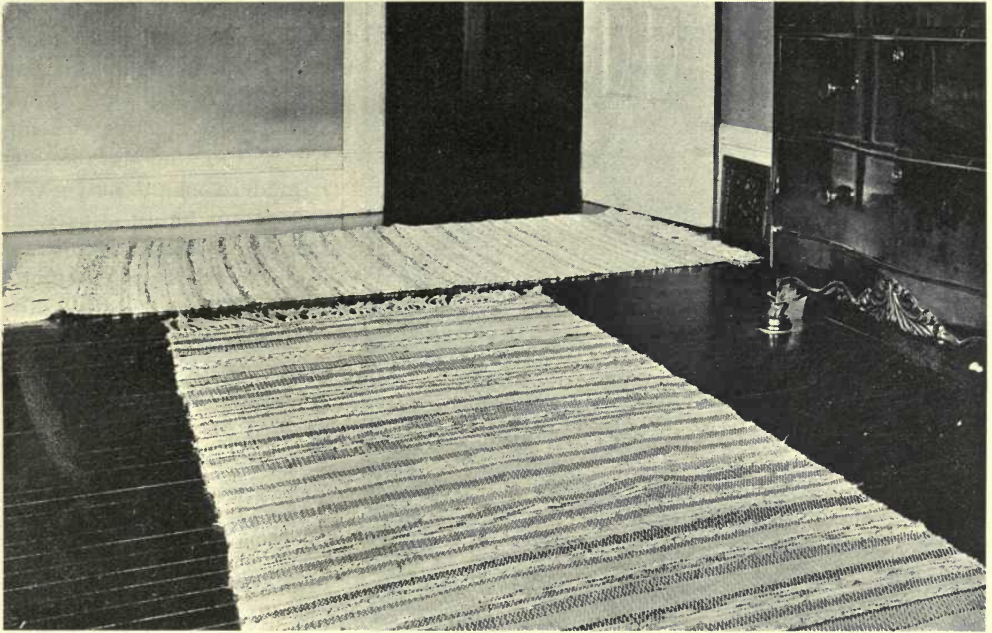
ancient portieres and bunting from the last presidential campaign, all bring visions of rugs. Rugs light and dainty, rugs dark and strong, rugs soft and fuzzy to comfort bare feet on cold nights; rugs to use, and to give away; rugs for the bedroom and the kitchen, for the back entry and the bathroom. Much foolish embroidery and more foolish card playing will be put aside, that rags may be cut and sewed and dyed, all for the working out of the idea.

Of course, the making of rag rugs was one of the standard occupations of our grandmothers, like the making of her husband's shirts. Both, later, became almost obsolete. The last few years has seen a decided revival of the rag carpet, but in the form of rugs, tastefully designed and carefully woven. These have taken the place once occupied by the nailed-down

carpet in homes where the expense of the Oriental was prohibitive and the machine-made, store-bought article was not satisfying.

In the preparation of the material for such rugs, care and thought must be exercised. The material should be uniform in weight and texture to insure good results. Light material, like old sheets,

fect. A white sheeting, for instance, may be run in with a strand of black stocking stuff, giving a body to the latter, which is very hard to weave alone, and producing a popular color combination. A dark blue, red or green woolen may be combined with the sheeting, brightening up the more somber color and making a more durable rug. If plain border strips are to



Utilizing the household discards.

should be cut at least an inch and a quarter wide; heavier stuff, like gingham or denim, may be cut three-quarters to an inch wide and heavy woollens may be a little narrower. So prepared, from one and a half to two pounds will be required to the square yard.

The double strand method really makes the best rugs, but it requires a little more work in preparation. The rags are cut about half the above widths and two strands are wound and later, woven, together. This gives a firmer, closer body and admits of an infinite variety of color combinations, to give a hit and miss ef-

fect. be used, the material for these should also be doubled, to keep the texture the same. It is well to twist the two strands together, as the weaver will take more kindly to it and produce a more uniform blending.

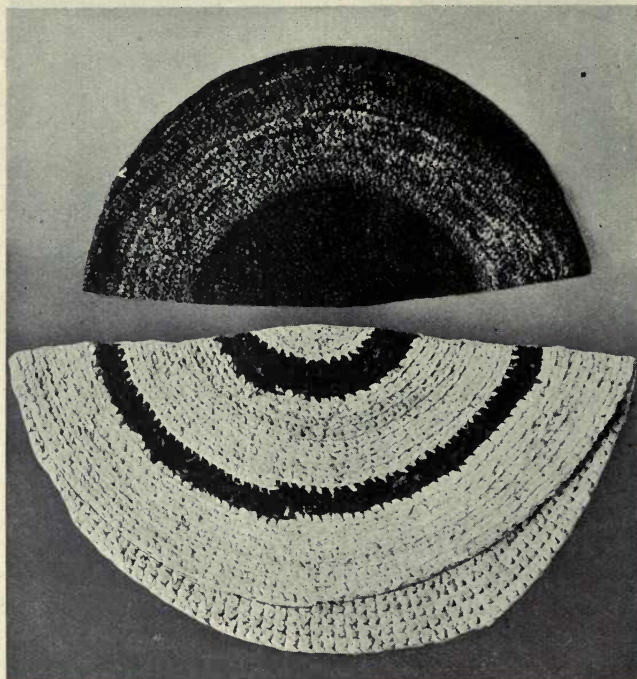
So important is the sewing of the rags that we repeat some of the instructions given in the last article. There are several ways to sew rags, and some of them are very bad, the measure of their badness being the size of the lump showing in the woven rug. This may be said to be due to too much care; too little is as bad, as the rags break apart and are unduly

lapped by the weaver and do not tend to improve the weaver's temper nor his artistic touch. Some lap the ends about an inch and sew them flat, tacking in all corners, others lap and then fold once lengthwise and still others lap and fold in, both top and bottom edges and sew on the machine. The really best way is the way each worker can do it best, avoiding loose corners and making the rags stay sewed.

Outing flannel makes a fine rug, durable and washable and soft. This can sometimes be bought at remnant sales in good colors. To one versed in such matters, these are veritable mines of interest, for the new material makes up more evenly and much labor of cutting and sewing is avoided. Almost any kind of cotton or woolen goods may be utilized and the cost may be kept down to not over 25 cents a pound for material.

Such stuff may be folded as it comes in the bolt and cut with a very sharp knife and a straight edge. A beautifully soft and durable rug is made from the knit goods turned out by an underwear factory, in natural color or in the browns and tans and blues, trimmed with white.

Our grandmothers made some beautiful rugs that were not woven at all, but braided or crocheted. For the braided rug, three or four strands were made into a flat braid, which was then sewed round and round, as in making a hat. The crocheted work, however, will appeal more to the modern woman, as prettier and less laborious. Rags for this work should be cut not over



Crocheted table covers, in silk and wool.

The ends of the rags should be cut square and the ravelings pulled off.

Dying of material to match color schemes is not at all a difficult or mysterious process with the modern drug store dyes.

The cut and sewed rags should be made into hanks of convenient size and tied loosely in, say, three places, so they will not tangle. If a mottled effect is desired, the hank may be wound tightly for two or three inches at the tying points, so the dye will not penetrate at these places.

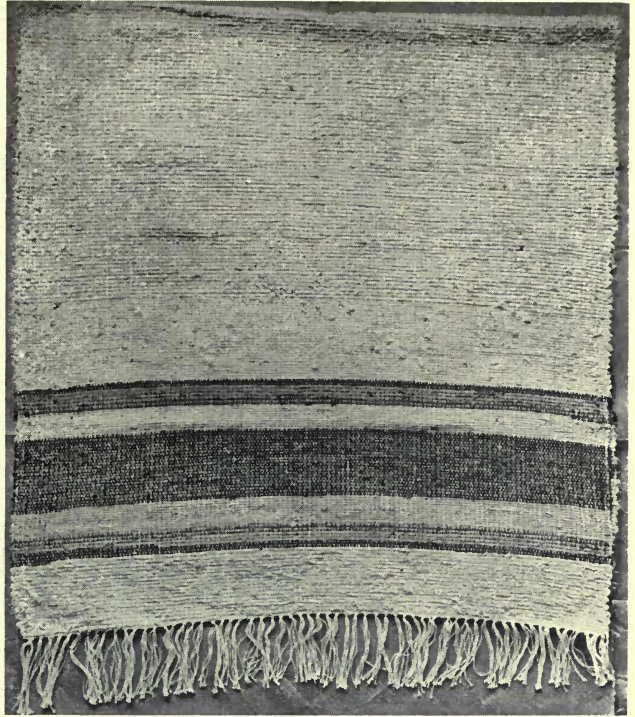
half an inch wide, and the material should be firm in texture. One lady of the writer's acquaintance has a round table cover of this work, made of woolen goods, in concentric circles about three inches wide, in harmonizing colors. She has also one done in silk. This has one of the circles ornamented with a leaf design, repeated at intervals, that is very interesting. The design is simply drawn in, round by round, as the work progressed. Another friend has made a bathroom rug from outing flannel, gray, pink and blue, in color

which is elliptical in shape.

The silk petticoat, by the way, is a resource for charming table covers, chair cushions and pillow covers. For portiers and couch covers it should be woven loosely.

The matter of warp requires a word. For most colors and materials, white is better than the colored warp and there should be not more than ten nor less than eight threads to the inch.

Just a word in closing about the weaver, and the way to secure his (or her) co-operation. As a rule the trade is not so remunerative as to attract the enterprising artist and it is best to make things very plain and be sure there is an understanding of the customer's ideas, to insure satisfaction. In arranging a certain border, for instance, in two colors, one wide stripe with a narrow one on each side of it, make four small balls of the narrow stripe color and two larger ones of the wider stripe. Then the weaver can arrange them in order and go ahead with no chance to go astray. If there are several rugs ordered at the same time, run a string through the group of balls for each rug and tie them together. If possible, go to his shop and get acquainted with the weaver and his problems and difficulties. In his own way he is often an artist and sometimes, like Kipling's artist, works for the joy of the working, and will put time and thought into beautiful work out of all proportion to the remuneration. If he has but one loom and you bring in an order for four



Make four small balls of the narrow stripe color.

rugs of different widths, don't be grieved if he asks the same price for each, for changing the warp for the narrow ones eats up more time than the weaving. Moreover, he can often give helpful suggestions as to designs and materials and often is an interesting old codger on the side, and will have theories on life and the world, for his art gives him much time to think and philosophize. He is an institution to be encouraged in every community, for he not only promotes thrift in others but must himself, of necessity, set an example of industry. The benefit, financial and educational, will be mutual as you work with him, in the carrying out your problems.

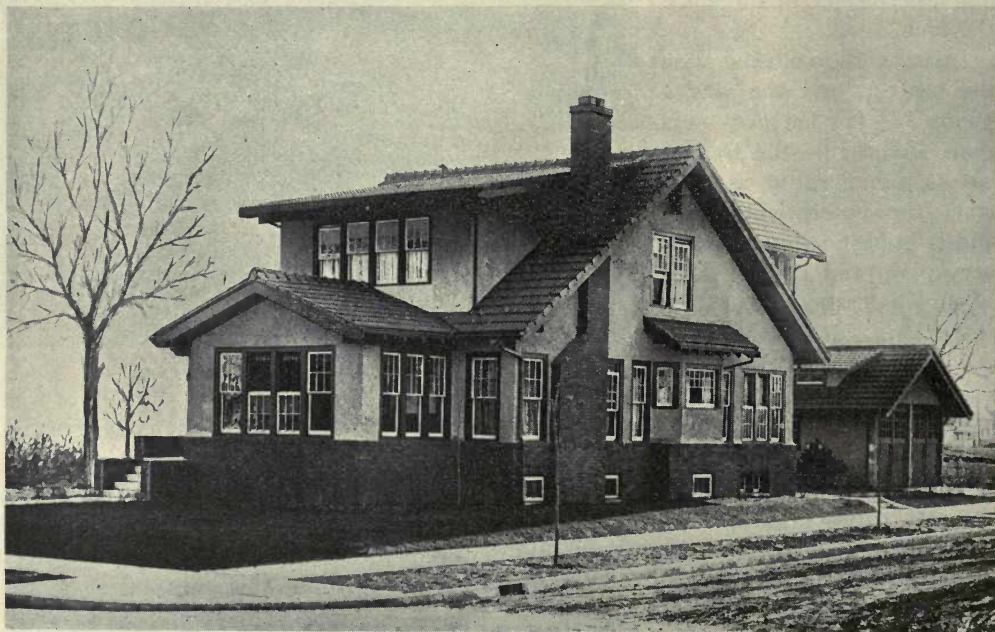
Under A Tile Roof

A TILE roof often changes the class in which a house is considered.

There is something in its color and its texture which pleases. Perhaps the fact that it is less usual and more costly may add, as well as its fire resisting quali-

The brick wall is carried up to the height of the first story window sills in this house, with cement stucco over metal lath on the main walls.

The rooms are well arranged. The vestibule is built beside the glazed porch and



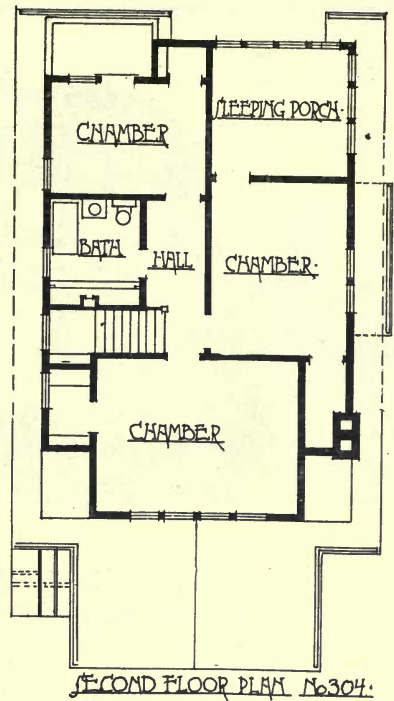
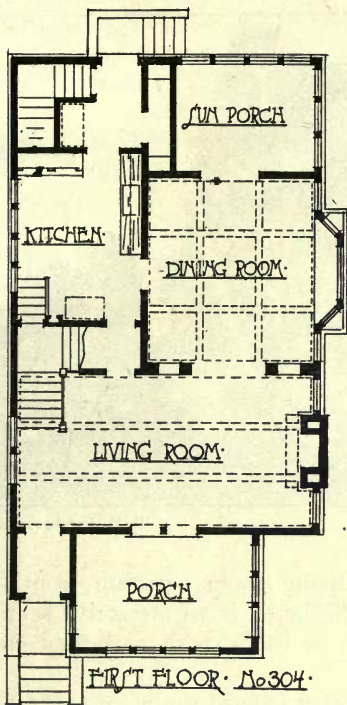
The tile roof gives a pleasing texture and color.

Linstrom & Almars, Archt.

ties, to the esteem in which it is held. Familiarity with fire loss and the seemingly ready panacea afforded by fire insurance has inured the American public to the vast fire waste, and an easy philosophy based on something like the old adage that "lightning never strikes twice in the same place"; either he has had a fire and need not fear it again,—or never knowing the terrors of its visitation he does not dread it, robs the individual of its fear, and flimsy buildings and fire hazards remain on every side.

gives an entrance into the living room, with the main stairs directly in front of the entrance, and a passage to the kitchen under the second run of the stairs. A fireplace and windows fill the opposite end of the living room, while French doors open to the glazed porch.

The main axis of the dining room is at right angles to that of the living room, giving a pleasing effect. Both rooms have beamed ceilings. A wide columned opening throws the living room and dining room together. The bay in the dining-



room has high windows so that the serving table or a seat can be built under them. Beyond the dining room is the sun porch.

The kitchen is well equipped with cupboards, the sink has double drain boards. The landing of the main stairs can be reached from the kitchen. The refrigerator has a place in the rear entry, and opposite is a large closet for storage and all of the manifold uses which the house-

wife finds so convenient. The rear stairs are from this entry, though a grade entrance may be arranged under the main stairs if desired.

On the second floor are three chambers and a sleeping porch, a bath with a large cupboard, and a balcony opening from the rear chamber.

The garage beyond, with room for two machines, is of the same type as the house, with a tile roof and dormer.

Dutch Colonial Home

THIS illustration shows an attractive home built along Colonial lines.

The floor plan does not conform to the historical type, and has many modern features which commend themselves.

The front entrance is simple yet pleasing with its gabled hood over a brick stoop, its simple door, and white painted

balustrade. The vestibule is roomy as is also the closet, which may be used for coats, at the rear of the hall under the return stairs. The convenience of the stairs to the kitchen eliminates the necessity for a rear stairs and is thus a saving in first cost, in space and in its perpetual care.

kitchen, which has a convenient built-in work table with cupboards at either side of the window. Under one of these cupboards is placed the refrigerator which may be iced from the rear stoop. The sink is well lighted and so placed that it comes directly under the bathroom, giving the most economical plumbing arrangement.

On the second floor are three chambers, bath and sewing room. One of the front chambers might be enlarged to include the sewing room space if desired. The closets are under the roof and are of good height.

The floors for both stories are of birch, with linoleum on the kitchen floor and tile floor and wainscot in the bath. The

finishing woodwork is of birch stained mahogany used in connection with pine which is enameled white as is customary in colonial work.

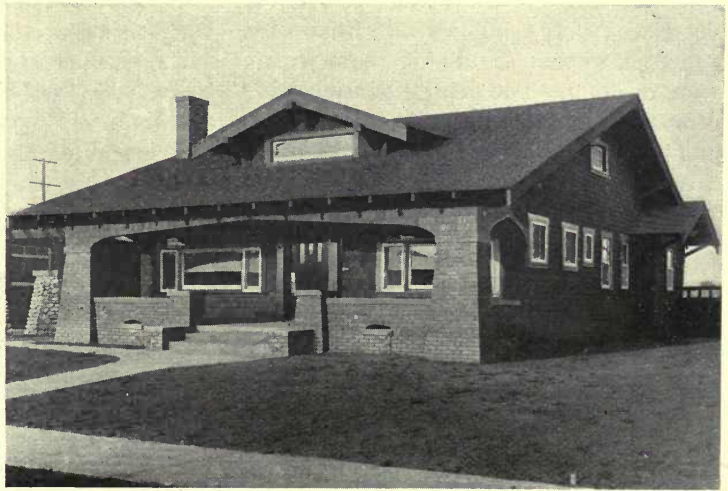
The basement has a laundry, fruit room, storage, and furnace room partitioned off. The floors have drains connecting with the sewer, and the entire ceiling is plastered.

The plans call for concrete foundation, with a course of brick set on end, soldier work, so-called, at grade. The first story is plastered with cement stucco over metal lath and has clapboards in the gables. With the red brickwork of the base, stoop painted white, shutters and roof shingles a green, the color effect is very pleasing.

A Popular Design

OUR photographer was unable, owing to local conditions, to show the most attractive side of this bungalow, but with the assistance of the floor plan, one can readily see the beauty of the design. The rather large expanse of plain roof is relieved by a gable dormer, which is large enough to look well and provide light in the attic space. The little touch of vertical boarding in the side gables sets off the simplicity of the shingled walls. The porch walls and piers are red paving brick laid up in colored mortar.

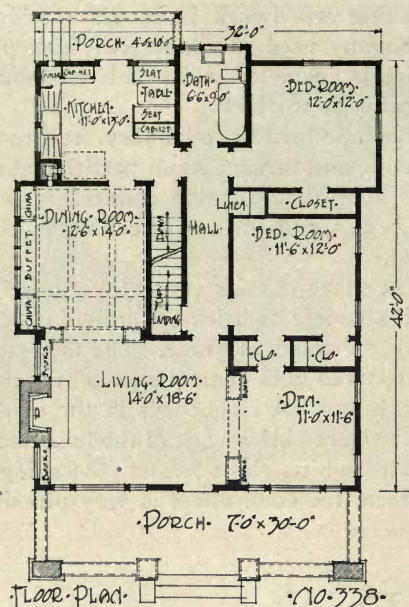
The porch extends the full width of the house with an unobstructed opening. The entrance is directly into the living



This porch has a wide unobstructed view.

Jud Yoho, Archt.

room, while beside it is a den 11 feet by 11 feet 6 inches; not large, but a comfortable room for business or leisure. The closet which adjoins the den also opens into the front bedroom, allowing one to go from the den to other parts of the house without going through the living room. This makes the den available for



various uses. Opposite to the opening from the den into the living room is the fire-place, with windows on either side, and back of that the dining room with a wide opening. The ceiling of the dining room is beamed and a built-in buffet fills one end of the room.

A passageway connects the living

room with the other parts of the house and also makes place for the stairs, both to the attic space and to the basement.

There are two bedrooms, each with a good closet, with a linen closet opening from the hall, and the bath room is well placed.

The kitchen has been worked out with particular care. The most notable feature is the "Pullman alcove" or breakfast nook, which is built in with one of the seats under a window and the other back of the cabinet, with the small table between. This makes a very convenient breakfast or lunch table for two people, with still room for the baby at the end. Housewives find such an alcove not only convenient for a simple meal, but invaluable in the preparation of the heavier meals of the day. Not only that but a tiny bookshelf and filing cabinet make it into a study and office as well. There is even room for Dr. Eliot's famous five-foot shelf of books.

As is so customary in California houses the "cool closet" is built in beside the sink, and a cabinet is beside it.

The rear porch gives a working space as well as the kitchen entrance.

A Half Timber and Cement House

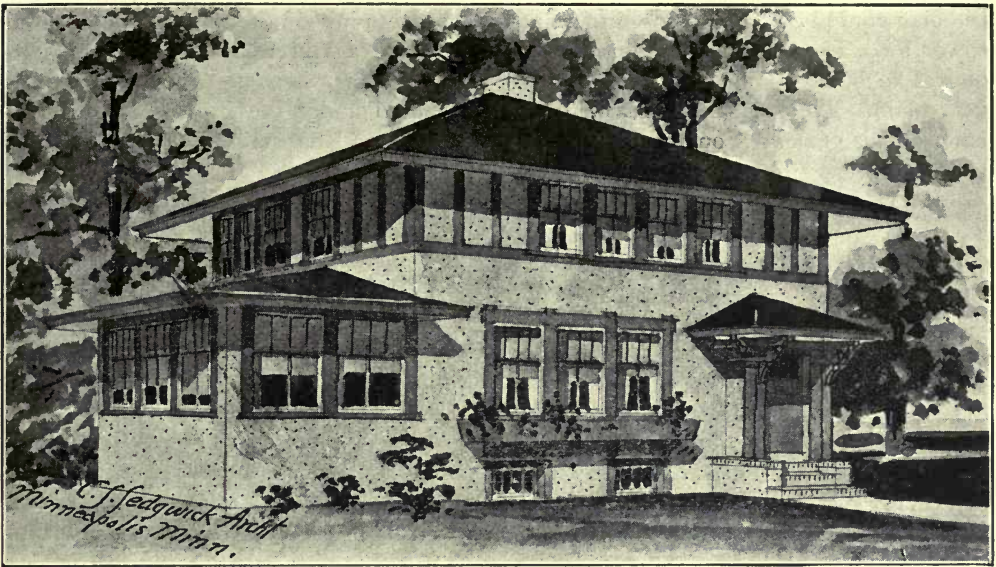
THIS design for a low roofed home has two full stories, the first 8 feet 6 inches, and the second 8 feet high. The frame is of timber construction, over which is applied cement stucco on metal lath, the upper story above the window sills being finished with half timber work. All of the exterior finish, cornices casing, timber work, etc., is stained brown, the roof shingles are stained red, while the stucco is a light cream color.

The house is small, the main part being 26 feet 6 inches, by 25 feet in depth. The glazed piazza is 9 feet in width, making a total frontage of 35 feet 6 inches.

There is a full basement under the house with the usual arrangements and with convenient coal bins under the piazza.

The main entrance is through a vestibule into the living room, 13 by 26 feet. Beside it is the stairway with a small coat closet from the first landing. The stairs are "combination" stairs, with a flight from the kitchen to the upper landing and the basement stairs under, with an entrance at the grade level.

In the living room the wide fireplace is on the long inside wall. The same chimney takes the flue for the heating plant in



A low roofed two story home.

C. S. Sedgwick, Archt.

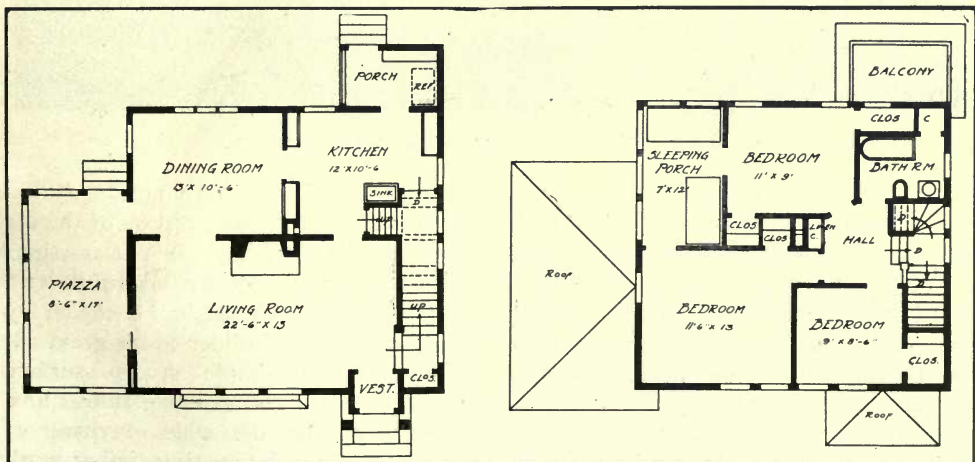
the basement, and if desired, the kitchen flue. A wide cased opening beside the fireplace gives access to the dining-room. Beyond and connecting with both living and dining-room is the glazed piazza. The door from the living room is a sliding French door.

On the second floor are three chambers each with a good clothes closet, and in addition a glazed sleeping porch which

can accommodate two single beds, and has the same birch finish as the rest of the second floor. The woodwork of the chambers and bath is enameled white, the floor is birch.

The first story is finished in oak with a "mission" stain, and the floors are of oak in the natural color.

The house was planned for an east or south frontage on a fifty-foot lot, though



the plan could be accommodated to a narrower lot. The plan is simple and economical to build, as all of the details are very plain. The cornice has a wide overhang and is cemented on the under side, making a very tight, warm construction.

The grouping of the windows makes an attractive feature both inside and outside of the house. The flower box cemented under the front window is attractive, and one might be added to the side of the piazza.

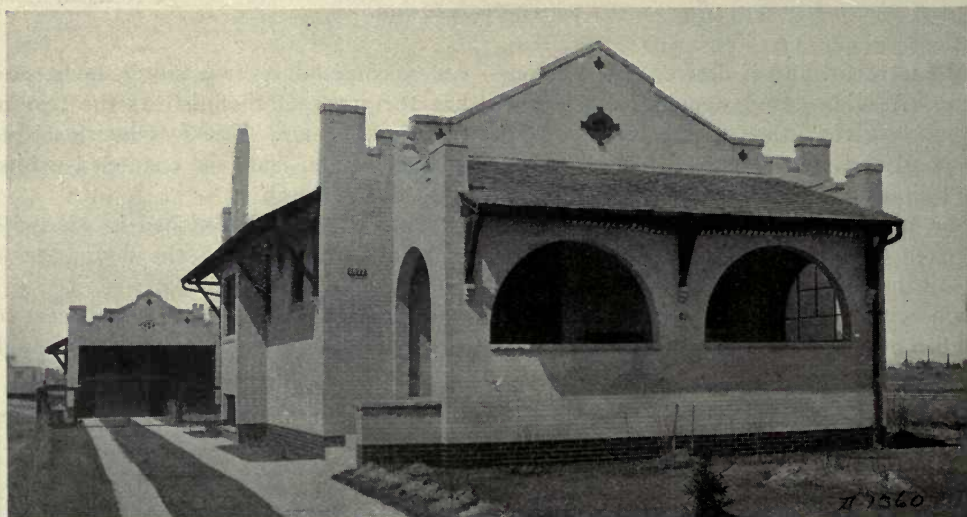
Homes That Satisfy

ALL floor plans can be resolved into one of a few general types as to arrangement of the elements of the plan. Some parts of the plan have been practically standardized by those who plan many homes where the general conditions do not vary widely. Where space

ing room either through or without a vestibule.

Mission Bungalow.

Many unfortunate things have been done in the name of the old California Missions. The crudities of the old In-



The wide over hang of the eaves cast interesting shadows on the walls.

will allow the bath room is placed between two bedrooms, the basement stairs under the main stairs, so arranged as to give a grade entrance, etcetera.

The group of plans here shown embody some of the more general types of what may be called bungalow plans, though in one instance at least there are four sleeping rooms under the roof. In all of these cases the entrance is directly into the liv-

dian workmen have been needlessly exaggerated and the quiet repose of the old buildings lost. Yet those old missions are picturesque and often beautiful, with many points which might be copied by the modern home builder to his great advantage. The simple stucco surface which the vines and growing things love to wander over, the wide overhang of the roof and the interesting timber work

are all good, and may be readily adopted by the home builder.

In the design of this Mission bungalow the wide, overhanging eaves pass interesting shadows upon the light brick of the wall.

The plan is unusual in the treatment of the ingle nook at the fireplace end of the living room, which is set apart by columns as a more intimate den.

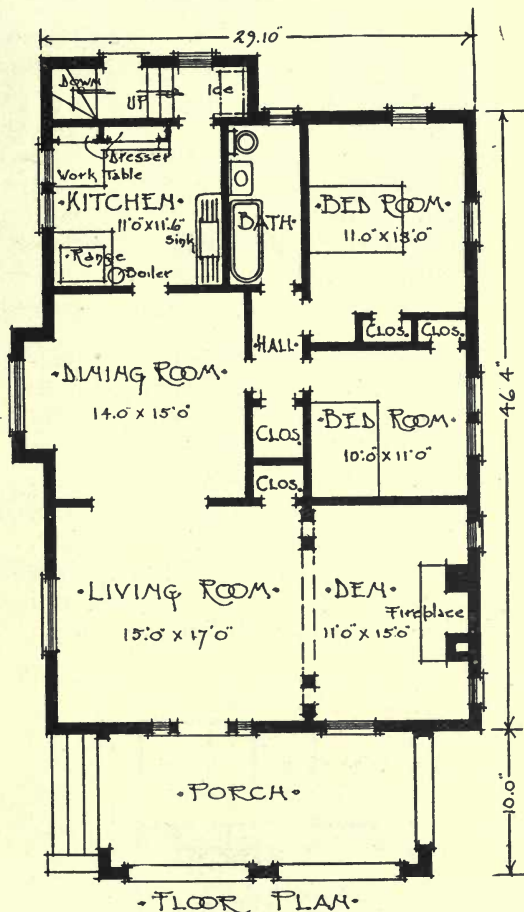
The front porch will make a pleasant outdoor living room. The regular arched openings allow it to be readily screened or glassed in, and the overhanging roof protects it from the direct rays of the sun. A glass door with side lights opens into the living room, which with a den, occupy the front of the house. A post and panel treatment partly separates the two. Adding considerable interest to these rooms an open fireplace has been planned against the side wall. High windows are placed on either side so that bookcases could be effectively placed underneath. A closet for coats and hats is in the living room opposite the entrance door, and a wide cascd opening connects with the dining room.

The kitchen gives direct service to the dining room and is conveniently equipped. Generous dresser accommodations are provided, and space for the refrigerator is arranged in the rear entry. An economical feature is the planning of the bath immediately adjoining, allowing sink and bath fixtures to use the same line of soil. Access to the basement is had by a flight of steps from the rear entry. To get full head room it was necessary to cut through the kitchen floor, over which has been ingeniously worked the kitchen table.

The basement extends under the entire house, has cement floor and rough plastered ceiling. A laundry is partitioned off under the corner of bedroom and bath. Provision is also made for the fuel bins and a cold storage closet.

An Eight-Room House.

The first floor plan of the second design is of the same type as the first plan, but while a little smaller in area, yet the steeper roof and dormer windows give bedrooms on the second floor. The living room extends the full width of the



house, covering almost the same space as living room and den in the first plan. The dining room has the same relative position. The bedrooms are made corner rooms, thus giving cross ventilation to each, while the kitchen is brought nearer to the living room, with the stairs between, accessible from either. This gives a side entrance from the kitchen, and requires a shorter service walk. Be-



With four additional rooms under the roof.

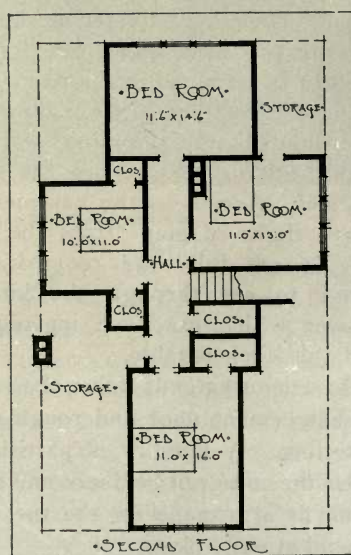
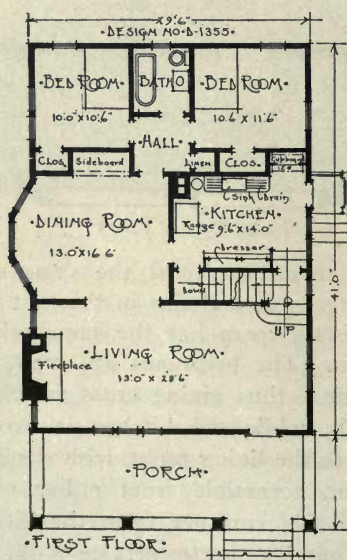
side the kitchen entrance is the refrigerator space, with a cupboard built over it.

The dining room has the advantage of space for a built-in buffet in addition to the bay. For a side room, more or less at the mercy of the neighboring house, which may shut off the direct sunlight, a bay with windows on the angle is a great advantage. These windows will often flood a room with light even when

the room beside which does not have the bay is always dull.

On the second floor are four additional bedrooms, making six in all. None of the bedrooms are large, though each accommodates the necessary furniture very nicely. The small single room is becoming generally preferred to the old-fashioned large double room.

The exterior of the house is of stucco



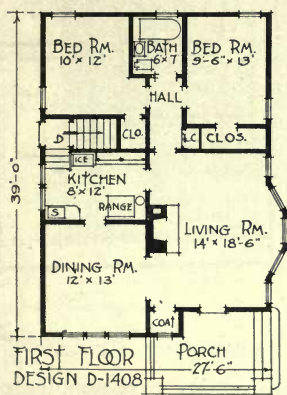
with white trim and white cornices. The chimney gives the contrast of brick and a touch of color.

A Low Bungalow.

The third plan is quite similar to the second though a little smaller both in length and in width. The arrangement of the rear part of the house being much the same, but reversed as to the placing of the bay, which in this place is in the living instead of the dining room. In this plan the living and dining room both have

the sunlight on the center of the room, and on the fireplace.

The kitchen has single doors connecting with the living rooms as is the present custom and it should be carefully vented in order that odors of the cooking shall not be communicated to these rooms. The range can be vented to the main chimney and when either furnace or fireplace are in use the natural circulation of air caused by the hot flue will undoubtedly carry off the steam and



The boulders and cement make an attractive approach.

a street exposure, the front windows are not monopolized by the living room.

The direction in which the house faces must be considered carefully before deciding the desirable positions for the various rooms, and this again is varied by the outlook from the front and the view which may be obtained from various points, as well as the prevailing summer breeze and the most storm-laden winter winds.

The recessed entrance as shown in this plan gives a storm protection from the north in case the house faces west, making the entrance convenient to both living and dining room, and to the coat closet beside the front door. The long exposed side of the living room extends the long way of the house, getting advantage of the windows of the bay which focuses

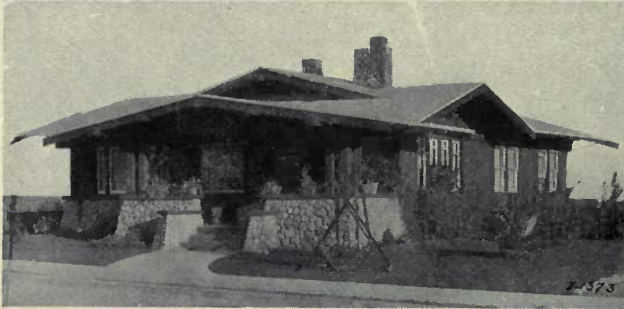
odors. During the summer, or if the vent does not work satisfactorily at any time, a small electric fan may be placed in the 5-inch vent, turned on with a push button by the range and operated just when required. This can be operated at very small expense and has been found very satisfactory.

The sink has a single drain board and is well lighted and cupboards are built in. This kitchen is very compact, yet well arranged. The refrigerator is beside the rear entry. A grade entrance makes easy communication with the basement from the outside.

In case more bedrooms are wanted they could be built in under a steeper roof, with windows in the gables or dormers.

The big boulders and cement of the

porch make an attractive approach. Their use together with the wide overhanging gables and timber work of the porch are the predominating features of this design, and the most largely responsible for its peculiar charm. The exterior is intended to be of shingles, stained brown, a soft woody walnut sort of brown, and the trim should be white, while green for the sash would be very effective.



The exterior is very attractive.

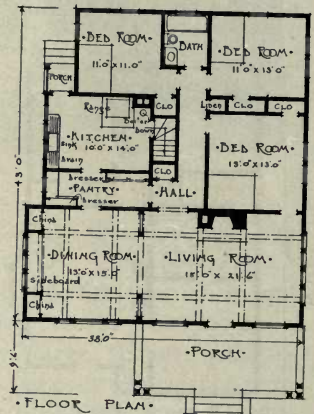
A Larger Bungalow Type.

The last plan of this group is not only somewhat larger in size but it belongs to a larger type of house. The living and dining rooms together occupy the whole front of the house, extending beyond the main lines of the house with what is really a bay filled with china cupboards and sideboard, extending the full width of the room. So slight is the division between the two rooms that the sweep of 37 feet meets the view on entering. The ceilings of the two rooms are beamed; the sideboard in one room and the fireplace in the other, together with the groups of windows in each make a very attractive view on all sides.

Beyond a cased opening is a central hall, from which, if the house were raised to give rooms under the roof, would be placed the stairs. In this bungalow the hall connects the rooms at the front of the house with the bedrooms and bath

and also through the butler's pantry with the kitchen.

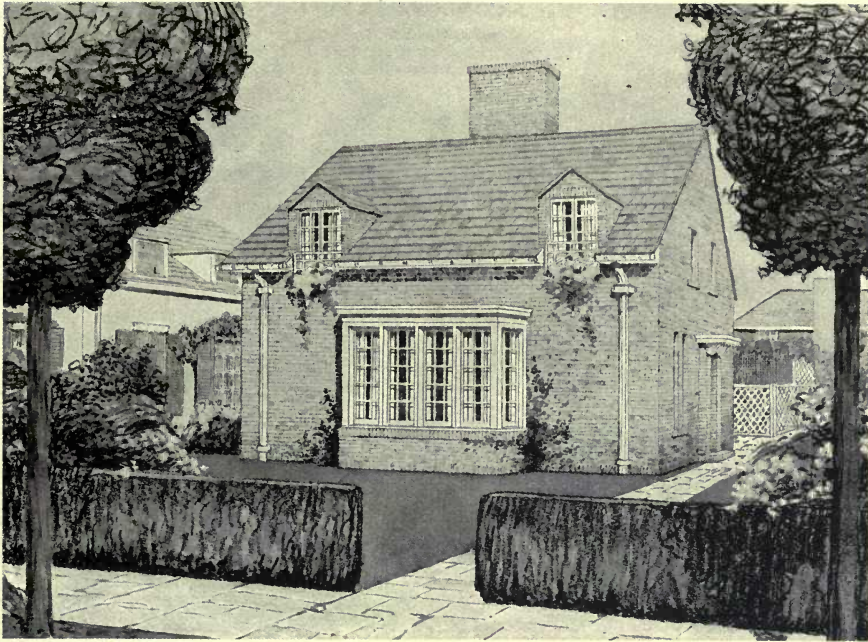
The butler's pantry gives additional cupboard and working space to the housewife. It is essentially a feature of the larger type of house, and is incorporated into the home where at least one servant is always kept. The small compact kitchen of the modern housewife who is her own maid servant does not give space for two people to work, as, at the same



time, it does not require two people to do the necessary work for a small family. Where plenty of service is available the additional space is very acceptable. The large size of the pantry allows the refrigerator to be placed there if desired, only a few steps from the dining room, where the salad and iced courses may be served right from the refrigerator, yet without the long trip across the kitchen for each dish or each course.

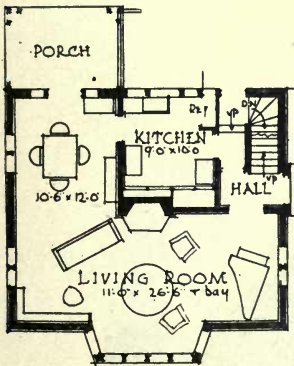
The bedroom arrangement in this plan is very good. One room opens directly from the living room and may be used in connection with it. The other bedrooms are corner rooms with cross ventilation. Each has good closets, with a linen closet opening from the hall, and the bath room is very convenient to all of them.

The exterior of the house is very attractive with the cobblestone work, and the wide over-hang of the eaves.



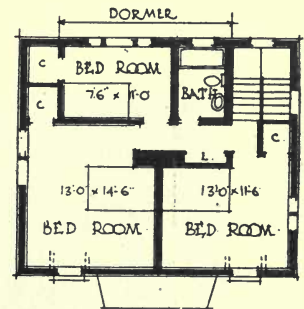
FIRST PRIZE

submitted by
WILLIAM OLAF SHELGREN
BUFFALO, N. Y.



First floor plan

A Group of Designs Awarded Prizes and Honorable Mention in a National Competition for the best \$3,000.00 dwelling figured at a cost of 17c per cubic foot of contents; selected from the 50 small house designs published as "The Average Man's Home."



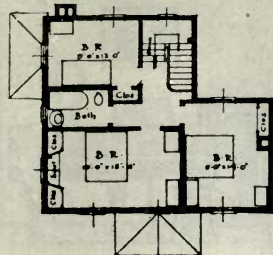
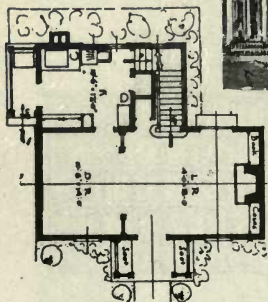
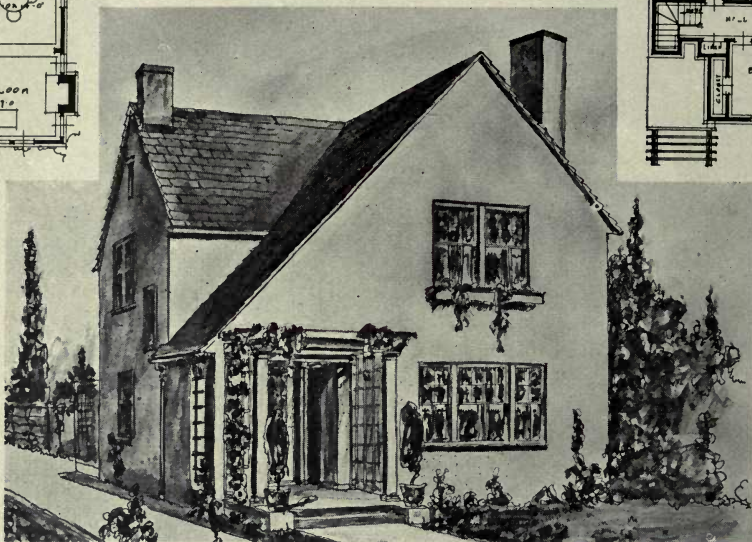
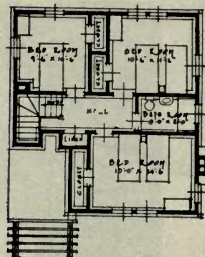
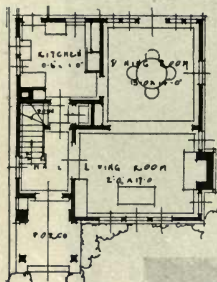
Second floor plan.



View of living room.

SECOND PRIZE

submitted by
C. S. MERREL & C. H. DITTMER
CLEVELAND, OHIO

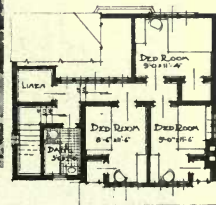
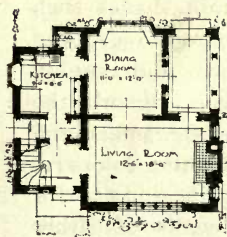
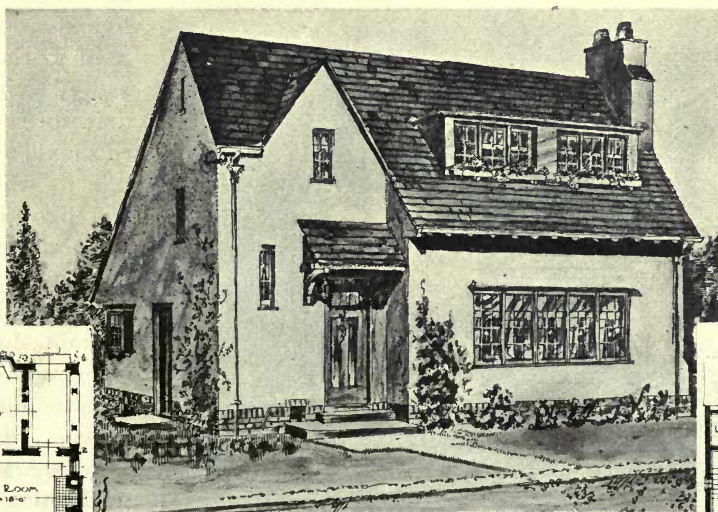
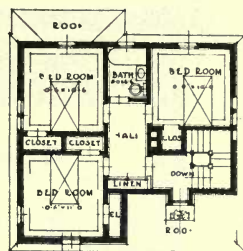
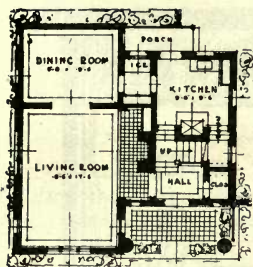


FOURTH PRIZE

submitted by
FREDERICK J. HARBURG
NEW YORK, N. Y.

HONORABLE MENTION

submitted by
H. ROY KELLEY
INDIANAPOLIS, IND.



HONORABLE MENTION

submitted by
F. C. PETTERSON
CLEVELAND, OHIO



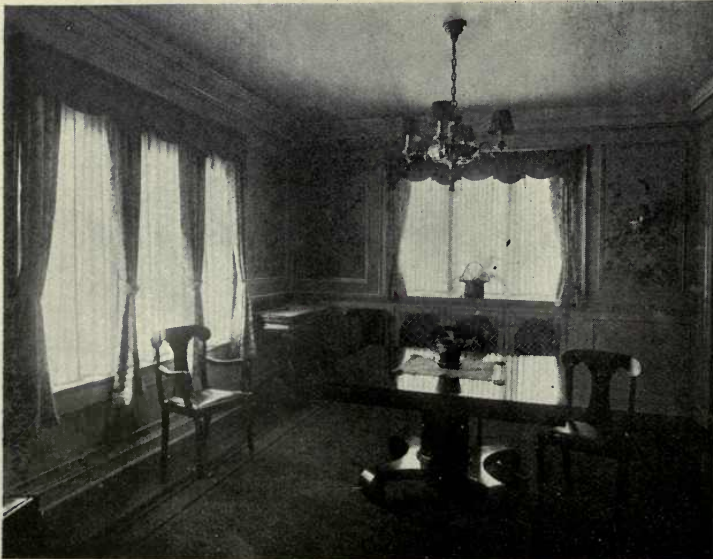
The Color Basis In Decoration

VERY few of us realize how much of our discontent with our surroundings arises from an unfortunate selection of colors. All interior color schemes must be built from the foundation and only a few general rules can be laid down as to the treatment of walls and ceilings. There is one gen-

eral rule that can and must be followed in the distribution of color and that is to have the rugs carry the deepest color note, with the walls next lighter in tone with the lightest color in the ceiling.

If a charming and restful living room is desired, with the walls acting simply as a background, a plain hanging should

be chosen. As the living room will be used in the evening as well as in the daytime, the color selected should be not only one to which artificial light is becoming, but one which does not absorb too much of that light. Certain shades such as maroon reds, deep greens and muddy browns, absorb the light amazingly, while other colors reflect it. A color for the walls of either living room, dining



With a low paneled wood wainscot. Decorated by Geo. W. Turner

INSIDE THE HOUSE

room, library or den, should never be definitely decided on until it has been experimented with under both natural and artificial light.

Another general rule which may be here set forth is the arrangement of colors in conjunction with the exposure of rooms and the facing of windows.

In rooms with a cold northern exposure warm colors should be used such as warm yellows, soft rose tones, warm tans and olive greens. For rooms with a south and west facing, gray greens, blues, and cool tans and grays are more practical.

If the treatment of the day rooms when done in a harmony of analogy—or more plainly speaking in different tones of one color—should appear a trifle monotonous, a touch of contrasting color in a cushion, or a beautiful vase, or the flash of a bit of old copper or brass carefully placed will give the accent needed. Pictures always appear to better advantage when hung on a plain background. Pictures are an important decorative feature and it has always been a puzzle to the decorator as to why the home builder persists in hanging uninteresting and cheaply colored pictures which should be consigned to the rubbish heap. It is surprising to see the many beautiful reproductions of famous paintings, also etchings and

prints, offered in the shops at such reasonable prices. No matter if it is a reproduction, as long as it is well executed and beautiful to look upon, that is all that is necessary.

To return to the treatment of the walls;—in the small home the selection of color is a more difficult matter than in the



Joyous with color and cheer.

Decorated by Geo. W. Turner

more pretentious house. Where the rooms open into one another with large openings as is generally the case in the small dwelling, offering vistas to the right and left from the front door, an improper handling of colors will ruin the effect. A group of rooms is most satisfactory when no one room stands out boldly to proclaim its color, but each blends one into the other, the walls, rugs, draperies and furniture making a charming ensemble with no one feature unduly prominent.

It is surprising but nevertheless true that color will apparently change the pro-

INSIDE THE HOUSE

portions of a room. Blues and yellows recede, make the room look larger than it really is, while red will advance and cause the room to appear smaller.

In color lies the great secret of unity. When the welcome guest steps through the hall door and is greeted with a vista of living room, dining room, library and

decoration of the wall panels. This most satisfactory room shows a low-paneled wood wainscot coated in dull rubbed enamel in a mellow tint of old ivory, with the walls paneled in plaster surmounted with a well proportioned plaster cornice.

The scheme of this room does not offer an excessive variety of color, the panels being treated in a delicate shade of gray with the draperies in luminous dull gold tapestry picked out in dull blue. A domestic rug after the Chinese Colonial style in dull gold and blue harmonizes delightfully with the antique mahogany furniture and gray walls and the note of harmony is further sustained by lighting fixtures of antique silver.



With separate sets of draw curtains.

Decorated by Geo. W. Turner

sun room it is unwise to have the rooms treated in distinctly different color schemes. The same color scheme worked out in all the rooms in a gradation of tones with a touch of contrasting color introduced here and there to avoid monotony will create a surprising illusion of space and give the home a most pervasive charm.

An interesting glimpse is afforded in the accompanying illustration of a dining room that is quaintly charming with its flavor of the early Colonial with a lingering reminiscence of the Chinese in the

of winter this charming sun room, with the sun shining through the glazed chintz window shades, should be joyous with color and cheer. This glazed chintz carries a wide stripe of black with an over-decoration of gorgeously colored roses tied together in clusters with a soft gray ribbon. The walls are hung with a cool gray grass cloth and the wood trim and wicker furniture are also done in a soft gray stain. The cushions are covered with an unglazed chintz to match the shades and the tops of the windows are finished with a flat lambrequin valance

INSIDE THE HOUSE

of rose colored silk rep. A clever conceit is the wicker lighting bowl, lined with the same chintz.

The chamber is particularly interesting because of the handling of the draperies which is somewhat unusual. This style originated in "Merrie England." It is composed of three parts;—two pairs of draw curtains and a narrow shirred valance, each on independent rods—the idea being to close the lower pair of curtains when privacy is desired,

the top pair remaining open to admit the light.

The window shades are of glazed chintz with a soft rose stripe on a cream ground. Back of the chintz shade is a dark opaque shade which may be drawn when desired.

The walls of this pretty chamber are covered with a satin striped paper in two shades of old ivory finished at the top with a dainty cut-out border of pink roses.



This Book on Home Beautifying Sent Free

Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

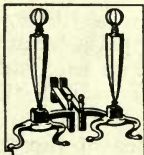
S. C. JOHNSON & SON, Dept. K. E. 9, RACINE, WISCONSIN

"The Wood Finishing Authorities"

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



SIGN THE COUPON

and we will send you, without obligation, our new catalog showing **OUR SELECT LINE OF AND IRONS**

Fire Baskets, Fire Sets, Fire Screens, Spark Guards, Dome Dampers, Ash Pit Doors, Gas Logs, etc. These will interest all who are building or improving their homes. **We Make Only High Grade Goods, But Our Prices Are Right!** We also make Hardware Specialties, Samson Wind Mills, Feed Mills, Alfalfa and Ensilage Cutters, Gasoline Engines.

STOVER MANUFACTURING CO.

704 East Street, Freeport, Ill.

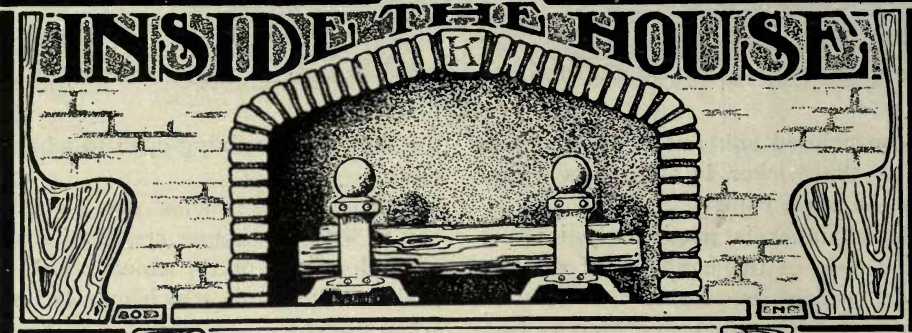
Send me your Catalog No. 1590 I am

especially interested in.....

Name

City.....

State.....



ANSWERS TO QUESTIONS ON INTERIOR DECORATION.

Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

"Repairs."

B. C.—Your magazine has been coming to me for several years and now I should like you to give me some advice.

We are about to repair a small house to live in for a few years as we expect later to build a home.

I would like a plain gray paper for all rooms and hall.

I send a plan of the house. It will save explanation. I thought of having inside woodwork painted a nut brown.

Please suggest color for walls, windows, hangings and wide door, also woodwork and rugs.

The most of my furniture is dark golden oak. Could it be painted a light Flemish oak? It is so ugly as it is.

We want it, the house, etc., to be restful and pretty, too, but just now we can't spend much money on it.

Ans.—We trust that the "repairs" you contemplate include taking out the partition between living room and hall and making one good-sized living hall of it. This in our judgment is imperative before any good interior effect can be obtained. The small square box of a front room cannot be made attractive by any painting or papering.

We should certainly not paint the woodwork brown, but make it sand or putty color. You can use a gray paper on the walls if it is a warm tan gray. There is a grayish crepe paper that looks like rough plaster and is the color of putty. This would be excellent for the enlarged living room and dining room,

but get something lighter and more cheerful for the bedrooms.

No, you cannot "paint" your golden oak furniture Flemish. You could have the varnish removed and a Flemish stain applied, then wax-rubbed. But this would be expensive. Better leave the living room furniture alone and refinish the dining table and chairs Flemish; then get a rug with a good deal of deep rose in it and have rose-colored sun-fast draperies at the windows and this north dining room will be very attractive.

In the living room we would use a mixture of green and browns and rose in the rugs and in tapestry covering for couch, Morris chair, etc., with curtains of a pretty figured lace net.

Walnut Woodwork.

M. M. L.—Enclosed is the first floor plan of our house, remodeled from a cottage to a house of Colonial type.

It has lap siding of walnut and woodwork of very plain walnut. The eaves have a two-foot projection. What colors would be pretty to use for painting the exterior?

The house faces east and has a large living room across the front with vestibule and stairway.

The fireplace, opposite the vestibule, is to have a broad, heavy, plain mantel shelf with panels of walnut on each side. What kind of tile should be used in this fireplace and hearth?

The windows on the sides of the living room are narrow. Is there any way

YOU CAN
AFFORD



for the doors,
trim and floors
of your new
home, although
it is very widely
used in such
large and cost-
ly buildings as
this one.

THE ILLUSTRATION SHOWS
THE HEARST BUILDING,
CHICAGO, FINISHED
THROUGHOUT IN "BEAUTI-
FUL **birch**." THE BUILD-
ING HAS MANY STRIKING
FEATURES, NOT THE LEAST
OF WHICH IS THE HAND-
SOME **birch** TRIM.
ARCHITECT: JAMES C.
GREEN, NEW YORK.



"Beautiful **birch**" for Beautiful Woodwork

"Beautiful **birch**" is frequently referred to as "The Adaptable Hardwood." It is very hard, takes a fine polish, and SHOWS ALL KINDS OF STAINED FINISHES, LIGHT OR DARK, SHINY OR DULL, WITH THE UTMOST PERFECTION. One of the latest and most popular finishes is the beautiful "Silver Gray." If you would like to see a sample piece of **birch** so finished, we will gladly send it.

**FREE: A SET OF FINISHED SAMPLE
PANELS** of "Beautiful **birch**" and
handsomely illustrated book. Ask for them.

Northern Hemlock & Hardwood Manu-
facturers' Association

203 F. R. A. Building

Oshkosh, Wisconsin

INSIDE THE HOUSE

of hanging draperies so as to increase their seeming width?

Should the woodwork have a bright or dull finish?

The kitchen and the second story are new and finished in fir. What would be the finish for the kitchen woodwork that would be easiest to keep clean and yet pleasing to the eye?

Ans.—Taking up first the question of the exterior, we would paint it white if a Colonial effect is desired, with green blinds. Of course such deep eaves are not very Colonial and it might be better to paint the siding a soft walnut brown with white trim.

For the interior woodwork we would retain the walnut doors and the mantel, staining the walnut brown and using the dull finish. Then paint the remaining woodwork deep ivory, except top molding of baseboard, etc., which can be in the brown stain. Such a treatment is extremely appropriate for your home and furnishing and will make a cheerful, attractive interior.

We would use gray walls and gray tile or brick for fireplace, dull surface. Use glass knobs on inside doors upstairs and paint woodwork white.

Of course nothing is so "pleasing to the eye" for kitchen woodwork as white paint, but you can give it a shellac and varnish finish, natural, and paint the walls deep cream. A soft old blue would be pleasing for dining room walls with the rich dark rug. Side draperies of velour or cretonne can be hung on the outer sides of the windows running past the frame so as to give an appearance of greater width.

Decorating Duplex Apartments.

W. E. J.—We have for some time read your interesting magazine and appreciate the many helpful suggestions it contains.

Upon the near completion of a duplex house arranged originally from a Keith's plan the interior decoration is now uppermost in our minds.

Enclosed is a floor plan of both apartments, upper is duplicate of lower with exception of alcove over front entrance.

For the sun room, in lower apartment, we have an oriental rug, with delf blue and orange predominating, living room 9x12 Wilton rug tan ground with mulberry in the design, dining room 8-3x10-6 delf blue rug.

Sun room furniture: green fiber rush; living and dining room, fumed oak and tapestry; interior trim, southern pine, finished like furniture.

Will you please suggest finish for walls and kind and color of curtains for windows?

Furniture for front chamber is circassian walnut.

Have considered yellow and harmonizing colors for draperies, rugs, etc.

Ans.—We should think soft tan walls would be the best choice for living and dining rooms with the furniture and rugs you described and the east outlook. We do not think an oriental rug suited for sun room uses. Why not use this in dining room where the orange would be better than in the south sun room? Do this latter room with dull greenish wall and blue and green cretonne in furnishing. No curtains at all.

In living room use some plain mulberry velvet upholstery. Some of the new ecru figured laces would be best for curtains without over-drapes. Portieres cannot be used in a columned opening. That is why it is a poor sort of connection between living and dining room. The best thing you can do is to have a large screen that you can stand in the opening when necessary.

We should not like yellow for the west bedroom. Rather a soft wood-gray for walls, old blue rug and old blue draperies. The other chamber is the place for yellow. Gray and yellow is a pretty combination with white woodwork and ceiling. Cream yellow would also be the best for the walls of long inside hall with white ceiling. The vestibule off living room should be the same as living room.

Connecting Rooms.

C. E. I.—I am planning a house, the parlor, living room, and dining room opening into each other, with folding



Satisfaction Is Assured
When You Use

Oak Flooring

BEAUTIFUL - SUBSTANTIAL

❑ Owners always emphasize OAK FLOORING in newspaper ads when they offer their homes for sale or for rent. They know OAK FLOORING increases the selling and renting values besides attracting a better class of buyers or renters.

❑ For bungalows and moderate cost houses 3-8 in. OAK FLOORING, Clear Plain or Select Plain, is the ideal flooring because it is very economical in cost and when laid, has all the appearance of 13-16 in. OAK FLOORING.

❑ There is a solid satisfaction and lasting pleasure in the substantial and dignified appearance of OAK FLOORING.

❑ 3-8 in. OAK FLOORING is very adaptable for covering old pine floors in old houses, as well as in new houses over cheap sub-floors.

❑ Nature has given OAK FLOORING that peculiar favor that appeals to the artistic as well as the demand for the distinctive and substantial.

❑ 3-8 in. OAK FLOORING will fill every requirement where economy is a factor. It comes in 1½ in. and 2 in. faces. It is tongue and grooved and end-matched in like manner so that the nailing is done through the tongue, or blind-nailing.

All reputable lumber dealers sell OAK FLOORING

Write for Booklet—

"America's Best Flooring"

The Oak Flooring Bureau

1348 Conway Bldg., Chicago



The French Doors shown above illustrate
Morgan design M-117

BETWEEN rooms where blight and airiness are desired—as doorways to porches, sun parlors and terraces—French doors are ideal. They have become the most popular doors in the history of building.



FRENCH DOORS

are made in an infinite variety of designs, sizes and woods. Every requirement and every taste can be perfectly satisfied.

Morgan Doors are standard quality whatever their price. Their value is guaranteed by the name "MORGAN" stamped on the top rail—worth looking for—worth insisting upon.

Suggestions for Beautifying the Home

We have just issued a new 32-page booklet, "Adding Distinction to the Home." It is copiously illustrated and shows what charming results can be attained at small expense by replacing ordinary doors with French, Mirror or Front Doors. A mine of suggestions for all who expect to build or improve their present homes. Sent free on request.

"The Door Beautiful" our 50-page illustrated booklet, is designed especially for the prospective home-builder. Every page is replete with suggestions on doors, interior trim, and interior decoration. If you are planning to build be sure to get this booklet. There is no charge to prospective builders.

Morgan Sash & Door Company

Dept. A 27 Chicago

Morgan Millwork Co., Baltimore
Morgan Company, Oshkosh, Wis.

If your dealer hasn't Morgan Doors, write us.

INSIDE THE HOUSE

doors, the reception hall being separated from the parlor by only two columns set on pedestals, which latter are paneled about four feet high from columns to walls.

The trim in all the above rooms will be painted white, with doors of mahogany. The furniture in these rooms will be mahogany; the furniture for one of the rooms has already been purchased, being in an old house.

For the dining room we already have Early English furniture, and would appreciate your advice in regard to the woodwork and trim for this room, whether all white would look well with this furniture, or if the room should be finished in Early English to match the furniture? If in the latter color, would it harmonize with the part of the house into which the dining room opens?

All the rooms are bright and sunny, being on a corner with southern exposure on the entire length of the house, and eastern exposure on entire front.

If you can suggest any better combination for trim and doors to harmonize with dining room furniture already bought, it will be appreciated.

Ans.—Replying to your inquiries, we infer that you are remodeling an old house. We do not think it necessary to use a different wood finish in the dining room provided that the mahogany doors to be used with the white trim have an antique stain, a dark brownish mahogany and not red. We would also suggest an old ivory wood finish in the dining room, rather than white. Your Early English will then accord very well.

In regard to wall papers, we think a scheme of gray tones running through the three rooms with their wide connecting openings, would be the best choice. A gray wall is exceedingly good with white and mahogany. The different rooms can have contrasting color introduced in rugs and hangings. We would suggest a landscape paper in warm grays with brownish shadows and hints of rose for the dining room, a gray grass cloth effect for the living room; were it our

house we should remove the partition between living room and parlor, making one fine room. If this is not done, then do the walls of parlor and reception hall in a gray tapestry, small design.

Placing the Davenport.

I. O. S.—I am enclosing plan of downstairs. The outside of house will be gray stucco with white trim and moss green roof.

What kind of curtains shall I use for the windows? I was thinking of having ecru marquissette with a crocheted edge. Also do you think the dining room windows should have the same kind of curtains as the living room as they both have windows facing the front? What kind of draperies shall I have for the windows and for portieres between dining and living room?

Our furniture for living room is mostly fumed oak. The piano is mahogany. Rug is French Wilton in a sort of mulberry with light green. Where shall I place the davenport? Where would be the best place for the piano? Also my desk? What kind of cushions shall I use on davenport and built-in seat?

Ans.—We are returning your little floor sketch and have marked on it in blue pencil our idea of where the main pieces of furniture should be placed. As you say, the north wall along stairway is not sufficient space for the davenport and would crowd access to the stairs and the kitchen. A favorite disposition of the davenport nowadays is to place it front of the fireplace with the library table backing up to it. Your room might be rather narrow to do this, except for the large bay extension opposite fireplace, which makes it all right. We should utilize this fine light for the writing desk which could stand either in the center or crossways. We also suggest using the mulberry and green rug in the dining room and tinting the walls of that room pale, dull green, with over-draperies of the green Sunfast. This would not be a good treatment for the living room, but it is excellent for the dining room. We should use a grass cloth or even paper imitation, in the wall pan-



Use That Space Beneath the Gables

Finish it neatly and dust-tight so that it will always be clean and light and available for extra sleeping rooms, play rooms or storage.

CAREY

Ceil-Board
SUPERSEDES PLASTER FOR WALLS AND CEILINGS

makes attractive, livable, usable house space beneath the gables at very slight additional cost. Hammer and nails are the only tools required to apply it. Clean and easy to handle.

Adds a complete story to the home. Write for booklet and free samples.

THE PHILIP CAREY CO

Gen'l Offices: 1024 Wayne Ave., Lockland, Cin., O.
Offices and Warehouses in Principal Cities.



Colonial Fireplaces ARE RIGHT

Made to Order from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO



MONEY-SAVING PLANS

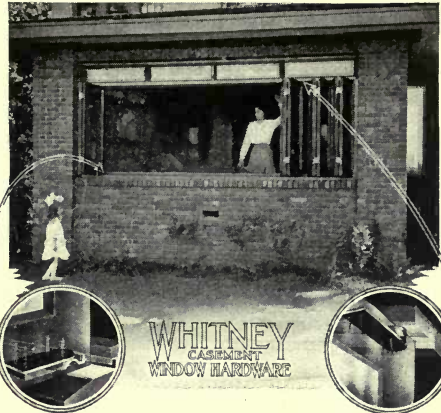
SAVE without skipping by building from our practical plans of up-to-date homes of distinction and charm. All waste eliminated by our experience as architects and builders of a great number of homes. Our plans have helped to beautify thousands of American cities. Send for our plan books: "Bungalows," 100 moderate priced bungalows; "Attractive Homes," 100 story-and-a-half and two-story houses.

Either Book postpaid, \$1; Both Books for \$1.50

LINDSTROM & ALMARS

290 Plymouth Building

Minneapolis, Minn.



Of course you want Casement Windows

in your new home. They lend such charming "hominess" to dwellings, besides giving more light and air when needed.

But, if you want to avoid all the troubles of ordinary hinged casements, make sure that *yours* are installed with our unique, patented

WHITNEY
CASEMENT
WINDOW HARDWARE

Then you'll have windows that:—

- always work easily and quietly;—
- open outward, out of the way,—don't interfere with screens;—
- are self-adjusting,—stay rigidly just where you open them,—can't rattle or be slammed shut by the wind,—enabling you to control ventilation;—
- can be easily moved to any point in the opening, permitting an unobstructed view;—
- are absolutely tight—storm-proof—when closed.

We sell only the patented hardware. Use any style sash you wish. Whitney Casement Window hardware is giving satisfaction in all types of buildings from coast to coast. Write for full information and interesting pictures of artistic window effects.

Whitney Window Corporation,

311 South Fifth Street,
MINNEAPOLIS, MINN.

H. E. Holbrook Company,

445 John Hancock Bldg.,
BOSTON, MASS.



"CREO-DIPT" 16" or 18" on roof dark brown
24" on side walls in lighter brown
Other conveniences as desired

True Building Economy

You can sacrifice most anything before you neglect exterior finish and architectural beauty.

You cannot afford to overlook the beauty and the saving of "CREO-DIPT" Stained Shingles on roofs and side walls.

They are creosoted and stained to last a lifetime. They save muss and expense and the substitution of poor materials if you stain on the job or paint after building.

"CREO-DIPT" STAINED SHINGLES

17 Grades

16, 18, 24-inch

30 Colors



Use This Coupon

Standard Stained Shingle Co.
1022 Oliver St., N. Tonawanda, N.Y.
(Factory in Chicago for West)

Please send Book of Homes
and Samples of Colors on
Wood, with special attention
to subject checked below:

- ☐ "CREO-DIPT" Shingles for Thatched effect.
- ☐ "CREO-DIPT" Shingles 24" long for side walls to get effect better than wide clapboards.
- ☐ DIXIE WHITE "CREO-DIPT" Stained Shingles for white-wash effect on Colonial house.

Name

Address

City

State

INSIDE THE HOUSE

els below the plate rail, for protection, as well as looks. Yes, we would curtain the windows the same as living room; the marquissette with crocheted edge will be all right but we think lace net like sample much prettier, as scrim and marquissette have been done to death.

The walls of living room we would tint putty gray, the color of paper sample, use the mulberry tan rug there and make the hangings, etc., mostly mulberry. The velvet should be used for the portieres, nothing else would give such dignity to the room. There is a rep goods but, of course, it doesn't compare. We should also use a couple of pillows covered with the velvet, on the tapestry davenport. The lighter shade of mulberry Sunfast is for over-draperies at windows and you only need these on the two outsides of the bay. Half the width is sufficient for each side of the south window; cushion the seat beneath with this gray and mulberry cretonne and use it to cushion chair.

The French doors must be veiled with the thin material used for window curtains in dining room. Wicker furniture should go in porch and woodwork be painted green.

Type of Opening.

M. W. C. Is it possible and in good taste to have a living room finished in natural wood, say brown or green, open into a dining room finished in white woodwork. There are exposed columns between two rooms built rather high—or should you advise double French doors? I had thought of French doors between dining room and breakfast room, also between dining room and pergola, and did not want too many.

Ans. It is entirely feasible to use ivory white woodwork in the dining room and hardwood in living room. Let the inside casings of the arch have the ivory finish. We should have a straight arched opening, either with sliding doors or portieres in this opening, but not columns. We agree with you that three sets of French doors opening from one room is too much.

RED GUM

"AMERICA'S FINEST CABINET WOOD"

RED GUM

AN ENDURING HARDWOOD, YET SOFT AS SATIN TO THE TOUCH.
ITS NATURAL TONE A RICH, WARM BROWN. "A JOY TO THE EYE."



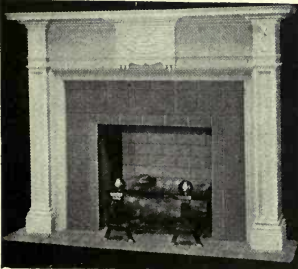
EUROPE HAS USING AMERICAN RED GUM FOR FINE CABINET
WORK YEARS BEFORE AMERICA'S PRIDE AWOKE TO ITS OWN.

Write for Samples

Gum Lumber Mfrs. Assn. 1316 Bank of Commerce Bldg. Memphis, Tenn.

Write for Booklet

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

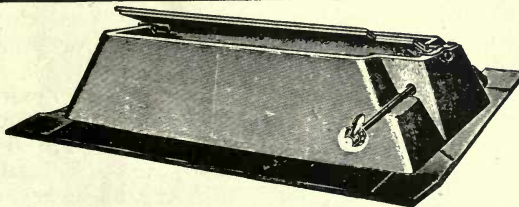
There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.



**The Peerless-Drake
Fireplace Damper**

Can { Blow Shut
Not { Get Out of Order

MR. HOME BUILDER: Insist on your mason using the PEERLESS-DRAKE DOME DAMPER in your fireplace.

Costs No More Than Others Although Worth It

Ask for Descriptive Booklet

DRAKE MARBLE & TILE CO., 605 Second Avenue South, Minneapolis, Minn.

COMPLETE FIREPLACE FURNISHINGS

INSIDE THE HOUSE

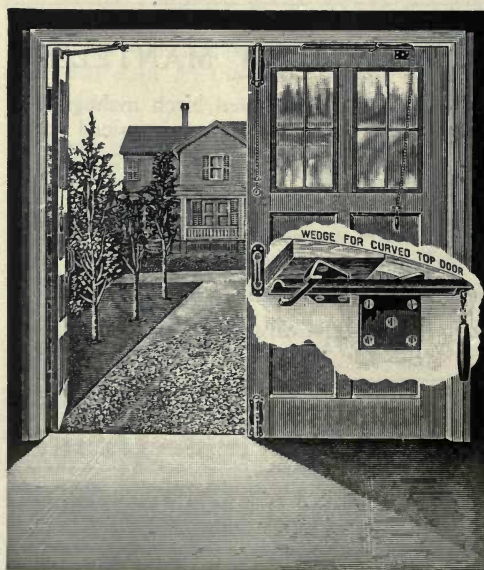
HOUSEHOLD ECONOMICS

The Garage Door

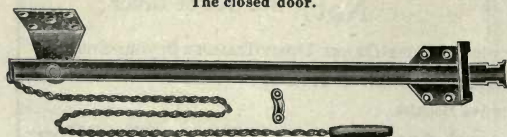
THE automobile has become so much a part of the household that devices for its convenience seem to come properly under Household Economics. The swinging garage door which will not stay either open or closed is one of the trials of the housewife. She keeps sending Johnny out to prop it open (she is thankful if she need not go



Inside view of doors when open.



The closed door.



The door holder.

herself) so that when "Father" comes he can get right in to the garage and not keep dinner waiting.

The advantages of a door holder are obvious both in the saving of time and as it avoids the danger of damage to the car or building due to unexpected closing of the doors by the wind or other causes.

Throwing the door open sets the device in action, and without going out of doors a slight pull on the chain releases the lock and draws the door shut. It is easily applied; no mortising being necessary.

This is a rigid arm of deeply corrugated form. Both attaching plates are heavy in gauge, large in size, and are applied at sufficient distance from hinge joint to develop a maximum holding power.



Paint This Fall

WOOD pores are open—paint sinks deep. Lurking dampness all dried out. No gnats and moths to stick in paint. Less danger of frequent showers. Painters less busy—jobs not rushed. Mild weather best for drying. Paint this fall.

Dutch Boy White Lead

mixed for these ideal conditions, will brace your house for winter weather.

*Write us for Paint Tips
No. K. E.*

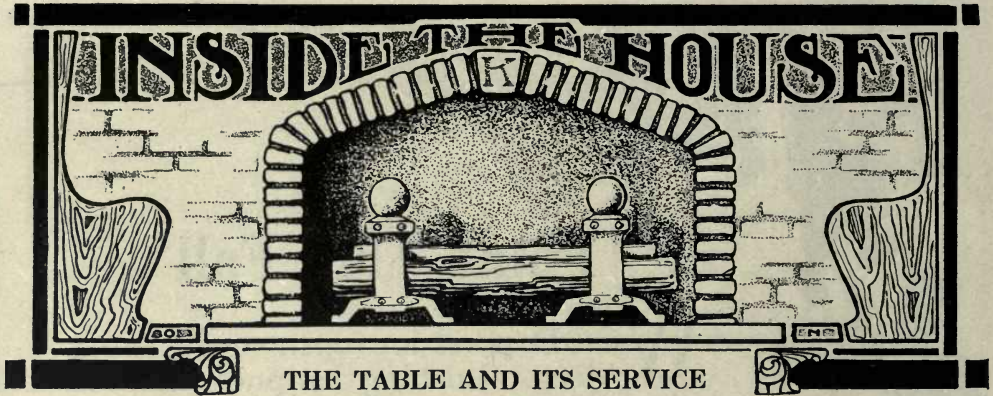
National Lead Company

New York	Boston
Buffalo	Chicago
Cincinnati	Cleveland
San Francisco	St. Louis

(John T. Lewis & Bros. Co.,
Philadelphia)

(National Lead & Oil Co.,
Pittsburgh)

**DUTCH BOY
WHITE LEAD**



Tea Adulterations

THE above title today is somewhat of a misnomer, as although formerly there was probably not an article of food or drink so badly adulterated as tea, at the present time there is comparatively no adulterated tea shipped into this country. This is due to a law, which was passed several years ago, forbidding the use of dyes in tea. The enforcement of this was made possible by a method of testing tea, which was worked out by Dr. Reid, a woman, who made it possible to detect dyes by the aid of her microscope.

Coloring materials which were put into green teas, chiefly by the Chinese, were used to disguise sweepings, cheap stuff, refuse, and often spent tea-leaves which the thrifty Chinamen were in the habit of mixing with the real leaves. For some unknown reason, the early purchasers of tea in this country had a fondness for bright green tea. Now properly made, green tea is about the color of new mown hay, so in order to please the American buyers, the Chinese put in Prussian blue, soapstone, gypsum, or indigo with the



Plucking Tea

tea-leaves, which were rolled, either by hand or by machinery until the tea had become well "faced" with the color. It is a world-wide fact that most of the inferior refuse teas, such as will sell nowhere else, have been dumped on the American market in the past, and sold to gullible women by the premiums attached, or to those to whom tea is tea and nothing more.

Unfortunately the doctoring of tea was not confined to the Chinese, but has been carried on extensively in this country. One man who died not many years ago, in New York City, left millions behind as a result of an industry, which consisted in buying refuse tea grounds from the large hotels, rolling, drying, and coloring it, and then mixing it with some fresh tea.

The housewife should not buy bright green tea, and fortunately, owing to the government test above mentioned, she very seldom has the opportunity to do so. The color of real green tea is that of fresh, dried grass, so everyone ought to be able to distinguish the genuine from the painted stuff.



Underground Garbage Receiver

The Sanitary Way to Keep Garbage

It is buried in the ground close to the kitchen. Only top and cover is exposed, is convenient but never unsightly. It is water tight—snow and frost proof—emits no foul odors and keeps away flies, mice, dogs and cats. Always closed, can easily lift out for emptying. Dumping door opens with foot lever, closes itself.

Coal Chute and Cellar Window

Protects the House and Grounds

It prevents your house, lawn, walk, flowers and shrubs from being littered up and ruined with coal dust and stray lumps. A glass door serves as a window, when coal is not being received. It locks from inside and is absolutely burglar proof. Can be put in already built home or built into a new one.

Write for Catalog of These Two Home Necessities

These two Majestic specialties meet the present day demand for sanitation and cleanliness in the home. Send for the catalog and get the whole Majestic story. Ask your dealer to show you Majestic Specialties.

The Majestic Company, 606 Erie St., Huntington, Ind.

Manufacturers of Coal Chutes, Garbage Receivers, Milk and Package Receivers, all-metal Basement Windows, Rubbish Burners, Street and Park Refuse Cans, Metal Plant Boxes, Pipe and Pipeless Warm Air Furnaces, Hose Reels, etc.



Many styles of grate and mantels to choose from.

This Grate Does Double Duty

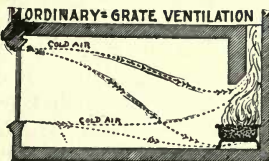
It Combines Perfect Ventilation with Economical Heating

and, with the same amount of fuel, burning any kind, will pay for itself in three years in increased heating efficiency. Heats the house in Fall or Spring better than a furnace and takes about half the fuel.

The Jackson Ventilating Grate

is as beautiful as the most artistic ordinary grate and affords the same sense of coziness and cheer; but it ventilates, not dangerously, with air drawn across the room from door and window cracks, cold, but healthfully with air drawn in from outside thru a fresh air duct, circulated around the fire and sent into the room thru the register over the arch, fresh but warmed. Gain comfort and save money by investigating. Any mason can set it up from our Complete Plans Furnished Free.

Send for Free Catalog of our wood mantels, andirons, and all kinds of fire-place fixtures, as well as ventilating grates, with explanations, full information and prices; also reference to users in your region.



SHUTS OUT COLD AIR CURRENTS

EDWIN A. JACKSON & BRO., Manufacturers
25 Beekman Street, New York



No More Plastering

That alone is argument enough for Beaver Board—no more plastering

The distressing muss and litter of plastering is done away with. More than that the additional litter and annoyance of paper-hanging is likewise unnecessary.

The Beaver Board way is so much easier—just nail the ready-made walls to the timbers, paint according to your taste, apply decorative strips over joints and the crack-proof wall is done.

Our Design and Decoration Department will gladly help you get exactly the effect you want—no charge.

Use Beaver Board for new work or remodeling, large jobs or small. It gives handsome, permanent, serviceable walls and ceilings. Write for free sample.

BEAVER BOARD

The BEAVER BOARD COMPANIES

655 Beaver Road, Buffalo, N. Y.

Branches in 16 Cities

Square dealing by our advertisers is guaranteed.

INSIDE THE HOUSE

A little knowledge about the tea-plant, and the methods of preparing the leaf, will help the housewife to select her teas wisely, and get the best value for her money. The black and the green tea can be made from the leaves of the same plant, although some varieties are more

this is not desired by connoisseurs, as it is nearly all flavor and not much body. By the best judges, the tea made from the pekoe, the three leaves next below the tips, is pronounced the best. The different grades of pekoe are "flowery pekoe, golden pekoe, orange pekoe," and just the plain "pekoe." The next leaf is oolong, then souchong, and the larger leaves at the bottom, the congou. But little tea is made from the tips alone, it is mixed with the "pekoe," which in turn is often mixed with the souchong and oolong. Most of the package teas on the market are blends of different varieties.

Green tea is made by quickly rolling and drying the leaves, and black tea by curling or oxidation of the leaves before drying. This causes the tannic acid to disappear to be replaced by sugar, and the tannin is changed into a brown product. In green tea there is about twenty per cent of tannin, and in the black tea there is about ten per cent.

The best way to learn about the quality of tea is to visit some large tea-firm and examine the bulk tea. You will find a great difference in its appearance. Tea made from tips and small leaves is finer in size, and you will discover that tea leaves can be rolled in many different shapes, as the tight little balls of the "gunpowder," the long spikey roll of the basket, fired Japan Basket, and the little rolls of "Young Hyson." The terms, basket fired, pan fired, and porcelain fired, all refer to the receptacles in which the tea is fired or dried. The rolling was formerly done by the palm of the hand of the native worker.

It is wise to buy a good grade of tea, as much less is needed, and a better beverage is the result. It is also best to buy tea in the package rather than in bulk, as one then insures uniformity and a more sanitary product. Some firms employ a vacuum process for removing the dirt from tea, and after a visit to a tea-



The younger leaves make the finer grades of tea.

easily converted into black than are others. The leaves are picked from different parts of the plant for different grades of tea. The younger and tenderer the leaves, the finer the tea, but the first crop, or first pickings, as they are sometimes advertised, are really the poorest of all, as the leaves are flavorless, and watery. The autumn teas are the best, for all the finer virtues of the shrub seem to be concentrated in the young unplucked leaves. The finest and most expensive tea is made from the tips, but

Have No Fear of Cold Or Sudden Outdoor Changes

THIS device meets every requirement in the regulating of home temperatures during the fall, winter, and spring months. It will maintain by accurate damper regulation just enough fire to take off the chill resulting from a cool night or it will hold in perfect control a rousing bed of coals during a day of extreme cold.

The "MINNEAPOLIS" HEAT REGULATOR

affords supreme comfort with the added results of safety and a saving of fuel.

It has proven its merit in thousands of homes for nearly a third of a century and is universally specified in all modern dwellings.

Easily installed even in a home already built and can be used with any heating plant—hot water, hot air, steam, vapor, or vacuum, burning either coal or gas.

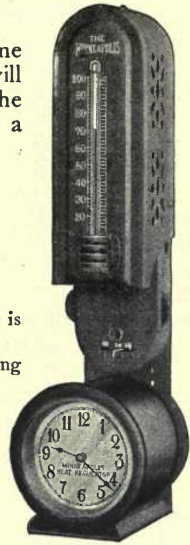
You ought to know more about this great convenience. Your hardware dealer or heating contractor handles the "Minneapolis." Our booklet gladly mailed on request describes our several models and quotes prices.

MINNEAPOLIS HEAT REGULATOR CO.

WM. R. SWEATT, President

2725 Fourth Avenue South

MINNEAPOLIS, MINN.



Why

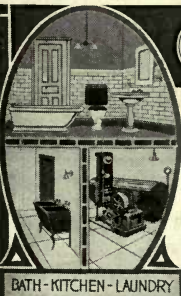
do you equip your home with gas, electricity, hot water heaters, vacuum cleaners and other modern improvements and leave your basement in the same dirty, neglected, unsanitary condition it has been ages? Why not install

a Sharp Rotary Ash Receiver

in connection with your heater and get away from the dirty, disagreeable bother of shoveling ashes, provide pure, dustless air for yourself and family, an odorless, sanitary receptacle for garbage and refuse, eliminate all danger of fire from hot ashes, protect the fine furnishings of your home from the ravages of ash dust and bring to your basement the cleanliness, neatness and efficiency required in the modern dwelling? There is no other one device which goes into the home that will give as much real service and genuine satisfaction as a Sharp Rotary Ash Receiver. Made in different sizes and can be installed under any type of heater at very little expense.

If you are building or have a furnace we will gladly send you complete information together with the endorsement of many enthusiastic users. Address

The Sharp Rotary Ash Receiver Co., Inc., Dept. 20, Binghamton, N.Y.



BATH - KITCHEN - LAUNDRY



KEWANEE PRIVATE UTILITIES

Give Water and Light Service Equal to the Best Public Utility Plants in Cities

The largest or smallest residence, no matter where located, can be equipped with all the comforts of the city home. The Kewanee is the original air pressure water system, supplying water under strong pressure for bathroom, kitchen, laundry, garden, garage, barns and stock. Excellent fire protection. No elevated tanks. Anybody can operate. The Kewanee is built as a complete and compact system in our factory and ready for a life-time of good service as soon as the shipping crate is taken off. Cost from \$45.00 up, according to capacity desired. Our dealers are high class mechanics and will install a Kewanee System, with our guarantee of success. KEWANEE PRIVATE UTILITIES give daily service and remove the last objections to comfortable country living.

Water Supply Systems—Sewage Disposal Plants—Electric Light Plants Gasoline Engines—Gasoline Storage Plants—Vacuum Cleaning Systems

Send for illustrated bulletins on any or all the above

KEWANEE PRIVATE UTILITIES COMPANY, 229 South Franklin Street, KEWANEE, ILLINOIS

(Formerly, Kewanee Water Supply Company) Branch Offices—50 Church Street, NEW YORK and 1212 Marquette Building, CHICAGO



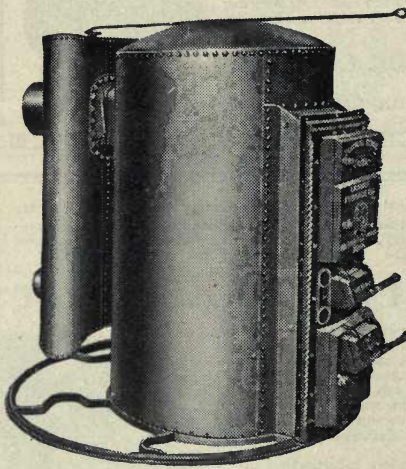
COMPLETE & COMPACT



factory where this method is used, and a view of the almost incredible amount of filth separated from the tea, one is firmly converted to the idea of buying package tea from a reliable firm. The hardness or softness of the water also makes a difference in the kind of tea one chooses. A tea dealer who came from Winnipeg to Minneapolis to live, informed me that he could not use this same tea in the latter city on account of the hardness of the water. A mild tea can be used with soft water, as it dissolves more readily the flavor-giving substance in the leaf, while hard water calls for stronger tea.

"What is the best kind of tea?" one is often asked, but so much depends upon individual tastes that no one tea would suit everybody. There are teas for one's every mood, in fact, some soothing, relieving fatigue, others exhilarating and stimulating.

Mankind all over the world craves stimulants and every effort should be made to provide those which are least hurtful and most beneficial. Many a home would be happier and the men folks sober if "Polly put the kettle on" oftener for a well made cup of tea.



Not a power boiler, tho built like one.
Riveted dust and gas tight.

Lennox Torrid Zone All Steel Furnace

Is the principal unit of a Perfect Heating Plant.

It is possible to have a home warmed and humidified properly and have a minimum of fuel cost for a trifle more than an inferior heating plant.

May we design such a plant for you?

Send your plans at once.

THE LENNOX FURNACE CO., Marshalltown, Iowa



SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Houses, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price..... 1.00
50 Design Book "Bungalows and Cottages," Price..... .50
One Large and One Small Book, Together \$1.25, Three Books..... 2.00

Many pretty one-story Bungalows and Cottages. Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA

Trade at home and prosperity takes no vacation.



—transformed by “High Standard” Paint

“High Standard” Paint will make the same improvement in the appearance of *your* home—give you renewed pride in its ownership—win the greater respect of your neighbors—increase the value of your property many dollars—

And, in addition, every gallon of the paint will pay for itself in protection and the saving of repairs.

Lowe Brothers
HIGH STANDARD
LIQUID PAINT

is scientifically made from quality-proved materials, which the test of service has demonstrated best. Experience shows it withstands sun, wind and wet for years—keeps its color—wears away gradually and evenly—and leaves a good surface for repainting.

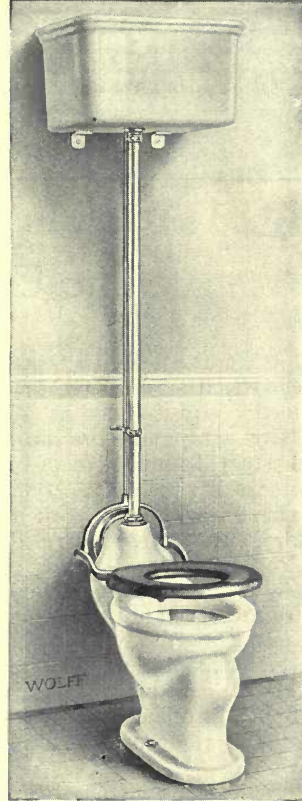
FREE Booklet and Color Plates of Attractive Homes

Write for “The House Inside and Outside,” with 18 color plates illustrating different uses of Lowe Brothers paints, varnishes, stains and enamels in the natural colors, with description of rugs, carpets, furniture, etc. An accompanying booklet gives valuable and interesting information about paint and painting. In writing, ask for the dealer's name, if you don't know him.

The Lowe Brothers Company

465 E. Third St., Dayton, Ohio
Boston New York Jersey City Chicago
Kansas City Minneapolis
Lowe Brothers, Ltd., Toronto, Canada

Contractors Win New Business by Installing WOLFF Plumbing



Any house owner appreciates the honesty and logic of a contractor who shows him that plumbing costs not by the piece, but by the year—and that Wolff Plumbing lasts as long as the house.

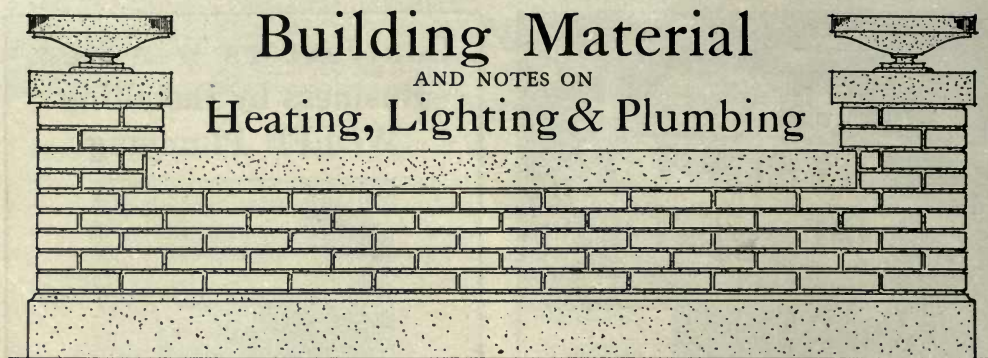
Economize on other materials, if you must, but don't take a chance on cheap plumbing fixtures. Nothing comes more quickly and more constantly to the unfavorable attention of owners and tenants than cheap plumbing.

Use high quality “Wolff” plumbing in your new house.


L. WOLFF MFG. CO.

601-627 W. Lake Street CHICAGO

Showrooms: 111 N. Dearborn Street



The Use of Hollow Tile

 O trace the origin of hollow tile construction it is necessary to go back only so far as the early "sky scrapers," the first of the iron and steel framed office buildings, and the necessity for a fireproofing shell around the metal framework of these early buildings. These were of themselves a revolutionary type of construction, conceived and developed within the memory of men now not past their prime. The hollow, clay tile was developed as a light-weight insulation and fire protection for the iron frame of these pioneers among the tall office buildings,—a by-product of the modern office building, so to speak.

The completely constructive building materials may be counted on the fingers of a hand;—wood, stone, brick, concrete, hollow tile. The evolution of a new building material is an epoch-making thing. The use of wood, stone and brick go back through all the annals of civilization, past its earliest records. The ancient civilization which did not have stone available for building purposes, made brick and built with it. Brick was the building material of the ancient Assyrians. While we have seen a wonderful development in the use of concrete, it is really a very ancient material, known and used in very early times. Terra cotta is generally used as a facing material and does not properly come in this list.

Hollow tile, alone, of these materials, has been developed during the last few

decades, and several reasons account for its popularity. The obvious economy of using a hollow tile a foot square, or thereabout, in place of perhaps fifteen or more smaller units, lies not only in the shorter time in which it may be laid in the wall, but also the saving in handling the larger unit. Any saving in the actual amount of clay used is important only as it results in an accompanying,—and equally desirable—lack of weight. Moreover, from this economy of material and lack of weight has developed the basic principle and greatest positive advantage of hollow tile as a building material,—the dead air spaces which make an insulation in the wall against both heat and cold, fire, or storm.

A seeming coincidence lies in the fact that just as hollow tile was being applied to building purposes in this way, the building public began to realize the essential importance and desirability of a comparatively inexpensive and at the same time commercially practicable type of fire resisting construction.

In its early manufacture hollow tile was made in very simple designs and with few patterns. But as the tile has come to be more and more used in dwelling construction there has been a growing tendency to improve its design by details giving a more thorough insulation and better bond in the wall; to provide designs for special places such as door and window openings,—jamb and sill, floor joists, corners, etcetera, to lessen the

**\$40
Heats
12 Rooms**



Coal Bills Cut $\frac{1}{3}$ to $\frac{2}{3}$ —Guaranteed with the Underfeed

With one of the severest winters experienced in this section, I kept our house 72 to 75 degrees throughout the season commencing October 10, and my coal bill will not exceed \$40 heating twelve rooms—house exposed on all sides. This being the fourth season what better recommendation would one want? Yours for the UNDERFEED. (Signed)

HENRY BEURET,
446 E. Dewold St., Ft. Wayne, Ind.

**WILLIAMSON CUT
NEW-FEED
UNDERFEED
Furnaces and Boilers $\frac{1}{2}$ to $\frac{3}{4}$**



Interesting Book FREE!

Explains the scientific UNDERFEED principle. Pictures and fully describes it all. Send the coupon for it now whether you heat with warm air, hot water, steam or vapor. It will save you many a coal dollar—GUARANTEED with the UNDERFEED.

The Williamson Heater Co.
76 Fifth Ave., CINCINNATI, O.

IF you are going to burn coal this winter, by all means read carefully the letter shown to the left. Then get this great fact; you can have *your* coal bills cut $\frac{1}{2}$ to $\frac{3}{4}$ —Guaranteed with the Underfeed.

On top of that great saving, we further guarantee that your house will be kept warm and cozy all winter long—that you will have an easier time tending furnace—and that you will have more *healthful* heat.

The UNDERFEED saves you money by keeping it in your pocket. Burns the cheaper grades of coal as effectively as others burn the costlier grades.

Every atom of heat is utilized. Coal is fed from below. The hot clean fire on top is always against the effective radiating surfaces. Fire is never smothered by having new coal dumped on—never chilled by the opening of top-fed doors.

And a boy can run it. No stooping. Ashes fine, clean and white, and need emptying at the most but twice a week.

THE WILLIAMSON HEATER CO.
76 Fifth Ave., Cincinnati, O.

Tell me how to cut my coal bills from $\frac{1}{2}$ to $\frac{3}{4}$ with a Williamson Underfeed.

Warm Air.....Steam or Hot Water.....
(Mark X after System interested in)

Name.....

Address.....

My Heating Contractor's Name is.....

Heating Contractors: Let us tell you about the Williamson UNDERFEED and our new proposition. Both are winners.

Beautiful tiled bathroom and kitchens are no longer a luxury. Even the most unpretentious homes can afford



**UPSON
FIBRE-TILE**



Looks like expensive tile. Lasts longer. Costs far less. Really artificial lumber with deeply indented tile pattern. Nail it over old plaster or to studding, and enamel. Send 2c stamp for sample and interesting booklet.

THE UPSON COMPANY 159 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.

Stillwell Bungalows



**SUIT EVERY CLIMATE
3 BIG For \$1.
PLAN Books Postpaid**

—containing photos, plans, descriptions, costs. Stillwell Homes are reproduced from original California designs—combining beauty, individuality, comfort and economy—and can be built substantially and economically in any climate.

"REPRESENTATIVE CALIFORNIA HOMES"
50 ideal homes, \$2,000 to \$6,000—Price 50c
"WEST COAST BUNGALOWS"
51 inexpensive homes, \$1,000 to \$2,000—Price 50c
"LITTLE BUNGALOWS"
31 perfect little homes \$300 to \$1,700—Price 25c (Postpaid)

**ALL 3
BOOKS
FOR \$1**

WE SELL BOOKS & BLUE PRINTS ON A MONEY-BACK GUARANTEE
E. W. STILLWELL & CO., ARCHITECTS
156 HENNE BLDG., LOS ANGELES

labor and trouble on the work, to improve the technical means of its employment and to reduce the cost to the owner.

The several standard makes of hollow tile have been accepted by building departments as desirable building materials, and many local factories manufacture a good product. Each type has its own peculiar advantages in design and manner of laying, and each has its own special forms designed for special positions. It is extremely interesting to follow the peculiar adaptations which have been worked out to fill special conditions, as for instance for the jamb and sill for window openings; methods of reinforcement for lintels and wide openings; to give a good bearing for floor beams; to form corners; to set partitions; to break a continuous joint through the wall; methods of breaking joints and bonding the tile in the wall.

Of especial interest may be mentioned the very practical types of fire resisting floor construction. The time will come, —and it is not far distant,—when it will be considered necessary to put an effective fire stop between the basement, with its possibilities of over-heated furnace, badly constructed hearth or flue, and the living quarters of the family, though there is no indication that the time will ever come when we shall consider anything else so satisfactory and beautiful to live with as a well-finished hardwood floor and woodwork. When a house is built of fire resisting material people will feel justified in putting more beautiful wood into its finishing.

The possibility of applying stucco and plaster directly to both the exterior and the interior face of the wall simplifies construction and reduces expense, though in many cases furring is applied to the inner surface.

Hollow tile requires essentially a ten- or a twelve-inch wall as a minimum for residence work, as compared with the six-inch wall of timber construction. With modern compact building every inch of space is expected to bring its return in value, and hollow tile is designed to give not only bearing strength and the protection expected from a wall but in addition the fire resistance and the insulating qualities of greater value than the space occupied. Estimates vary as to the rela-

tive cost of tile and timber construction. Ten per cent additional cost for a fireproof construction is an estimate often given. In special cases and conditions it may run considerably less and in others it may exceed ten per cent, depending on the construction, labor and transportation conditions. We are told the contractor's uncertainty as to the use of tile and its results sometimes accounts for his high estimate. He prefers to build in the more usual way, and figures accordingly, with an allowance to cover suspected trouble.

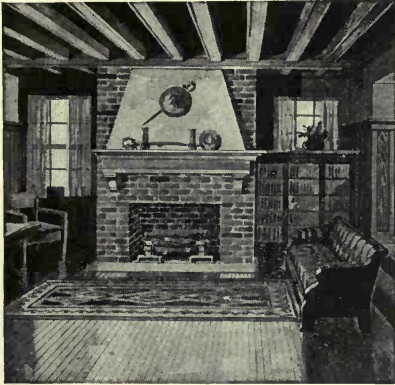
Among the later developments is a tile with a "tapestry" or finished surface, which does away with the necessity for a brick veneer or coat of stucco. This, if generally adopted, would again have a revolutionary tendency on architectural effects. Scale is one of the most important elements with which the successful architect works his 'spell. The eye accepts the small unit of brick as an established standard. A unit as much larger as the tile provides will set a different scale and make different requirements.

The architectural possibilities of the plain stucco and cement surface have hardly been touched as yet. The very facility with which it is worked, its lack of limitations, has made its early use either commonplace or in imitation of other materials. Spanish colonial stucco work in Mexico was the inspiration for the very interesting buildings in the permanent group erected at San Diego for the exposition which charm visitors, and show some of the various phases of its possibilities as applied to structures both ornate and simple.

Fundamentally the influence exerted by the fireproof and the hollow tile house is manifest in the simpler general lines, and more especially in the grouping of windows. Special construction is required for each opening. When several windows are required in the wall of a room, it is manifestly simpler for them to come together in one bank, saving the labor of the several different openings in the masonry where one opening can be made to serve the same purpose. This is resulting in a distinctive character of exterior treatment capable of infinite variation under architectural handling.

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price \$1.00, Postpaid

With a Year's Subscription
to Keith's Magazine---\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

For Simplest and Grandest Homes



EDWARDS

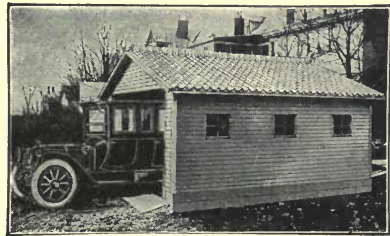
Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of Metal Spanish Tile is yours for the asking. A postal will bring it.



Own Your Own Garage

All Sizes—All Prices

An Edwards METAL Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and safe! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

\$69⁵⁰
and up

Write today—right NOW!

The Edwards Manufacturing Co.

*The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.*

521-541 Culvert St.,

Cincinnati, Ohio

THE ARCHITECT'S CORNER

What Is YOUR Building Problem?

Put Your Home-Building Problems Up to Us, and We Will Give Them
Careful Study and Reply Either Through These Columns
Or by Mail When Stamp Is Enclosed.

Proper Methods of Laying Hardwood Flooring

Information on Preparing for Work, Laying, Nailing,
Scraping and Some Floor Trouble

W. L. CLAFFEY



oday by improved machinery, equipment and quantity manufacture, the cost of making flooring has been so reduced that hardwood floors, even beautiful oak floors, are now within reach of everyone.

Hardwood flooring is generally laid by men who specialize in the laying of such floors. These floor layers may be divided into two classes—a class of good workmen and a class that are careless. The expert floor layer obtains his reputation by the high class and perfect work that he turns out. It is practically his only asset in the game. Many large and prosperous floor laying concerns have reached their present prosperous condition chiefly through conscientious workmanship in their earlier days. The floor layer that is careless in his work will never succeed.

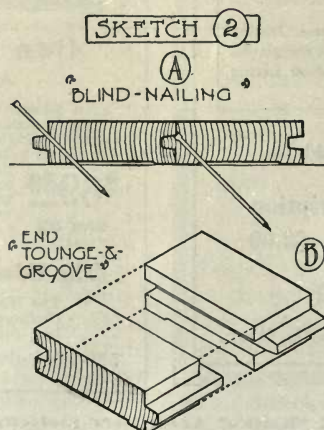
It is not necessary to be an expert to produce a good floor laying job, but it is very essential that considerable care should be exercised and all the details from the very start to the finish should be carefully studied before the floor laying work is taken in hand.

Before starting to lay the flooring the stock should be examined to as-

certain if it has absorbed any moisture while at the lumber yard, on the wagon, or at the job, as usually during rainy weather, oak flooring and other flooring will absorb considerable moisture, mostly at the ends, thereby causing it to swell as much as one-sixteenth of an inch. If this condition is not discovered before the floor is laid, unsightly crevices will appear in the floor. The sub-floor, as well as the plaster work, should be thoroughly dry before starting to lay the floors. If in winter, the rooms should have a temperature of about 70 degrees to insure the best results and the flooring bundles should be in the rooms at least ten days to thoroughly dry out in case the stock has been subjected to any moisture, before the main work is started.

The flooring generally leaves the mill in perfect physical condition, but is very often abused by improper handling before it reaches the job. There are many lumber yards and contractors that almost treat hardwood very much as they do rough lumber. This is a serious mistake.

The sub-floor should be thoroughly swept and it is well to use a damp proof paper, and where sound-proof results are desired a heavy deadening felt is recommended.





Prepare for Winter

But don't put up the OLD STOVE

A HESS WELDED STEEL FURNACE makes your house healthful and comfortable, with less fuel than other methods.

The HESS PIPELESS FURNACE supersedes the base burner: costs no more to install: uses less fuel: keeps all the muss and dirt out of your rooms: saves lugging of coal and ashes: saves space. It humidifies the air, and circulates the heat better than stoves or radiators.

The heat comes through the center of one big register and fills your rooms. The cold air, at the floor, returns through the ends of the same register and flows down around the outside of the furnace. Every heat unit is saved and utilized.

There are no horizontal hot air pipes nor ducts. Occupies little space: anyone can set it up. Burns any fuel: never leaks, for every seam is welded tight. Sold by the makers, direct to users, with binding guarantee and free trial. Ask for booklet and price of proper heater for your house. Also list of users, in which you will find some of your friends listed.

Hess Warming & Ventilating Co., 1217 Tacoma Bldg., Chicago

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, moldings, porch-work, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement, machinery and interior woodwork—ALL AT WHOLESALE PRICES DIRECT TO YOU.

Don't plan to build, repair or overhaul until you see these two great books. Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

CHICAGO MILLWORK
SUPPLY CO.
1421 W. 37th St.
Chicago, Ill.

Material Complete
for Houses from
\$375.00 up

Catalog
of
8000
Price
Bargains

Beautifully
Illustrated
PLAN BOOK

Books
Are Free



BAYONNE

Economy

BAYONNE will outwear any other prepared covering and tar roofing because it does not shrink or expand—never blisters or crumbles—is absolutely water-proof—and far less costly than copper.

BAYONNE

is Real Economy at all times. But at the present time, although the first cost may appear high, Bayonne is *Far Cheaper* than even the lightest and poorest of ordinary canvas, when you consider the extra labor and painting—with paint at \$2.50 a gallon. Bayonne is laid on the dry boards—requires no filler and only one light finishing coat.

And any canvas filled and painted—no matter how well done—cannot come up to Bayonne.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's, Page 426.

JOHN BOYLE & CO., Inc.

112-114 Duane Street—70-72 Reade Street
New York City

Branch House—202-204 Market St.
St. Louis

The sub-floor should be of serviceable wood, but not less than $\frac{7}{8}$ -inch thick, dressed one side to an even thickness. Sub-floors should be nailed securely to the joists, but not driven too tight together so as to allow the wood to swell without bulging; four-inch to six-inch strips are preferred widths for sub-floors.

When starting with the first hardwood flooring strip, it is well to leave at least $\frac{3}{8}$ -inch for expansion space between the first strip and the base-board, and likewise at the other end of the room, as there is more or less expansion and contraction in all kiln-dried flooring.

The upper flooring should always be

if scattered throughout all the rooms. Every floor layer should watch this feature of his work closely, as it is the appearance of the floor after it is laid that counts.

Oak and the better hardwood floors should last a lifetime with proper care and it is for this very reason that all floor layers should be very particular in laying a good floor. The wood itself practically is never permitted to wear—that is, in the better grades of work such as are used in homes. It is the wax or varnish finish that wears, which is always replenished. Honest and careful workmanship on the part of the floor layer

spells success. A good job of floor laying is the best of advertising, while a poor job gets nothing but kicks and no reward.

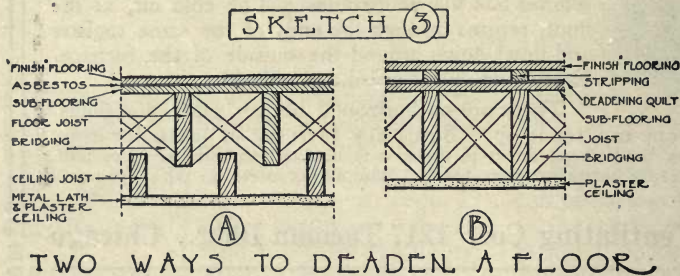
In order to get the best results for a nicely finished surface, it is best to scrape it. This scraping process can be done by the ordinary scrapers, such as used by cabinet makers, or by one of the many types of power or

hand machines that are generally used by contractors and carpenters. Always scrape lengthwise of the wood and not across the grain. A floor properly scraped looks very smooth, but it should be thoroughly gone over with No. 1½ sand paper to obtain the best results in finishing. After this the floor should be swept clean and the dust removed with a soft cloth.

The floor is then ready for the filler which should be put on as soon as possible after the laying work is finished, as the filler fills up the pores of the wood and keeps it from shrinking. For close grained woods the filler may be omitted.

Hardwood flooring troubles originate from different causes, many of which may be easily avoided. Oak flooring and all fine hardwood is made in a scientific way, and the different processes from the rough lumber to the finished flooring are subjected to the most careful inspection and scientific tests. These actual cases have come under the observation of an expert inspector with the causes easily found.

In Detroit not long ago an oak floor



laid at an angle to the sub-floor and after laying and nailing three or four pieces, use a short piece of hardwood 2-inch by 4-inch, placed against the tongue and drive it up with a heavy hammer.

The nailing of hardwood flooring is very important. All tongued and grooved flooring should be blind-nailed. The best flooring made can be spoiled by the use of improper nails. The steel cut variety is recommended for the $1\frac{3}{16}$ -inch stock—use 8-penny nails every sixteen inches; for $\frac{3}{8}$ -inch flooring use 3-penny wire finishing nails every ten inches. If even better results are desired, the nails can be driven closer.

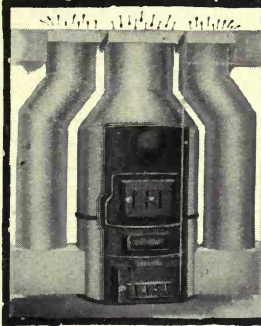
The floor layer should use discretion in regard to certain strips that do not blend in color with the majority of strips. A few badly discolored pieces in a room will mar the appearance greatly. Badly discolored pieces should always be set aside and used in closets and other out-of-the-way places. Where there is a wide variation in color, it is good policy to separate the pieces before they are nailed down. This insures a more regular run of color and blends better together than

The Stewart Simple Heating Plant is the very latest development in the scientific heating of moderately sized houses and buildings.

By taking advantage of natural laws it makes pipes unnecessary. No installation trouble or expense, no ripping out of walls. Cost very low. Especially appealing to those who have the bother and muss of caring for room stoves. Write for particulars of the

"STEWART"
TRADE MARK

Simple Heating Plant



and name of nearest dealer. Address
Fuller & Warren Co., Adams St., Troy, N. Y.
252 Water St., New York



Design No. 327 by Jud Yoho, Estimated Cost \$3200.

If you are planning a real home—plan a bungalow and consult my

NEW BUNGALOW BOOK

1916 De Luxe Edition

Compiled and written by a man of experience and reputation. Illustrated with exterior and interior photos, plans, sizes of rooms, cost, etc., of the cream of the 1000 pretty, distinctive, practical BUNGALOWS, actually built for \$400 to \$4000, suited to any climate. Get this largest exclusive bungalow book, 112 pages of invaluable building suggestions. Price.....

\$1.00

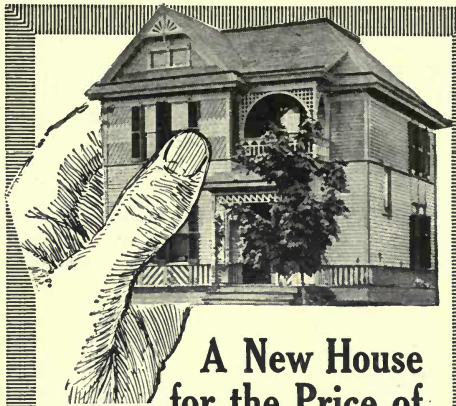
Smaller edition of same only 50c. Send check, money order or stamps. Money back if not satisfactory.

JUD YOH0,

The Bungalow Craftsman

468 Bungalow Bldg.,

Seattle, Wash.



A New House for the Price of Ordinary Repairs

That is what overcoating means for you.

One coat of paint over your frame house is almost as expensive as a new exterior of stucco on a base of Kno-Fur Expanded Metal Lath. "Kno-Fur" fastens right to your old clapboards and always makes a permanent job certain.

If you believe in economy, send 10c for "Practical Homebuilding."

North Western Expanded Metal Co.
Manufacturers all types of Expanded Metal
965 Old Colony Bldg., Chicago, Ill.



"Practical Homebuilding is a treatise on building. You need it for your building library."

had bad crevices every eight inches. He went to the cellar and found that the sub-floor ran parallel to the finished flooring. The boards in the sub-floor were eight inches in width. The sub-floor shrank as most sub-floors do with the result that it made the crevices appear in the oak flooring.

In Chicago recently where bad looking crevices appeared oak floors had been laid in a large apartment building while the doors and windows were not yet in place. The flooring was in bundles for about two weeks spread about the different rooms and rain and snow drifted in on the bundles. The result was that many pieces had absorbed moisture near the ends, and some of the floors had to be torn up and replaced.

A case in Toledo brought to light the fact that a floor layer used a heavy sledge hammer in driving up pieces. He drove the pieces up so tight that the floor had the appearance of waves.

At Cleveland a few months ago a beautiful oak floor was badly damaged by improper nailing. The nails were driven at an angle of about 90 degrees which made it almost impossible to drive the piece up snug and many bad crevices appeared. The owner was advised that nails should be driven at an angle of about 50 degrees and when it was demonstrated to him in some of the rooms that had not been laid how the strips drove up after nailing at this angle, he compelled the contractor to tear up the floors in three rooms.

In Evanston, Ill., a few weeks ago, where the floor layer complained that pieces would not fit up snug, the inspector went to the job and found that the flooring layer was not driving the nails below the tongue. Most of these nails extended $\frac{1}{4}$ -inch above the tongue, and the result was that it held the next piece out. As soon as the nails were countersunk or driven down further the pieces fitted up perfectly.

A ballroom floor which the owner,

against the advice of a flooring man, who refused the contract in the conditions, insisted should be laid in time to give a Christmas party, though the plaster was damp and the concrete sub-floor not sufficiently dry, was found to be badly buckled in two weeks time, and the entire job had to be entirely torn up and replaced.

When a hardwood floor is about to be laid it is well to take the following precautions: First examine the condition of the plaster and the sub-floor to ascertain if thoroughly dry. Second, examine the flooring to find out if it has absorbed any moisture at the lumber yard or in transit. Third, if in winter, see that the temperature of the rooms is about 70 degrees and that they have been that warm for a week or ten days with the hardwood flooring in bundles in the different rooms. If this is done it certainly would eliminate a great many of the flooring troubles and save unnecessary expenses.

Stairway Treatment.

C. W. Would you please advise me in regard to an open stairway? We want to build a story and half house of the bungalow type. Would you advise a reception hall with an open stairway or just a small vestibule and have the closed stairway from the library?

Ans. The treatment given to a stairway depends on the use you expect to give it. In a large house planned for entertaining, where guests are sent to the upper floor as they enter, to remove wraps, etc., there should be a wide hall and easily accessible stairway. Such a stairway takes considerable room and is usually quite expensive to build and finish. If so prominent a stairway is not needed, the space and expense can be better utilized in the comfort and pleasure it contributes to the family life.

But you must remember if you build a closed stairway that it must be wide enough and direct enough for getting furniture up and down stairs.



Send for free samples to

ASPHALT READY ROOFING CO., Dept. 79, 9 Church Street, New York, N. Y.

Mottled Roofs Are in Fashion Now

HUDSON Mottled Asphalt **SHINGLES**

Surfaced with red and green crushed slate in varying proportions produce the variety of surface texture so much sought for.



For All Kinds of Houses

from bungalows and camps to suburban residences and country mansions, the deep, rich colors of

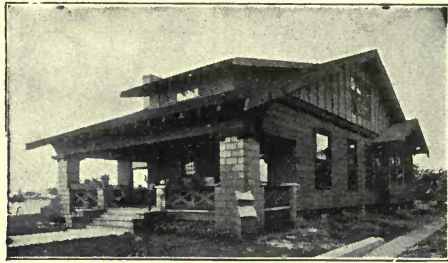
Cabot's Creosote Stains

are most beautiful and appropriate for the shingles, siding or timbers. The colors are clear and transparent and bring out the beauty of the grain of the wood instead of covering it as paint does. They cost only half as much as paint, can be put on twice as fast, the colors are lasting, and the Creosote "is the best wood preservative known."

You can get Cabot's Stains all over the country. Send for stained wood samples and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists
Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



Bonfoey & Elliott, Architects, Tampa, Fla.
Stained with Cabot's Creosote Stains.

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure.

Fifth edition "HOMES, not HOUSES," 123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

Get Book It Tells How to



Save Half on Heating Plant

TELLS how you may install your own system—heat every room to just the right temperature. Book describes steam, hot water and warm air systems—and no matter which system you select, explains how you may save $\frac{1}{2}$ to $\frac{3}{4}$.

We Lend You Tools FREE of Charge

Installation instructions are so simple anyone may follow them. Thousands have. Why not you? Each system is designed for the home it goes into. Each carries a two-year test guarantee. Get book. Save half.

Montgomery Ward & Co.

Dept. A. K. 518

New York, Chicago, Fort Worth, Kansas City, Portland, Ore.
Write to house nearest you

HESS MEDICINE SANITARY LOCKER CABINET



The Recessed Steel Medicine Cabinet

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS
EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Catalogue "G-29" showing a series of new designs in

"Pergolas"

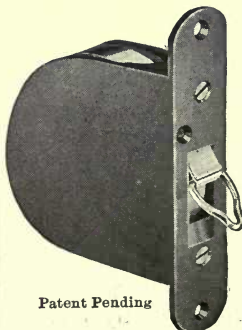
Lattice Fences
Garden Houses
and Arbors

When writing inclose 10c in stamps and ask for Catalogue "G-29."

Catalogue "G-40" —containing very useful information about Exterior and Interior Columns, will be sent to those who want it for 10c in stamps.

Caldwell Sash Balances

Uniform Mortises
For use in all classes of new work



Patent Pending

Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counterbalance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular
Caldwell Mfg. Co.
6 Jones St., Rochester, N. Y.



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH'S staff of wood experts.

This department is created for the benefit of KEITH'S readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

Hemlock.



CONSIDERABLE discussion has been aroused by the article "Painting Our Modern Lumber," under Building Materials in the June number, which places hemlock in the "pitch pine" class with regard to painting. Questioned further, the writer of the article, a practical painter in New York state, says: "The hemlock which we get here is not to be rated with the first or white pine class nor yet in the third or specially difficult class for the finishing of the house. It is used little here for that work."

The Forest Products Laboratory of the Forest Service at Madison, Wisconsin, is presumably the final authority on the resin content, and we publish the following excerpt from a letter written by Harry D. Tiemann, in charge of the section of Timber physics:

"There are a very considerable number of American woods that have very little or no resin. The native hardwoods of the United States lack resin and among the coniferous woods the cedars, true firs, such as balsam fir, for example, as well as redwood, yew and hemlock, lack, similarly to hemlock, any considerable amount of resin. Although spruces and Douglas fir contain some resin they are by no means as resinous as the pines, for example. Indeed, as you can see from the above list, there is a very considerable number of woods grown in the United States which would come under the head of nonresinous, or only slightly resinous

woods. It has been our experience that the wood of western hemlock tends to develop resin, when the living tree is injured, somewhat more readily than eastern hemlock, but you are correct in assuming that these woods do not possess any considerable resin in content."

New Laboratory Tests.

The Federal Forest Products laboratory at Madison, which did much of the technical investigation preliminary to the formulation of the density rules for southern pine, for the determination of relative strength values of various grades of lumber, and which is now working on the same tests for Douglas fir, has begun another series of tests for Wisconsin home lumber, hemlock. The laboratory is testing a large number of joists and large stringers, given a grading by the manufacturers according to their usual custom before being sent to the laboratory for technical tests. The data secured by these tests will furnish a basis for recommending proper fibre stresses to be used with Hemlock timbers.—*Mississippi Valley Lumberman.*

An Unusual Test.

"The strength of a hemlock stick a foot square, that had been in water for almost forty years, was recently tested in the 600,000-pound testing machine at Rensselaer Polytechnic Institute at Troy, N. Y. The timber, which was sixteen feet nine inches long, had formed part of one of the piers of the Congress street bridge

They Outwear and Outlast Any Wooden Shingle Made



A Broad
Assertion
But True

Because

DI-MACK ASPHALT SHINGLES

are constructed of imperishable and non-fading materials. Only the very highest grade of felt, which is the real life of the shingle, is used in the manufacture. They are surfaced in natural crushed granite which not only gives a beautiful and decorative effect but makes them storm proof and fire-resisting. Permit us to send you samples and instructive literature, illustrating the many beautiful effects which can be obtained by the use of ornamental roofing and shingles.

McCLELLAN PAPER COMPANY

DI-MACK QUALITY
MINNEAPOLIS



Building the House

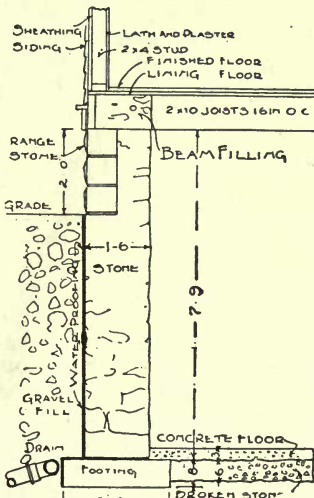
A Handbook Every Home-Builder Should Have

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised
Edition just off
the press

Price \$1.00



(Fig. 6)

SECTION THROUGH BASEMENT WALL

Published by

M. L. KEITH, McKnight Bldg., Minneapolis

Many Trips to the Furnace

will be avoided if you equip your heater with a

KEES FURNACE REGULATOR

The KEES automatically opens and closes the drafts, keeping an even, healthful temperature all the time. It prevents over-heating and lessens the care required for your heater.

The KEES Regulator will pay for itself in a single season in fuel saved.

For warm air furnaces only.

A card will bring our free trial offer.

F.D. KEES MFG. CO. **BEATRICE, NEB.** Box 102

**IXL ROCK
MAPLE, BIRCH
AND BEECH
FLOORING**



"The Finest Milled
Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times **without after smoothing**, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.

at Troy. When the pier broke down after the flood in the spring of 1913, the timber was turned over to one of the material testing laboratories of the institute. It was kept in the open air for three months, and then placed in a dry-room for a little more than nine months. When placed in the testing machine the column failed under a load of 384,000 pounds; that is, the long-submerged wood showed an ultimate strength of 2,670 pounds to the square inch. In the opinion of Prof. T. R. Lawson, who conducted the test, the remarkable strength of this piece of hemlock seems to show that being immersed in water for a long time does not decrease the column strength of timber that is subsequently permitted to dry out."

Hemlock-Bark Industry Revived.

For the first time in many years hemlock bark is going forward from many stations in this district (New Brunswick) both to other points in Canada and to the United States for use in tanning leather. The acids so largely used instead of the bark are now almost impossible to get on account of the war, as much of these came from Germany. It is stated that, instead of being left in the woods with other bark, the hemlock strips are now handled by big crews of bark peelers, and the product is bringing about \$8 per cord f. o. b. this district.

One large tanning concern at Woodstock, a town in this district, is importing leather partly unfinished, and returning it after tanning, presumably with hemlock bark treatment.—*Consul Edward A. Dow.*

Economic Forestry in the Southland.

The importance of the timber supply of the South and the methods by which it may be perpetuated were pointed out to the Southern Forestry Congress at Asheville by Henry S. Graves, Chief Forester of the United States.

"Nowhere in the whole United States," said Mr. Graves, "can the naval stores industry or the protection of hardwood timber be carried on with the same natural and economic advantages as in the Southeast. Forests occupy more than half the total land area of the South. Southern pine is the principal softwood used in fully two-thirds of the country

east of the plains. Backed by a supply of some 325 billion feet of yellow pine and about 20,000 sawmills, the pine industry holds today a commanding place in the country's lumber market. By their very magnitude the forest problems of the South command attention."

In addition to the value of the timber the southern pineries furnish annually about 35 million dollars worth of turpentine, rosin, etc. This income is in danger of being entirely lost through failure to properly care and perpetuate the forests.

"The turpentine industry of southern France is a man-made industry. A century ago the barren sand-dunes could be bought at any price one was willing to pay. Today the poorest pine land covered with 2-year seedlings sells for \$9.00. Stocked with 30-year-old pine it is worth \$80, and with 50-year-old \$160 an acre. In this country the turpentine industry has had the advantage of a great natural forest. Instead of being founded and preserved by the diligence of man its destruction will be brought about unless steps are taken to perpetuate it. The growing of timber for turpentine purposes is a profitable undertaking at present."

Sixty-one per cent of the present hardwood supply of the country is located in the South, Mr. Graves pointed out. More over, many of the most important hardwoods are supplied wholly by the southern forests. The Appalachian region now produces about fifty per cent of the hardwoods used in the country, and forms the chief remaining source of supply. At the present rate of cutting the existing supply of high-grade hardwood timber will not last many years. Under proper methods, however, the Southern Appalachian region alone can be made to grow four-fifths of the hardwood timber which we now require.

There is great need, said Mr. Graves, for more of the states to provide for forest fire prevention under the Weeks Law, in co-operation with the Government.

Once the fire problem is controlled the possibilities of forestry in the South are almost unlimited. When the people of the South wake up to the value of the resources at stake and take necessary steps to prevent their destruction and waste, the forests of the South may be made to yield a continuous supply of lumber and other products.

The September Issue of National Builder will be the Fall Building Number



The supplement to the September issue will show complete plans of

An Apartment Building, a Bungalow, a Two Story House and a Barn

IN ORDER to show all these plans, the supplement will be *twice* as large as usual and printed on *both* sides. The text pages of the magazine will contain an extra number of special articles by men who are experts in their line.

These plans are a feature of *The National Builder* EVERY MONTH (always of a house that has actually been built) and are complete, drawn to exact scale on a separate sheet 36 x 24 inches, and sent as a supplement to the magazine. They are not for sale, but are sent to our subscribers with each magazine. **DON'T MISS** the

180 Pages

of useful, interesting information on building (construction details of all kinds of buildings—such articles as "Economizing Space," "Wall Board and Its Uses," "Sanitary Features of the Home," and many others on interesting topics for the builder) that appear every month in *The National Builder*—it's full of information.

Edited by Fred T. Hodgson

Mr. Fred T. Hodgson is editor, and any builder will tell you he is the most prominent authority on building construction in the country.

**Start Your Subscription with the
September Number**

Use the Coupon—Save 50c

The regular price of *The National Builder* is \$1.50 for 12 monthly issues. But if you use the coupon it will be sent two years—24 issues—for only \$2.50. Eight issues for \$1.00.

PORTER-HODGSON CO., Publishers
1306 Ellsworth Bldg., Chicago, Illinois

Enclosed find.....for which send me

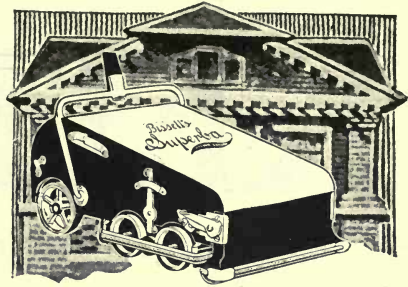
The National Builder for.....years.

Name.....

City.....

State.....

(If you live in Canada send \$2 for one year; \$3 for two years.)



Keeps the Whole House Clean

BISSELL'S VACUUM SWEEPER is effectual insurance against floor dust and dirt. Its three vacuum bellows creates such a volume of air suction that the fine dust does not have a chance to become deeply imbedded into your carpets and rugs.

Dust-bag and nozzle *come out in one piece*, emptying from the rear—an exclusive Bissell convenience.

To keep the whole house clean by the modern, dustless, sanitary method, you should use a

BISSELL'S Vacuum Sweeper

BISSELL'S *Carpet Sweepers* are in greatest demand in the leading markets of the world—even where national loyalty is most intense.

Every Bissell is backed by 40 years of experience devoted to the exclusive manufacture of carpet sweeping devices.

Vacuum Sweepers \$7.50 and \$9.00. "Cyco" Ball-Bearing Carpet Sweepers are \$2.75 to \$5.25. Slightly higher in the West, South and Canada.

BISSELL CARPET SWEEPER CO.

Largest and Oldest Exclusive Manufacturers
of Carpet Sweeping Devices in the World

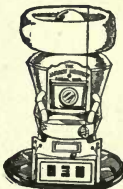
GRAND RAPIDS,

MICHIGAN

Made in Canada, too

(272)

BUY YOUR FURNACE NOW PAY US AS CONVENIENT



Satisfaction guaranteed, or money refunded. Our patented "down draft system" furnaces make them best for residences, schools, hotels, churches, etc., because they deliver plenty of heat wherever and whenever desired, at a saving of one-third to one-half in fuel bills. The

Jahant Furnace

is easy to install. You can do it yourself. We send complete outfit, freight prepaid, with special plans, detailed instructions and all necessary tools for installing. You may pay as convenient.

Write for Free Illustrated Book

THE JAHANT HEATING CO., 125 Steiner Ave., Akron, O.

Save 1/3 to 1/2 on Fuel Bills

"You Build for a Life-

KEITH'S **BIG OFFER**

*A Year's Subscription to "KEITH'S" with a Copy***Your Choice**

FOR
\$2.

Vol. 1.	140 Bungalows and Cottages . .	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D-1321 from "KEITH'S"



Design D-1309 from "KEITH'S"

What You Get

From 250 to 300

DESIGNS

by leading architects

From 75 to 100

Practical Articles

on timely subjects of
Home-BuildingDecorative Schemes for
Your New HomeMany Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,
 Editor and Proprietor

Time---Do It *RIGHT*"

To The Homebuilder!

of the Big April Bungalow Number EXTRA and
of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" <small>A POCKET HANDBOOK ON CONSTRUCTION</small>	1.00
" 11.	40 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (\$3000 and Up)	.50

FOR
\$2.

for Two Dollars

12 Big House Building Numbers
of KEITH'S MAGAZINE, in-
cluding a copy of our recent
100-page

Special Bungalow Number

containing 25 plans of attractive
bungalows and authoritative
articles on bungalow building.

The service of our architectural
and designing departments in
in answering questions on con-
struction, design, interior plan-
ning, beautifying the grounds or
any subject pertaining to the in-
terests of home-building.



Design D-1305 from "KEITH'S"



Design D-1315 from "KEITH'S"

828 McKnight Bldg.
Minneapolis, Minn.

New Booklets and Trade Notes

"Efficiency" and the Kitchen Range.



N the modern move toward system and efficiency in the household and especially in the kitchen no piece of apparatus is so deeply involved as the kitchen range, for on this does the housewife rely for her greatest successes or her most conspicuous failures. If the range "works well," if she can regulate the heat, can depend on the oven, has all of the accessories under her hand at convenience, then she can do really efficient work. It is the waste of time and the unnecessary effort which wearies the housewife and saps her energies. If she can work, as does her husband and his office force, with no more wasted effort through the lack of some more or less inexpensive apparatus and convenience, "doing her own work" becomes a rational rather than a terrifying thing, and incidentally "keeping help" is not so difficult.

A garbage incinerator is one of the specialties attached to the Stewart range (manufactured by The Fuller and Warren Co., Troy, New York). The garbage is placed to dry on a grate receptacle, then by opening a damper and throwing the products of combustion around the refuse, it takes fire and is soon destroyed. Any residue remaining can be emptied into the fire box, or elsewhere. An auxiliary gas burner is supplied.

Glass in the oven door reduces the necessity of opening the oven door so often. An oven thermometer simplifies baking by assuring the cook as to the temperature.

For the coal and wood range the dust-proof shaking device together with the ash chute to the ash pit or ash can in the basement prevents dust and drudgery.

Nested covers are a great convenience, and while they are by no means a new device a vast number of housekeepers have never had them supplied with the range. Enamel drip and broiler pans, griddles for gas tops, automatic lighters and a permanently polished top for the range—these are some of the features which lift much of the drudgery from work around the stove.

During the past few years "Efficiency" has evolved from a word to a science. By the elimination of unnecessary motions, by discarding the non-essentials, by making work easier, and in a thousand other ways, this new science has made labor more productive, more pleasant and more profitable to both employee and employer. Efficiency has not stopped at the factory and the office, it has invaded the kitchen, and is now the slogan of the up-to-date American housewife.

Nights.

By Elizabeth Robins Pennell.

A new book by Elizabeth Robins Pennell,

with etchings by Joseph Pennell, her famous husband, among the illustrations, is always an event to their admirers. The latest book, "Nights, Rome and Venice in the Aesthetic Eighties, London and Paris in the Fighting Nineties," (published by J. B. Lippincott Company) is a Memory Book of the play time of these two famous artists which carries one into a delightful company. The story of the Nights brings before the reader fascinating reminiscence of a long procession of their famous friends, beginning with Elihu Vedder in Rome, Duveneck, W. E. Henley and "Henley's Young Men," Aubrey Beardsley, Phil May, the Harlands, "Bob" Stevenson,—with many of the gifts of his famous cousin, and the early associations which related them in adventure, and especially the Whistler associations in London. We are grateful to the Pennells for the more intimate glimpse of Whistler, which is so much more human, while losing none of the charm that surrounds other stories of that famous artist.

With the days devoted to work, "whose story is a tale that is told," this book is the story of the nights and the "play" which the end of the arduous day not only allowed but required; and of the groups of artists and literati which gathered about them, either in a café in Italy or Paris or in their own Thursday evenings in London; of the talk which passed among them with its amazing quality, bewildering and revolutionary against the background of Philadelphia traditions in which the young bride had been trained.

Arriving in Rome on the first tandem tricycle ever seen in Italy, for a stay of four days, they remained four months, filling commissions which were a delight to them. To these youthful enthusiasts "no Arabian Nights could have been fuller of entertainment than were those Roman Nights."

In Venice there was never a *festa* in the Piazza that they missed, with "St. Mark's more unreal in its splendor than ever with its domes and galleries and tracteries against the blue of the Venetian night."

Of the London memories "Ghosts greet me from the old Thursday's, from the radiant days when youth was merging into middle age—surely the best period of one's existence."

"If we brought to Paris a talent for talk and for youthful enjoyment, Paris at the moment was providing liberally more than we could talk about or had time to enjoy." And the present! "Does it mean, I wonder, the end of all the old days and nights for me in Paris, as the war that has shut fast the *Salon* door means the end of the old order of things in Europe." "Recently there have been Belgian nights—nights when those Belgian artists whose habit was never to travel at all until they started on their journey as exiles to London."

KEITH'S MAGAZINE

ON HOME BUILDING

CONTENTS FOR OCT., 1916

Just a Word	230
Sentiment and Shops— <i>Henry K. Pearson</i>	233
An Interesting Interpretation of Colonial Architecture— <i>Charles Alma Byers</i>	238
October Planting for a Spring Garden— <i>M. Roberts Conover</i>	242
The Spell of the Olden Time— <i>Edith M. Jones</i>	245
Old Ideas in New Places— <i>W. R. Holbrook</i>	249
A Home with Ample Closet Space	253
With a Charming Bay	255
The Influence of the Planting	256
The Broad Front House	257
Choice of Plan and the Home-Builder	259

DEPARTMENTS

Inside the House—	
Decoration and Furnishing	266
Answers to Questions on Interior Decoration	272
Household Economics	280
The Table and Its Service	284
Building Material and Notes on Heating, Lighting and Plumbing	288
Woods and How to Use Them	294
Splinters and Shavings	298
Trade Notes	304



The busy center of whirring machinery.

KEITH'S MAGAZINE

VOL. XXXVI


OCTOBER, 1916

No. 4

Sentiment and Shops

Arts and Decorations Applied to Commercial Buildings

Henry K. Pearson

O recent phase of architecture is more arresting than the universal appeal to the esthetic sense, which lays hold of all classes and conditions of building.

Not content with exacting its accustomed dues, the spirit of beauty has wound its compelling charms about even the most utilitarian of buildings and the

most discouraging of environments.

Everywhere we see public offices and store buildings, railroad stations and warehouses, factories and farms hung about with garlands and gay with flower beds, flirting in our faces the little "lattice windows of romance" or the high peaked gables sacred to Old English Tudor Manors, till we are in doubt whether



The charming entrance to the home of a life insurance company.

we are entering a bank or a French chateau. Nor is this glamor of domesticity wrapped — like a magician's cloak — about big business alone. The artist's small studio no longer has a monopoly of the arts and graces; for all the small industrial establishments vie with him in landscaping and in decorative blandishments. Riding around one of the smaller cities recently, we whirled past a laundry, where only the gold lettered sign gave evidence of its true inwardness, so convincing was the aspect of a pretty rural home.

Here, too, we beheld the union—uncaring that all the world should see—of a completely modern undertaking establishment with the private office building of a prominent physician. "Cheek by jowl" the two small buildings nestled together, wreathed with long sprays of



Lobby in the insurance building.

English ivy from a common root, bright with the gay little pink and white blossoms of the Cherokee Rose, with scarlet geraniums climbing up and peeping in at the windows of the little mortuary chapel through the entwining ivy, thus robbing these last housings of our mortal frames of half their gloom.

Well, and why not? Too long have our work-a-day habitations been considered from the standard of necessities only. The greater portion of a man's day, whether he labors in an office or at a machine, is spent in his place of business. Why should it not be a pleasant place rather than an ugly one? No mere aggregation of machinery and weather-tight walls, of a lane of typewriters and tables and musty books, will express the ideals of present-day business housing:



Rows of ciphers winking through geraniums and coleus.

Besides good lighting and a ventilating system, in addition to clean wash rooms and convenient lockers, a change is apparent in the character itself of these buildings. Not only is there a movement toward more beauty of design, but there is a grass plot around every factory instead of piles of junk, and flower boxes hang from the windows even of insurance offices.

Heretofore, there has been little regard for esthetic considerations in erecting commercial buildings. The baldest and crudest utilitarian ideas alone

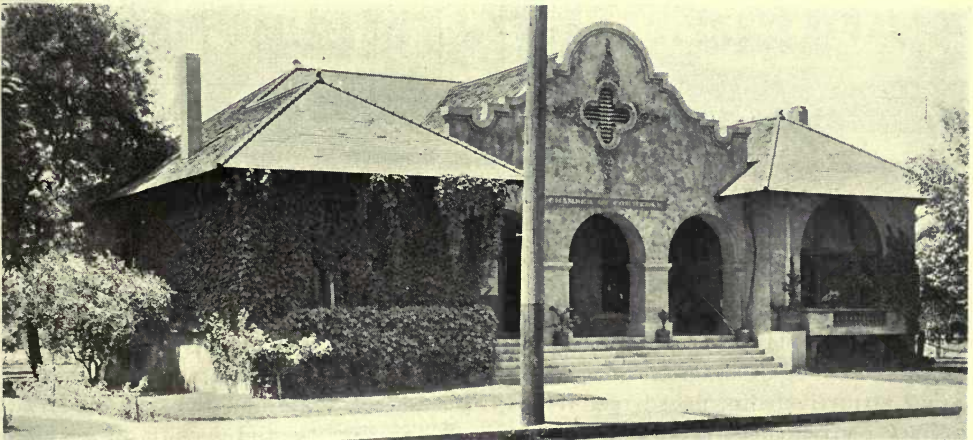
Men are finding out that there is actual profit—in dollars and cents—in beauty. They are finding out there is a money value in the psychic effect on employees of attractive housing and pride in their surroundings. Of course this is the chief

incentive with many to fall in line with the new ideas, but there are others who appreciate the added dignity which such attractive housing confers upon their enterprise itself. In short, they are discerning enough to see its advertising value.

Take as an instance the business



Hanging gardens of a modern city.



Chamber of Commerce in Fresno.

obtained recognition. The walls consisted of monotonous rows of windows, unrelieved by anything but the lettering of the business signs. All thought was expended on the machinery and the engineering problems; how the building looked, didn't matter, except to decide whether to use brick or concrete.

This state of things is fast changing.

plant of the Winkley Artificial Limb Co., in the heart of the business section of Minneapolis, Minnesota,—who would imagine it the busy center of whirring machinery and an immense output. Poetic and romantic even, yet with what power and dignity the great building stands forth. The gateway looks like the entrance to some cloistered garden

of the Old World, some old brick mansion overgrown with the ivy of generations. The velvet of the lawn, broken at intervals by well kept flower beds, runs through the center of the close, and a high concrete wall has been erected on the opposite side to shut out neighboring sights and sounds that are not in accord with this place o' dreams. Vines clamber up this wall and at intervals flower boxes filled with gay bloom crown it. There are rustic seats about, and arbors, and the workmen are welcome to

is the home and here are the business offices of a great "soulless" corporation and not that of a family. At least this is what the magazine writers call them. Yet here is revealed an appreciation of beauty surpassing the dreams of many home builders. The setting is absolutely romantic, and these hard business men even hurried out a photographer to catch and hold the fleeting charm of the softly heaped snow on the dark pines and richly blended colors of the tapestry brick. Could anything be more fascinating, and



Home of a Pittsburgh cement company.

use it all. Their pride in it is nearly as great as their employer's, whose broad and generous ideas have influenced all the equipment of the interior as well, providing attractively furnished rest rooms, sanitary conveniences everywhere, and a wonderful system of indirect lighting.

The beautiful building of the Western Union Life Insurance Co., Spokane, Washington, is a striking example of this increasing appreciation of the architectural design in keeping with the dignity of such a corporation, yet sounding the new note of domesticity in housing.

It is indeed hard to realize as one approaches the charming entrance with its air of intimacy and seclusion, that this

how can such an atmosphere help but leave its influence on those who daily go in and out those gates?

When we enter there is still the suggestion of home and the fireside. With all the dignity and wealth of architectural design in this lobby fireplace, there is subtly introduced the social significance of the open hearth. The kettle hangs on the hob; the ingle seats seem to invite. "Come, sit beside my hearth—'tis wide, for gentle companie." The whole ensemble conveys a feeling of wide-doored hospitality.

Most people nowadays have heard of the hanging gardens of Minneapolis. We know not if these gardens hark back to

those ancient ones of the city of Babylon for their lineage, or to those more modern prototypes seen in some of the old German towns. To those who have seen Old Münster, the high, narrow facades of gray stucco, flower-decked beneath their peaked gable roofs, these Minneapolis gardens seem closely related. There as here is the smooth gray background, the vines climbing up to the topmost window, and every window boasting its flower garden, the bright blossoms and long vine tendrils swaying in the wind, lending a wonderful effect of grace and charm to the severe buildings.

While one might look for such colorature effects to be employed in the decorations on an emporium of fashion devoted to the fair sex, it is slightly bewildering to walk by the grave and reverend portals of such a solid institution as a bank and see 4 per cents and rows of formidable cyphers winking through geraniums and coleus, in modest retirement behind their button hole bouquets. One unique feature of the Minneapolis civic adornment at once arrests the stranger—the charming festoons of growing vines and flowers grouped in with the ornamental street lights, growing high up in their eeries like orchids hanging from a new kind of tree-trunk. One expects, of course, to find flowery surroundings in the flower state of California. And they are there in plenty. That staid and decorous body, the Chamber of Commerce, in the city of Fresno, hold their councils in a Spanish mission bungalow, half buried in English ivy. One can fancy the light footsteps of some dark-eyed senorita tripping up the loggia steps rather than the grave tread of city fathers.

Who would expect in smoky, grimy Pittsburgh to come upon such a little pastoral poem as the office building of the Nicola Cement Company, on East Liberty Street? The low-spreading gray roof sweeps gently down over the light gray

plaster walls, while the grouping of the windows and pillared porch with their flower boxes and the terraced lawn—green to the very door—suggests some rural manor house or pretty suburban residence.

Inside this pleasing dream are the offices of the company, the bookkeepers and stenographers' rooms, the public and private estimating rooms and all the business equipment of a large concern.

A wonderful revolution has taken place in a few years in the attitude of railroads toward their buildings. The parking of railway stations has become the policy of many roads, and an item in their expenditures. The employes are responsive to this new atmosphere and often one sees some workman's tool house screened by a trellis of sweet peas; a flower bed between the tracks of a turntable; or a vision of gorgeous color flashing up between smutty locomotives.

As for the stations themselves, they are becoming the beauty spots of the land. Their picturesque outlines and simple designs, enhanced by the charm of mellow surfaces and trailing vines, are artistic and pleasing things and are a noticeable addition to the beauty of the country. In many of these careful attention is given to many small details, such as insets of colored tiles in concrete surfaces or the graceful design of light fixtures—details which show interest in the esthetic idea. How vastly different is all this from the dingy, ugly, comfortless aspect of the railway station of even a decade ago!

It is thus that the Spirit of Beauty has spread the heavenly leaven of her influence through the land, till even the stones of the market place have been touched with grace and human interest and poetry, till those who labor with the hand as well as those who toil with the brain alike share in the enrichment of life which this new demand for greater beauty has contributed.

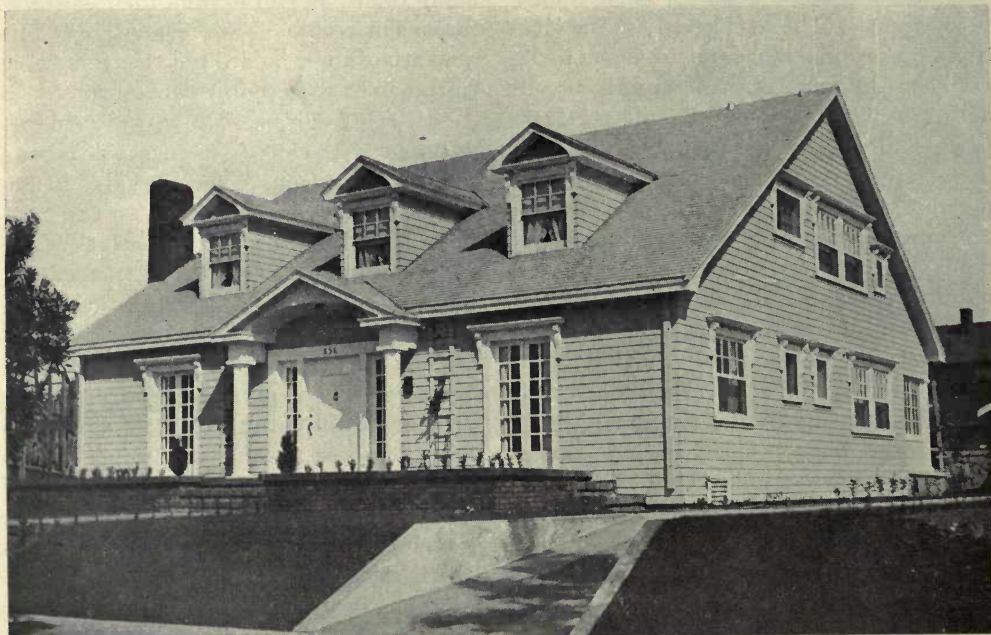
An Interesting Interpretation of Colonial Architecture

Charles Alma Byers



DESIGNED by a woman who has become highly successful both as an architect and builder, the house here shown should appeal with particular interest to every woman reader, for it is a product of both a prac-

ous deviation from the former is noticeable in its failure to make use of the gambrel roof, and its most pronounced suggestion of the latter style is found in the French doors and the rose lattices on the front.



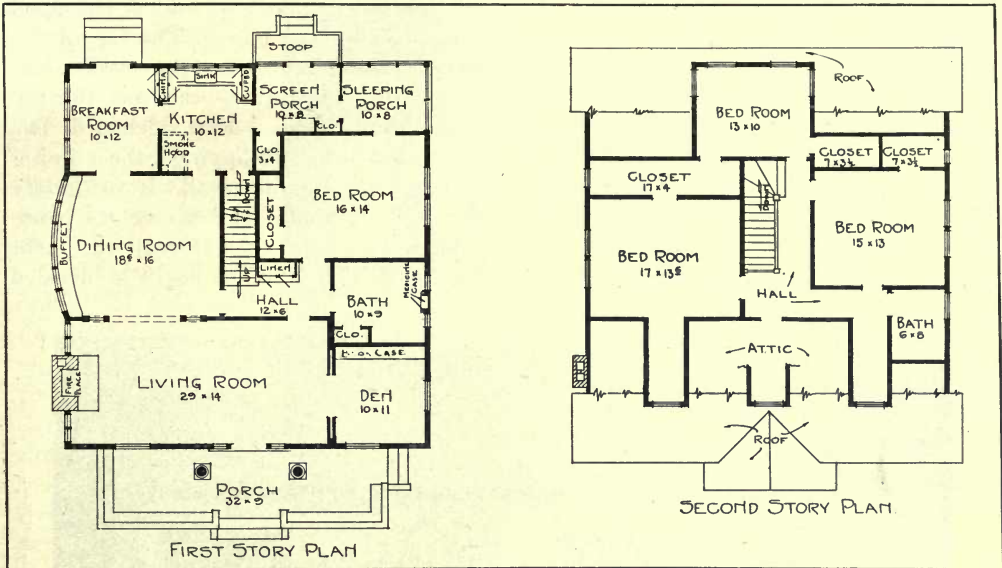
A modernized interpretation of Dutch Colonial.

Ella B. Squires, Architect.

tical knowledge of architecture and a thorough understanding of the multiple of things that go to make a conveniently-arranged and practical home from a woman's point of view.

The house is a considerably modernized interpretation of the so-called Dutch Colonial style of architecture, showing also an influence that may be traced to the French Colonial. Its most conspicu-

From whatever angle it may be viewed, the house presents an especially attractive outside appearance. This applies to its general structural lines, details of finish, and color scheme. In respect to structural lines, it is quite regular and dignified, but through its finish details it acquires an effect that is far from the ordinary. The front view is particularly charming, and deserves to be closely



studied. Here extends an uncovered terrace, nine feet deep and thirty-two feet broad. With steps, to correspond, leading to it from both the front and one end, it is walled and edged with bright red brick, and is floored with red cement, marked off into twelve-inch squares, while along its outer edge is a trench filled with earth and set with low-growing shrubs. The front entrance is of true Colonial type, the door being provided with an old-fashioned knocker and latch. Over the doorway extends a tiny roof projection, supported by two classic white columns, and at each side of the door is a narrow panel of small panes of glass, while overhead is a simple little lighting globe. A rose lattice, with a climbing rose-bush forming a delicate tracery over it, graces the entrance at each side, and still farther removed to either side is a French window, opening in from the terrace.

The house is of the commonly called story-and-a-half kind, although the rooms on the second floor are, for the most part, of full ceiling height. While windows are liberally made use of in the gables,

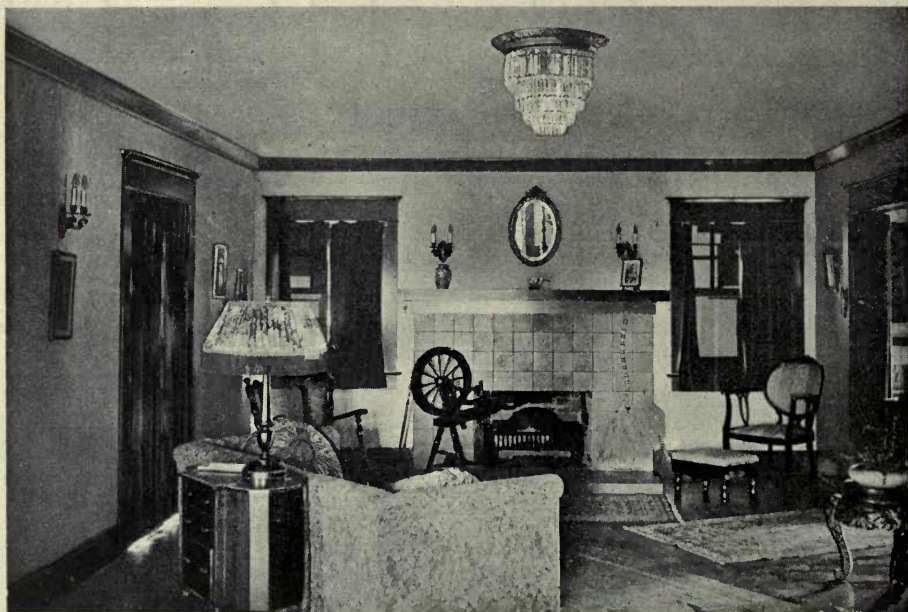
these second-floor rooms are further lighted by three small windows which break separately through the front slope of the roof and by four still smaller windows grouped in a single projection which breaks through the back slope. A particularly interesting detail of all windows, which adds much to the appearance of the exterior, is to be observed in the bracketed hoods.

Both the exterior walls and the roof are covered with shingles. The walls are painted a French gray, with the trimming done in pure white, and the roof is of a very light shade of green. The house rests on a concrete foundation, but all exposed masonry, including the rather massive outside chimney, which, like the terrace walls, is constructed of brick, is of a bright red—all combining to produce a color scheme that is very effective indeed.

On the ground floor are living room, den, dining room, breakfast room, kitchen, bath room, bed room, sleeping porch, and the usual rear screened porch; and on the second floor are three bed rooms, a bath room, and a small attic.

The front door opens directly into the living room, and connected to this room, in the rear, by a broad portiered opening, is the dining room. Between the living room and the den intervene sliding doors, and double glass doors are used between the dining room and the breakfast room. There is a short central hall on the lower floor, from which rises the stairway, and on the second floor is a rather long and

but four feet in height, and is equipped with leaded-glass doors. The top of the book case constitutes an appreciable shelf for pictures and bric-a-brac, and the top of the buffet forms a deep sideboard. The latter feature, occupying the dining room's only outside wall, is of mildly curving alignment, and above its countershelf is a total of six small casement windows. The buffet itself is divided



The living room is finished in Philippine mahogany.

irregular hall, to form the necessary connections. The arrangement is most convenient in every way, and the first-floor space is especially well economized.

The house possesses a number of built-in features that will prove interesting to every housewife, for they not only add to the convenience of the interior, but also help to create a cozy and attractive appearance. Moreover, they mean a considerable saving in the cost of furnishing. A low built-in book case, for instance, is a delightful feature of the den, and in the dining room is an excellently designed buffet. Each of these features is

into six compartments, each of which is really a china cupboard, and near each end of the countershelf, standing upright and stationary, is a candle-like lighting fixture, of silver mounting. The breakfast room contains a small china closet, and in the kitchen are the usual conveniences, as well as a hood for the range, while the first-floor bath room possesses a built-in medicine case.

Closets also comprise a charming feature of the interior, providing a veritable "place for everything." Closets for linen, for instance, are found, on the first floor, in both the bath room and the short

hall, and on the rear screened porch are two other closets—one for brooms and the other for general storage purposes. And each of the four bed rooms has a wardrobe closet.

The finish and decorating of the interior of this home are exceptionally attractive, and hard-wood flooring is used throughout. The woodwork of the living room and the den is of Philippine mahogany, and the walls are covered with paper of dull buffs and yellows. In one end of the former room is a simply designed fire-place, with its hearth elevated three inches above the floor level. This hearth and the facing of the fire-place are of dull blue tile, and the mantel-shelf is of wood, of straight lines. A main lighting fixture of glass prisms is located in the center of the ceiling of this room, and bracket candlesticks of dull gold are placed here and there about the walls. The drapes are of dark blue velvet, these being used at all windows and also for the portieres. The wood-work throughout the remainder of the house, including the dining room, is of pine, enameled white—the only exception being the countershelf of the buffet, which is of Philippine mahogany to match the wood-work of the living room and the den. The walls of the dining room are covered with paper predominating in dark gray, and the walls of the two larger bed rooms



The cupboards follow the curve of the bay.

on the second floor are also papered, light shades here prevailing. The plastered walls elsewhere are tinted, which is also true of all ceilings. The ceiling height of the first floor is eight feet six inches, and of the second floor, in the main, is eight feet.

Underneath the center of the house is a small basement, the stairway thereto descending from the kitchen. In the basement is located a hot-air furnace, which supplies heat to all of the rooms.

This house is located in Los Angeles, California, and is the home of Mrs. Harold English. It was designed and built by Ella B. Squires, architect, of that city. The cost of the house complete was approximately \$3,500. It is warmly and substantially constructed, and could be successfully duplicated without structural changes in almost any locality. The cost is always dependent on local conditions and the figures are given only to show what has been done.



October Planting for An Early Spring Garden

M. Roberts Conover

OFTEN we have the bloom of early spring in dispersed patches in our gardens, but a real spring garden of just spring flowers with its dainty fragile bloom from the first warm days in March when the crocus lifts its slender chalice to the blooming of the poet's narcissus and early iris in May is a spot of rare charm.

It can so easily be achieved in some quiet grassy nook which may have been ignored as a possible beauty spot. Almost everyone has such a place if he looks for it. Perhaps it's hidden under the debris of ashes and old cans, or covered with branches and trimmings from the fruit trees, or it may be an awkward angle where two fences meet, but let us hope it can be a sunny slope sinking gradually to a small grassy plain bounded by a rippling brook with a shallow grassy margin. If it's like that, it's ideal for the spring garden. If there is a bit of shade at one side with the earth beneath mulched thick with leaves and room for some laurel bushes or rho-

dodendron it will make possible a little more variety not only from the bloom of these shrubs but the protection they give to some early blooming things.

The planting is simple and easily done this fall for the spring effect. If it has a good clean sod this need be but slightly disturbed. If there are briars and wild growth, some pretty thorough grubbing will have to be done.

Dibble into the sod in October the crocus bulbs, putting them in about two inches apart and three inches deep. The large Scotch with its delicate stripes of purple and white, the blue and purple mixed, the pure white and the mammoth yellow should be planted for their lovely coloring. Plant enough to have a real blanket of color. Daffodils cannot be left out of this garden. These may be planted in patches toward the shade, but not under it, or toward the boundary line of the garden in a natural mass as if they had spread. This kind of a garden is charming for its irregularity. The Golden Spur cup-



The wild garden.

shaped and Trumpet Major are early varieties that throw a mass of molten gold into the spring garden. These are planted in October. Put them in four inches deep and no bulbs closer than three inches, some of them farther apart for a scattered marginal line. The poet's narcissus may be planted in alternate patches which will change this part of the garden to snow white bloom two or three weeks later.

The sod should be kept away from these plantings of narcissus until they are established. After that they will bloom for several seasons in the grass or until the bulbs become crowded and need resetting. If these bulb plantings can be walled in with stones for a depth of 20 inches underground it will help to protect them from burrowing creatures which do play havoc with the fleshy roots of a garden.

Right down near the margin of the brook plant Lily of the Valley. Use fine, large clumps and plant them in a strong marginal line if you can afford it. They thrive here and are so exquisite.

Up under the laurels in the leaf mold, plant trailing arbutus. You will doubtless have to get this from the woods. Get it with plenty of earth without disturbing the roots, and mulch it over well with leaves. In a garden of this kind you will no doubt have to hold down the leaves with pieces of poultry wire netting held in place by bricks or stones.

Below the shade of the laurels and running up under them plant bunches of

Dog Tooth Violets (*Erythronium*). The bulbs vary in price from 45 cents to \$1 per dozen if you do not know of some wild spot where you can get them. They grow well in leaf mold mixed with peat. A narrow trench 12 or 14 inches deep



The grassy margin of the brook.

and 10 inches wide can be made where the bulbs are to be set and this soil mixture filled in.

The *Eremurus* can be grown in a garden like this. It likes sand, and leaf mold mixed with cow manure. Set it in the fall and mulch it over winter with ashes or dry leaves. It ought to be where the soil is well drained and the roots ought not be disturbed by working into the



Bloodroots in the early garden.

soil where it is set. It needs plenty of water just before it sends up its tall, sweet-smelling flower spikes in spring.

Some German Iris belongs in this garden because of its early bloom. It will grow in the drier part of the garden or toward the brook.

The Spanish Iris should be covered with leaves over winter.

Scilla, snowdrops, star of Bethlehem and hyacinths; these should be planted in October, the snowdrops in a slightly shaded situation and the hyacinths where it is dry and sunny. Plant the small bulbs three inches deep and the hyacinths six inches deep and seven inches apart.

If possible bring some upland violets from some woodsy knoll massing them together for effect and mutual benefit. These should be moved with great clumps of their native earth.

From some meadow may be brought the sweet little meadow violets. They

like the slimy, grease-like soil of the meadow and as much of it as can be transferred with them the better. These violets give a charming wild touch to this garden. They are not showy but dainty and small. They may be set into the grass with a small garden trowel.

Hepaticas in deep clumps of their own earth may be transferred to this garden, planting them back from the brook's margin.

In unoccupied spots the mountain or moss pink will give a charming mass of bright color. This is *Phlox Subulata*, and if your garden has a knoll or bank this plant may be planted along its brow where the other things cannot grow.

There are many other lovely things that plead for place in such a garden and can be added from time to time. After the spring bloom is over this garden is a quiet rest spot making no claim on one's time for cultivation.



The Spell of the Olden Time

Edith M. Jones



HE undescribable charm of a recent visit to the quaint old town of Salem still holds me in its spell. Upon reaching home after my visit there, I took from my bookshelves a copy of Mrs. Gaskell's "Crawford" and this delightful story together with my visit have made me feel for a little time at least that I have lived and been a part of that yesterday so long ago.

We arrived in Salem in an automobile but somehow this modern conveyance did not seem to fit into the spirit of old Salem. So after some inquiry we found an elderly man with a one-horse, two-seated, canopy topped vehicle that was indeed of the "vintage of long ago," and I am sure it was a privilege to look through the eyes of this dear old man for a little time. He and all his family before him had always lived in Salem and loved every part of the city with its historic, literary and architectural associations.

And after all it is the associations which make so much of Boston and the suburbs and other spots so dear to all true Americans. One feels the long ago

hovering very closely and one cannot be grateful enough to the historical societies for their faithfulness in caring for and preserving even the smallest points of interest.

Of course very much has been said and written about the colonial architecture of the houses of Old Salem. The charming doorways have been pictured and have really proved a powerful influence upon all building including even that of the present day. There is always a deep sense of dignity and leisure in the pure colonial, and many of these Chestnut street houses with their simple beauty cannot be surpassed and rarely equalled.

Salem, too, is full of stories and traditions which reach their climax in the tales of the witches and the secret stairways. But the shrine

at which every tourist lingers longest and with fondest interest is the House of Seven Gables, filled with Hawthorne memories.

This year in addition to the other interesting things in connection with the house they have added a "tea shed" by converting one of the old buildings to

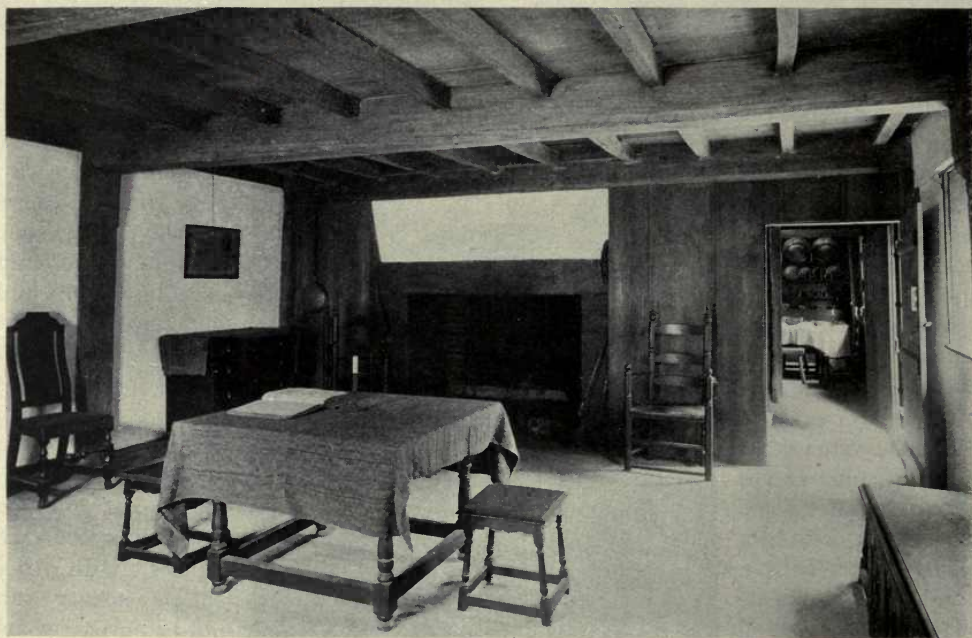


A Colonial doorway.

serve the purpose. Here on cool or rainy days a delicious luncheon is served indoors but the garden or, better still, the porch, hung with heavily laden grape vines are wonderfully attractive for the warm summer days. As we sat at the quaint, bare tables or on low, old-fashioned chairs, eating dainty sandwiches and sipping delicious tea with a heavenly quietness all around us, and looked

cakes and many other little things for sale which made it all seem quite the same little shop Hawthorne so vividly describes in his story of the House of Seven Gables.

Every part of the house was interesting to me from the low studded, cross-beamed, oaken panelled parlor with its interesting furnishings to the attic with its treasures and which we reached



An old Salem living room.

beyond the house and the formal garden to the river flowing peacefully beyond, we felt far removed from the rush of the maddening crowd and I could not but be glad I was there. And then as we went into the little shop I felt myself a part of the past as the little bell went tinkling just as it did in the days when the shop was kept by poor dear Hepzibah Pyncheon, where every nerve was strained to "tumultuous vibration" with each new customer and each time the bell sounded its alarm.

There were Jim Crow gingerbread

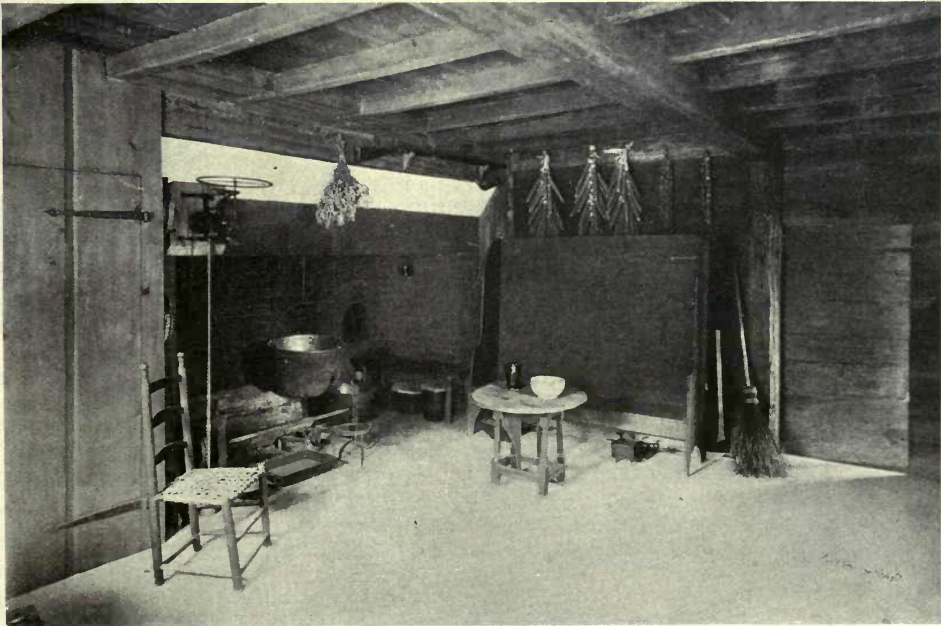
through the most remarkable of secret stairways.

However, I think I lingered longest in the old kitchen for somehow, despite the wonderful cooking and the stories of good things which were brewed and baked in those days before the open fires—time and invention have made great changes and show greater improvement here than in any other one place in the house. These changes I am sure have made cooking much easier even though the quality of the food may not equal the wonderful things of "ye olden times."



An old-time kitchen in Salem.

You remember in Hawthorne's story how Hepzibah "who had no natural turn for cookery" had "incurred her present meagerness by often choosing to go without her dinner rather than be attendant on the rotation of the spit or



As they cooked in the olden time.



The modern kitchen.

the ebullition of the pot." And I think many today might feel just as Hepzibah did if they had to work with the equipment she had. Yes, I am sure, interesting though the brick ovens, hanging cranes, tin kitchen, spits, etc., may be to look at, most of us will agree the equipment of a modern, up to date kitchen is far more comfortable and efficient.

For instance, have you ever stopped to think how much everybody had to stoop in those days to do the baking, boiling, scrubbing and churning? Now, with the elevated gas ovens, the sinks set at 36 inches from the floor, the long handled

dust pans and mops, etc., the work can all be done in an upright position. This is no small improvement yet perhaps we too little appreciate what it means in a day's work.

Then think of the countless steps which the refrigerator saves. Nowadays the box is kept either in or near the kitchen and cares for the food storage that used always to be kept in the cool cellars. Then the water supply and drainage in the kitchen—think what that means! And so on we might enumerate the many improvements which we have today over the kitchens as shown in this photograph, and yet, in spite of all

this, we hear complaints on every side of the endless drudgery of house-keeping both from the housewives and the people employed to carry on the work of the home. Why is this? What is the trouble? Does it all mean, even with these bettered conditions, that the work in the home is more difficult and not so interesting? Or does it mean we love our homes less and are unwilling to spend the time and thought necessary in caring for them?

Is it true that each year the supply of good domestic employes is less and less and that the girls choose every other kind of work rather than the work of the home? If these things are true what is the reason? We can only remedy the condition by getting at the cause of the trouble and the situation is undeniably a serious one. Above all, what is to be the outcome? Is it any wonder all these questions ran riot in my mind as I stood in this old kitchen before this old fire-place and pondered on the old and new condition of things and the problems which confront us notwithstanding modern progress and invention.



Tea garden at the "House of Seven Gables."

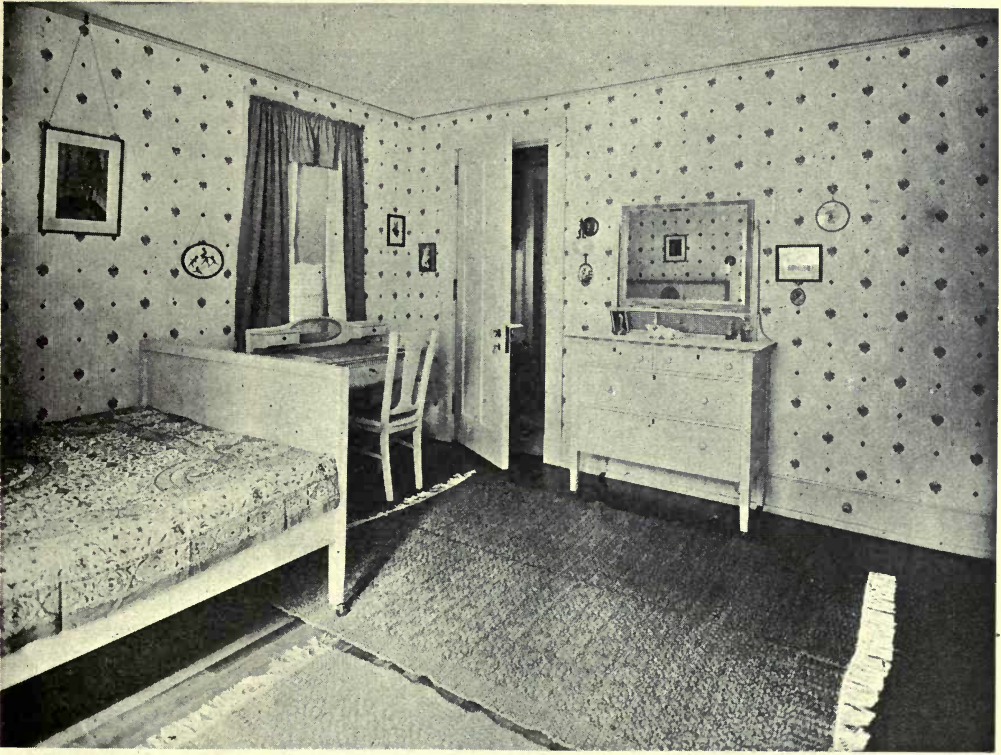
Old Ideas in New Places

W. R. Holbrook

THE art of weaving is as old as human civilization, its origin is lost in the mists of mythology, but every race, as it has emerged from savagery, has evolved some method of spinning the common vegetable and

drawn from the mystic relations of warp and woof.

The hand loom was set up in this country as a household necessity by the Puritans and Huguenots, the Dutch and the Scandinavians and, a hundred and fifty



Rugs made to harmonize with the India print bedspread.

animal fibers into thread and interlacing the threads into a fabric for use or ornament, or both. It early developed that beauty became the companion of utility and the weaver's art became the vehicle of expression for many a restless soul, eager to record his dreams and fancies, and the literature of all peoples and ages is shot full of metaphors and moralizings

years ago, very beautiful and intricate designs were being wrought into the output of the home-made and home-operated loom.

Bed covers seem to have been the favorite form for the fancy weaving and there are many examples of "Grandma's Kiverlit" that have survived the perils of an unappreciative age and are now com-

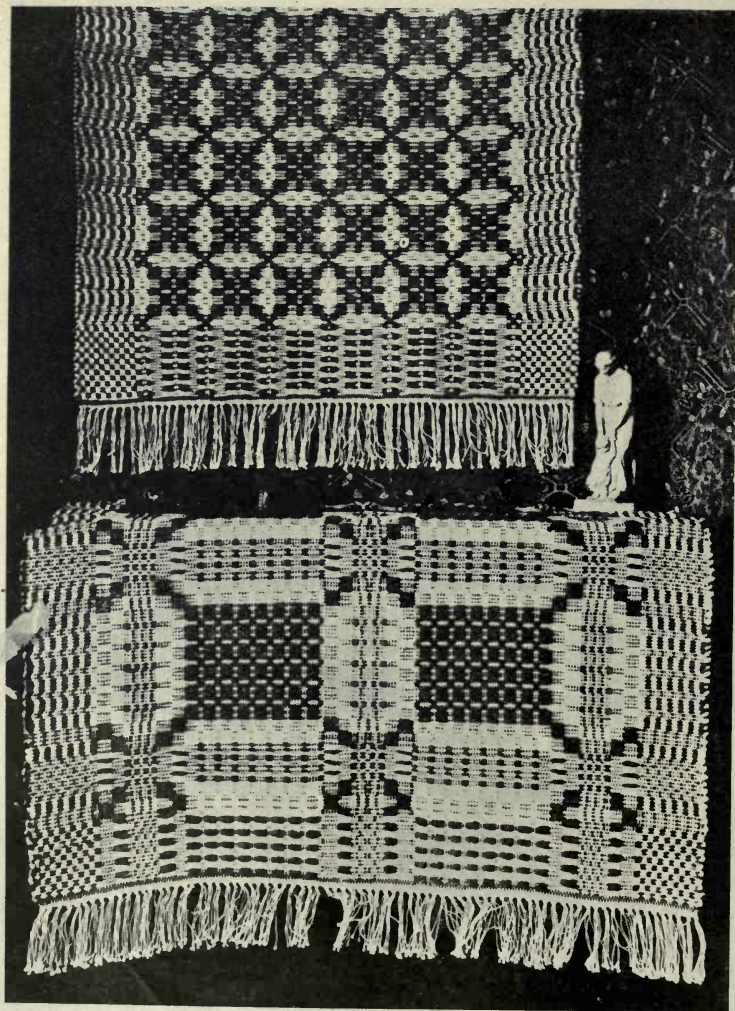
ing into their own. On the stony hillsides of New England and the fertile plains of the southland, in the mountains of the Carolinas and Tennessee and beyond them, in the pioneer settlements of Kentucky and Missouri, were produced those staunch and durable fabrics that have descended to this generation, to be held in honor or carelessness, according to the spiritual discernment. The toil and thought of a whole year might have gone into one of these "kivers," for the wool and cotton and flax must be grown and

gathered and carded and heckled and spun into miles of thread before it could be stretched in order on the loom and the weaving, a thread at a time, accomplished.

The method of threading the loom and then of manipulating the four or six or eight treadles to produce the pattern was a secret often jealously guarded by the weavers and the "draught" of a pattern was passed down from father to son, or, more often, from mother to daughter. All sorts of fanciful names were given these patterns by their creators, accord-

ing to their whim or the exigencies of their political life. "Sun, Moon and Stars," "Double Chariot Wheel," "Pine Cone," "Orange Peel," "Doors and Windows," "Double Bow Knot," "Cat Track and Snail Trail," were, of course, suggested by the figures evolved. "Federal City" was an attempt to depict the streets and avenues of the capital, and "Tennessee Trouble" and "Missouri Trouble" and "Braddock's Defeat" commemorated political and historical events deemed worthy of recording.

The last two decades has seen a revival of interest in the expression of our fore-mother's artistic yearnings and they are appearing again in portieres, couch covers and

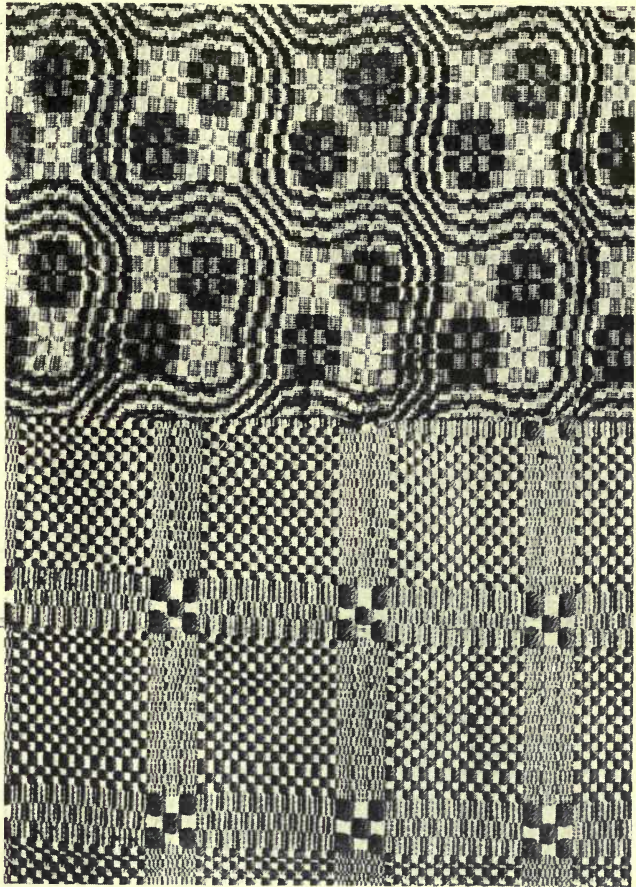


Above—Adaptation of snowball pattern. Below—"White House pattern."

rugs. Old draughts are hunted up from disused secretaries and the bottoms of trunks; and old weavers, both men and women, are discovered whose eyes light up and their interest in life returns when they are adjured to interpret them in terms of modern speech.

A recent mistress of the White House, discovered in the North Carolina mountains, a weaver of the old school and left with her an order that kept her busy many months; and a certain room in the executive mansion is now furnished complete, draperies, couch covers, bed coverings and rugs with fabrics hand woven in a pattern then known as "American Beauty," but since called "The White House."

A less notable yet very interesting commission recently came to the writer in an order from a woman who wished to use an India block printed bed spread and table cover in a dainty bedroom, making their colors the key to the color scheme of the decoration and furnishings. The prints were done in soft and unusual shades of blue and green. She had the woodwork of the room and the furniture in white enamel. The walls and window hangings were easily made to correspond with the blues and greens of the India prints. Then came the question of the rugs. She decided on hand woven rugs as the simplest solution of the problem. To make them we had cotton "roving" dyed with great care to match the colors of the India prints; and for a rug pattern used an adaptation of the "Snow Balls" of the



Two patterns—"Snail trail and cat tracks" and "Doors and windows."

old coverlets, in the heavier material, getting an effect suggestive of a basket weave. With two rugs, 3 by 5, and 6 by 7 feet, a most interesting and harmonious room was completed at a moderate cost.

Numerous schools of Industrial Art in different parts of the country and many wise teachers of Hand Craft, notably at Hull House in Chicago, and Berea College in Kentucky, are teaching young people of both sexes the beautiful art of pattern weaving and many examples of it, from pin cushions to rugs, are finding a place in homes where good taste dominates fashion.

It has been found possible to introduce this art into the schools for the blind,

and in Boston, Cleveland, and Faribault and other schools, much good work is being done.

Such work is not cheap compared to machine made fabrics. In the old days a good "kiverlit" brought twelve to fifteen dollars, when dollars were scarcer than now, but, like any good work done with the heart in it, and not by a slave of the machine, perchance at a starvation wage, it carries a soul-satisfying sense of personality and the possession of such work has its own value.

The materials used nowadays are mostly linen and cotton. Though wool, when and where the cost is not prohibitive, is also used. For rugs to be used in the bath rooms, porch and bedroom, a preparation known as "roving" is largely used. This is like the old-fashioned candle wicking, only larger and smoother. Jute fiber makes a very good and durable rug and there is now a flax material which is a little harsher and more wiry, but which is especially adapted to porch rug use. Such rugs are made on cotton warp, white preferably, and are washable. They cost about five dollars each if the weaver is dependent on his work for a living.

In the finer work, the thread weaving, most interesting results are obtained in the use of linen and mercerized cotton, in portieres, bureau and piano scarfs and table covers. One family of the writer's acquaintance, a mother and two daughters, have taken up a custom of early days and are producing most beautiful linen work, lunch cloths with napkins to match, and even cloth to be made into skirts and coats.

Of course, the question of dyeing enters into the problem largely. In the old days the weaver was also the dyer and some of the recipes of the mountain women rival our mother's cake rules, where "Use your judgment" is the despair of the tyro.

A lady who has given a good deal of

time to the study of the hand woven coverlid, tried to get definite information as to the methods of dyeing.

Old Aunt Sally, in the Kentucky mountains, gives the following instructions:

Green dye: "Git this here black jack bark, have her yarn dyed indigo blue first, bile it well an' put in a lump of alum as big as your fist. It don't take very much black jack or very much hickory bark, nary one. Bile it in a toliable large vessel. When you git yer oose biled take out yer bark an' put in yer wool an' bile jest a few minutes." "What is an oose?" she was asked. "I can't tell ye jest what a oose is, you kin jest come an' see. Hit's jest the dye that you put the wool in, an' if ye want another oose, you bile more bark an' put it in."

Walnut dye: "You want to git yer roots an' sprouts. Git 'em on the new moon in June. Skin 'em from the root up. Bile 'em about two or three hours. Bile jest about one oose; put in the wool in the oose an' bile it. If it hain't dark enough take out an' put in more bark an' bile it. If you hang it out in the sun hit'll turn dark."

At the present time, owing to our dependence on the German chemists, we are rather "up a stump" and the manufacturers do not guarantee their materials at all in certain colors, but we live in hope of the time when our own work will have delicacy of tone and permanence of color.

We can not go back to the old work and we would not if we could, but many of the old ideas were worked out under basic conditions which still exist today, and which may with great advantage be adapted to present conditions. The fascination of the loom and the possibilities in its products has completely passed from the ken of womankind, to be replaced by embroideries and "fancy work" but its vogue is returning and we may see the day when every woman will have her hand loom, and will know a well woven piece of cloth when she buys it.

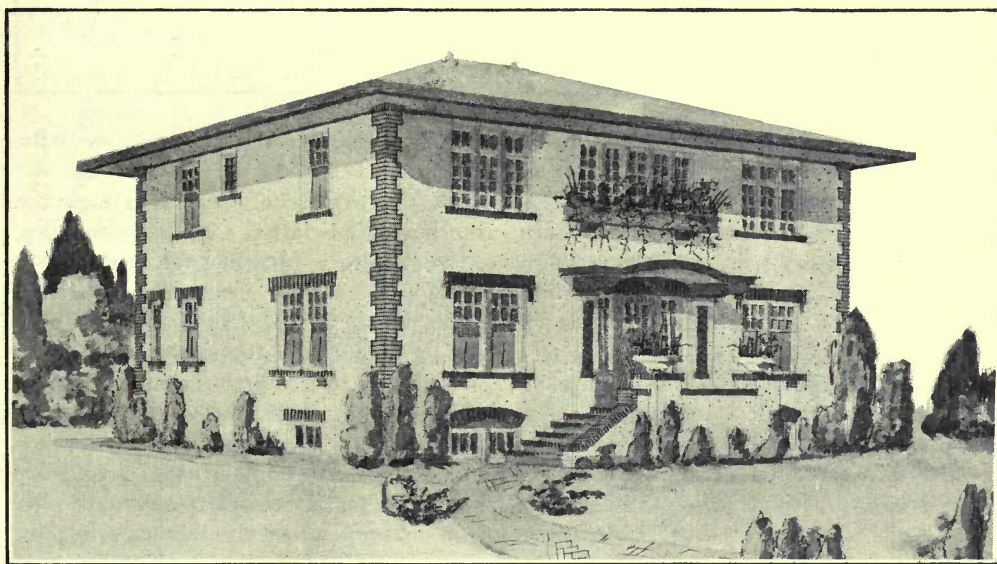
A Home with Ample Closet Space

MANY homes built today have an insufficient amount of closet space.

The architects are often criticised for this fault, as an oversight in the planning, when as a matter of fact it is often due to the foresight of the owners who wish to get more or larger rooms in the same space. The prospective home build-

cluding the storage space. Not only are they large but four of them have outside light. The two front chambers have each two closets, one of which has an outside window.

The plan is spacious and the rooms are bright and airy. From the hooded stoop one enters the wide hall through a roomy



With a brick trimmed stucco surface.

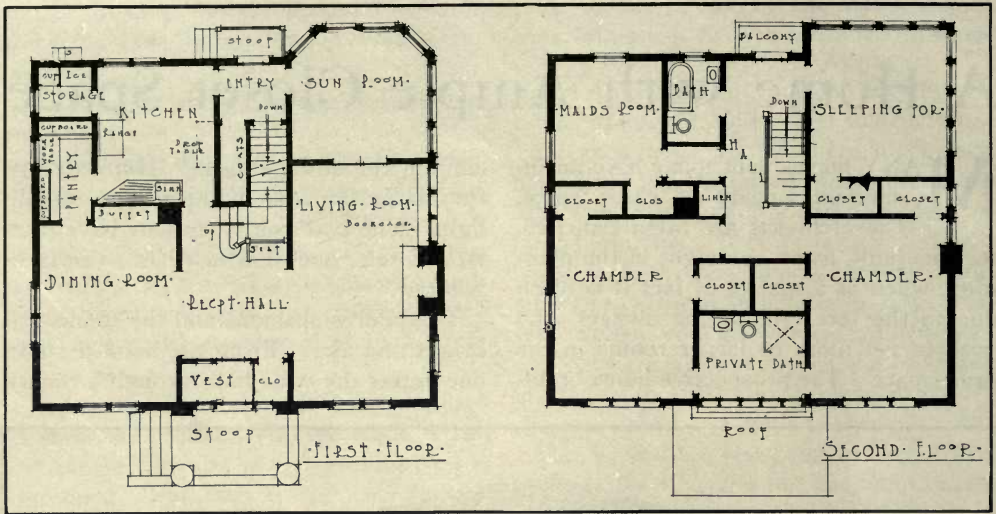
W. W. Purdy, Architect.

er, whether he builds a city mansion, a medium sized suburban home, or a modest little cottage, wants all the room he can get for his money. Thus it is that the coat closet on the first is placed in some dark, out-of-the-way corner that can not be used for anything else, or under the main stairs. The second floor closets are made small so that the bedrooms may be as large as possible and are often put on an inside wall without either light or ventilation.

In the accompanying design the closets are large and there are ten of them, in-

cluding the storage space. The central hall has an attractive stair treatment, with a seat against the rail. The main stairs are so convenient to the kitchen as to make rear stairs unnecessary.

The large living room at the right, through a wide cased opening, is very attractive with its wide brick fireplace extending to the ceiling, and the bookcases at the side. French doors open into a sun room, and there are wide cased openings connecting the hall with both the living room and dining room, making an



ideal plan for entertaining. The detail of the buffet in the dining room is very unusual, and unique in effect. Between the dining room and kitchen is a commodious pass pantry, with plenty of cupboards for china, a light work table, drawers for linen, cupboards for cooking utensils, and a flour bin on rollers. The kitchen is conveniently arranged, as to the placing of the sink, range, and drop table. The storage room contains the refrigerator, which is iced from the outside from a small cement stoop. A small cupboard is built in, as a place to keep brooms, mops, table leaves, etc.

On the second floor, four large, well lighted chambers with plenty of wall space, open off a center hall. This hall is in turn lighted by a French door opening out onto a small balcony where rugs may be aired.

Between the two front chambers, is a large private bath with a shower, the walls and floors of which are of tile. The other bath at the head of the main stairs, is convenient to the two chambers in the rear. In the center of the hall is an easily

accessible linen closet. There is no attic, but a ventilator on the roof at the rear keeps the attic cool in summer, as the roof has an insulation as extra protection.

Everything is provided for in the basement, from a floor drain to an ash receiver, also a garbage incinerator. There is a light laundry, dry room, fruit room, furnace and fuel room; the heating plant will heat the home in the coldest of weather.

The floors throughout the first story are of quarter sawed white oak, with pine floor for linoleum in the kitchen. Second story floors are of maple. The finish in the living room and hall is in gum, with a walnut stain, rubbed. The dining room is in oak, stained a silver gray, the sun room in fir, a sage green. Upstairs a portion is in birch, natural, the balance in white enamel.

The exterior walls are of hollow tile, furred and plastered on the inside, with a tan colored, cement plaster, applied direct to the tile on the outside. Trimmings for sills, lintels, and quoins, are of golden mottled brick, very pleasing in effect.

With a Charming Bay

THE simplest modern home would have been considered very luxurious to the home builder of twenty-five years ago, while at the same time it would have been considered unbearably crowded in some places, though they almost invariably divided their living space into two rooms, one for the use of the family and one for "company." One realizes this particularly in going through a well-planned old-fashioned house, but as a general thing the old-fashioned house was not well planned in the careful way that the modern home is planned. In comparing the old-fashioned house and the new, one wonders if American hospitality is a thing which is passing. The guest room is one of the luxuries, afforded only by those who can build more room than they habitually use, and the maid's room is no longer an absolute necessity.

A six-room bungalow allows for one or perhaps both of the luxuries. With attic space which may be utilized under the roof, it gives room for the requirements of the usual family.

The bay which nearly fills the front of the living room, with its diamond panes of glass makes a very attractive feature of this home. The plan has a central hall which is entered from a good-sized porch. The en-

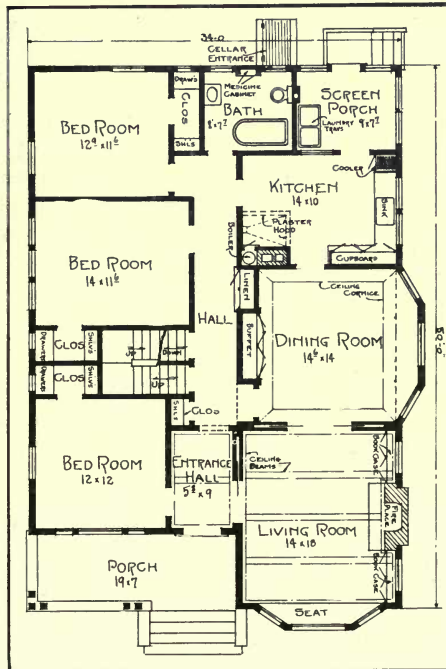
trance hall is wider than the passage connecting the rear of the house. The entrance to the living room may be closed by a wide sliding door. The front bedroom is entered from the hall.

The living room has a fire-place with windows on either side and bookcases large enough for a small library. The ceiling is beamed. Sliding doors connect with the dining room, which also has a bay of windows and a wide ceiling cornice so much favored at the present time.

Opposite the dining room are the stairs both to the attic space and to the basement. A coat closet is near the entrance hall, and the linen closet opens conveniently into the passage.

In the kitchen the plastered hood over the range is dotted in place and is vented to the flue. Cupboards fill one side of the

kitchen and are convenient to the sink. The laundry tubs are set on the screened porch, presumably with hinged covers which convert them into a table. This seems a very practical laundry arrangement, convenient for the housewife and easy for the laundress. When the laundry can be placed on the ground floor instead of in the basement, the arrangement seems better than the old way. It saves carrying all the clothes down to the base-



ment and then carrying the wet clothes up to the ground level again, if they are to be hung out in the sunshine. Where the porch is partially protected, screened for summer and enclosed with storm sash

for more severe weather, it seems quite the ideal place for the laundry, while the covered tubs make a good working table. With the bath beside this laundry the plumbing can be economically installed.



Diamond panes in the bay window.

E. W. Stiltwell, Architect.

The Influence of the Planting

THIS bungalow is unusually interesting in appearance owing much to the planting and growth of vines which surrounds it. It is a bungalow of moderate cost, the stone work of the porch and chimney being extremely effective. The exterior walls of the house are covered with resawed siding, stained. The wide sweep of the roof is made interesting by the dormer windows and their attractive flower boxes.

The living room extending across the full front of the house is 27 feet by 12 feet 6 inches. Directly opposite the entrance the stairway starts with a double landing so arranged as to partly cut off the view of the stairs. The living room has oak floor, built-in fire-place, book cases and seat. The sun room opening off of the

dining room, is an attractive feature and can be thrown open into the dining room by means of French doors.

A projecting window seat and bay of windows makes a feature of both the dining room and the living room. The dining room has a built-in buffet.

The kitchen is well supplied with cupboard room and the sink is well lighted and conveniently placed. The screened rear porch gives additional working space if desired, and the toilet opening from it is very conveniently placed.

A rear stairway leads to the second floor from the small passage on hall and a stairway also leads to the basement from same passage.

The second floor is provided with three bedrooms and one screened sleeping

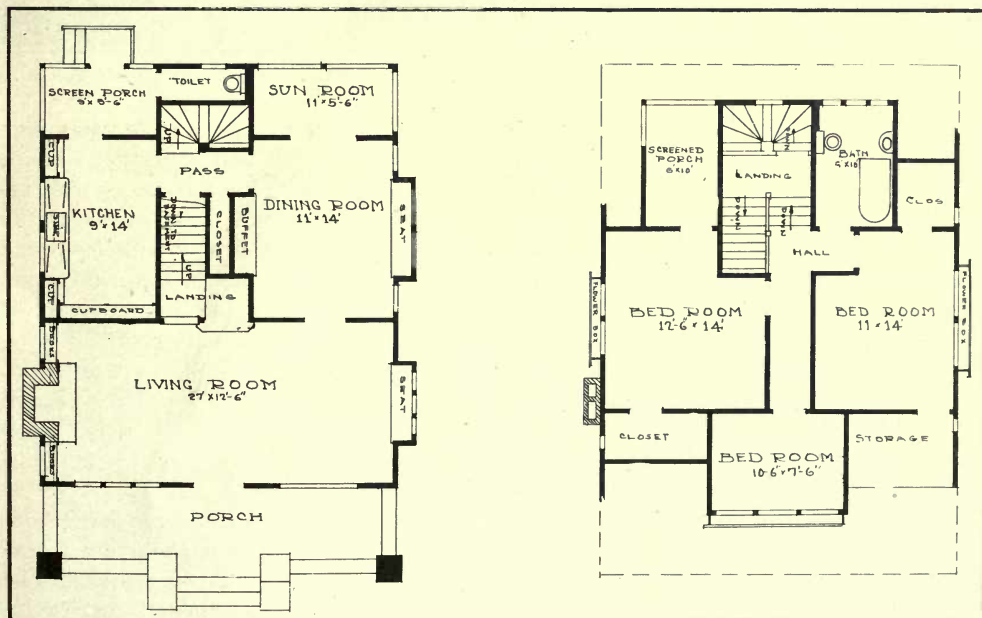


With the lure of home.

Bungalowercraft Co., Architects.

room, a large bath room is conveniently located. The woodwork in the living room and dining room is finished in a light golden oak stain with a dull finish

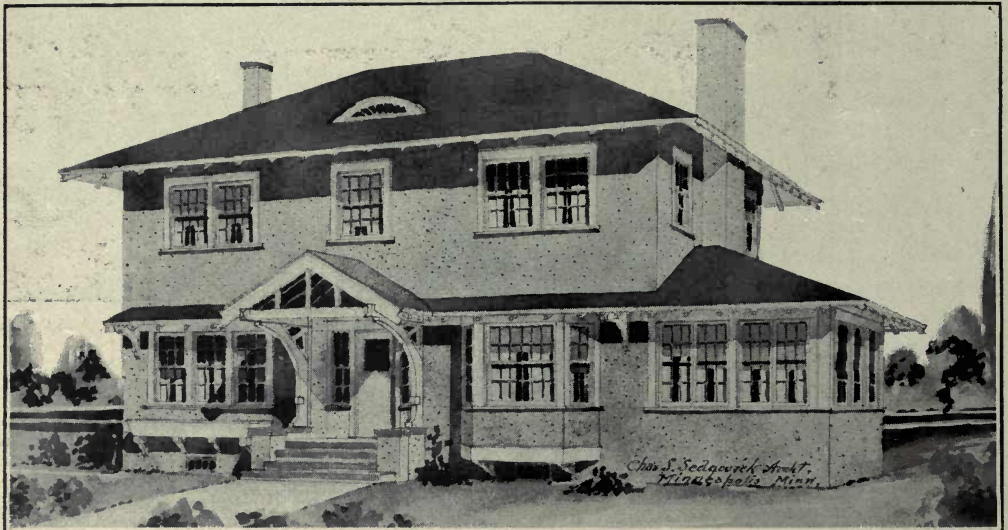
the rest of the house is finished in white enamel. The kitchen and bath room are wainscoted with hard-wall plaster which is finished in white enamel.



The Broad Front House

A BROAD frontage is always to be preferred where the size of ground will admit of it. The house we are illustrating has a frontage of 37 feet 6 inches exclusive of the sun parlor on the right, which is 10 feet and the depth of

roof or canopy. The house is frame construction with cement stucco up to the top of first story windows and wide shingles above, or the whole surface may be finished in stucco as shown in the illustration. The roof is low pitched, shingled



It turns a broad front to the street and to the sun.

Chas. S. Sedgwick, Architect.

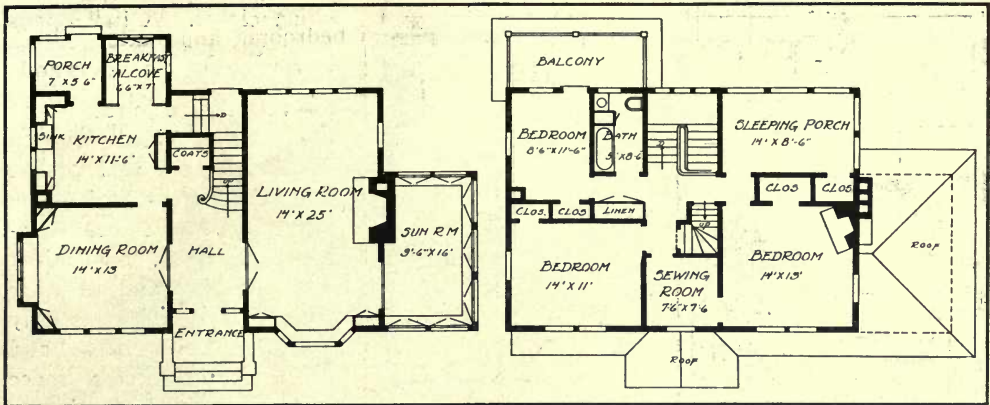
the main part is 26 feet. There is a liberality of look and an inviting appearance that cannot be had with the narrow front.

This is not an expensive house but it has good sized rooms, with a central hall and stairway, typical of the Old Colonial. The living room on the right is 14 feet by 24 feet, the dining room 14 feet by 13 feet, is on the left of the hall. The kitchen is in the rear of dining room and is 14 feet by 11 feet 6 inches. The entrance is in the center and recessed with a projected roof, supported on large timber brackets. The windows are grouped and a projected bay or oriel window is shown on the front of living room and extended over these front windows is an overhanging

and stained green. The outside trimmings are painted white and the stucco has a light tone. The living room is well arranged for light and wall space and the central projected chimney with its broad fire-place completes a very beautiful room. At the right is a wide French window opening into the sun parlor.

This plan is best suited to a west front. The first story is 9 feet and the second story is 8 feet 6 inches. There is a good full basement complete in its appointments.

The second story has three large bedrooms, a sleeping porch, bath room, sewing room, and ample clothes closets. The architect gives the estimated cost exclu-



sive of both heating and plumbing, at from \$4,500 to \$5,000. The floors throughout are hard wood and the finish of first story oak, the second story woodwork

is pine painted white enamel. There are no rooms finished in the attic, but there is ample space for storage or even for room space if desired.

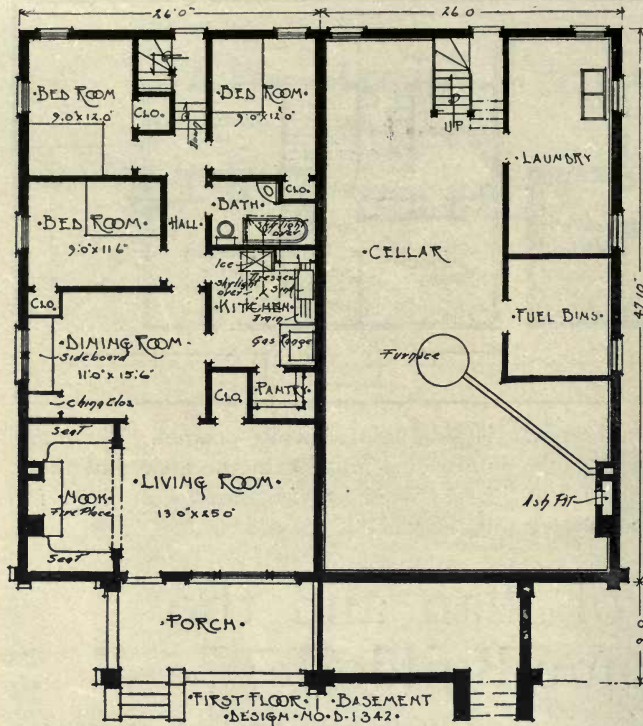
Choice of Plan and the Home-Builder

IN nothing else is the difference of individual ideas more marked than in the home builder's choice of the room arrangement in which he chooses to live. While one family are especially desirous of having all of the rooms on one floor in order to do away with the climbing of stairs as a physical handicap, another set

of people, while they may not care to climb stairs, yet are unwilling that the sleeping rooms should open directly from the day rooms, and another family object to sleeping on the ground floor, feeling that they are safer if their windows are at least at the second story height from the ground.



Two bungalows in one.



A group of plans are given here which show good examples of these different types of homes.

A Double Bungalow

Rather unusual is this design for a double bungalow, which has the advantage of giving more space on a narrow lot and also the larger unit which may be made very attractive with its wide sweep of roof.

The floor plan suggests a very practical disposition of rooms for this type of house. The living room occupying the front of the plan is most attractive with its inglenook and open fireplace. The built-in seats have hinged tops, and furnish a convenient place for magazines, while the roomy closet which opens from the living room gives space for coats, umbrellas, etcetera.

A wide cased opening leads to the dining room, one end of which is completely furnished with a built-in sideboard and

china closet. A hall opens from the rear to the three bedrooms and bath. They are very desirable rooms and are each provided with a closet. At the rear of the hall, a few steps lead to the garden entrance and basement stairway, convenient to the kitchen and all other rooms. The kitchen is fully equipped with sink and dresser, refrigerator space and gas range. There is also a large pantry closet with glass enclosed shelves, and counter shelf with draws and cupboards under.

The kitchen and bath are lighted by a large skylight provided with automatic ventilator and glass adjustable sides to allow for a maximum amount of light and air.

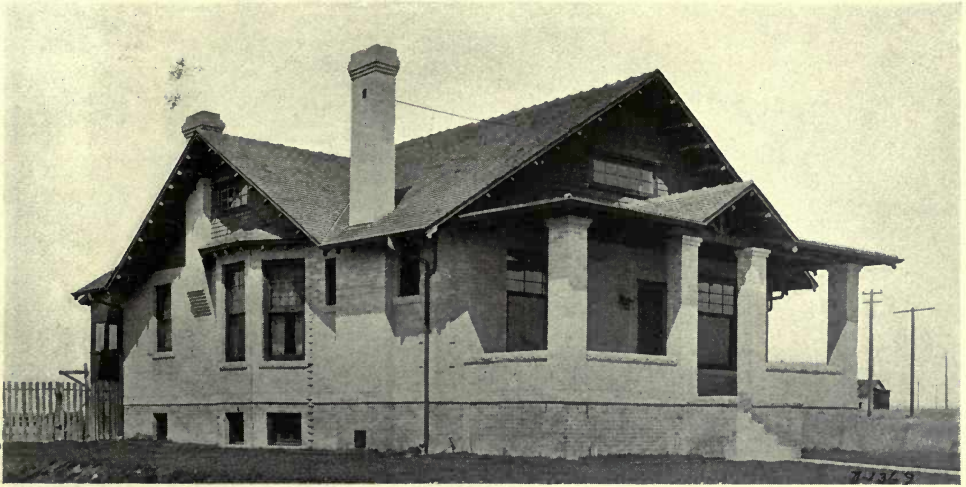
The basement as shown extends under the entire house with fuel bins and laundry. Provision is made for a hot air heating and ventilating system, and concrete floors.

The attic supplies good storage room and is reached through a scuttle in the hall ceiling. If a stairway were desired same could be arranged to ascend over the basement stair and a dormer provided to give sufficient headroom.

Where it is desired to build this as a single detached bungalow, windows will be secured in the kitchen and bath, doing away with the necessity for skylights. The porch could also be extended across the whole front with same general roof and post treatment as now shown, except that there would be no center post.

A Brick Bungalow

Here we have an attractive type of a brick bungalow, with shingled gables, cement steps and porch floor, a cut stone



Adding the interest of brick.

porch railing and step abutment caps.

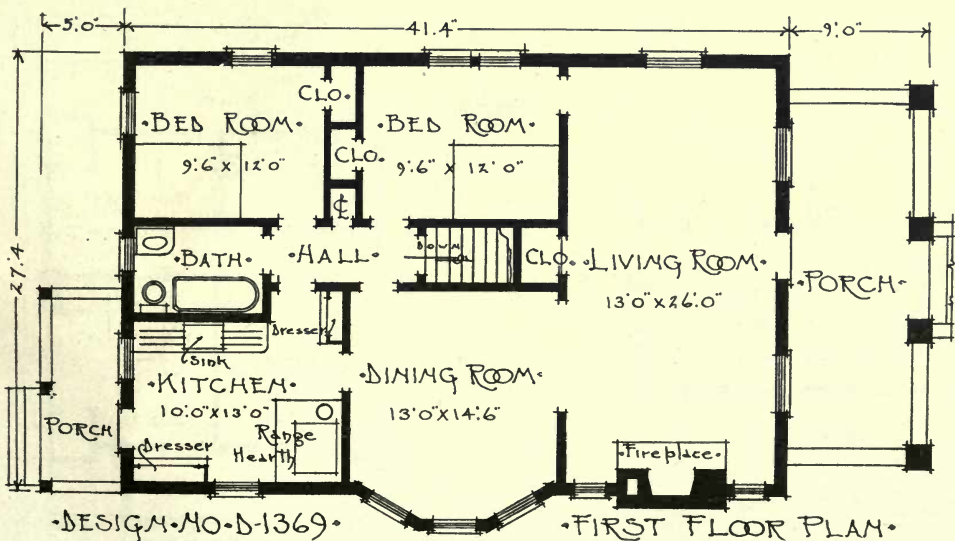
The rooms are of good size with the living room extending entirely across the front of the house and the porch is nearly as wide. The fire-place and windows fill one end of the living room. Beyond is the dining room with a bay of windows across one end of the room.

The kitchen is well planned, having double drain boards and good cupboard

room. The rear porch gives additional working space.

The bed chambers connect with the private hall, giving access to the bedroom, kitchen and dining room as well, and from which descends the cellar staircase, although there is provided in addition, an outside cellar entrance-way at the rear.

In the basement, which extends under





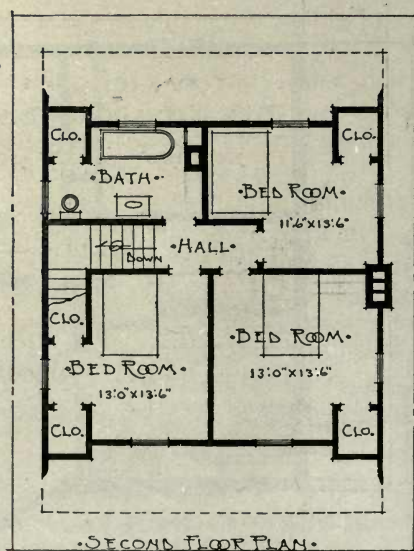
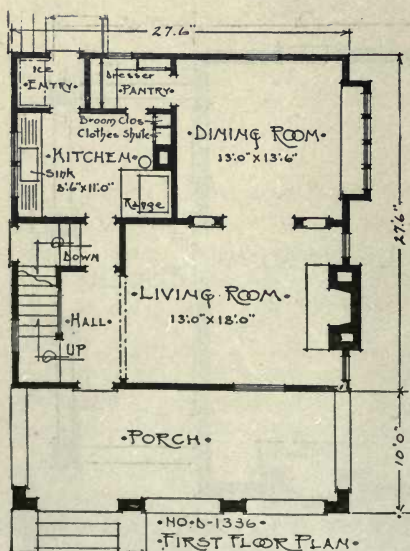
It is home-like and inviting.

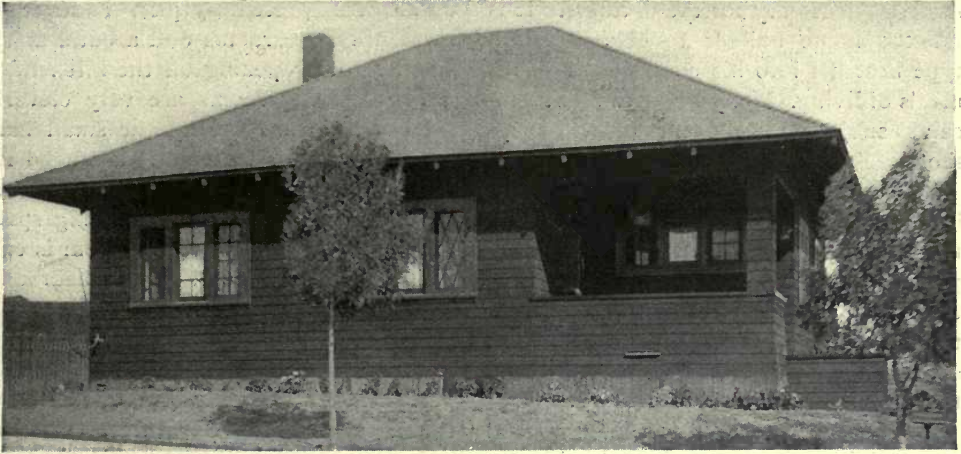
the entire house, there is ample space for a hot water heater, fuel bins, laundry, vegetable cellar, etc., and if it were desired, two or three very fair rooms could be finished off in the attic story, staircase going right up out of living room over basement stairs. In this event, it would

probably be advisable to use a little larger window in the gables, for better light and ventilation for the rooms that might be finished off in that space.

A Story-and-a-Half Cottage

This design is frankly a story and a half cottage. Coming down as it does

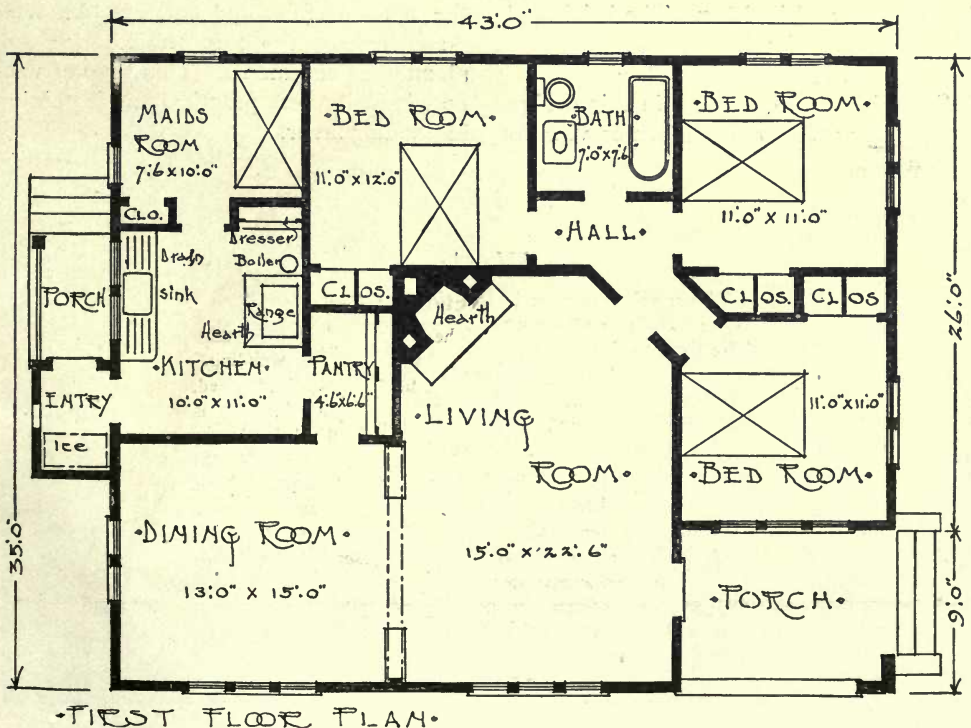




All on one floor.

over the ten-foot porch which extends the full width of the house, the roof gives room for the bedrooms on the second floor, the wide dormer giving window height at the front of the rooms. The floor plan 27 feet 6 inches, each way, ex-

clusive of the 10-foot porch, gives the same number of rooms as the following plan, a one-story bungalow. While one covers more ground space, the other has a greater height of wall in the gable ends of the house and the additional work and



material necessary for the dormers. It is for the home builder to choose which type best fits into his conditions and his ideals of living. Many builders find themselves subjected to the rules of the "forty-foot lot."

This design is well adapted for a suburban cottage home. The entrance with the corner hall gives easy access to any part of the house, while at the same time the stairs are sufficiently removed from the living part of the house and at the same time accessible from the kitchen that rear stairs are not necessary.

The kitchen has been carefully worked out and is well arranged, and with the addition of the butler's pantry makes the kitchen service very convenient.

On the second floor are three bedrooms and a bath. The wide dormers give space for the windows and the closets come under the roof.

The stuccoed exterior with the heavy porch piers and attractive flower boxes is homelike and inviting. The brickwork gives a touch of color.

A One-Story Bungalow

Spread out on one floor, in this design, are the day rooms and kitchen service not

unlike the preceding plan in arrangement, three bedrooms and a bath, and a smaller room opening off the kitchen.

The sleeping rooms are very cleverly set off to themselves by the small hallway, and double closets are arranged for each room. The panel not only divides the closet but gives more hanging space at the same time. The bath room is easily accessible from all of the bedrooms and from the living room as well.

The entrance is directly into the living room from the small porch. The fireplace and the unusual shape of the living room make attractive features. The dining room is only partially separated from the living room. The butler's pantry has good cupboard space.

The maid's room opening from the kitchen keeps the service portion of the house en masse. An entry from the rear porch is planned to accommodate the refrigerator, and the dresser in the kitchen will give stowage space for pots and pans, the kitchen china and cutlery. All windows, except those in the kitchen, are planned as casements. This type of window is really very practical and is gaining in popular favor.

Weeds

The waning season is the time to remember that "One year's seeding makes seven year's weeding." The time to destroy weeds is before they go to seed, or at worst before the seeds are scattered. It is much easier to get rid of the old dead weeds in the fall while the seeds adhere to them than, in the spring, to pull up all the weeds these seeds would plant. A little plot of weeds will plant acres of ground. Clean culture in the early fall also helps to reduce insect pests and fungous diseases. The cutting, or gathering and burning of all canes, runners and vines which are past their usefulness tends to destroy the larvae of insects and the spores of fungi, and may lessen future trouble from these causes.

Luxeberry

WHITE ENAMEL

Beauty

reveals a rare secret in the snowy charm of Luxeberry enameled woodwork and the lustrous finish of Liquid Granite floor varnish.

Luxeberry White Enamel can also be adapted to the newer shades of French gray and old ivory in either brilliant or dull effects.

Liquid Granite floor varnish is the great general purpose finish. It is waterproof, resists wear and is suitable for all interiors.

Write for interesting book on wood finishing.

BERRY BROTHERS

World's Largest Varnish Makers

Established 1858

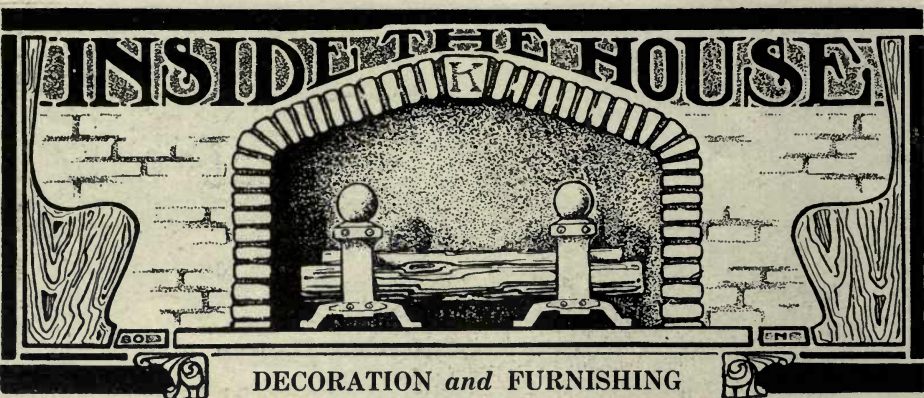
Factories: Detroit, Walkerville
San Francisco

209

Liquid Granite

FLOOR VARNISH





The Treatment of Related Rooms

MANY homes are now being constructed in which all of the rooms of the first floor of the house are more or less connected so that for decorative purposes they are practically one.

The decorating and furnishing of a group of related rooms in a simple and attractive

way and in such a manner as to hold them together harmoniously is one of the most common of decorative problems.

The safest way to approach this problem and maintain artistic harmony among closely related rooms is by the selection of the same neutral tone for the entire floor, treating the rooms which have an

abundance of sunlight in the cool tints and reserving the warmer tones for rooms having a cool atmosphere.

A Gray and Rose Treatment

In "one color" effects there is quite a choice. Gray as a foundation or background is now receiving considerable attention, not a cold gray but rather a warm shade in which brown and yellow or rose tones are somewhat suggested.

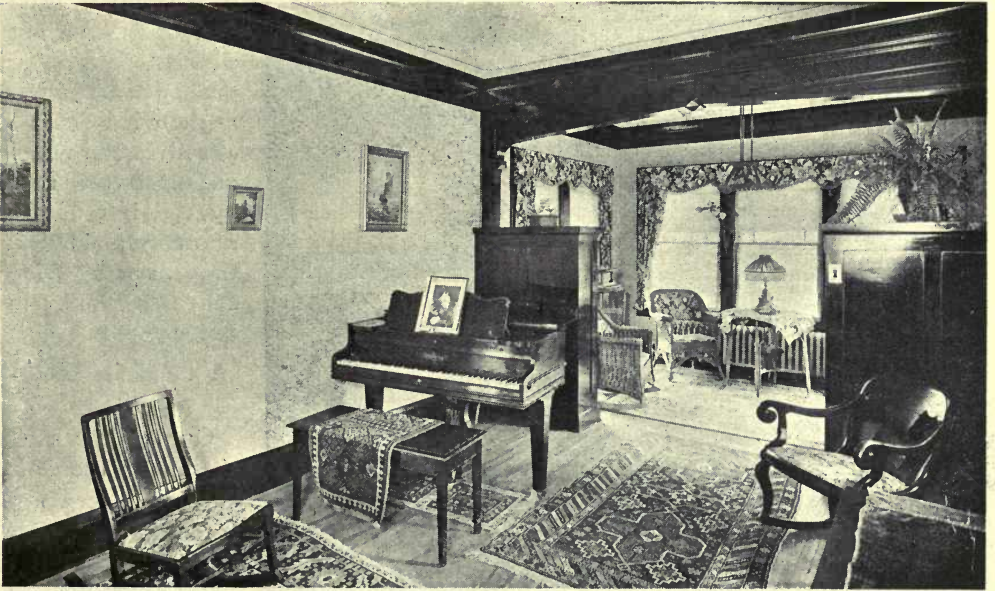


The fireplace laid in tapestry brick.

INSIDE THE HOUSE

An effect of spaciousness is added to an apartment when treated in this color as gray recedes and enlarges the room apparently; also as it subdues the rays of light it is very appropriate for rooms having a sunny exposure.

estry paper should extend up the stairs and through the upper hall where it will be at home with the ivory enameled wood trim and offer a pleasing contrast to the plain simple walls of the adjoining chambers.



The sun room is an integral part of the living room.

Gray walls with the window hangings in faded old blue, or deep old rose or mulberry will offer to a sunny living room a most restful atmosphere but should be supplemented with a richly colored rug either in solid tones of deep rose or one in an Oriental pattern, showing ivory, blue and green on a deep mulberry field.

Where the living room is treated in a plain warm gray and this room adjoins the reception hall with a large generous opening, nothing more charming could be chosen for the hall than one of the very popular tapestry or verdure papers printed in many shades of gray. This tap-

Then there is a wide range of golden browns and soft tans and there is nothing more satisfactory as they combine with almost everything except lavender and violet. A yellow tan wall with a creamy yellow ceiling makes a most charming background for wicker furniture and the gay chintz hangings which are so much in vogue at present.

A Combined Living Room and Sun Room

The accompanying photos show a combined living room and sun room in which tan, carrying a touch of red forms the background. In this charming apart-

INSIDE THE HOUSE

ment the sun room is separated from the living room by the projecting bookcases and transverse beam.

The walls of both rooms are hung with a German fibre paper in two shades of tan, the design being suggestive of the Gothic period with the ceiling in a cream

Across the small reception hall and opening from it with a wide generous arch is the dining room with the trim of gum wood in a soft tobacco brown stain. The tall panels of the wainscot are filled with an imported grass cloth in a beautiful shade of golden brown and for a pleas-

ing contrast, hangings of dull old blue sunfast of a heavy quality are arranged at the windows. An effective color note is added to the room by the introduction of orange and blue in the narrow frieze above the wall panels.

A Charming Morning Room

One of the most charming rooms I have ever seen is a second floor sitting room or, more properly speaking, a morning room, done in old ivory, gray

and dull blue with a dash of old rose. Fortunate is the home maker who has old ivory wood trim for a foundation for with this satisfactory color there is great latitude. This morning room was pleasantly situated on the south side with two pairs of French doors leading to a balcony overlooking a charming old fashioned garden overflowing with many colored flowers.

The dimensions of this were about fifteen by twenty feet with a low ceiling which added to the coziness of the room rather than detracting from it. The



The dining room is finished in gum wood.

tone. The wood trim is birch stained a beautiful mahogany tone, and the fire place is laid up in tapestry brick in soft browns with touches of deep red.

The overdrapes are of velvet in a soft old red tone made up in a flat valance effect with glass curtains of sheer fancy net. The draperies of the sun room are built of an imported chintz in a Japanese design in red, green and ivory on a black ground. The cushions of the wicker chairs are covered with the same chintz which lends itself pleasingly to this style of furniture.

INSIDE THE HOUSE

walls were hung with a cool gray and faded blue paper in a textile weave and very heavily embossed, the top finished with a four-inch decorative border in soft dull blues and gray with a pomgranite motif in rich deep rose appearing about every ten inches around the room.

The French windows swinging outward onto the screened balcony permitted the hanging of a valance and side drapes. These draperies were a combination of velvet and taffeta—the flat valance being of dull faded blue velvet, outlined with galoon in antique silver with side curtains of the most beautiful shadow taffeta in floral pattern one could imagine, in dull tones of old blue, mulberry and soft green on a bluish background; the whole permeated with a soft transparent rose tone that was delightful to the eye.

The large fireplace at the end of the room was built of hand-moulded faience tiles in a transparent over glaze laid over

a ground work of warm gray and rose with glints of blue and silver. The furniture was the feature of the room as it was wrought from beautiful gray satin wood inlaid with fine lines of black and ivory. Small clusters of flowers tied with dainty ribbons were deftly painted on the panels of the doors in soft pastel shades with the soft ivory of the wood for a background.

The arrangement of artificial light in this room has been made to serve as nearly as possible as a substitute for sunlight. A transparent marble bowl, beautifully carved, is suspended by chains from the center of the ceiling and for reading purposes side lights and base plugs are placed at convenient points. One light invites us to a comfortable chair nearby for the quiet perusal of a favorite book while the glow of the reading lamp near the blazing log fire tempts us to day dream.



This Book on Home Beautifying Sent Free

Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

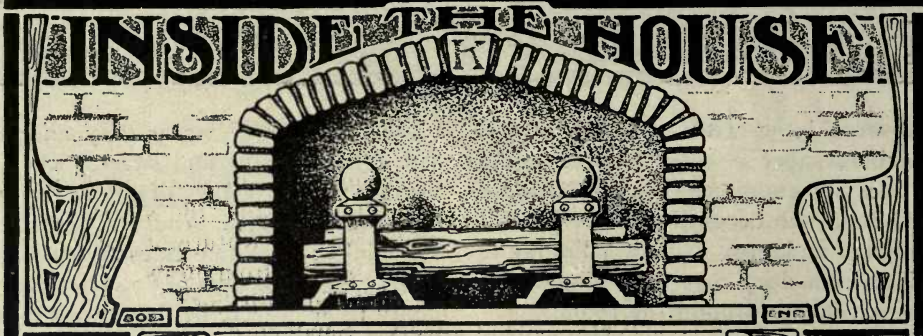
S. C. JOHNSON & SON, Dept. K. E. 10, RACINE, WISCONSIN

"The Wood Finishing Authorities"

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



ANSWERS TO QUESTIONS ON INTERIOR DECORATION.

Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

An Old-fashioned House.

I. W. Will you kindly help me with suggestions for my house. It is an old-fashioned house finished in walnut, and the ceilings are very high. My furniture is mahogany.

Ans: You have a very difficult proposition in this old-fashioned house with very high ceilings. It is best to emphasize the old-time character of the house and woodwork. There is no great conflict between walnut woodwork and mahogany furniture if you get the right wall. This is one of the places where we do not advise a plain wall. We should use in living room a tapestry design in soft dull shades of color on a grayish ecru ground, and have two rugs, each 8'3"x10'6" in dull blues and greens and touches of old red. The long windows are very hard, and should be treated with great dignity, by lace curtains and over-draperies of plain blue or green. The ceiling should be very light gray.

The dining room will look very boxy unless you bring the ceiling down about 2½ feet on the wall, placing molding there. Have a blue and green grass cloth paper on side wall and cream ceiling. In the hall use a tapestry design also, gray and old rose or mulberry.

A Handsome Interior.

W. D. W. I am herewith sending you the plan of our new home and wish suggestions on the finishing of walls. Also what shall I use for draperies, shades and floor rugs. I do not want oriental. Liv-

ing room trim is genuine mahogany with a suggestion of brown. All glazed doors and window sash and stair risers and spindles white. Panelling, panel door and all other trim mahogany with oak floor. Please suggest color of floor. Dining room, rear hall and first floor chamber will be fumed oak with white sash and oak floors.

Breakfast room, white or cream. The second floor chambers are to be white or ivory with birch doors stained mahogany. The other chamber on second floor will be fitted up for a den. Furniture to be oak, which is some I have on hand, oak with brown leather. I have three Wilton velvet rugs. One with very dark blue background with sort of soft tan roses, and rather deep mulberry roses scattered over soft green and soft tan leaves.

Ans. You have a handsome house, with very complete appointments. It is a pity to have so small a dining room in such a house, as it is only large enough for family use. We should have made the breakfast room an alcove merely, off the kitchen, and thrown 4 feet additional into the dining room.

Genuine mahogany is an unusually rich trim and this room should be very handsome. There is a paper we have seen used with real mahogany that pleased us immensely. It is a small conventional design, all in self tones of dull, bronze green and looks like silk, but is not very expensive. The hall alcove should, of course, have the same wall. The rugs you describe seem pretty, but we hardly think

*JUST A
HOME*



E. W. Stillwell & Co., Architects

See What Can Be Done With

RITE-GRADE RED CEDAR SHINGLES

What could be more beautiful?—Can be stained in lovely dark browns, golden browns, reds, walnuts, grays! What more durable? A roof and wall to last forty years, or a century if you use the right nails. Red Cedar ensures you Nature's best material; RITE-GRADE ensures you man's best manufacture of that material.

Ask Your Dealer for RITE-GRADE

For free Bungalow Homes Book, Distinctive American Homes Book, Farm Buildings Book, send 2 cents each to defray mailing, to

**Shingle Branch, West Coast Lumbermen's Association
1019 White Building, Seattle, Wash.**



any of them suited to this room, either in coloring or size. You need a rug 10x13 in the main room and a smaller one in the hall alcove. The 9x9 you have could be dyed the color of the new one in living room. It is not at all necessary to get orientals in order to have handsome rugs. We can tell better about this room when we know the exposure.

The oak floor should have some brown stain, not too dark, to bring it in tune with the mahogany. In the dining room the oak floor can be finished nearly natural if you prefer, as it will not conflict with the fumed woodwork. Do not have any thresholds in the openings; they are never used now as they are unnecessary and detract from the appearance.

In regard to the rear chamber on second floor to be used as den, we should not have an ivory trim with oak and brown leather furniture. If the wood is pine, stain it bog oak, a dull green, and it will be fine with the oak and leather and much more in keeping.

To Enamel Furniture.

H. M. S. I was reading some suggestions in your magazine. I have a bird's-eye maple set and would like to know if it can be enameled white. If so, kindly send directions.

Ans. If your bird's-eye maple set is built on good lines, it would be a shame to finish it in enamel, as this beautiful wood is coming into use again.

However, if you decide to finish it in enamel, it would be best to remove the old varnish with varnish remover, according to directions printed on the label. It is very dangerous to handle this liquid as it is a high explosive. After removing varnish, sandpaper very smooth and apply three coats of flat white which may be purchased already prepared.

Sandpaper between each coat with No. 00 sandpaper and between first and second coats of flat; fill all holes with white lead putty. This putty is made by mixing pure white lead and whiting. The fourth coat should be one-half flat white and one-half enamel; then sand lightly

with No. 00 sandpaper. The fifth coat may be clear enamel in white or tinted to an ivory shade. You may use egg shell enamel which will flatten down to a dull finish when drying. The job is then complete. If you want a hand rubbed finish, proceed as above and make the fourth and fifth coats clear enamel in high gloss and when hard, rub down with pumice stone and water to desired finish. Do this work in a room that has no draft. If dust settles on the work it will be spoiled.

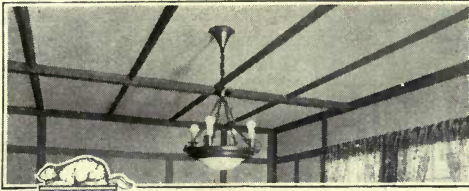
Placing the Fireplace.

L. N. G. I am building a Swiss chalet this spring with a living room 16x28 with south, west and east exposure opening into dining room. Should I tint both rooms the same shade and are they using the plate rails with wood panelling in the dining room? Had thought of furnishing living room in fumed oak, with soft tan walls but cannot decide on dining room furnishings. Please advise me. Am using medium stained oak trim and floors. Hardwood throughout. Would the large brick fireplace look best in the west end of living room or on the south wall? I wanted my bookcases each side of fireplace with divan and library table in center facing fireplace.

Ans. In reply to your recent letter in regard to interior treatment, would suggest that if the fireplace is arranged in the center of the south wall with davenport and table facing it, that the room will be out of balance on account of the grand piano in the east end of the room.

We think it would be much better to arrange the fireplace in the west wall, which would make that end of the room rather cozy and at the same time the room will appear much larger. This would be by far the best arrangement as you will need the space in the center of the room and in this way you can place the bookcases on each side of the mantel under small casement windows.

Because of the wide porch it would be best to finish the walls in a creamy tan as you may find the room somewhat gloomy on dull days.



For Ceilings ALWAYS

Study the ceiling proposition—look into all other ceiling materials—and you'll agree with us that there's no excuse for any other kind of ceiling in your new home or the old one, but Beaver Board.

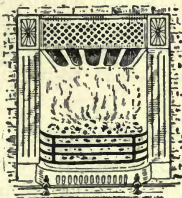
It's the one ceiling that keeps its shape—no lath shadows, because there are no laths, no bulges or cracks. Delightful paneled or beamed effect. Paneling can be as pronounced or as unobtrusive as you choose.

Beaver Board is the modern, sanitary wall and ceiling material—handsome in appearance, permanent as the wall itself. *Write for sample.*

The BEAVER BOARD COMPANIES
656 Beaver Road - Buffalo, N.Y.

Branches in Principal Cities

BEAVER BOARD



Many styles of grates and mantels to choose from.

A Cheerful, Open-Grate Fire and a Ventilating Warm-Air Furnace

are combined to secure coziness, comfort, health and economy in

The JACKSON VENTILATING GRATE

will pay for itself in three years by giving four times as much heat as the ordinary old-style grate from the same amount of fuel. Not only warms *Directly* by the fire in the grate, but warms *Indirectly* by drawing in fresh air from outside, warming it in the air chamber surrounding the fire and sending it into the room. Also heats connecting rooms and also rooms upstairs if desired. Any mason can set it up from our Complete Plans Furnished FREE. Better than a furnace for Fall and Spring—more cheerful, less attention, about half the fuel.

Send for Free Catalog K of Ventilating Grates, mantels, andirons and all kinds of fireplace fixtures with explanations, illustrations, full information and prices; also reference to users in your region.

EDWIN A. JACKSON & BRO., Manufacturers
25 Beekman Street - New York



Study this diagram and you will see at once the heating and ventilating principle which makes this grate superior to all others.



What's Behind the Screen Door?

You'll be taking off that screen door soon. Is the door behind it worthy of your home? Or will it discredit the entire home exterior?

You can easily make the front door and every other door in your home attractive, inviting and up-to-date at small cost with one of the many designs in



Doors of Character

for every architectural style and purpose.

Suggestions for Beautifying the Home

We have just issued a new 32-page booklet, "Adding Distinction to the Home." It is copiously illustrated and shows what charming results can be attained at small expense by replacing ordinary doors with French, Mirror or Front Doors. A mine of suggestions for all who expect to build or improve their present homes. Sent free on request.

"The Door Beautiful" our 50-page illustrated design book, is intended especially for the prospective home-builder. Every page is replete with suggestions on doors, interior trim, and interior decoration. If you are planning to build be sure to get this booklet. There is no charge to prospective builders.

Morgan Sash & Door Company,
Dept. A-27, Chicago

Morgan Millwork Co., Morgan Company.
Baltimore Oshkosh, Wis.

Exhibits of finished Morgan Model Doors in all principal cities

INSIDE THE HOUSE

The dining room being very bright and cheerful, would look well treated in gray greens with hangings of chintz. Dull old blue walls with rug in blue and golden tan would be charming. We would suggest breaking the walls by using a plate or chair rail in the same finish as the wood trim.

If the walls are smooth finish, would suggest that you use paper in place of tint as you can get much better decorative effects. Tinting on smooth walls necessitates using a varnish size under the tint, and if you should wish to paper at some future time, this size must be removed and that is a very disagreeable job and is apt to ruin your woodwork.

North and East Rooms.

L. J. D. Please advise me as to colors for my living and dining rooms. The living room is 16x18 with one large east window and two north windows. The dining room, 14x16, has three north windows. The woodwork will be pine and I would like to know what color it should be stained to best match my furniture. My dining room furniture is quarter sawed oak, golden finish, and my living room furniture is willow, with a fumed stain. I also have a large golden oak rocker and sectional bookcase which I want to use in the living room. The wicker furniture is upholstered in blue, brown and some green tapestry.

I want the woodwork the same in both rooms as I will have French doors between. The walls are to be papered. There will be a plain brick fireplace in the living room.

Ans. Considering the exposure of the living room and dining room, it would be advisable to paper the rooms in warm tones. The dining room facing north may be treated in a golden effect. We have in mind a foliage effect on a bronze background. The foliage is worked out in metal effect and outlined in dull old red with a little dull green and soft brown. The paper for the upper wall is a beautiful blended metal effect showing a transparent stain over the gold with blendings of

soft red, amber and wood browns. There is also a border made to go with this paper which may be used for panelling.

The draperies for this room may be in a copper or dull mahogany tone. The woodwork would look well stained a rich tobacco brown shade and waxed. When staining the woodwork, wipe it well with a cloth while drying, so as to bring out the flakes in a light tone.

Treat the living room in a golden tan paper with a border at the top of the wall with the picture molding, showing a little dull blue. Have the draperies at the windows in dull soft old blue and the rug in deep golden brown, blue and tan. Treat the woodwork in the same manner as the dining room and you will get a very cheerful effect.

If you prefer you could stain your woodwork in fumed oak or Old English oak, both of which are very popular, but one carries a gray undertone and the other a deep brown undertone. I think that the tobacco brown stain would be better, considering that the rooms have a north light, which necessitates using warm tones both in the wood trim and wall hangings.

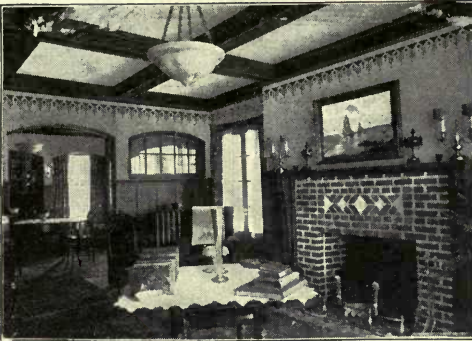
Curtains for Casement Windows.

R. E. J. Thank you so kindly for your earlier suggestions. I am now in doubt about the curtaining of the windows and would ask your advice on same.

Living room, north exposure, has a bay of five casement windows 20x40 inches. These are narrow, short windows. Would you suggest both scrim or net to the window and the overdraperies or just the silk draperies? The color scheme is to be golden brown. The casement windows open out.

The dining room has four casement windows, color scheme dull blue. Would the blue draperies be sufficient or should I use also the white curtains? Dining room, east exposure, windows 14x26.

The den has eight casement windows. Kindly give your suggestion for this room also. East and south exposure. Orange tan color scheme, with windows 14x34 inches.



Get our ideas before decorating the home

Soft, warm tones predominate in the room pictured above.

The walls are Mellotoned a soft brown, the ceiling a cream. The arts and crafts stencil is executed in brown Mellotone. The woodwork is stained a light brown with Lowe Brothers Early English Non-Fading Oil Stain—followed with "Little Blue Flag" Inside Rubbing Varnish rubbed to a dull finish.

Furniture, floor coverings and draperies all harmonize with the walls and woodwork. Red-brown and green are the prevailing tones. This beautiful room is only one of a number pictured in our booklet, "The House Outside and Inside," which we shall be glad to mail you on request.

Lowe Brothers Non-Fading Oil Stains

are just as the name indicates—"NON-FADING." They are made from permanent pigments that do not fade when exposed to sunlight, as do acid and water stains, and need no protecting coat of varnish. The Oil Stain is easily applied and dries to a beautiful flat finish. It is wonderfully durable and satisfactory.

Twelve rich colors

can be had with Lowe Brothers Stains—among them mahogany, walnut, oak, cherry, etc. Write for "The House Outside and Inside," and see the beautiful effects made possible by these oil stains in combination with other products of equal quality.

The Lowe Brothers Company

465 E. Third St., Dayton, Ohio

Boston New York Jersey City Chicago
Kansas City Minneapolis Toronto



THERE'S JUST *One Flooring* That Combines *Beauty and Durability*

¶ When you floor a building with OAK FLOORING you can rest assured that you have done a **distinct service** that will always reflect to your own credit.

¶ OAK FLOORING—the flooring that is as permanent as the foundation—will always give complete satisfaction. The first cost is the last, as repairs are eliminated.

¶ For bungalows and moderate cost houses $\frac{3}{4}$ in. OAK FLOORING, Clean Plain or Select Plain, is the ideal flooring because it is very economical in cost and when laid, has all the appearance of 12-16 in. OAK FLOORING.

¶ $\frac{3}{4}$ in. OAK FLOORING is very adaptable for covering old pine floors in old houses, as well as in new houses over cheap sub-floors.

¶ Nature has given OAK FLOORING that peculiar favor that appeals to the artistic as well as the demand for the distinctive and substantial.

¶ OAK FLOORING can be laid by any carpenter or handy man successfully and during the slack season it makes a very profitable line for any carpenter.

All Reputable Lumber Dealers Sell OAK FLOORING

Write For Booklet—

"America's Best Flooring"

Oak Flooring Service Bureau

1348 Conway Bldg., Chicago



Ans. On account of the shallowness of the windows, we would suggest for the living room an "all over" pattern fancy net in a very sheer quality in a small block design. For the living room select an ecru net and use one strip at each window, hang straight to the sill with a 2-inch hem on both sides and bottom. Shirr for a $\frac{1}{4}$ -inch rod with a 1-inch heading above. Do not use a scrim or marquissette, as these nets are much more effective. For the overdrapes hang six small $\frac{1}{4}$ -inch rods, each rod 8 or 9 inches long, on extension brackets at the top of the upright casings between the windows and from these hang straight narrow curtains of soft brown silk or soft 50-inch sunfast split in half. Have the tops shirred same as the laces and on a line with them, but let them drop a couple of inches below the nets at the bottom.

For the dining room we would run a $\frac{1}{4}$ inch rod across the four windows using four strips of the same net in another design but in old ivory shade and not white. Hem and shirr in the same manner but allow the laces to come together covering the entire window. At each end hang a $\frac{1}{4}$ inch rod about 9 inches long and hang a strip of blue silk or sunfast in the same manner.

For the den we would advise using a bright colored chintz or cretonne decorated with birds and flowers. Use a very soft quality that can be pushed to one side with flare at the bottom. Hang one strip to each window in pleats with rings so as to slide to either side very easily. If you line these chintz curtains with sateen you can dispense with the window shades.

It would be out of the question to suggest a valance treatment for these rooms as the windows are altogether too short.

Upholstery and Furnishing.

J. E. G. We are building a new home. I wish you would give me some idea as to decorating the rooms. For the living room I have a mahogany piano, also a mahogany parlor suite which will have to be recovered. I shall also have to get some odd pieces for the living room. What

color of covering would you suggest for the parlor set, and what kind of extra pieces of furniture, so there would be harmony in the effect?

What would be your suggestion as to the rugs and wall paper to be used? The trim throughout the house is chestnut, and the trim hardware colonial brass.

Ans. We would suggest that the walls of living room be hung with a tan paper with the hangings in a terra cotta sunfast or velvet, with the furniture in a cotton tapestry in a verdure effect. This tapestry should be in olive green, brown and dull red. At the top of the side wall next to the picture moulding, should be hung a 4 inch border carrying these same colors. The ceiling should be in a buff ingrain paper. Also use this same paper throughout the reception hall. We would have the walls of the dining room in a golden brown with the hangings and chair coverings in a dull old blue silk in a soft Shiki effect. The ceiling should be a plain buff or cream and the rug should have a deep blue background with the design in brown, olive and ivory.

The front chamber over the living room will look well in a two-toned yellow stripe paper with a floral border at the picture moulding, with the windows hung in a pretty yellow chintz.

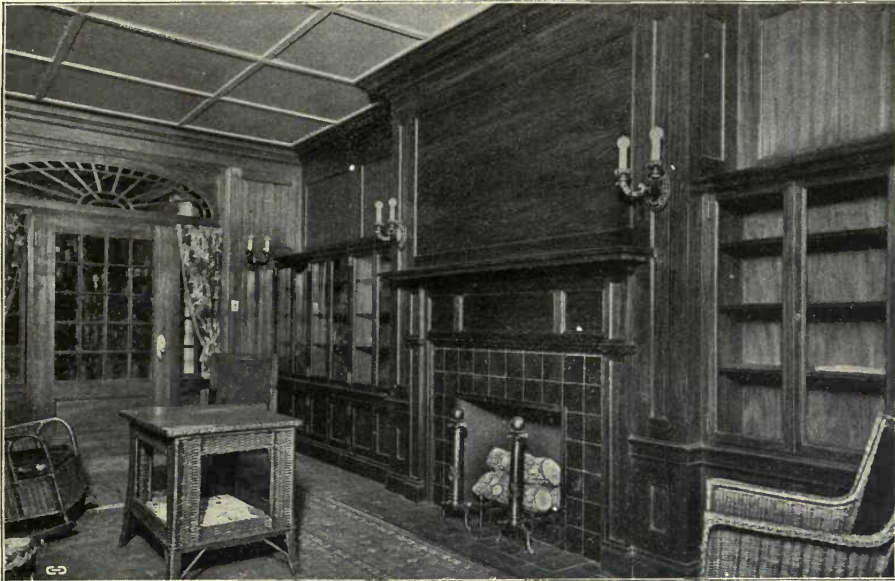
The chamber over the dining room would be very pretty if hung in a small floral paper in two shades of gray with rose and black in the border. The window hangings should be in plain rose sunfast.

The chamber with the white furniture may be in blue with hangings in a blue chintz or soft blue silk. The other chamber may be hung in a cream with rose and black in the border. For the hangings we would select one of those popular black and white effects with plenty of rose in the floral pattern.

For the floor coverings of the chambers, nothing would look better than some of the new round or oval rag rugs which cost very little and are now offered by all the stores in a wide variety of color combinations.

RED GUM "AMERICA'S FINEST CABINET WOOD" RED GUM

AN ENDURING HARDWOOD, YET SOFT AS SATIN TO THE TOUCH.
ITS NATURAL TONE A RICH, WARM BROWN. "A JOY TO THE EYE."



THROUGH HOURS USING AMERICAN RED GUM FOR FINE CABINET
WORK YEARS BEFORE AMERICA'S PRIDE AWOKE TO ITS OWN.

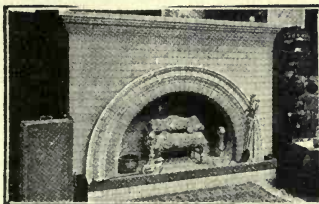
Enjoy Beauty!
Write for Samples

GUM LUMBER MFRS. ASSN.

1316 Bank of
Commerce Bldg.

MEMPHIS, TENN.

With Knowledge!
Write for Booklet



Colonial Fireplaces ARE RIGHT

Made to Order
from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are economical both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

Beautiful tiled bathroom and kitchens are no longer a luxury. Even the most unpretentious homes can afford



UPSON FIBRE-TILE



Looks like expensive tile. Lasts longer. Costs far less. Really artificial lumber with deeply indented tile pattern. Nail it over old plaster or to studding, and enamel. Send 2c stamp for sample and interesting booklet.

THE UPSON COMPANY 160 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.

VOTE FOR ONE ☒



The economical and efficient handling of home heating is best represented by the "Minneapolis" in any one of its several models—the two models shown here are our leaders.

Automatic heat regulation is an absolute necessity if you are to enjoy your home during the cold and unsettled months. This device not only maintains a uniform temperature day and night but can be easily so adjusted that it will automatically operate for a lower temperature for the night and again in the morning operate for a return to warmer temperature. It is a marvel of convenience and has proven its merit in thousands of homes for 31 years. Works perfectly with any kind of heating plant and guaranteed satisfactory.

Your hardware dealer or heating contractor handles the "Minneapolis."

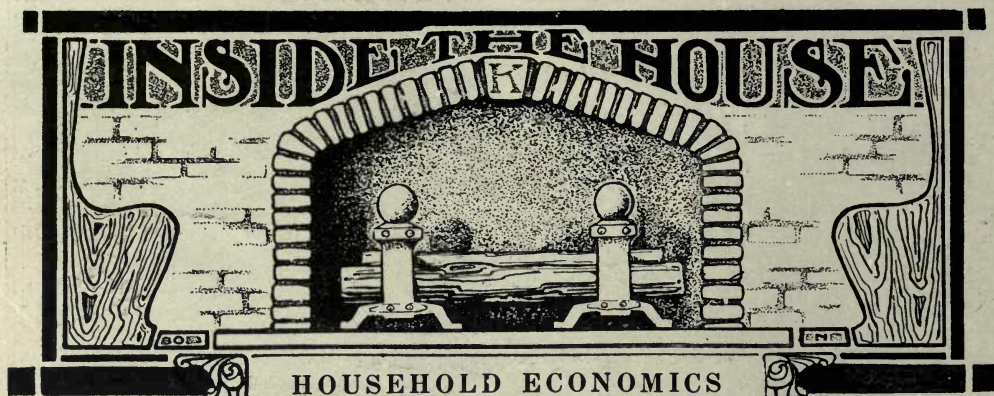
WRITE US FOR BOOKLET

Minneapolis Heat Regulator Co.

2725 Fourth Avenue South,

Minneapolis, Minn.

Square dealing by our advertisers is guaranteed.



The Wash Boiler and "Blue Monday"

IT has been asserted that the terrors of washday are due in large part, not so much to the arduous character of the work, strenuous though it may be, as to the fumes of soap, the steam from the boiler and the products of combustion given off by the generally unscientific conditions of the usual gas plate and boiler. A new sanitary wash boiler which is here illustrated, has been evolved to counteract these conditions.

Every housekeeper has noticed that while cooking utensils are seldom blackened by the gas range, that the bottom of the boiler is much more likely to be smoked. Smoke and black soot always mean poor combustion, and therefore waste of fuel. The size of the boiler does not allow it to keep so evenly heated as a smaller vessel. The bottom of the wash boiler acts as a deflector causing the heat to escape into the room. When the boiler be-

comes heated and filled with boiling water and suds it acts as a radiator adding additional heat to the laundry room. The inefficiency of so crude an apparatus tends to waste the heat, which of course means large gas bills.

There is a generally accepted principle that when a hot flame strikes a cold surface imperfect combustion occurs with waste of fuel. This is true of any fire

and often occurs in stoking a furnace fire, starting clinkers by improper placing of fresh coal. It is equally true when a gas flame strikes the bottom of a flat vessel, and carbon dioxide is given off.

Have you noticed how often a laundress develops a headache when the washing is about half done? The gases and the fumes from the suds seem to be the cause. The boiling of the water generates steam that carries vapors of alkali and fats from the soap and soiled clothes through the entire house and this



The new wash boiler has the gas plate enclosed.



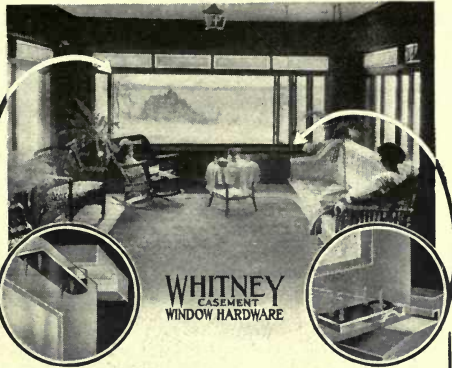
IN the old, old days mother would carry you down to the warm kitchen, and set you in front of the glowing range.

While the good old-time fire crackled, and the good old-time breakfast was cooking, what was the name you spelled out, on the oven door?

"S-T-E-W-A-R-T," of course.

Since 1832 Stewart stoves and ranges have led in progress and performance. The up-to-the-minute Stewart models are everything a stove should be, everything a stove could be. Write for booklet; ask for particulars of the Service Stewart Combination Coal and Gas Range.

Fuller & Warren Co., Adams St., Troy, N. Y.
252 Water St., New York



What Do You See Thru Your Windows?

Is the picture cut up by the window frames?

You can enjoy a broad, unobstructed view—get the full benefit of your window openings—if you have casement windows which are installed with

WHITNEY CASEMENT WINDOW HARDWARE

This unique patented hardware enables you to use any design sash you wish and have casement windows that always work easily and quietly; open outward out of the way—don't interfere with screens; are self-adjusting—stay rigidly just where you open them—can't rattle or slam shut—and are storm-proof when closed.

For wide openings, the sash are installed in pairs which open outward, V-shape; each pair works independently of the other pairs, can be opened as little or as much as desired and can be moved easily to any point in the opening while either open or closed. You can open all or any number of pairs and move them all to either side or the middle or any other point in the opening. This feature affords you perfect control of ventilation, protection from drafts and an unobstructed opening when desired.

For small openings you can install single sash. We make and sell only the patented Whitney Window Hardware. Buy your sash anywhere you wish.

Whitney Casement Window Hardware is giving satisfaction in all types of buildings from Coast to Coast.

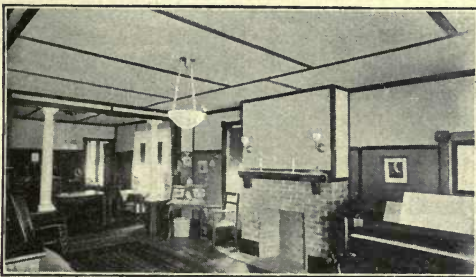
Write for full information and interesting pictures of artistic window effects.

**Whitney Window
Corporation,**

311 Fifth Street South,
MINNEAPOLIS, MINN.

**H. E. Holbrook
Company,**

445 John Hancock Bldg.,
BOSTON, MASS.



CAREY Ceil-Board SUPERSEDES PLASTER FOR WALLS AND CEILINGS

Gives a charming paneled effect to walls and ceilings; ideal for the bungalow. Plain finish in tan or gray—simple and tasteful—for the bedroom. Grained Ceil-Board meets the demand for a beautiful, hardwood effect in living, dining room or hall at small expense with any finish one desires—Golden or Mission Oak or Circassian walnut.

Send today for our booklet, "Beautiful Interiors," containing many helpful suggestions for finishing your various rooms. A postcard will bring it.

THE PHILIP CAREY CO

General Offices:
1024 Wayne Ave., Lockland, Cin., Ohio
Offices and Warehouses in Principal Cities



INSIDE THE HOUSE

combined with the products of combustion from the gas makes an unwholesome atmosphere.



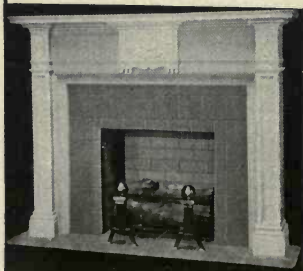
The outer shell enclosing burner and the inner vessel for the clothes.

With this new boiler the first requirement is that the laundry should be supplied with a vent pipe. It is just as well if the furnace pipe is near enough to the laundry to permit of the laundry stove being vented into it.

The outer shell of the boiler rests on the adjustable legs that permit of its being adjusted to the height desired by the operator. In the center of this shell is located a large star gas burner. About half way up the inside shell is fixed a staggering plate which causes the confined heat to pass along the lower half of the boiler and back along the upper half to the vent pipe. Thus applying heat clear to the top of the inner vessel, in which the clothes are placed, and sending the products of combustion and fumes of suds into the vent.

A number of holes are punched close to the upper edge of the boiler and through these holes the steam from boiling is carried into the shell and into the vent pipe. The lid covers the boiler and shell preventing any of the noxious odors or excessive heat from escaping into the laundry and throughout the house.

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.



SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price..... 1.00
50 Design Book "Bungalows and Cottages," Price..... .50
One Large and One Small Book, Together \$1.25, Three Books..... 2.00

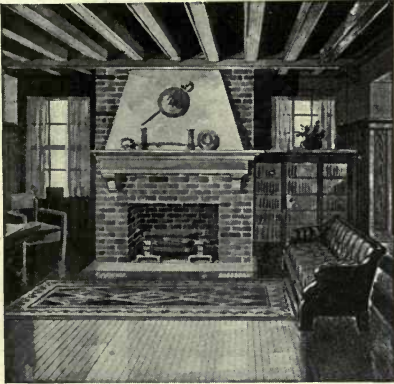
Many pretty one-story Bungalows and Cottages. Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA

Advertisers in Keith's Magazine are reliable.

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size $7\frac{1}{2}$ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price \$1.00, Postpaid

With a Year's Subscription
to Keith's Magazine—\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

Your Home—



Keep the "Upkeep Page" Blank!

The care with which you select the materials that go into your new house is the protection that you have against a long column of figures on the upkeep side of your ledger—and upkeep means dead loss.

The most expensive part of your house to keep in repair is the walls—inside and out—they must be *built* right to *stay* right and walls of permanence are laid over a base of

Kno-Burn

TRADE MARK

Expanded Metal Lath

Kno-Burn Expanded Metal Lath is made with a strong mesh that embeds itself in the plaster and grips unflinchingly and forever. It produces a wall surface of perfect smoothness—no ribs or hummocks—no cracks that disfigure and that cannot be repaired. You can paper over a Kno-Burn lathed wall as soon as the plaster is dry.

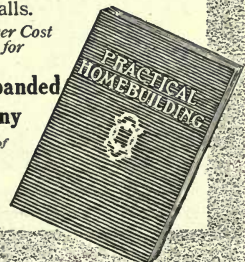
"Practical Homebuilding" tells you just why Kno-Burn Expanded Metal Lath is the most economical material you can put in your walls.

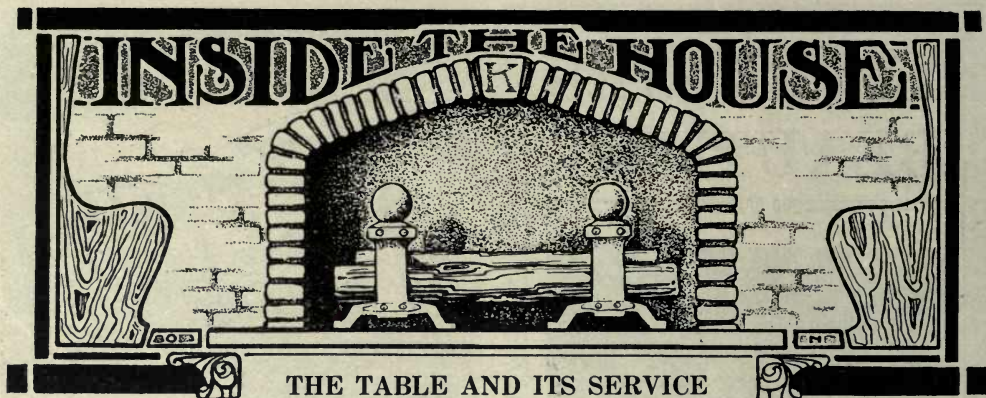
Send Ten Cents to Cover Cost
of Mailing and Ask for
Booklet 829

**North Western Expanded
Metal Company**

Manufacturers of All Types of
Expanded Metal

982 Old Colony Building
Chicago, Ill.





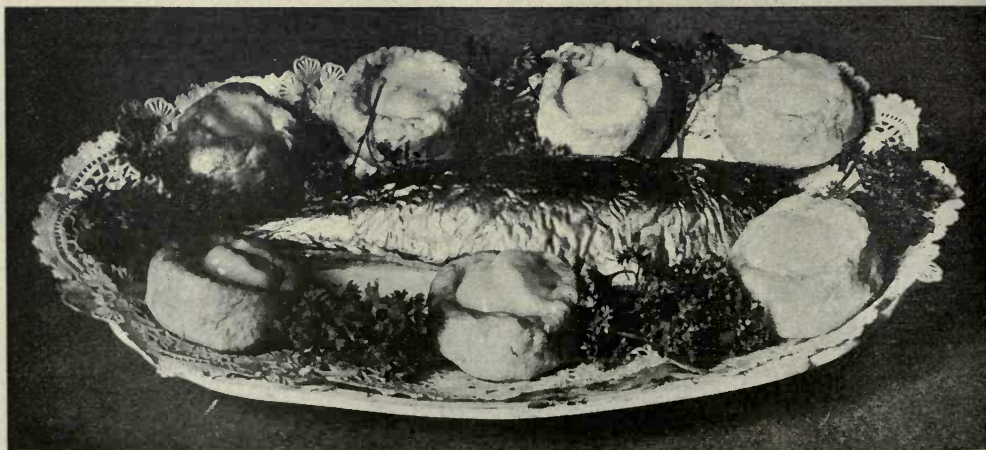
How to Cook and Serve Fish

IN a recent address, Mr. Redfield, Secretary of Commerce, urged the American housewife to use more fish as it was less expensive than meats, and to also get away from the set habit of serving fish only on Friday. He said that in some cities fish has to be used for fertilizing purposes during the other days of the week, owing to the fact that there is so little demand for it.

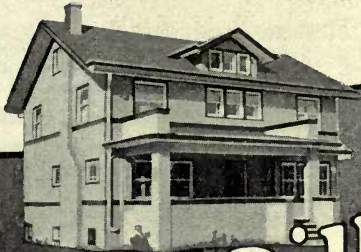
There are other reasons for using fish which should appeal to the housewife. For instance, it does not require long cooking, and is easily digested. The method of cooking depends somewhat on

the kind of fish. Large white fish, halibut, cod, fresh salmon are good boiled in water to which a little lemon juice is added, and then served with a rich sauce.

One of the most attractive ways of serving fish is to bake it whole and serve with a dressing. This method lends itself well to garnishing, especially if the fish be served on a plank. In some hotels the fish is baked in an oven, then put on the plank and the garnish added, but it is much better to cook the fish on the plank from the beginning. Planking originated in outdoor cooking and was much used by the Swedes and other northern people.



Baked fish may be garnished in many ways.



Another Coal Bill Cut in Half!

Guaranteed with the Underfeed

Read the letter printed to the right. This time from Madison, Wisconsin—where winters are long and zero-cold. Yet the usual story of ample heat and coal bills cut in half—GUARANTEED with the UNDERFEED!

Read this again—your coal bills cut $\frac{1}{2}$ to $\frac{3}{4}$, GUARANTEED with the UNDERFEED—no matter where you live—or whether you want to heat with warm air, hot water, steam or vapor!

WILLIAMSON CUT COAL BILLS
NEW-FEED UNDERFEED
Furnaces and Boilers $\frac{1}{2}$ to $\frac{3}{4}$

Coal cost is going up everywhere! But the UNDERFEED means a big saving because it burns the cheaper grades of coal cleanly and effectively—no clinkers—no partly burned coal—no ashes to sift!

And the UNDERFEED utilizes every vestige of heat because it feeds the coal to the fire *from below*! The hot, clean coals are always on top—where they will do the most good—right against the heat radiating surfaces. Fire never "slacked" by new coal being dumped on—never chilled by the opening of top-feed doors—never exhausted by having to fight its way up against new coal.

Smoke, gas and soot are all consumed, because these valuable heat elements must pass *up through* the fire.

Thus we say " $\frac{1}{2}$ to $\frac{3}{4}$ saving in coal bills—GUARANTEED with the UNDERFEED—and backed by a million-dollar concern."

FREE MONEY-SAVING BOOK

It is called "From overfed to Underfeed." Profusely illustrated. Tells all about the UNDERFEED. Write for it today. Having it handy will save you many a dollar later. Read the letter again. Simply send the coupon—NOW.

THE WILLIAMSON HEATER CO.

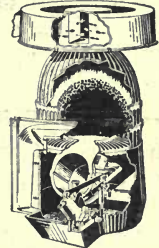
96 Fifth Avenue

Cincinnati, Ohio

"I take great pleasure in informing you that the Williamson UNDERFEED plant installed in my residence, 1820 W. Lawn Ave., Madison, has fulfilled all the requirements that could be desired. The plant is very easily handled, there has been no difficulty in keeping the rooms at an even temperature and the saving in fuel is approximately one-half of the fuel expenditure in any other house of approximately the same size that I have ever lived in.

(SIGNED)

JNO. G. SALSMAN
Adjutant General
State of Wisconsin



THE WILLIAMSON HEATER CO.

96 Fifth Ave., Cincinnati, O.

Tell me how to cut my coal bills from $\frac{1}{2}$ to $\frac{3}{4}$ with a Williamson Underfeed.

Warm Air..... Steam or Hot Water.....
(Mark X after System Interested in)

Name.....

Address.....

My Heating Contractor's Name is.....

Heating Contractors: Let us tell you about the Williamson UNDERFEED and our new proposition. Both are winners.

Healthful Homes in Winter

Are never too hot nor too cold. Their heating plans are regulated to prevent changes in temperature. You can keep an even, healthful heat in your home by installing a

KEES FURNACE REGULATOR

(For warm air furnaces only)

The KEES automatically opens and closes the drafts. It will pay for itself in a single season in fuel saved. It means fewer trips to the furnace and more real home comfort. Prevents dangerous over-heating.

A card will bring our free trial offer.

F.D. KEES MFG. CO. BEATRICE, NEB Box 102

Before You Build

It will pay you to send for

STILLWELL'S BUNGALOW BOOKS

—containing photos, plans, descriptions and costs of 132.



Stillwell Homes reproduced from original California designs—combining beauty, individuality, comfort and economy.

"Representative California Homes"

50 ideal homes, \$2,000 to \$6,000—Price 50c

"West Coast Bungalows"

51 inexpensive homes, \$1,000 to \$2,000—Price 50c

"Little Bungalows"

31 perfect little homes, \$300 to \$1,700—Price 25c

ALL 3

BOOKS

FOR \$1

(Postpaid)

We Sell Books and Blue Prints on a Money-Back Guarantee

E. W. STILLWELL & CO., Architects
457 Henne Bldg., Los Angeles

INSIDE THE HOUSE

It was brought into popularity as a banquet dish by John C. Breckenridge, who was quite a connoisseur, and once gave a dinner at which he had served shad on an oak plank. At that time shad was not highly regarded, but it was so delicious served in this manner that it won a place in the minds of the epicures who now declare that shad should be cooked only on an oak plank, and whitefish on a pine plank to give just the right flavor. For a plank a solid piece of wood is best, just the right size to fit into the oven. It should be soaked in oil to prevent drying and splitting, and brushed with olive oil before using. The garnishing depends on the individual taste, potato is commonly used to enclose the juices and keep the sauce from running off. It is mashed and forced through a pastry tube in fancy designs or may be shaped with a spoon into little cups which are filled with a fish sauce. Other garnishes are stuffed tomatoes and peppers, carrots, peas, string beans, asparagus tips, broiled mushroom caps. With shad should be served cucumbers, tomatoes, radishes, lemons, and maitre d'hotel butter, which is made by creaming butter and working into it lemon juice, salt, pepper, paprika, and finely chopped parsley. This mixture is spread over the fish. Other fish suitable for planking are white fish, blue fish, and small salmon. They should be split down the back, the backbone removed and also the head, and cooked thirty minutes for a fish weighing three to four pounds.

A third and common method of cooking fish is to pan broil or fry it. This is used for small fish such as trout, perch, and fish steaks. The fish may be rolled in flour, cornmeal or sifted bread or cracker crumbs. The main thing is to have plenty of grease in the pan and keep it hot. Bacon fat is often used especially for camp cooking, but some people prefer olive oil to bacon, and this is certainly good for brook trout.

Another good method of cooking large fish is to embed in hot ashes and cook for thirty minutes or longer according to

size. First split your fish open, clean carefully, wash out the interior, season well with salt and pepper, and put it in the hot ashes. When done, remove from the ashes, wipe clean with a cloth and peel off the burned outside.

Fish served out-of-doors needs no sauce but that brought to it by keen appetites, but that eaten indoors is not correctly served unless accompanied by the proper sauce.

With a dark-fleshed fish like salmon or lobster, the following sauces may be served:

Fish Sauces.

Pimento Sauce: One tablespoon flour, $\frac{1}{2}$ cup of cream, 1 egg yolk, $\frac{1}{4}$ teaspoon salt, 1 tablespoon butter, 1 pimento cut finely. Few grains of pepper, melt butter, add flour, and rub over fire until smooth, add cream and egg yolk, stir until slightly thickened, add pimento, and seasonings.

Tartar Sauce.

Hot Sauce, Tartar: One-half cup of white sauce, $\frac{1}{3}$ cup of mayonnaise. Mix together and add 1 tablespoon each of chopped olives, parsley, pickles, shallots and capers.

Small pearl onions may be substituted for shallots.

Probably the most famous fish sauce is the Hollandaise, which is served with white-fleshed fish, and is the foundation of many other sauces.

Sauce Hollandaise.

Hollandaise Sauce: $\frac{1}{4}$ pound or $\frac{1}{2}$ cup butter, yolks two eggs, 1 tablespoon lemon juice or vinegar, salt and cayenne pepper.

Wash butter to get out salt, for if it is too salty, it will curdle the egg. To wash, work with fingers in cold water. Divide in three parts, put one-third and egg yolks and lemon juice in pan over hot water (not double boiler). Stir vigorously as it begins to thicken, add second piece of butter as it melts, add the third piece, and seasonings last. It should be rapidly stirred every minute and served at once. For baked fish, add one-third cup boiling water or cream. If it curdles, remove

INSIDE THE HOUSE

from fire and add one tablespoon heavy cream. Fresh mushrooms added to this sauce are delicious with fish. This sauce is more difficult to make than any other, but the result is worth the labor. A mock Hollandaise Sauce may be made by making a white sauce and adding egg yolks and lemon juice.

Preserving the Autumn Fruits.

Some of the best preserves are made from the late peaches, pears, quinces and grapes, and these are usually cheaper than the summer fruits. In this year of high prices every available bit of fruit should be utilized in some way, even if one only puts up a single glass of jam at a time.

Grapes can be made into jam or into spiced jelly. For jam the bunches should be carefully washed, the grapes pulped and the skins laid aside. Cook the pulp for at least an hour and rub it through a sieve or pass it through a vegetable press. Add the skins and weigh the whole, allowing three-quarters of a pound of sugar to each pound. Cook it slowly in a covered kettle on the side of the range for several hours, and put it into jam pots or jelly glasses. For spiced grape jelly allow eight large apples and a quart of cider vinegar to a peck of half-ripe grapes, also half a cupful of stick cinnamon. Cook all together, mashing the mass frequently with a wooden spoon. Run it through a press or sieve and measure the juice. Allow a pound of brown sugar to each pint of juice and set it where it will heat but not melt. Bring the juice to the boiling point, add the heated sugar and boil five minutes and bottle.

The coarse-fibered pears sold so cheaply in autumn, preserved with green ginger and lemon, can hardly be distinguished from Chinese potted ginger. Crystalized ginger may be substituted for green. If these same pears are preserved with a quarter their bulk of quince and cooked for half a day, they take the flavor of the more expensive fruit and can hardly be distinguished from it.



Stained with Cabot's Shingle Stains.
Hollingsworth & Bragdon, Arch'ts, Cranford, N. J.

Cost Much Less Than Paint Wear Longer—More Artistic

"Your stains have proved most satisfactory. I have five lakeside cottages finished with them. My one painted cottage costs me almost as much as all the rest to keep fresh looking. My cottages are considered quite artistic."
Joseph H. Scranton, Washington, N. J.

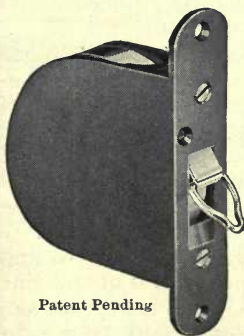
Cabot's Creosote Stains

have proved their artistic effects and wearing and wood preserving qualities in every climate for thirty years. You are sure of them. Don't take substitutes made of kerosene and crude colors.

You can get Cabot's Stains everywhere.
Send for samples and name of nearest agent.

SAMUEL CABOT, Inc., Mfg. Chemists, Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



Patent Pending

Caldwell Sash Balances

Uniform Mortises

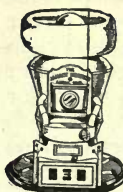
For use in all classes of
new work

Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counter-balance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular

Caldwell Mfg. Co.
6 Jones St., Rochester, N. Y.

BUY YOUR FURNACE NOW PAY US AS CONVENIENT



Satisfaction guaranteed, or money refunded. Our patented "down draft system" furnaces make them best for residences, schools, hotels, churches, etc., because they deliver plenty of heat whenever and wherever desired, at a saving of one-third to one-half in fuel bills. The

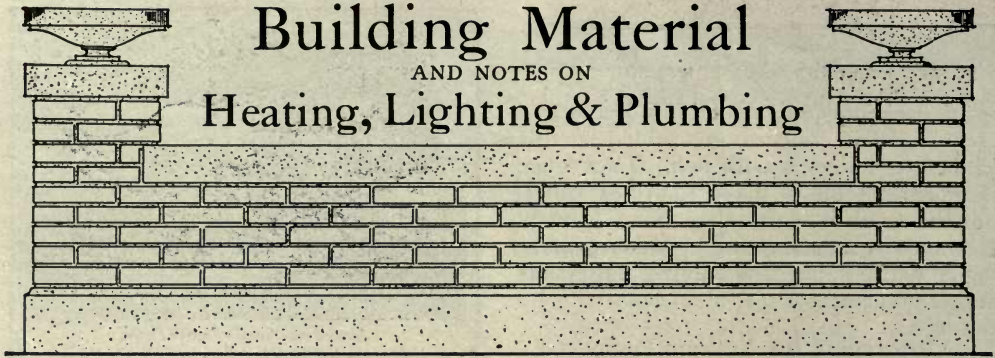
Jahant Furnace

is easy to install. You can do it yourself. We send complete outfit, freight prepaid, with special plans, detailed instructions and all necessary tools for installing. You may pay as convenient.

Write for Free Illustrated Book

THE JAHANT HEATING CO., 125 Steiner Ave., Akron, O.

Save 1/3 to 1/2 on Fuel Bills



Lead and Zinc Paints

John Upton



HE house owner who begins to look up the matter of paint, soon comes to the question of using white lead or zinc for this pigment. If he secures the printed matter sent out by the white lead manufacturers and studies it, he may be led to believe that lead will answer every purpose and that he has no need for zinc.

If on the other hand he secures literature and studies up on zinc, he will conclude this is an important ingredient of good paint.

If he looks up the printed matter of those who make only mixed paint he will find a different idea and will perhaps be still more puzzled.

Let us see if we can get at the actual facts regarding the merits of lead and zinc as paint pigments. Until a few years ago the old style corroded white lead was considered the best material for making paint. It was the best that had been produced and was a standard material. At that time its manufacture was an important industry and still is. White lead is the best single pigment for white paint. When combined with oil it makes a good paint and is the only pigment which does, for many purposes.

Lead has an affinity for linseed oil so that when mixed together they become practically inseparable and when applied to the surface in the proper condition, form not only a protective film but penetrate into the pores of the wood and be-

come so much a part of it, that they cannot be separated.

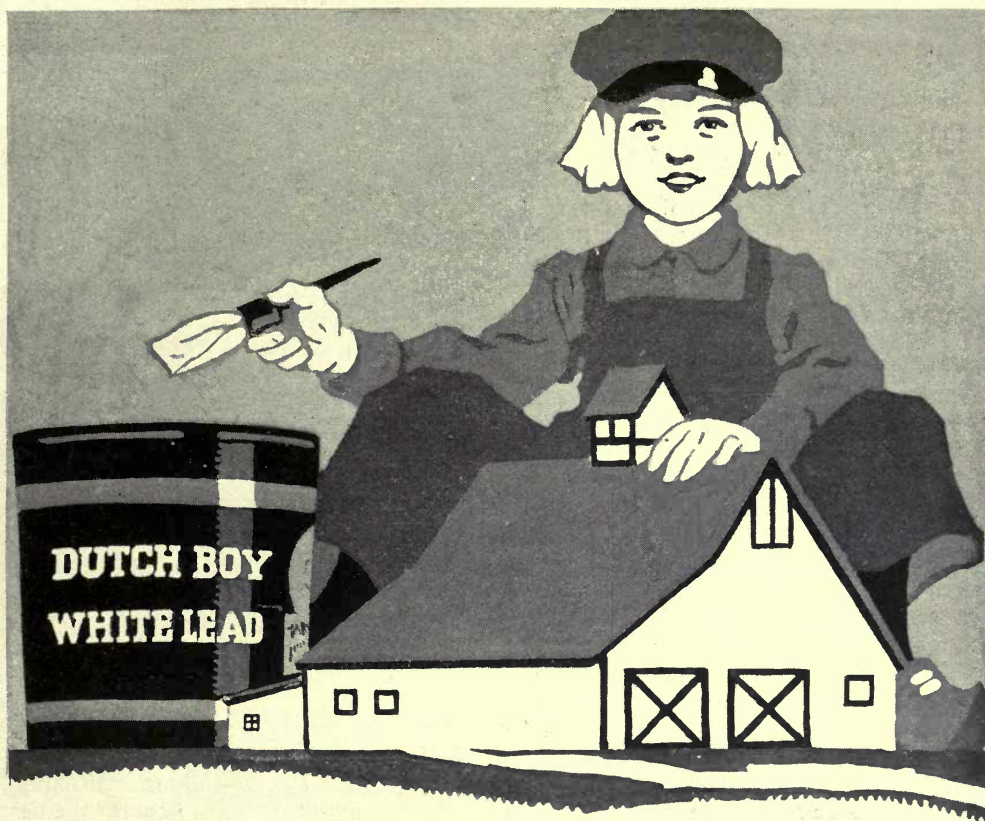
It wears well and has sufficient elasticity so that it does not scale off under ordinary conditions as mixed paint sometimes does. It can be adapted to various conditions and made to answer almost any requirement by the addition of the needed materials; in fact, white lead may well be used as the basis for nearly all good paint.

That made by the old style process of corrosion is always good but that made by modern or more rapid methods may not be as good.

There was a time that this was the standard material for paint and those wishing a first class job did not think of using any other pigment, but as there were put upon the market poorer grades and stuff sold under the name of white lead, which was not at all suitable for paint, people began to lose faith in this material and believing that white lead was not as good as it used to be, resorted to ready mixed paints which were cheaper in first cost and so were used regardless of the results.

There would be more white lead and more zinc used today if people understood the good qualities of the pure articles.

With all its good qualities, white lead has two faults. It will discolor under certain conditions, as when exposed to the fumes from stables or sewers, and on



Fall Is the Ideal Time to Paint

Blistering summer heat has passed, paint anchors deep in the open, wood pores, painters have time for careful work, gnats and moths are gone weather is settled, winter is coming.

Dutch Boy White Lead

mixed to suit the exact conditions of your house will give you paint-satisfaction.

Write for fuller information in Paint Tips No. K. E.

NATIONAL LEAD COMPANY

New York
Buffalo

Boston
Chicago
Cincinnati
San Francisco
(John T. Lewis & Bros. Co., Philadelphia)
(National Lead & Oil Co., Pittsburgh)

Cleveland
St. Louis

exterior work it will chalk and the corroded lead is poisonous. Some of the discolorations supposed to be caused by injurious fumes is not really so and the paint is not to blame, for the trouble is from other causes: soft coal dust, washing from roofs, dirt from roads and other kinds of dirt, or mildew, will discolor any light paint, no matter of what it is composed.

If the last coat is soft, dirt will stick to it and the way to prevent this is to use zinc in the last coat. When there are injurious fumes in the atmosphere we should use zinc or correct the conditions which cause the fumes.

Chalking may be prevented by using zinc in the finishing coat, but we must be careful not to add too much zinc or there will be a chance of paint cracking and scaling off. Here is where the experience of the painter counts as the paint should be proportioned to suit the conditions of the lumber and also according to the climate and exposure. The wood will expand and contract with the weather and the paint coat must be elastic so as to stretch and shrink or it must crack.

The lead makes it elastic and the right amount of zinc makes the surface hard so that dirt will not stick too much. So it is well to make the priming coat entirely or largely of lead; add some zinc to the second coat and more, say 30 per cent, to the finish coat.

Zinc white or oxide of zinc will make a whiter paint than lead and it will stay white. It makes the paint work better under the brush and covers more surface, and is not poisonous. It does not injure the oil as does the corroded lead, which is the cause of chalking, is fine enough to blend with the oil and fills up the pores between the other pigments, making a denser and more waterproof paint than lead alone. It costs more per pound but owing to its fineness makes more paint to the pound. Used alone it would not have the covering capacity of lead and will not work well under the brush. The acids of unseasoned wood have an injurious effect on it. When used with judgment in connection with lead for outside work, it is of value and for inside work it is of

even greater value, as it gives a hard lasting white finish which is all right here but not the thing for outside work, where the paint film should be more elastic.

Note: Those who are interested in the relative merits of lead and zinc paint will be interested to know that the foregoing article has been submitted to well known manufacturers of both zinc and lead paint for comment before publication.

Each letter was prefaced by a statement that "as a whole this article seems quite fair and impartial, but from our point of view leaves something to be desired," as mentioned in the opening paragraphs of the article.

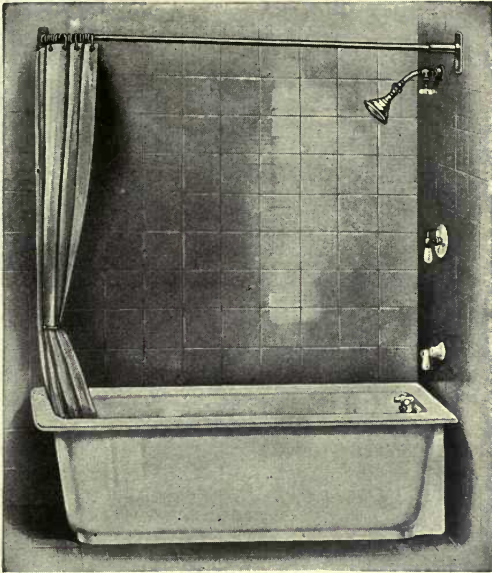
The lead company questions the statement "that oxide of zinc makes the paint work better under the brush and covers more surface than white lead. It is well known that oxide of zinc, excellent pigment that it is for some purposes, retards the spreading qualities of a paint to some extent and covers or hides the surface with very much less success than white lead."

The zinc people "are persuaded that all coats of paint should ordinarily have about the same composition, and experience has taught us that to obtain the best results this composition should include from 25 to 50 per cent of zinc oxide."

Simple Test for Brick Porosity.

A simple test for brick porosity consists of holding the tongue lightly in contact with the brick, says a writer in the London Building World. If a distinct suction is felt the brick will be very porous. If no appreciable suction is apparent but the moisture rapidly dries from the surface of the brick, it is but slightly porous.

Bricks made by the semi-dry process—that is, by compressing the clay in the form of a damp dust—absorbs only about 5 per cent of water, though they vary greatly in this respect. Engineering brick absorb less than 1 per cent of their weight of water. For all ordinary purposes, therefore, it is not desirable to designate bricks which absorb less than 15 per cent of their weight of water, on immersion, as particularly porous.



Enameled Iron Recess Bath

A beautiful built-in bath equipped with shower and mixer, the curtain running full length of the tub.

This design insures the utmost luxury and comfort in bathing.

L. WOLFF MFG. CO.
601 W. Lake St., CHICAGO
SHOWROOMS: 111 N. Dearborn Street



Settle Your Roofing Question

BY SPECIFYING
AND INSTALLING



**Hudson
Asphalt
Shingles**

**Permanent—Fire-Resisting
Attractive—Leak-Proof**

SLATE surfaced, in red, green and mottled, they harmonize perfectly with all types of architecture and construction.

Samples sent upon request.

Asphalt Ready Roofing Co.
Room 479 9 Church Street New York



KEWANEE SEWAGE DISPOSAL PLANTS

and Water Supply Systems
Give the Country Home Complete
SANITARY EQUIPMENT

and enable you to install in your home modern plumbing for bathroom, kitchen, sink and laundry.

The construction of the Kewanee System is extremely simple and most of the material may be bought at home. The Kewanee Castings are the most necessary and important parts and are adjusted to give the best results. Our Bulletin explains all.

You can't go wrong in the installation of a Kewanee System when the simple instructions are followed, and the Kewanee Castings are used.

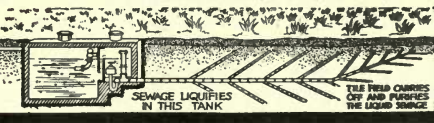
KEWANEE PRIVATE UTILITIES

like Public Utilities, give every city comfort to the country household. We will furnish plan and work with you for best arrangement of the following:

Water Supply Systems	Sewage Disposal Plants
Electric Lighting Plants	Gasoline Storage Plants
Home Power Plants	Vacuum Cleaning Systems

Send for Bulletins, mentioning the subject you are interested in.
KEWANEE PRIVATE UTILITIES CO.
(Formerly Kewanee Water Supply Co.)

228 S. Franklin Street, Kewanee, Illinois
BRANCH OFFICES: 50 Church Street, New York
1212 Marquette Building, Chicago





WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH's staff of wood experts.

This department is created for the benefit of KEITH's readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

Infected Woods and a Damp Season.

GOVERNMENT bulletins and schools of forestry are calling attention to the necessity for the segregation of partially decayed pieces of lumber. The first responsibility lies with the lumber dealers, but the home builder would do well to see what kind of lumber he is using, especially if he has stored any of it away for a time before using. Very often boards are sawn from logs that are in part conky. Some of the boards sawn from such logs will of course have partially decayed areas that are only slightly perceptible. When such boards are indiscriminately piled with sound boards, an incipient though not visible decay may set in. This is particularly true during damp summers, such as we have just experienced in 1916. This incipient decay will often infect all of the otherwise sound lumber in the pile. While this slight decay may cause very little immediate loss yet such lumber when used in a building may continue to decay and cause a considerable loss to the owner. Especially is this true if such infected lumber is used in mill-constructed buildings. As an illustration of this point the following example may be cited. Some years ago considerable trouble was experienced in a comparatively new composite wood and brick building in Seattle. A number of 12x12 beams and many of the 2x12 joists were found to be in an advanced stage of decay after a service of less than two years. Closer examination revealed the fact that the decay had

originated in conky shiplap that had come into contact with the larger pieces.

Durability of Wood.

The life of a wooden structure should be much greater than is usually the case. Houses have stood on the New England coast for a long period of years and kept their condition despite their nearness to the ocean and the dampness of sea breezes.

Not long ago when an old house was demolished in Stratford, Connecticut, a lumber company secured some of the materials from the old house after more than two hundred forty years of use. The house had been built in 1670. It was used as a garrison during some of the Indian wars, and there were secret closets built into the walls as a refuge in case of attack. The town was partly destroyed by fire but the old house escaped to be finally demolished. Some of the shingles which covered the side of the house were obtained by the lumber company.

These shingles were of white cedar and were manufactured in the old-fashioned way by the use of a draw knife. They were nailed with the old cut nails, and in recent years the exposed surface was covered with a coat of white paint or whitewash. Every part of these shingles that remains is still sound wood. The parts that were covered retain their original thickness and soundness. They are not even rotted around the nail holes. The exposed portion has been worn down, in

GAUMER

GUARANTEED LIGHTING FIXTURES



Change your old Fixtures
to beautiful modern designs
Ask your dealer for the famous

GAUMER FIXTURES

Distinctive, artistic,
unequaled for durability.

Refuse substitutes—get the
genuine. Look for this
Guarantee Tag when you buy.

See your dealer first—if he can't supply
you write us for advice. Address Dept. D

**BIDDLE-GAUMER COMPANY
PHILADELPHIA**



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
**ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS**
EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Catalogue "G-29"
showing a series of
new designs in

"Pergolas"

**Lattice Fences
Garden Houses
and Arbors**

When writing in-
close 10c in stamps
and ask for Cata-
logue "G-29."

Catalogue—"G-40"
—containing very
useful information
about Exterior and
Interior Columns,
will be sent to those
who want it for 10c
in stamps.

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

With all the built-in conveniences
which we have devised to make house-
keeping and homemaking a pleasure.
Fifth edition "HOMES, not HOUSES,"
123 folio pages with 249 illustrations
showing artistic bungalows inside and out. Bungalow build-
ing for any climate. Cost of each house and plan given. \$1.00
post paid. Sample pages free. Smaller book showing 38 small
Bungalow Homes, 25c. It costs no more to get the BEST.
Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

For Simplest and Grandest Homes



EDWARDS

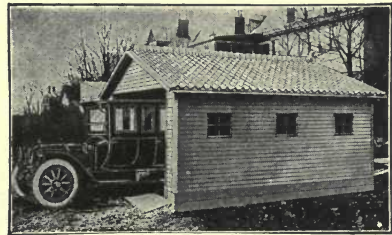
Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost
no more than common roofing, yet mean tre-
mendous economy—it needs no repairs and out-
lasts several ordinary roofs because of its prac-
tically indestructible metal construction.

It is absolutely wind, weather, storm, fire and
lightning proof.

Easy to apply. No soldering, no special tools—any
ordinary mechanic can apply it. Interlocking system
by which tiles dovetail into each other makes the roof
absolutely water tight and provides for expansion and
contraction perfectly—summer and winter. It is
guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the
dimensions of your building and we will tell you by
return mail exact cost of all material. Our new book
on beautifying the modern American home by use of
Metal Spanish Tile is yours for the asking. A postal
will bring it.



Own Your Own Garage

All Sizes—All Prices

An Edwards METAL Garage means year 'round
protection and economy. Easily put up anywhere by
anybody. No more "joy" rides. No more heavy gar-
age rental bills. Car always handy and safe! Fire-
proof and thief-proof. All styles, sizes
and prices. Ask for handsome illustrated
book which pictures and describes the
very Edwards Garage for you.
and up Write today—right NOW!

\$69.50

The Edwards Manufacturing Co.

*The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.*

521-541 Culvert St.,

Cincinnati, Ohio

some places to the thinness of paper, by the wind and weather.

Mountain Laurel and the Pipe Makers.

A sale of a large quantity of mountain laurel roots from one of the national forests in the Southern Appalachians is reported by officials in charge, who say that the roots will be used to make pipes.

The mountain laurel root is similar in appearance to the French briar, which the majority of pipe smokers are said to prefer. The French briar is the root of the white heath or "bruyere." These roots are gathered in large quantities, and after being cleaned and sawed into blanks they are placed in hot water and simmered for twelve hours or more. This process gives them the rich hue for which the best pipes are noted. It is said that in 1915 the value of the blanks shipped to this country was almost \$300,000, and in addition a large number of finished pipes were imported.

On account of the present scarcity and high price of French briar, a number of pipe manufacturers in this country have been on the lookout for substitutes, and the Forest Products Laboratory has conducted experiments to determine the availability of other woods. It is reported that the mountain laurel root burns out more readily than briar, but Forest Service experts are trying to find a method of hardening the wood, and have succeeded to an appreciable extent. They have also found that a number of the various kinds of chaparral which are abundant in the west give promise of yielding material which will be the equal of French briar in every way.

Other woods now widely used for pipe making are applewood, red gum, ebony, and birch, together with smaller amounts of olive wood, rosewood, and osage orange.

Woods That Sink.

That wood floats is such a commonplace fact in our lives that we hardly give it any thought. If we lived in tropical climates we would learn to distinguish between woods that float and woods that do not float. Many of the woods of Mexico and South America are so heavy even when perfectly dry that they will sink in water, notably *lignum vitae*, which is the wood commonly used for bowling balls.

Among our common native woods there are several that will not float when green. The cypress of the south is often girdled a year before it is cut, so that it will die and dry while standing, thus making it possible to float the logs to the mill.

The reason why some woods float is not because the substance of which they are made is lighter than water, but because the cavities in the cells are so large that the air in them buoys up the wood. The material (cellulose) which composes the greater part of the cell wall is heavier than water, so that if the air in the cells is replaced by water the wood will sink. This is just what happens to wood which has been in water for a long time and has become "waterlogged."

It is the large water content of the heartwood of freshly felled oaks and hickories and of the sapwood of certain conifers that causes these woods to sink, for when dry they will float.

Lignum vitae and other heavy tropical woods, even when dry, sink, because most of the cell cavities are so small compared to the thick cell walls that the air in the cavities is not enough to float the wood.

Notes From the Wood Waste Exchange.

Much has already been accomplished by the Wood Waste Exchange, established some two years ago, with its double lists—those firms that are accustomed to use sawdust and small pieces of wood in the process of their manufacture; and those concerns having wood waste for sale, much of which was formerly either allowed to rot on the ground or must be burned.

Many of these concerns were located within a short distance of each other, but, until the exchange was established, had no way of getting together.

"Illustrating the manner in which the exchange has aided manufacturers, a maker of novelties manufactures for a Philadelphia store a number of different articles for kitchen use. One of these is known as a sink rack and is laid in the bottom of a porcelain-lined sink to prevent the porcelain from chipping off in the process of dish washing. In the making of these racks half-inch dowels eighteen inches long, and one inch squares twelve inches long are used.

PREPARE FOR WINTER

BUT DON'T PUT UP THE OLD STOVE



A HESS WELDED STEEL FURNACE makes your house healthful and comfortable, with less fuel than other methods.

The HESS PIPELESS FURNACE supercedes the base burner: costs no more to install: uses less fuel: keeps all the muss and dirt out of your rooms: saves lugging of coal and ashes: saves space. It humidifies the air, and circulates the heat better than stoves or radiators.

The heat comes through the center of one big register and fills your rooms. The cold air, at the floor, returns through the ends of the same register and flows down around the outside of the furnace. Every heat unit is saved and utilized.

There are no horizontal hot air pipes nor ducts. Occupies little space: anyone can set it up. Burns any fuel: never leaks, for every seam is welded tight. Sold by the makers, direct to users, with binding guarantee and free trial. Ask for booklet and price of proper heater for your house. Also list of users, in which you will find some of your friends listed.

Hess Warming & Ventilating Co., 1217 Tacoma Bldg., Chicago

Going to Build Remodel or Repair?

YOU can actually save from \$5.00 to \$500.00 on your building material bill, so write today for these two free books and see and judge for yourself.

Our Building Material Catalog shows 8,000 price bargains and our Plan Book shows splendid views and floor plans of 50 modern homes and bungalows. You can remodel, repair or build new for much less than you expected.

We ship everywhere everything in the way of high-grade lumber, flooring, roofings, doors, windows, storm sash, moldings, porch-work, screens, hotbeds, building hardware, paints, wallboard, plumbing, heating and water supply outfits, cement machinery and interior woodwork—ALL AT WHOLESALE PRICES DIRECT TO YOU.

Don't plan to build, repair or overhaul until you see these two great books. Quality, safe delivery and satisfaction absolutely guaranteed. Write for them today.

CHICAGO MILLWORK
SUPPLY CO.,
1421 W. 37th St.,
Chicago, Ill.

Material Complete
for Houses from
\$375.00 up

Catalog
of
8000
Price
Bargains

Beautifully
Illustrated
PLAN BOOK

Books
Are Free

BAYONNE

REQUIRES NO FILLER

BAYONNE—waterproof, impervious to heat and cold, practically indestructible—gives far better satisfaction than any ordinary canvas filled and painted in the best possible manner.

And—with paint at \$2.50 a gallon—

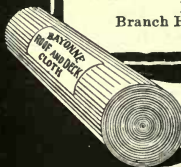
BAYONNE

is more economical than the lightest and flimsiest of ordinary canvas.

Laid on the dry boards—needs no filling and only a light finishing coat.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's, page 428.

JOHN BOYLE & CO., Inc.
112-114 Duane St.—70-72 Reade St.
New York City
Branch House—232-204 Market St.
St. Louis



Formerly the manufacturer cut these materials from whole planks, but he is now making use of small materials purchased from one of the firms listed as having waste for sale. He also uses edgings from a saw mill for clothes props, and other products are made from material that formerly went to waste.

"Recently, a representative of a manufacturer of lumber in the Pacific northwest made a trip all the way to eastern markets searching for industries that could make use of short lengths of material for which the ordinary patrons of the mill had no demand. He found that by cutting this stock to certain lengths and widths for the makers of small articles of commerce, and bundling them so they could be handled and shipped easily, he could sell the bulk of the material that was formerly sent to the refuse burner. In fact, he found that the demand was greater than the ability of his mill to supply." Resulting from the work of the exchange, buyers of material can get it cheaper than they were formerly paying for it in large-sized stock, and the sellers can get good prices for what was formerly considered a waste product, or almost without value.

Alaskan Railway to Tap Great Forests

There is much speculation as to the beneficial results which are to accrue from the completion of Uncle Sam's railroad from Seward to Fairbanks, in Alaska. This road will boom the timber industry along the Kenai Peninsula by providing a cheap and quick way of getting the timber out. Several big saw mills have already been erected at Seward, the southern terminus of the road, and great timbers which have been growing for ages mark the line of the road at every point. It is estimated that of Alaska's area fully 100,000,000 acres practically consist of virgin forest and woodlands. Twenty millions of this is real forest land. The other 80,000,000 acres of woodlands are covered with trees, a fair percentage of which are of value as saw material and the rest well suited for fuel purposes. The coast forests alone contain approximately 55,000,000,000 feet of merchantable saw timber, of which the total annual cut is estimated at 27,000,000 board feet. In the coast forests of southeastern and southern Alaska the species

are chiefly Western hemlock, Sitka spruce, yellow cedar and Western red cedar, with occasional specimens of lodgepole or shore pine, black hemlock, black cottonwood, Alpine fir, black and white spruce and several species of birch and willows. Logging in the southern part of Alaska is now carried on by the crudest methods. In fact the logging machinery is very scarce in those parts and most of the work is done by hand. The logs are frequently made the whole length of the tree and are jacked up and rolled into the water, where they are tied into huge rafts.—*West Coast Lumberman*.

American Lumber in South America.

Argentina and Uruguay, although about 7,000 miles distant from the United States, constitute virtually an addition to our domestic wood-consuming field, so similar are market conditions, according to the Commerce Reports.

In Brazil the lumber situation is rather complicated. The virgin forests are unmeasured and contain untold varieties of tall trees of fairly large diameter. Yet Brazil is importing 60 million feet of pine lumber against a domestic production of 45 million feet. One-third of the domestic pine lumber production is exported. As in Argentina and Uruguay, yellow pine from our Southern States is the principal lumber imported, but Scotch fir from Sweden has supplanted the North American spruce, which not many years ago found a market in Brazil primarily as a substitute for European pine and fir.

To Stop Cracks in Wood.

The following suggestion for filling cracks in wood may prove helpful:

Put any quantity of fine sawdust of the same kind of wood into an earthen pan and pour boiling water on it; stir it well and let it remain for a week or 10 days, occasionally stirring it; then boil it for some time, and it will be of the consistency of pulp or paste; put it into a coarse cloth and squeeze all the moisture from it. Keep for use, and when wanted mix with a sufficient quantity of thin glue to make it into a paste; rub it well into the cracks, and when quite hard and dry clean the work off, and if carefully done you will scarcely discern the imperfection.

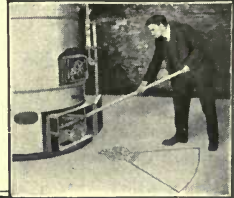


Why a Sharp Rotary Ash Receiver

in connection with your heater and get away from the dirty, disagreeable bother of shoveling ashes, provide pure, dustless air for yourself and family, an odorless, sanitary receptacle for garbage and refuse, eliminate all danger of fire from hot ashes, protect the fine furnishings of your home from the ravages of ash dust and bring to your basement the cleanliness, neatness and efficiency required in the modern dwelling? There is no other one device which goes into the home that will give as much real service and genuine satisfaction as a Sharp Rotary Ash Receiver. Made in different sizes and can be installed under any type of heater at very little expense.

If you are building or have a furnace we will gladly send you complete information together with the endorsement of many enthusiastic users. Address

The Sharp Rotary Ash Receiver Co., Inc., Dept. 22, Binghamton, N. Y.



This Booklet

tells how the distinctive, beautiful casement has been made thoroughly practical for American homes.



It's free---write now

THE CASEMENT HARDWARE CO.

7 S. Clinton Street

CHICAGO, ILL.



Design No. 524, by Jud Yoho
Estimated cost \$2800

All About Bungalows

BUNGALOW BOOK
1916 De Luxe Edition

Contains the cream of 1000 practical and distinctive bungalows actually built for \$400 to \$4000, suited to any climate, with photos of exterior and interior views, plans, size of rooms, cost, etc. Also valuable suggestions on bungalow building written by an expert.

The Largest exclusive
Bungalow Book published. 112 pages, Price **\$1.00** Postpaid

Worth many times its cost to any prospective builder. A smaller edition of same, only 50 cents. Send check, money-order or stamps. Money back if not satisfactory.

JUD YOH0, THE BUNGALOW CRAFTSMAN

469 Craftsman Bldg.,

Seattle, Wash.

**IXL ROCK
MAPLE, BIRCH
AND BEECH
FLOORING**



"The Finest Milled
Flooring in the World"

QOne important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.

Save Roof and Side-Wall Expense!



Architect, John Henry Newson Co., Cleveland,
for A. L. Soper.

Why use materials that mean extra expense to paint, or a big repair bill every few years? You can save painting and repair expense and have beautiful architectural effects in colors if you use

"CREO-DIPT" STAINED SHINGLES

17 Grades

16, 18, 24-inch

30 Colors

They come in bundles, ready-to-lay without waste. We select shingles that are seldom seen in the open market. We use pure linseed oil earth pigments and preserve with creosote. We are responsible for both shingles and stains.

Write for Book of Homes and Sample of Colors on Wood
Ask about "That Thatched Effect" and "Dixie White"

STANDARD STAINED SHINGLE CO., 1022 Oliver St., No. Tonawanda, N. Y.
FACTORY IN CHICAGO FOR THE WEST

SPLINTERS AND SHAVINGS

The State Fair as an Institution.



HOSE who have a message for many people, whether it be altruistic, artistic, or plainly commercial are beginning to more fully realize the opportunities which that American institution, the annual State fair, places before them in bringing together a great and moderately open-minded audience. For many years manufacturers alone have seized these opportunities to such an extent that they have threatened to completely commercialize the institution. There have been practically no standards maintained, and many of the exhibits and awards have had little if any educational value. Especially has this been true of woman's work, including all kinds of fancy work, "oil paintings" and china painting. More lately an effort has been made that all work should be passed upon by capable juries and only such work accepted and placed on display as possessed some real merit.

For a number of years the Minnesota State Art Commission has been sending small exhibits of various kinds throughout the state as an educational feature. In 1915 the brilliant idea was evolved by the director, Maurice I. Flagg, that by placing the State Art Exhibit at the State Fair and advertising fully where it could be found, the people would visit the exhibit and a more efficient service would be given by placing it in their path than in carrying the exhibit to them after they had gone home. The results more than justified the promise and in 1916 the State Art Exhibit was placed and open for a week before the time for the Fair, giving admission to those who did not care to visit the Fair. During the week of the Fair, Mr. Dudley Crafts Watson, painter and craftsman, Director of the Milwaukee Society of Fine Arts, was in the galleries and gave informal talks to the little groups of visitors who constantly gathered about him which gave them a little insight into the work which they saw, and which seemed greatly appreciated.

At every State Fair a model kitchen should be installed, equipped with the most practical of the conveniences and devices about which every housewife wants to know. A model farm house completely furnished and equipped would easily prove the most popular building on the grounds, for its size. Here is an opportunity for the House-wives' League and the Congress of Farmers' Wives. They would have the ready co-operation of every dealer and manufacturer. Everything in the building must be chosen strictly on its merit, and no dealer could afford to do otherwise than install the piece chosen,—and be ready to fill orders quickly. The furniture dealers and interior decorators should be equally ready to co-operate in work of this kind.

As it is conducted at present a day spent at the State Fair means a weary day with so little return for the effort expended that many people have abandoned all thought of attempting it, when it might mean a day filled with interest and enthusiasm.

Matches Cost More Than Electric Lights.

A curious computation has been worked out showing the relative cost of a small electric bulb where a light is only required occasionally, as on the way to the basement, in closets or in passage ways, where one might be tempted to light a match for the necessary moment of light.

"Matches cost more than electric lights in Minneapolis."

At 1 cent for a box of a hundred matches each match costs 1-100 of a cent.

Assume that in going to the basement a match gives light for one minute at a cost of 1-100 of a cent per minute.

A 10-watt lamp gives about 6 candle power, many times greater than the candle power of a match. The rate in Minneapolis is 8½, 6, to 2½ cents with an average rate for residential lights of about 6 or 6½ cents per kilowatt hour.

6½ cents per kilowatt hour is 6½ cents

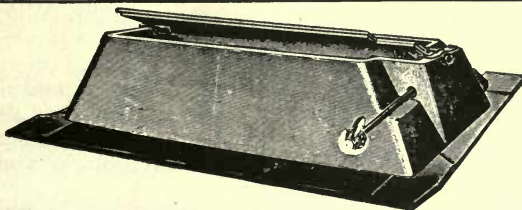
Special Subjects

Published in
KEITH'S in
1915

As long
as the file
lasts,
any single
number will
be furnished
at the
single copy
price, 20c
or three
copies for
50c

SUBJECT	Month
Investment Value of Forty-Foot Lot	December
Planning the Fireside Corner	"
A Complete Kitchen	"
Our Experience in Remodeling	"
The Ranch House	November
A Woman's Workshop—The Kitchen	"
Treatment of the Narrow Lot	"
Building Two-Family Houses	October
Home Building in California	"
Colonial Entrances	September
Willow Furniture	"
A Dutch Colonial House	August
The Breakfast Room	"
English Domestic Architecture	"
Use of the Pergola	"
Landscaping the Corner Lot	"
Remodeling a Country House	July
Bungalow Furnishings	"
Planning the Music Room	"
Rustic Fences and Gates	"
Furnishing with Willow	June
The Attic Bedroom	"
The California Bungalow	"
Planting Plan for a Forty-Foot Lot	"
Brick Colonial Homes	May
Arranging the Furniture	"
Picturesque Porches and Seats	"
Planting Scheme for Double Grounds	"
Everything About Bungalows	April
Remodeling An Old House	March
Fixing the Mantel	"
A Little House That Solved a Big Problem	"
Planting Plan for a Fifty-Foot Lot	"
The Newer Domestic Architecture	February
Sofas and How to Use Them	"
Decorative Wall Paneling	January
The Farmer's Cottage	"
A Talk on Woods—Oak	"

Send Orders to **M. L. KEITH, McKnight Building, Minneapolis, Minn.**



The Peerless-Drake Fireplace Damper

Can { Blow Shut
Not { Get Out of Order

MR. HOME BUILDER: Insist on your mason using the PEERLESS-DRAKE DOME DAMPER in your fireplace.
Costs No More Than Others Although Worth It

Ask for Descriptive Booklet

DRAKE MARBLE & TILE CO., 605 Second Avenue South, Minneapolis, Minn.
COMPLETE FIREPLACE FURNISHINGS

per 1,000 watt hours, or 6.5/60 cents per 1,000 watt minutes. 6.5/60 divided by 100 per 10 watt minutes gives 6.5/6000 or approximately 1/1000 of a cent.

A 10-watt lamp operating for one minute costs 1/10 as much as one match.

Industry Aided By Science.

The secret of the wonderful industrial development of Germany in the years before the war seems to have been based on the intelligent co-operation between the scientific research in her schools and the industrial processes. They worked hand in hand under the fostering care of the strongly centralized government.

This fact gives especial interest to the account given by Phillip Frances Nolan of the work being done by the Mellon Institute,—one of the departments of the University of Pittsburgh. In its co-operation between science and industry, its work marks the opening of an era in which American factories will, through a new efficiency, forge to the front in the world's industrial race.

Is the laundryman convinced that it would be a business asset to know how to iron collars without edges which bite holes in his customers' neck?

Does the American dyestuff maker want a better process in order to hold his own in the battle for industrial supremacy at the end of the war?

Does the baker want more scientific knowledge so that he can turn out a more palatable and cheaper loaf? The Mellon institute points the way.

Briefly the system is this: "The manufacturer furnishes a fund for a fellowship of one, two or three years, as the case may be. The Mellon institute furnishes the science, the laboratories and the work. The institute chooses from among the university's undergraduates or from those of other institutions, the man best suited for the research, furnishes him with equipment and 'turns him loose' to solve the problem. When it is solved, the new process becomes the property of the manufacturer, with all its details held secret by the institute and those connected with the experiments for a term of years agreed upon.

"The manufacturer is saved the expense of building and equipping laboratories and the finest of scientific facilities are assembled at a minimum cost."

Subjects which have already been taken up with valuable results include an improvement in glass manufacture doubling the life of the glass, valued at \$10,000 a year to the company. A new composition flooring more resilient than concrete. A process for bread making requiring less yeast, effecting a saving of \$300,000 a year to the company. A new process for distilling Texas oils, giving a larger yield of gasoline.

As a result of the work of the smoke investigation, the amount of smoke in Pittsburgh was reduced at least 35 per cent in two years, resulting in a saving of \$2,000,000 annually to smoke makers and the public.

Do not worry; eat three square meals a day; say your prayers; be courteous to your creditors; keep your digestion good; exercise; go slow and easy. Maybe there are other things that your special case requires to make you happy, but, my friend, these I reckon will give you a good lift.—*Abraham Lincoln.*

His Estimate Was Correct in Part.

A typical story is recounted in his book on Building, by Benjamin A. Howes, of the man who will not profit by the other man's experience because he feels himself shrewd enough to look after his own interests, even in a business that is totally foreign to his experience.

"Once upon a time there was a famous author who wanted to build a house. He had plans made by an architect and got bids for its construction in permanent and fireproof material. 'But that's half as much again as I have allowed,' he cried. So it was decided to build in cheaper construction and 'by day's labor,' with the direct supervision of the author's family, thus saving the contractor's profit. When the house was finished—and it was very attractive, even though it would never be a family homestead, because it would hardly last long enough for that—and the famous author was happily ensconced, he was asked: 'Was the house built for your original allowance?'

"'Half of it was,' replied the famous author."

"No investment on earth is so safe, so certain to enrich its owner as undeveloped realty. There is no such savings bank anywhere."—*Grover Cleveland.*



THE NATIONAL BUILDER

Fred T. Hodgson, Editor

A Complete Building Journal

It Provides:

Full Building Plans every month, up-to-date cottages, bungalows, houses, apartments, etc., plans 36x24 inches—quarter-inch scale with photos of exteriors and interiors.

Complete Estimates and Bills of Materials—covering every part of the work; a great help in figuring—you can use the prices of material in your town.

Construction Details—Of the utmost practical value.

Consulting Service—Free to subscribers, reliable information on any and every building subject desired.

Every kind of building is covered by *The National Builder*—concrete, tile, brick, frame; and it is full of expert information concerning every type of modern construction. A complete building encyclopedia.

24 Big Numbers with Full Building Plans for \$3.00

(The regular price is \$2.00 per year—
\$1.00 for 6 months)

(Sample copies 20 cents)

Use the Coupon—Save \$1.00

PORTER-HODGSON CO., Publishers
1307 Ellsworth Bldg., Chicago, Illinois

Enclosed find.....for which send

The National Builder for.....years.

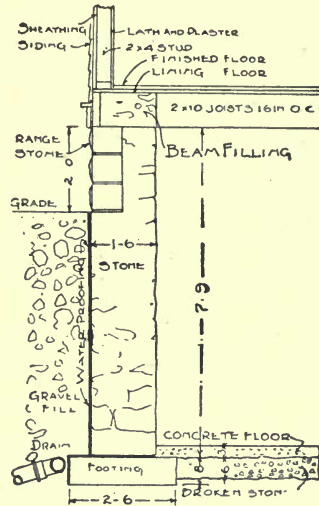
Name.....

City.....State.....

(If you live in Canada send \$2.50 for one year, \$4 for two years)

BUILDING *the* HOUSE

*A Handbook Every Home-Builder
Should Have*



(Fig. 6)
SECTION THROUGH BASEMENT WALL

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition
Price, One Dollar

Published by

M. L. KEITH
McKnight Bldg. Minneapolis, Minn.

New Booklets and Trade Notes

The Finishing of Woods.



BOOK has just come to us from the press which, while not intended especially for the home builder, has the greatest interest for those who are finishing and furnishing a home.

"Problems of the Finishing Room," by Walter K. Schmidt, analytical chemist (Periodical Publishing Company, Grand Rapids, publishers), price \$5.00; the book submitted first for inspection. The rapid increase of applied science in the woodworking industry has created a demand for more efficient and superior workmanship in the finishing room. Rule of thumb methods, "secret" formula based on traditional results, and such approximating practices have been forced to give way by the keen competition of factories which have adopted a scientific method of finishing.

To meet the requirements brought about by these new scientific finishers, Mr. Schmidt, a prominent chemist and the foremost finishing expert in the country, has written a book for finishers which tells in non-technical language how to apply the best modern methods. Every phase of scientific finishing room management is comprehensively discussed. In one chapter alone there are over one hundred staining formulas which are worth several times the price of the book.

The book is interleaved where desirable, with blank pages for additional notes and formulas which can be entered therein. As a practical, up-to-date finishing room manual of practice, "Problems of the Finishing Room" is highly recommended.

* * *

Under the title of "The Legacy of the Exposition" the management of the Panama-Pacific Exposition have published in a very attractive volume a few of the letters from thinking men and women all over the country which

made a part of the closing formalities of the great San Francisco Exposition. They point out the effect wrought upon human progress and world betterment by the Panama-Pacific International Exposition; the legacy that it bequeathed to the children of men; and the heritage of the millions who came to drink inspiration from the fountains of this great world-university.

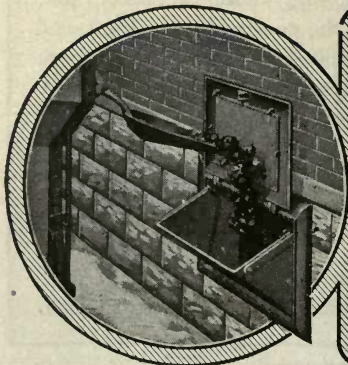
The marginal notes, which give the salient points of the letters, give in terse form the vantage points of the exposition as viewed through diverse personalities through a wide range of vision. It "Gave wings to men's spirit," "Expresses Fraternity and Idealism," "Opens new fields to Discovery and Invention," "Eloquent of the spirit of World Partnership."

* * *

A very useful little book has come to the desk, "The Real Estate Educator," useful information for real estate men, builders and business men, by F. M. Payne, published by T. J. Carey & Co., 143 West 96th Street, New York. Much pertinent information is gathered into very compact form and so arranged as to be easily accessible. Beginning with a list of "Dont's" arranged under their proper heads, followed by "Pointers," terse statements of important matters, insurance, contracts, employers' liability, single tax, home-steads, it concludes with a technical dictionary of words and phrases used in real estate and construction. In many ways it will prove to be a time saver to busy men.

* * *

"How to Build Up Furnace Efficiency," a hand-book of fuel economy by Jos. W. Hays, published by G. L. Simonds & Co., 230 South La Salle street, Chicago, is in five chapters dealing with how and why fuel is wasted, how to "spot" fuel wastes and how to stop them and how to keep wastes stopped. "The aver-



Majestic Coal Chute

Keeps the coal man from marring the sides of your home, protects your walk, flowers, lawn and shrubs. A glass door serves as a window, giving splendid light to the basement. It locks from the inside and is burglar-proof. It is extra durable, has a heavy steel body - semi-steel door frame and boiler plate hopper. Every home should have one.

Write for Free Book Describing the Majestic Coal Chute and other Majestic Specialties: Garbage Receivers, Milk and Package Receivers, all-metal Basement Windows, Rubbish Burners, Street and Park Refuse Cans, Metal Plant Boxes, Pipe and Pipeless Warm Air Furnaces, etc.

The Majestic Co., 606 Erie St., Huntington, Ind.



MAXIMUM QUALITY AT
A PRICE YOU CAN
AFFORD TO PAY.

Your Home

Is Built for

Ease and Comfort

What Comfort Is to Your Home, So Your Stationery Is to Your Business

You want to impress those who deal with you that you are a dignified and responsible concern, and it is therefore immensely important that your stationery carries the necessary qualifications to impress your customers, and to whoever you write, that you are that kind of a concern.

The selection of **CHARACTER BOND** is a step in the right direction. Snappy and impressive, it will materially add to the attention value of your letterhead and stamp you upon the minds of those with whom you correspond as progressive and worthy of attention.

Permit us to convince you of the correctness of our claims for **CHARACTER BOND** by sending you samples. Then make it a point to see that your next order for letter sheets carries specifications to print on **CHARACTER BOND**.

McClellan Paper Company

Sole Distributors of **CHARACTER BOND**

MINNEAPOLIS, MINN.



MONEY-SAVING PLANS

SAVE without skipping by building from our practical plans of up-to-date homes of distinction and charm. All waste eliminated by our experience as architects and builders of a great number of homes. Our plans have helped to beautify thousands of American cities. Send for our plan books: "Bungalows," 100 moderate priced bungalows; "Attractive Homes," 100 story-and-a-half and two-story houses.

Either Book postpaid, \$1; Both Books for \$1.50

LINDSTROM & ALMARS

290 Plymouth Building

Minneapolis, Minn.

HESS MEDICINE SANITARY LOCKER

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free



The Recessed Steel
Medicine Cabinet

Special Offer to Contractors

EVERY building contractor will be interested in securing two of the best journals on building, together with a fine book of plans under my "Special Offer."

12 Big Monthly Numbers KEITH'S \$2.00
12 " " " Nat'l Builder 1.50
1 " Book of Plans 1.00
\$4.50

Special Price for all three \$3.00

Select Your Book From This List

Vol. 1-136	Designs Bungalows	.....	\$1.00
Vol. 2-100	" Cottages	.....	1.00
Vol. 3-125	" costing below \$4,000	.....	1.00
Vol. 4-175	" " 5,000	.....	1.00
Vol. 5-175	" " 6,000	.....	1.00
Vol. 6-125	" " above 6,000	.....	1.00
Vol. 7-100	" Cement and Brick	.....	1.00
Vol. 8-50	" Garages	.....	1.00
Vol. 11-40	" Duplex and Flats	.....	.50
Vol. 12-100	" Artistic Homes	.....	.50

Send all orders with remittance to

M. L. KEITH

828 McKnight Building

Minneapolis, Minn.

"You Build for a Lite-

KEITH'S BIG OFFER

A Year's Subscription to "KEITH'S" with a Copy

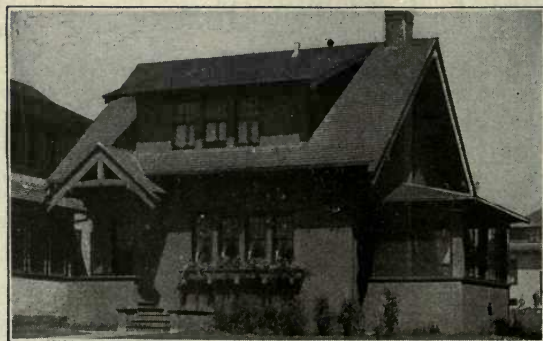
Your Choice

FOR
\$2.

Vol. 1.	140 Bungalows and Cottages . .	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D-1321 from "KEITH'S"



Design D-1309 from "KEITH'S"

What You Get

From 250 to 300

DESIGNS

by leading architects

From 75 to 100

Practical Articles

on timely subjects of
Home-BuildingDecorative Schemes for
Your New HomeMany Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,

Editor and Proprietor

When remitting by check, add 10c for exchange.

Time---Do It RIGHT"

To The Homebuilder!

of the Big April Bungalow Number EXTRA and
of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" <small>A POCKET HANDBOOK ON CONSTRUCTION</small>	1.00
" 11.	40 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (\$3000 and Up)	.50

FOR
\$2.

for Two Dollars

12 Big House Building Numbers
of KEITH'S MAGAZINE, including
a copy of our recent
100-page

Special Bungalow Number

containing 25 plans of attractive
bungalows and authoritative
articles on bungalow building.

The service of our architectural
and designing departments in
in answering questions on construction,
design, interior planning, beautifying
the grounds or any subject pertaining
to the interests of home-building.

828 McKnight Bldg.
Minneapolis, Minn.



Design D-1305 from "KEITH'S"



Design D-1315 from "KEITH'S"

When remitting by check, add 10c for exchange.

age steam plant wastes a quarter of its fuel. It will go on wasting that quarter until it is recognized that the men to stop the waste are the ones who are doing the wasting."

* * *

A very handsome booklet, "The Modern Store," has been presented by The Lamson Company of Boston, which gives perspective views of the exterior, the store plans printed in two colors and sections showing in a very complete way the layout of the activities of the great store. It gives an exposition of the purpose and operation of a modern department store by Mr. Louis E. Schleber, a leader in the field of store layout and design.

* * *

The Atlas Portland Cement Company have issued a special limited edition of a book devoted to buildings, lately completed, in which their white non-staining Portland cement has been used. Beginning with the Municipal building of New York City, it includes attractive residences, large and small, in all parts of the country.

Illustrations of the different finishes are given with specifications covering them, floors and interior finishes, table of colors, together with the chemical analysis and tests.

* * *

The Sandusky Cement Company of Sandusky, Ohio, have issued a new booklet of the Medusa White Portland cement showing its use in all parts of the world and for widely differing structures—from the Universal Film City in California, to the administration buildings on the canal zone, Porto Rico and even in Calcutta, India, has it been used. The architectural possibilities of white cement has great possibilities.

* * *

The new catalog issued by the Vulcan Soot Cleaner Company, Du Bois, Pa., is of interest to all users of fuel on account of the information which it gives concerning "soot" and "ash" and the effects which they produce. Beautifully colored cuts show the different formations with notes telling when and how they have been observed in the process of removal. The greater economy and efficiency of clean pipes cannot be doubted. Any substance which separates the heated gases from the metal surfaces obviously reduces the heat transfer. Even a loose substance makes an effective insulator of heat because its interstices are filled with dead gas giving it the properties of an "air cell" covering.

This equipment is applied only to high pressure work, but a knowledge of soot is a good thing for the home owner who should understand the necessity for removing all soot, ash and caked deposits from the heating surface of his hot water boilers. The ordinary cleaning such as is generally given a house furnace simply removes the loose deposit. It is surprising the amount of hard soot-scale that is generally present, and it can only be removed by the use of iron tools and wire brushes.

The value of slate as a roofing material is being recognized with the growing demand for fire resisting building materials, for in no place is this quality more important than in the roof of a structure. The Bangor Slate Mining Company, Bangor, Pa., have issued an attractive little booklet concerning slate as a roofing material, a copy of which they offer to send free to every prospective builder if he will drop them a card requesting the booklet. It gives tables of sizes, rules for measuring slate work and information about laying the slate.

* * *

The Fire-Resisting Roof.

Some people insist that the roof is the most important feature of a house, nor is its usefulness alone the determining factor. The character of a house depends in large measure on its sweeping roof lines or cornice treatment; the texture or color of the roof often redeems it from the commonplace.

"Shingling and Roofing," a booklet published by Asphalt Ready Roofing Company, 9 Church Street, New York, gives some interesting data as to the composition and manufacture of the Hudson asphalt shingles. These shingles are composed of long fibre, asphalt-saturated felt. Asphalt is a natural product, often brought from distant lands. In order to get the most satisfactory coating compound, five different kinds of asphalt are used in its manufacture.

The machines are so designed that the finished shingles are completed in one operation. The basic felt is saturated with a special waterproof asphalt compound which gives the shingles their rigid waterproof base. This saturated felt is coated with a waterproof asphaltic coating compound made from five different kinds of asphalts brought from different parts of the world, and carefully compounded to insure its adhesive, waterproof and wearing qualities. The green or red slate surface is securely imbedded in this hot asphalt coating and the fabric is then drawn through the embedding and cooling rolls which embed the slate surface and cool the asphalt so that natural contraction makes the slate surface adhere to it, giving it a permanent, attractive and waterproof surface.

As these shingles weigh approximately 220 pounds per square it is not necessary to use heavy timbering to carry an additional load in the roofing material.

The crushed stone coating gives good color and cuts out the necessity and the expense of staining. The material is essentially fire-resisting or fire-retarding. Builders have passed the credulous stage when they call any material "fire-proof." Experience has proved that no material will really withstand a great conflagration. The present endeavor is to prevent the conflagration. If the cow that kicked over a lantern, starting the great "Chicago Fire," had knocked it onto a bunch of asphalt shingles, there might be rows of shabby old buildings in Chicago today. Fire retarding materials will prevent the little blaze from becoming the great fire.

KEITH'S MAGAZINE

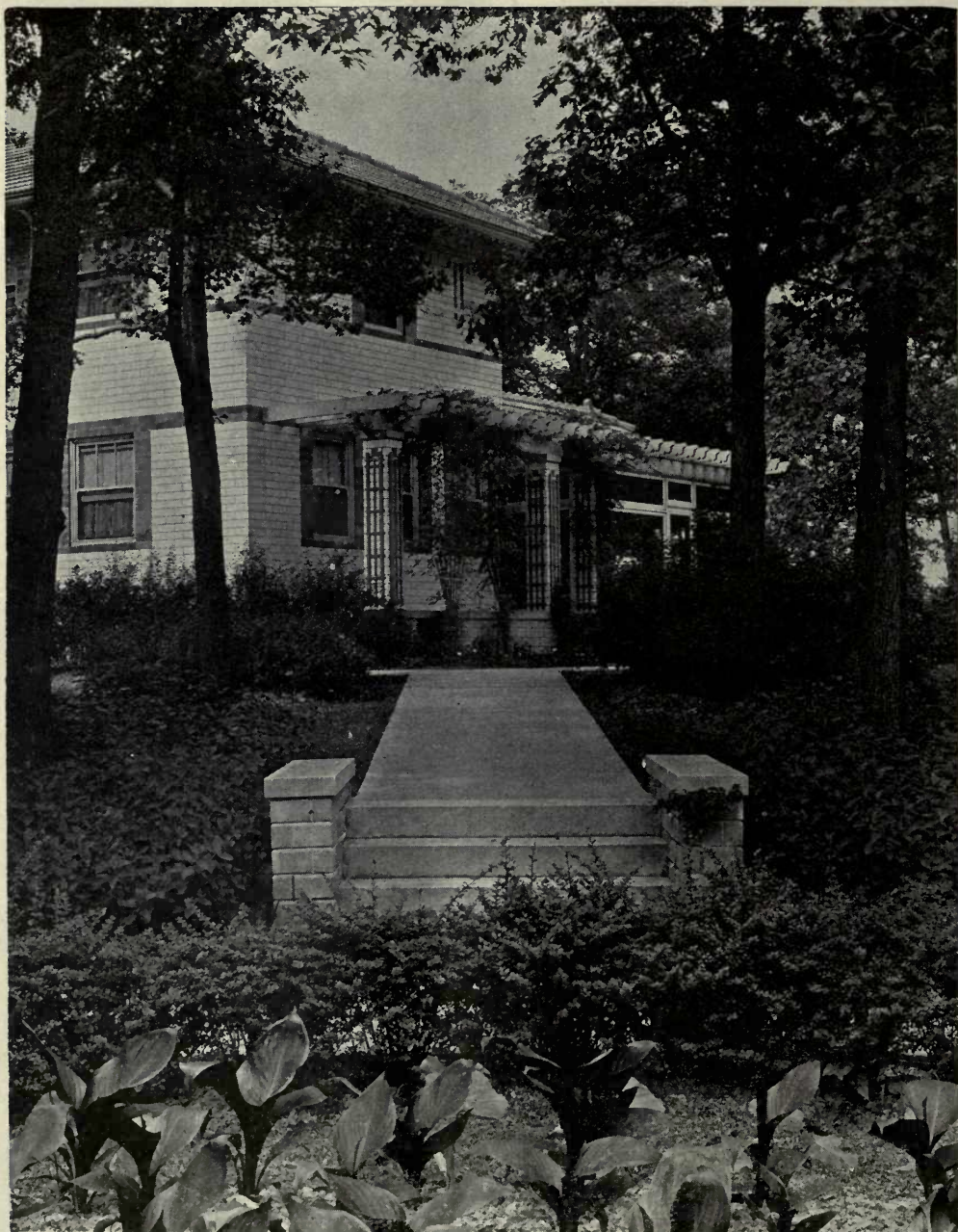
ON HOME BUILDING

CONTENTS FOR NOV., 1916

Just a Word	310
The Vogue of the Small House— <i>Anthony Woodruff</i>	313
A Few Before Thoughts— <i>Esther Matson</i>	316
Evergreens for Winter Effect— <i>M. Roberts Conover</i>	319
The Service Portion of a Seaside House— <i>Edith M. Jones</i>	322
Hardware for the Small House— <i>Samuel Masters</i>	326
A Vine Covered Home	329
Substantial Dignity in a Home	330
Two Inexpensive Homes	332
A Pleasing Home	334
A Picturesque Treatment for the Small House	335
Portfolio of Interesting Homes	341

DEPARTMENTS

Inside the House—	
Decoration and Furnishing	344
Answers to Questions on Interior Decoration	348
Household Economics	354
The Table and Its Service	358
Building Material and Notes on Heating, Lighting and Plumbing	362
Woods and How to Use Them	366
A Communication—Our Next President	372
Splinters and Shavings	376



Decorative effect of the trellis.

KEITH'S MAGAZINE

VOL. XXXVI

NOVEMBER, 1916

No. 5

The Vogue of the Small House

Anthony Woodruff

WITH the coming of the automobile the big country house has gone out of fashion. The big country place passed with the family driving horse. When every family of prominence had its driving and saddle horses, its stables and perhaps its pastures and all of the servants these required, the big house held its popularity because it was a necessity. With the coming of the automobile and the garage and the consequent elimination of the coachman and

grooms, a smaller kitchen and service wing became possible. With fewer servants elaborate entertaining became less usual. The occasional large function may be so easily given at the Country Club or the city hotel. People of wealth are turning to the moderate sized house and the compact house is in favor whatever the size.

Mr. Aymar Embury, who has achieved distinction as a designer of attractive country houses, has made a special study



A picturesque cottage in Highland Park, Illinois.



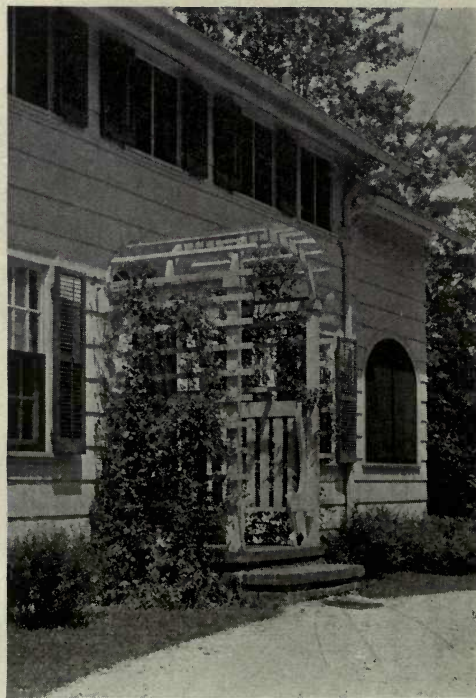
The rose embowered trellis snuggles to the windows.

of the small house and his discussion of this type of a house is of especial interest. He says that though the question of cost comes always between the builder and his desires the final compromise is often something satisfying beyond expectation. When one thing that can perhaps be spared must be given up in favor of something that cannot, of course it is a useless ornamentation that is sacrificed in favor of better material, therefore the result is a structure simpler, more compact, than would have been obtained had the original idea been carried out.

More thought is given to the economy of space and to the kind of material which will be used, the kind that will not have to be renewed every few years. Thus by working within strict limitations better and more artistic results are often obtained. Mr. Embury points out that the cost of houses is broadly determined by three things—size, kind of material, and complexity of the plan. Certain things

are almost invariably demanded nowadays even in the small houses, such as hardwood floors, tile bathrooms, first-class plumbing, lighting and heating plants. "The smaller the house the more watchful and ingenious must be the architect that everything may be obtained of the best quality possible, and so arranged as to afford the utmost possible convenience in the working facilities of the house. Every item must count; there must be no idle walls or waste spaces, no unnecessary ornamentation. Beauty is striven for in the main outlines, the silhouette; and the gingerbread ornamentation that fortunately could not be afforded does not mar the simple elegance of the house."

As a matter of fact the small house does not suffer by comparison with its more pretentious neighbor. It is often more rather than less attractive, for it has an intimate appeal which is not so often found in the home of larger dimensions.



The lattice entrance makes an especial appeal.

The rose embowered trellis snuggles up to the windows, the vines clamber over a simple latticed entrance, and these are marked features of the small house, while in a larger house they are only part of the whole and do not count so much individually.

The small house illustrated has an especial interest because of its simplicity. At the same time it is wonderfully effective with its green blinds and vine covered chimney. The latticed entrance makes an especial appeal with its touch of color in the steps. The brick of the foundation course is extended into an entrance terrace only enough wider than the door to allow of slat-backed wooden seats on either side of the entrance way. Outside of this is the trellis, all painted white, with small square posts at the seat ends, which carry the curved framework for the trellis overhead. The simple strips of the wood frame do not shut out any light during the season when the vines are not in leaf, yet give a considerable protection when the vines are all well grown.

Notice the treatment of the basement windows in this same small house. The brick of the foundation shows only one course of "soldier standing" brick work, so that the siding is started within eight or ten inches of the grade. The jambs

of the basement windows are of brick with the siding cut away to the head of the window.

Any material, wood, brick or cement, seems to lend itself to the attractive small home. The house whose entrance is shown in the frontispiece is built of enamel brick, carrying bands of a darker



Chas. E. White, Jr. Architect.

The small-paned windows set the scale for the cement house.

color at the heads and sills of the windows, and with insets of the darker color used as a part of the design. The tile roof, supported by brackets, seems fitting in material and color. The trellis treatment of the posts is a decorative treatment and very effective.

The small square cut division of the glass makes a feature of the cement house and gives the line and scale for the trellises between the windows and also for

the treatment of the porch posts.

The outward swinging casement sash of the glazed porches gives a happy solution for this often vexed question. They allow the entire space to open to catch a stay bit of a summer breeze. Opening outward they take no space on the inside and they do not interfere with shades or

curtains. They are bolted firmly in any position as they open, so there is no danger of swinging in the wind, and they are certainly good looking. The outward swinging casement can be made weather-tight without especial expense, and one may wonder why they are not more widely used in the small house.

A Few Before-Thoughts

Esther Matson

(Photographs by the Author.)

BEFORE you leap, look! How true. this is of building. Here are just a few before-thoughts set down in the hope of saving from after-thoughts of what-might-have-been-better.

First: Plan your house and garden together.

Only too often, as you must have noticed, the garden appears to have been tagged on to the house,—seeming quite

too obviously to be indeed an after-thought.

Second: Consult the Genius Loci.

Study your site and its environment. A side-hill and a flat-as-a-pancake lot demand two totally different treatments. Moreover, unless your place is very large and self-sufficient, it is better for it to speak in the language of the vicinity,—in other words not to depart too radically from the prevailing styles near-by, and



Let your windows be points of especial interest.

always keep in mind the situation itself.

It were a wise precaution, too, to ponder before allowing the workmen to cut down any existing shrubs or trees. It is easier to use the axe than to cultivate patience while new plants are in the process of growing.

Third: Plan your approach with a care for the first impression.

Mind the proverb: "He never loved that loved not at first sight." The planting, the entrance, the approach, are the index of the interior.

Fourth: Consider well your color schemes.

Remember that, like dispositions, they can make or mar your home. Reflect that color is not merely a decorative factor, but also a magician with psychic power over your feelings.

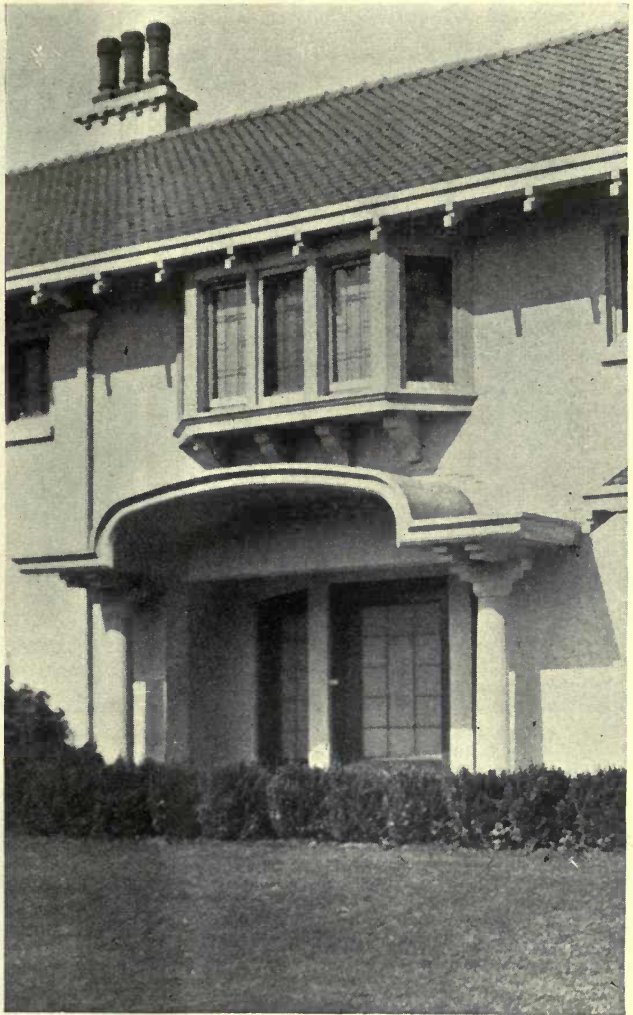
Fifth: Let your doorway suggest shelter and bespeak hospitality "*cum dignitate*." It is the most important feature of the approach and should receive thoughtful study.

Sixth: Let your windows be interesting.

Recollect that they are the eyes of your house. They give the key to the design, in their proportions, size and grouping.

Seventh: In the disposition of your rooms see that they follow each other inevitably according to the various uses to which they will be put.

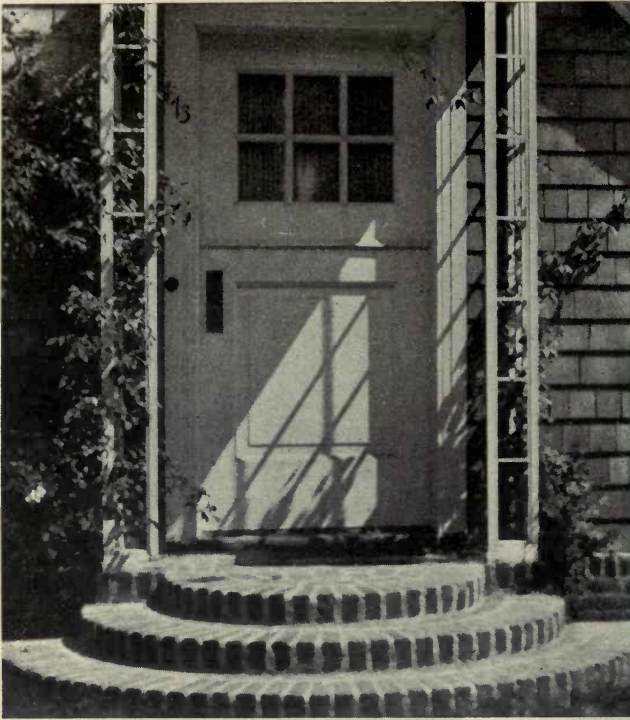
A logical arrangement of the rooms will save unnecessary steps and at the



Let your doorway suggest shelter.

same time tend toward equanimity of spirit.

Eighth: Have a care for the arrangement of your fireplace. You will find it a vexing problem how to place it so that when you sit down in front of it you will never be annoyed by draughts. Canny old Mrs. Poyser—do you remember?—in one of George Eliot's novels—vowed that the "Architects don't know how to keep fireplaces from quarrellin' with a door."



Nothing can bring so much comfort to your doorstep as the sun.

Ninth: Try for a lighting plan that will give you artificial light streaming from as nearly as possible the same direction in which the natural daylight comes. This is a point which the average electrician is not likely to heed. Such a plan will involve rather more expense, too, no doubt, than the system of lighting by a chandelier in the center of each room. But the latter way will give you real comfort instead of "that irritated feeling," and you will find your dressing-table equally convenient by night or by day, while you won't have to pull that armchair halfway across the sitting-room, from the window where you sat in the morning, over by the lamp where you must have it to see to read your evening paper.

Tenth: About the placing of your

furniture. It will be worth while to distribute it in the various rooms—on paper—before you get it actually and irretrievably on the spot. Try it thus in as many different "poses," so to speak, as possible while yet there is time to move a door or change the height of a window. The furniture you need must be adjusted to your wall spaces.

Eleventh: Before the garden is under way be minded that the form and structure of it is as important as "character" is in a person. Also the full-grown size and shape of individual plants ought to be thoroughly looked into (just as you would the references of an applicant for work in your office) when ordering young

specimens from the nursery. It goes without saying that for the vines and shrubs which come close to the house you will choose colors that harmonize.

Twelfth: Beware, firstly and lastly, and all the while—and we would say it again, beware—lest you be led into the temptation of cutting off, for any reason whatsoever, the sunshine from any least one of your rooms.

It is so easy to do this "all unbeknownst,"—either by a pleasant-looking overhang of roof,—by a porch or broad veranda,—or perhaps by that greatest temptation of all, a spreading tree. The bungalow under it may nestle happily enough in summer, but in a rainy season be utterly doleful. Yes, Charles Dudley Warner was right when he said, "Nothing can bring such comfort to a man's doorstep as the sun."

Evergreens for Winter Effect

M. Roberts Conover

FOR beauty in winter, evergreens must be hardy. Tender varieties that have to be screened with boards or swathed with straw are lovely in summer, but are too grotesque for winter loveliness. Not only must the foliage be proof against winter

by the rapid drying and collapse of the cellular tissue composing the walls of the cells, after the protoplasm in the cell has been coagulated by the cold. It occurs when bright sunshine follows severe cold and is termed "burning." The retinosporas, some of the yews, and box wood,



Dwarf cedars and retinospora near house wall.

injury but the plant must be flexible enough to bend without breaking or too rigid to bend under the weight of snow and ice.

Location has much to do with the winter injury of our "almost-hardy" evergreens. Plantings of dwarf evergreens on the cold, shaded side of buildings may endure the winter without damage, while the same varieties in a sunny exposure will burn and perhaps die. This is caused

but newly established, suffer in this way.

The use of evergreens is no longer somber in effect, for we have learned to plant tall evergreen trees at a distance from the dwelling and intersperse them with deciduous trees so that their long dark shadows do not depress us, while dwarf and medium sized evergreens are used nearer the house in beautiful contrasts of form and color that are bright and cheerful.

All cone-bearing evergreens may be planted in August and September or in March. In the vicinity of New York and southward either the spring or the late summer season of planting is equally favorable, but nurserymen as far north as Rochester and northern Vermont advise spring planting.

Evergreens require a quick root establishment, for the foliage of an evergreen is constantly transpiring moisture and unless root contact with a warm moist soil speedily takes place, the tree will literally die of thirst.

These fine rootlets are so very delicate that they soon die from exposure to sun and wind if the transplanting process is delayed. A clump of earth with the roots and a wrapping of canvas or burlap will be necessary to successful planting—the



Japanese retinospora obtusa compacta and Siberian arbor vitae.

canvas covering being removed just before the plant is set in position. The excavation must not be allowed to dry out and when the evergreen is in position and the soil firmly filled in about the roots and especially about the margin of the root system, it helps to give plenty of water.

The evergreens here listed are hardy in their respective

localities except as especially noted.

In northern New York state: Nordmann's Silver Fir, Veitch's Fir, Cilician Fir, Cephalonian Fir, Colorado Silver Fir, and balsam fir.

Spruce: White, Douglas, Alcock's, Norway, Colorado Blue, Koster's, Engelmann's.

Pines: Austrian, Swiss Stone, Dwarf Mugho, Heavy Wooded (Ponderosa), Bull, Scotch, White.



Cedars and retinospora along southern wall of dwelling.

Retinospora plumosa, *retinospora aurea*, *retinospora squarrosa* (will burn under some conditions).

Yew: Canadian, Japanese, *repandens*, *brevifolia*.

Thuya or Arbor Vitae: American, *Aurea*, *intermedia*, *Siberian*.

Tsuga or Hemlock: *Canadensis*.

Broad-leaved evergreens: *Andromeda floribunda*, *Mahonia* or Ash-berry. Holly-leaved. *Rhododendron album elegans grandiflora*: *Alex Dancer*, *Boule de Neige*, *Caractacus*, *Chas. Bagley*, *Everestianum*, *H. H. Hunnewell*.

For hedging in this latitude, *Siberian* and *American Arbor Vitae*, *Hemlock*, *Norway Spruce* are entirely satisfactory.

In northern Vermont these are hardy: *Silver Fir* (*Abies Concolor*), *Norway Spruce*, *Koster's Blue Spruce*, *Balsam*

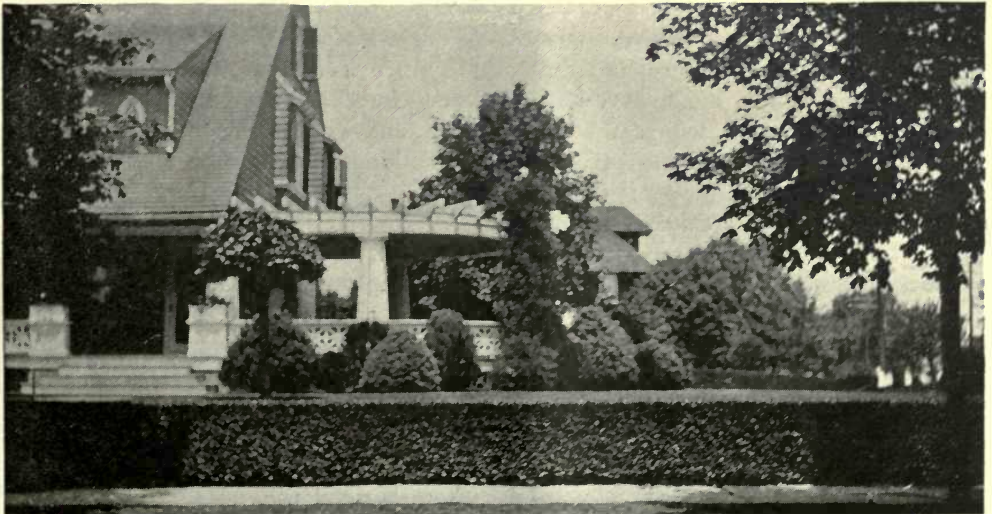


Douglas spruce, globe-headed arbor vitae and Japanese cypress.

Fir, *Abies Fraseri*, *Hemlock Spruce*, *Common Juniper*, *Blue Juniper*, *Austrian Pine*, *Mugho Pine*, *Swiss Stone Pine*, *Pitch Pine*, *Scotch Pine*, *White Pine*, *Pinus Inops*, *Arbor Vitae*, *Retinospora filifera*, *Douglas Spruce* of hardy lineage.

In the latitude of New York City and vicinity: *Nordmann's Fir*, *Hemlock*, *White Pine*,

Common Juniper, *White Fir* of Colorado, *Koster's Blue Spruce*, *Irish Juniper*, *Swedish Juniper*, *Golden Juniper*, *Scotch Pine*, *Scotch Pine Dwarf*, *Austrian Pine*, *Japanese Red Pine*, *Korean Pine*, *Mugho Pine*, *Red or Norway Pine*, *Swiss Stone Pine*, *Yellow Western Pine*, and *White Spruce*; all the *Colorado Spruces*; the *Canadian Yew*, the *spreading Yew* and the *Golden English Yew*. Broad-leaved evergreens hardy here are *Andromeda flori-*



Dwarf evergreen effect about a piazza—lovely in summer also in winter where hardy.

bunda, *Rhododendron maximum*, native holly and mountain laurel.

Of the Douglas Spruce there are tender varieties and it is better to get specimens grown under more severe conditions.

The *Retinospera Obtusa* is more hardy than *Retinospera Plumosa*, which, in some locations, has to be tied up because it breaks with the snow as well as winter-kills and suffers with drought after it is five feet high. Shearing frequently helps the *R. Plumosa* and it wants a highly fertile soil.

Boxwood does not like the deep-freezing nor winter winds. A mulch of stable manure should be placed over the roots and, in bleak situations, the tops have to be protected. The sheltered side of other evergreens where neither the winds nor bright sunshine have full access to it are more favorable. Oak and locust trees do not quarrel with box as do maple and elm trees.

The *Aucuba Japonica Aurea* and English Holly are not hardy north of Philadelphia and occasionally the yews and *retinospera* will burn as far south as Philadelphia. The *Retinospera obtusa gracilis* and Silver-tipped *Retinospera* are hardier farther south.

The Umbrella Pine (*sciadopitys*) is hardy in vicinity of Philadelphia and also the Japanese Yew, but on the south shore of Raritan Bay, opposite New York, it requires a windbreak for the first two or three winters after planting.

White Spruce thrives near salt water.

The Pitch and Austrian Pines better stand salt fog than does the White Pine, although the latter is not so long-lived.

The Yellow Western Pine thrives on bluffs or in dry, thin, sandy soils among rocks or at the sea shore.

Hemlock should be kept from the sea shore.

The Service Portion of a Seaside Home

Edith M. Jones



SI sat on the broad veranda of this charming house and drank in the wonder of the ever changing panorama which was constantly going on across the broad expanse of sea in front of me—I felt a sense of gratitude that the architect as well as the owners loved the ocean enough to work out these plans so that the living parts of the house were in closest relation to all this beauty.

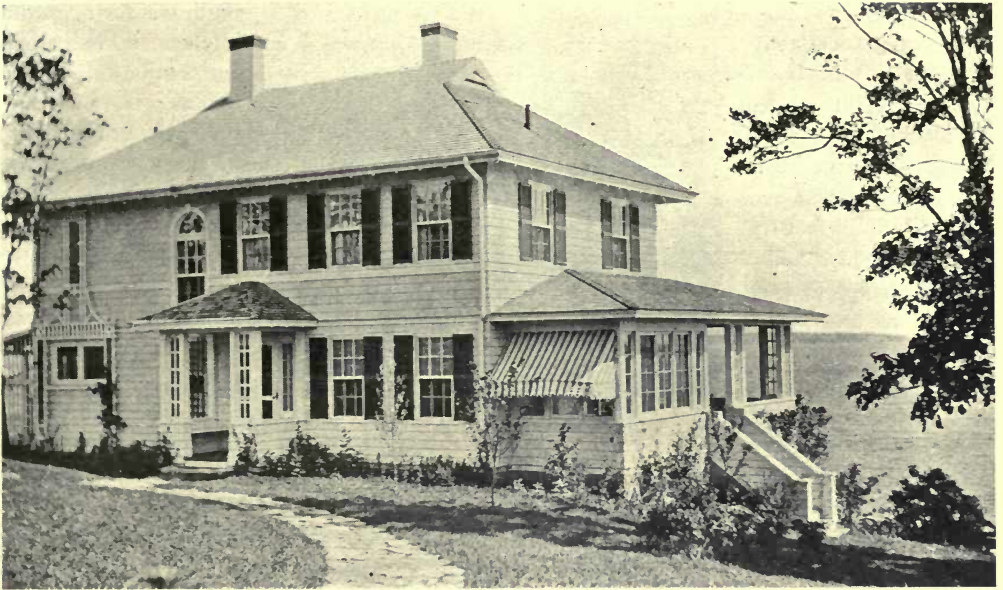
One rarely sees a house more complete or harmonious than this one. From the formal entrance to the black-bordered chimneys one feels the careful, intelligent handling of the artistic and architectural problems.

The whiteness of the exterior, the apple green front door, with its handsome brass knocker, the green blinds and green and white awnings all make exactly the kind of a house which should face a street named "Apple Lane."

On entering the house one is still further impressed with the happy arrangement of the rooms and the exquisite choice of furnishings and colorings.

The rough sketch shown is not drawn to scale and serves merely to show the first floor arrangement. It gives a crude idea, at least, of an interior arrangement almost ideal for the size and needs of the family whose home it is.

As for the colorings—the sidewalls are



Facing Apple Lane.

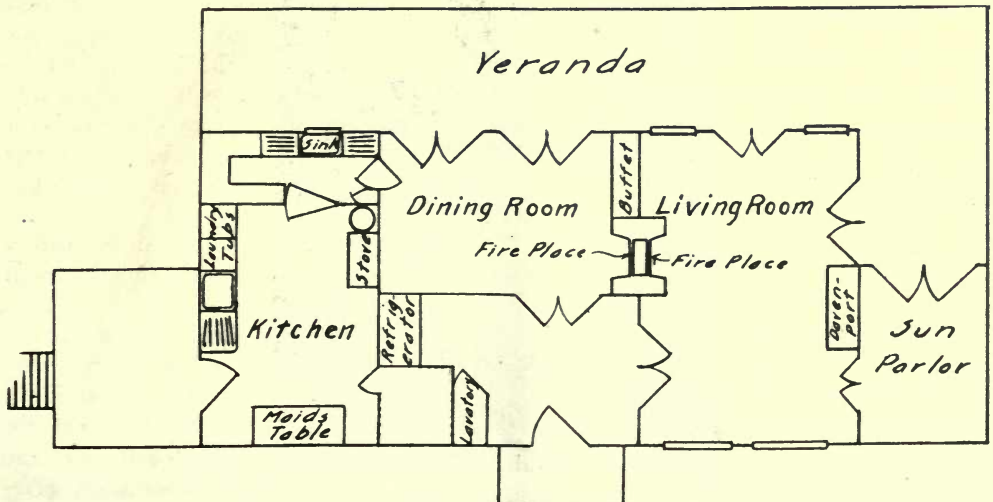
Longfellow, Architect.

oyster grey with lighter ceilings and white enamel woodwork. The rugs in living room, stairs and halls are French rose and the dining room rug is a mixture of Copenhagen blue, greys and rose. The hangings are figured linens from the Tiffany studios and carry the color tones of the rooms.

The grey wicker furniture is also from

the Tiffany studios with the exception of a few rare pieces of mahogany and the divan which is upholstered in the exact coloring of the side walls. The chair cushions are the same as the window hangings and the sofa pillows and table covers are of rose velour with gold band trimmings.

The dining room has a stunning set of



furniture quite impossible to adequately describe. It is strictly Colonial and done in black and yellow. This is truly the boldest, but nevertheless, the crowning feature of the rooms. The French doors between the rooms and opening onto the verandas are all of glass and the effect is equally delightful on the cool as well as the hot summer days. The artificial lighting has been carefully attended to and the Colonial fixtures, lamps and candle sticks fit into the general color scheme. A few very good pictures on the walls, some well chosen books on the built-in book shelves, a well filled magazine table in the sun room, a vase or so of fresh flowers and the simple, but exquisite room is complete.

However, it is the treatment of the service end of the house that is especially successful. The kitchen and butler's pantry are across one entire end of the house. The high windows beside the entrance on the street side give needed cross ventilation and lend themselves artistically to the rest of the exterior window arrangement as will be seen in the photograph. These



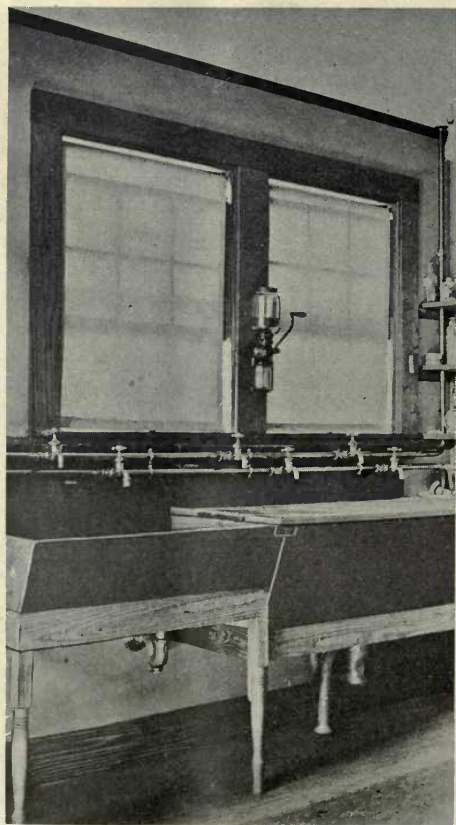
French doors open on the verandas.

high windows in the kitchen serve alone for ventilation and are not necessary to the light, view or comfort of the workers in the kitchen. The windows over the sink look out over a beautiful lawn and on and on to an uninterrupted view of sky and water.

The kitchen is complete and very efficient, although not so attractive as if it were finished in white enamel.

The house is an all-year house, but occupied only as a summer home. It is built upon blasted rock, and although there is a furnace and coal room in the basement, the laundry tubs are in the kitchen, and in this case at least, the arrangement is most satisfactory. The soapstone tubs and sink are all in one piece and the copper pipes are all exposed, for safety, I was told. The drain boards, which cover the tubs when not in use, make ample and convenient dish washing arrangement.

The butler's pantry has flour and sugar bins, pantry slabs, etc., at the farther end for the baking processes and nearest the dining room are the dish cupboards and the German silver



The laundry tubs are in the kitchen.

sinks for washing the dining room dishes.

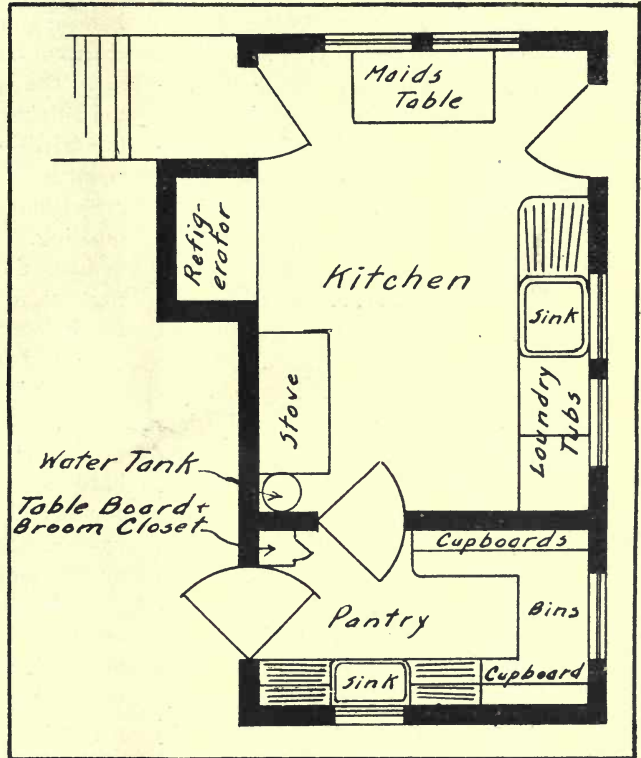
In this kitchen I found a number of new and very interesting devices which interested me very much.

For instance, a vegetable holder was something I had never seen,—in fact I think one can buy them only in England and one place in Boston. It was made of heavy retinned wire. The lowest compartment held one bushel of potatoes—the next compartment held half the quantity of carrots and the upper compartment was divided to hold onions, cabbages, etc. This was the very finest vegetable holder I have ever seen and something I have been trying to find for a long time. It is especially desirable for kitchenettes and kitchens in small houses where the question of storage is a very serious one.

I was also interested in watching a Savory double boiler. I have known of a Savory roaster for a long time, but this boiler cooks by steam, automatically returning all the condensation to the large capacity water pan. The serious problem in all these boilers is the condensation which ordinarily drops into the food, making it soggy. The advantage of this boiler lies in this peculiar provision for the return of the moisture, which in turn arises again in steam. This has a tendency to conserve the natural flavors of the foods and the results seem very satisfactory. A little nest of aluminum measuring spoons with a ring to hang them up by was also a practical device, because nowadays all standard recipes are worked out with the exact, level measurements and these quarter, half or whole tea-

spoons and the dessert and tablespoon are in constant demand if one wishes to follow a recipe closely.

I also found the handy hook pot cover in use and it seemed a very simple and convenient way to care for the different, necessary sizes of covers. This special kind



of cover has a handle which terminates with a hook. Several of these can either hang on a long nail, or, better still, a rod arranged for the purpose. The special advantage lies in the fact that the one you especially desire to use can be taken without disturbing all the others.

In this charming seaside home the service wing gives most efficient service. There were many other practical, yet simple devices, which are within the reach of the housewife who is looking for an intelligent equipment for household service.

Hardware for the Small Home

Samuel Masters



WHEN a man decides to build a small home the question of the hardware seems to be of very subordinate importance. The builder mentions it casually, if at all, and the specifications generally evade any im-

mediate consideration of details with the casual statement, "Hardware to be purchased by the owner," or "Allowance for hardware \$.....," adding at times, "to be selected by the owner." It too frequently happens that the contractor forgets and the owner doesn't realize the fact that it generally requires time to secure a hardware outfit that is satisfactory, and the assortment that is finally procured is just what the dealer may happen to have in his stock and may or may not be best suited for the house, in style, functions or finish.

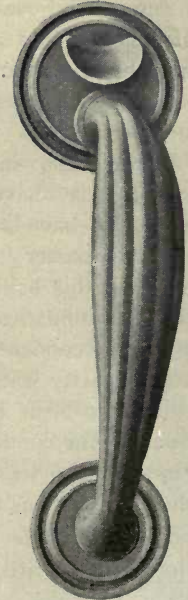
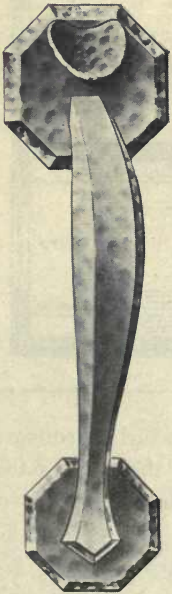
And yet, there is hardly a single detail connected with the home which it is more important to have right.

Every time a door or window is manipulated or a door is opened or closed, the hardware is used. It is the home mechanism, and cannot be slighted with impunity, nor should the selection be left to a contractor alone, whose main interest

is in the saving in cost or in the ease of application.

The most satisfactory method of handling the matter is for the owner to assume the responsibility, and to have the specifications clearly state that the amount reserved for the hardware is a sum equal to 3% of the total pre-estimated cost of the building. This would make the reservation \$150.00 for a \$5,000.00 home, or \$90.00 for a \$3,000.00 one. If the building is one in which cheapness is the thing most considered, the hardware can be bought for less, at a sacrifice of convenience and quality; or the allowance can be exceeded by the purchase of fine or expensive goods, if the owner desires, he, of course, paying the difference. For the general run of residences, however, it will be found that 3% will provide a satisfactory equipment. If you will tell the hardware dealer frankly, as a preliminary to the negotiations, the value of

the house and the amount reserved for the hardware, he will be able to give you the more intelligent advice. He ought to be supplied with a copy of the plans with the hand of doors indicated, whether windows are casement or double hung,

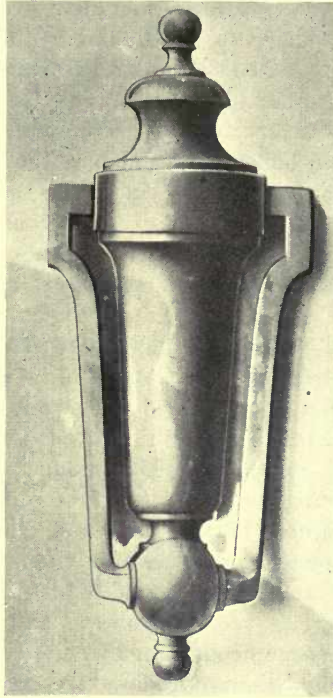


and if the former, whether they swing in or out, and the detail of the window and door casings, for the kind of the device, the size and weight depend upon such points as these. The general style of the house also is a large factor in securing harmony of effect—and this, you will note, is one of the first things the dealer will seek to glean from a study of the elevation.

The first thing he will ask you to consider will be the hardware for the front door, which is the most important single opening, and is given individual treatment. You will want the outside hardware to show character, and to be in harmony with the type of door to be used. In many cases the most artistic thing will prove to be a door handle made with a thumb latch and he will be able to show you designs, both plain and ornamental, to operate high grade locks. There is an absence of stiffness and conventionality that generally accompanies the knob and escutcheon trim, and an effect of strength and solidity in keeping with its importance. The hardware on the inside will naturally correspond with the balance of the interior trim, and will be selected later. For Colonial homes, door knockers are both appropriate and pleasing.

Outside locks for security; inside locks for privacy.

You will want good locks on both your front and rear door, and it will save you some inconvenience if the keys to both are alike. If you use a cylinder lock, as you should do for the security at a very little added cost, you can have it so ar-



A Colonial door knocker.

ranged that your key will unlock all the entrance doors, while the maid's key will unlock the rear door only. A night latch on the cellar entrance can be given the same key as the back door if desired, or can be made still different, but with your front door key operative. There is a lasting satisfaction and a decided advantage in having all doors open to the same little key which applies to the locks of greatest security.

For the inside doors, locks with the simplest mechanism will usually suffice—latch bolt operated by knobs and a dead bolt operated by a key. On the bath room where the door is locked and unlocked frequently, it would be well to select a lock with an easy-action dead bolt operated from the inside by a thumb piece and from the outside by a key. It may be necessary to force an entrance to a bath room to succor a sick occupant, and the task is made difficult if the door is locked from the inside by a key and the key left in the lock.

This same type of lock can also be used to advantage on bedroom doors. It is also found of advantage to have all inside door locks alike, so that if a key is missing on those rare occasions when it is desired to use it, another can be readily found. For closet doors, a latch without the dead bolt will be found to answer every purpose, unless it is desired to keep it locked, when a night latch will economically supply the desired function. If desired, the key can be made the same as to the front door.

For butts, you really need those made of brass or bronze metal for the outside

and bath room doors, where the greatest liability of rust occurs. For other doors, heavy wrought steel butts, plated in brass or bronze to match the other hardware, are popular and satisfactory, but you can get easier action with ball bearing butts, and greater longevity with cast iron butts plated, these last having the additional advantage of self-lubrication from the graphitic contact of the iron. The contact surfaces glaze with a short use and thereafter show no perceptible effect of wear. The size and weight of the butt will depend upon the size of the door and the detail of the jambs, as your dealer can show you when making a selection. For the cabinet and cupboard doors, lighter butts, either cast or of wrought metal, can be procured of the same finish as the balance of the trim.

Now, for the knobs and escutcheons. For the modest home, wrought hardware that will be artistic and inexpensive can be secured and will be found strong, and with a lasting finish. Modern methods enable the manufacturers to use heavy metal and to force it into dies of fine modelling, so that there is little to choose in the effects between the wrought and the more expensive cast goods for ordinary homes. In the newer designs, shown in the accompanying illustrations, there will be noted a beauty and grace of outline which has a distinctly decorative effect aside from any ornamental detail. Screwless spindles will prevent knobs from working loose and rattling or coming off. Here is where you can show your good taste in selection of design or finish, and some care should be exercised.

For the double hung windows, you will want pulleys, locks and lifts. The type of lock that has grown into almost universal use is known as the Ives from the original manufacturer, but now has many makers. It draws the sash close

together, preventing their rattling and making it difficult for a burglar to manipulate it from the outside. The lift will naturally be of the flush type, mortised into the sash and of the same design and finish as the escutcheons upon the doors. As to the sash pulleys, you will need to exercise your very best judgment. You will be shown styles which cost a very few cents apiece to buy, and will do more to wreck your peace of mind than any other item on the bill. You cannot afford to be unduly economical here. Get good, strong pulleys, with wheels which turn freely upon fixed axles, with space so arranged that the cord cannot slip down beside the wheel and with case, axle and wheel strong enough for this work. Just reflect upon the trouble you have had from poor service with window pulleys, and pay a little for insurance against its repetition here. If your windows are casements, you will want to buy butts, fasteners and adjusters. The sash will swing out, as nearly all casements do, in order not to interfere with draperies, and they should be swung on brass or bronze butts to avoid rust, which will otherwise cause the butts to bind, and will cause brown streaks on your paint. The kind of adjuster will depend upon the detail, and clearances, and your dealer can explain the differences to you. The type you select should enable the sash to swing more than 90°, in order to take full advantage of the passage of air, which is one of the chief delights of this type of window. You will also need a fastener as the adjuster is not intended to securely fasten a closed sash, and the choice of this will depend upon the size, shape and detail of the sash, as the dealer will explain.

Drawer pulls, cupboard catches, closet hooks, base knobs, cellar door catches, and other miscellany will present themselves, in a variety large enough to enable you to suit both your taste and

purse. You can save money on the first cost by buying the cheapest, but there is little lasting satisfaction in hooks that bend beneath their burden, pulls that are too small to accommodate the fingers, catches with latch bolts so short they fail

to reach the strike when the door shrinks, or other articles made for strictly competitive sale. Get good hardware. You will soon forget the first cost and the good satisfaction that quality gives will be with you so long as the house stands.

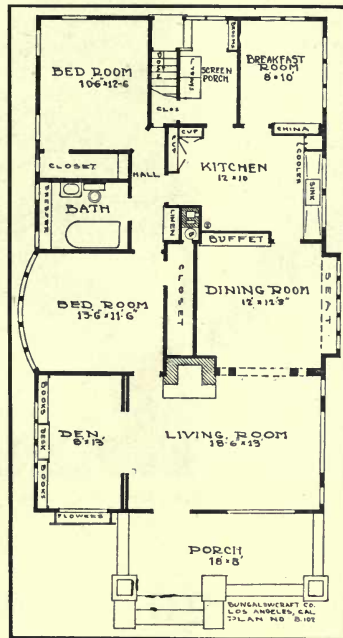
A Vine Covered Home

THE charm of growing things is one of the strongest associations with one's own home. They seem to recognize the Master's hand and thrive better under his watchful care. The bungalow here shown attracts the interest of the home hunter for several reasons, one of which is the compactness of the plan. There is so little waste space, the architect tells us, that he has been able to put seven rooms in the space ordinarily given to six rooms, and with very little additional expense.

The house is 28x48 feet, the exterior walls are covered with 6-inch resawed siding stained brown, the gables are made interesting by the way the verge boards are shaped at the end.

Louvre vents have been built into the gable ends which ventilate the attic space and prevents the superheated air from gathering under the roof.

One end of the porch is charmingly secluded by the screen of vines. The entrance is across the other end of the porch, directly into the living room. Sliding doors separate the book lined den from the living room. A writing desk is built in between the book cases.



The living room has a built-in tile fireplace and is separated from the dining rooms by means of buttresses, with tapering columns set on a paneled pedestal.

The dining room contains a very well designed buffet with long glass doors on each side for the display of china and dishes and a counter shelf between, with a plate glass mirror at the back. It has also a seat across one side of the room, under the grouped windows. The breakfast room is also provided with a small buffet and is well lighted by well grouped casement windows.

The front rooms are finished in a pine trim, which has been given a stain, and the walls are tinted.

Unusually large closets are provided with the bedrooms. The bay of windows provides good light and ventilation for the front bedroom which might otherwise be stuffy. The linen closet is conveniently near the bath room. The bedrooms are finished in white enamel with tinted walls.

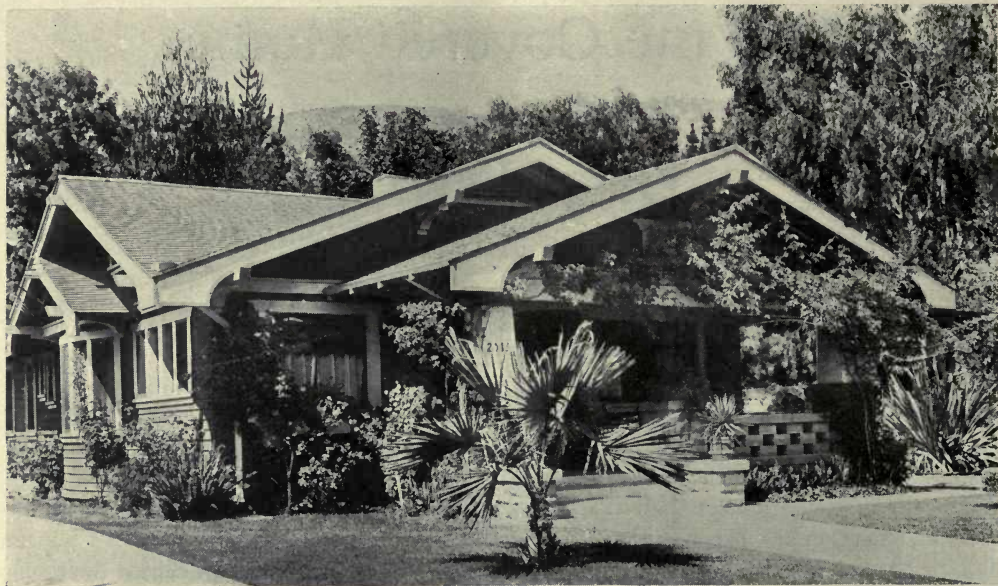
The bath room is luxurious in its dresser the whole width of the room, while the two windows distribute the light.

The kitchen is well provided with cupboards and the sink has double drain boards.

Both kitchen and bath room are finished in white enamel.

Set tubs are placed on the screened porch with all of the requisites of a laundry. The basement stairway leads down from this porch and opens with an entrance at the grade level.

The breakfast room is very conveniently placed and may be converted into any use as the "extra room" of the house, as with its sunny exposure it may be used as a nursery or family living room for the little folks, or for a sewing room after the breakfast things are cleared away.



The porch is charmingly screened by vines.

Bungalowcraft Co., Architects.

Substantial Dignity in a Home

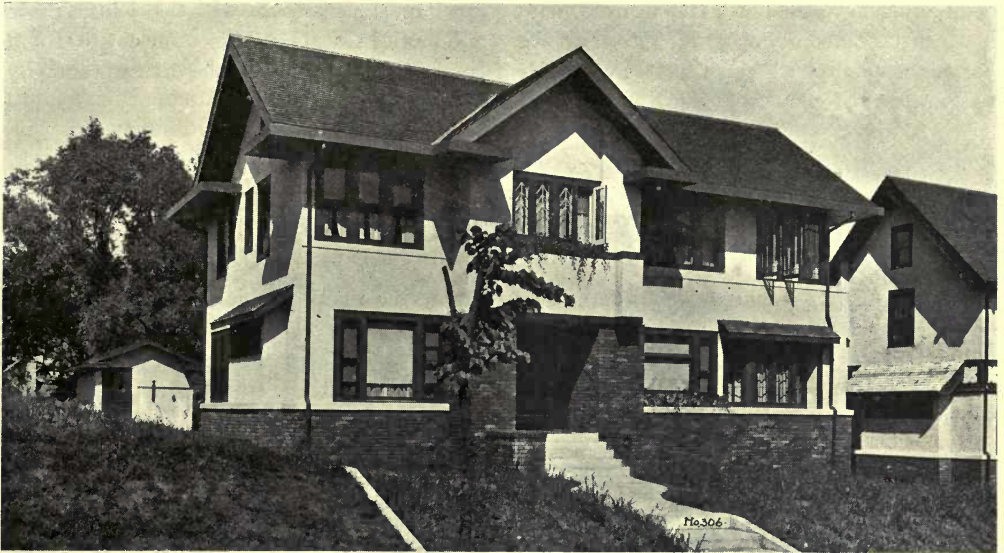
A BRICK and stucco exterior, the beauty of which is enduring as it is dependent on form and proportion, which at the same time clothes an interior arrangement for comfort and utility; such a home offers the solution to one of the troublesome living problems which is confronting so many people at this time.

The arrangement of the rooms is one that has proven to be satisfactory by its constant recurrence in all parts of the country. It is the type which was developed by Colonial builders and has been largely adopted by the modern builder,—a central hall with the spacious well lighted and airy

living room on one side and the kitchen and dining room on the other side of the house.

The stairway is set well back in the hall, thus giving not only a roomy entrance but retiring the stairs and bringing them near the service part of the house so that a rear stairs is not necessary.

The living room is 25 feet long with a tiled fireplace in one end of it. The ceiling is beamed, and a large sun room connects by a wide opening. The oak finish of the living room is given a French gray stain which is matched by the neutral wall decorations, while the electric lighting fixtures are rich yet simple; silver candelabra and



Brick and stucco for the exterior.

Lindstrom & Almars, Architects.

brackets, with indirect lighting in the central hall.

The dining room is very handsome with its solid paneled oak and its buffet of special design. The first floor is finished throughout with French gray oak, except the kitchen which is natural birch.

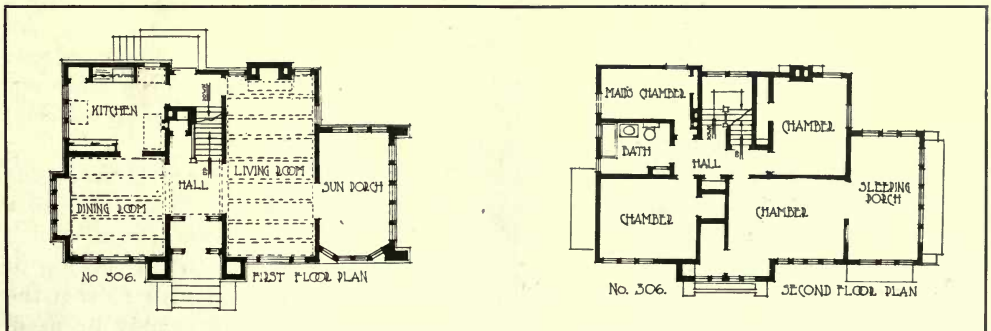
The kitchen has ample cupboard and closet room. A solid one-piece sink stands on one side. The floor is covered with an imported linoleum and white sanitas is on the walls.

A careful study has been given to the interior both in the planning and the decoration and furnishing which creates a restful

effect on entering the house. The rooms are pleasantly flooded with light from the many well proportioned windows.

On the second floor are four bedrooms and a large sleeping porch, which has casement windows. The rooms are finished in old Ivory, and are each of them well provided with windows. The closets are ample. The space is very compactly planned, the rooms all opening directly from the space at the landing of the stairs, with no space wasted in passage ways.

The bath room is tiled on the floor and in a wainscoting. There is a solid built-in tub and a pedestal bowl.



In addition to the hot water heating plant is an instantaneous hot water heater in the basement, laundry, toilet and vegetable room. In the basement is also a large, light,

airy amusement room with a brick fireplace and built-in seats. This amusement room connects directly with the living room by a closed stairway.

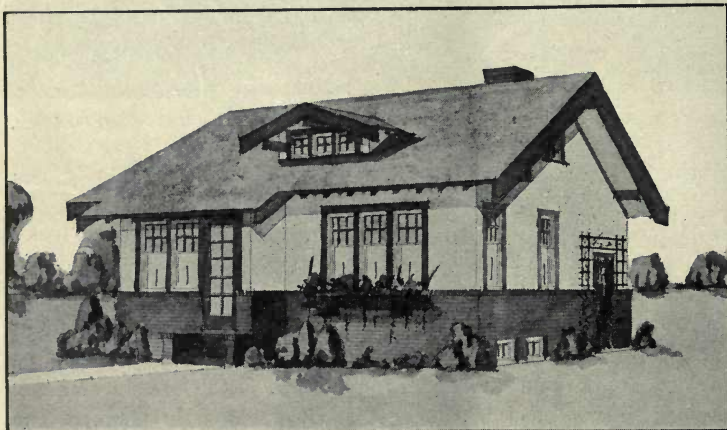
Two Inexpensive Homes

A SMALL, inexpensive home has been worked in two ways, and is here presented in the designs for two different types of houses; the one with the rooms so compactly arranged

attractive results which may be attained.

The entrance, protected by the low overhang of the eaves, is directly into the sun room, with a small coat closet convenient to the entrance. This room may be used as a den or even, if desired, as a sleeping room for the large closet is so arranged as to permit of the installation of a wall bed or a so-called disappearing bed which is attached to the closet door and turns into the closet with the closing of the door.

The living and dining room is of good size and well lighted. It has good



A dainty bungalow.

W. W. Purdy, Architect.

that they can be grouped in small space on the first floor, the second with the sleeping rooms above a somewhat smaller ground area. Either set of plans makes a very practical and convenient arrangement for an elderly couple or for the "Newlyweds"; in fact for any small family.

A completely good plan never "just happens." One may judge of the study put on it by the completeness with which it fills in a practical way the conditions which it is expected to satisfy, and at the same time is attractive both inside and out, yet at a minimum of cost.

The bungalow here shown is a very good example of careful planning and the

wall spaces ample for davenport or the larger pieces of furniture. The roomy closet opening from the living room is a welcome feature to any housekeeper.

The kitchen is well arranged with good cupboards, a sink with double drain boards, well placed range, et cetera. An attractive and convenient breakfast alcove has been provided with a drop table under the window, very cosy for an informal meal.

The bath room is placed between the front room and the rear bedroom with a passage connecting them, from which opens the linen closet. In the ceiling of this hall is provided a scuttle so that the storage space in the attic may be used.

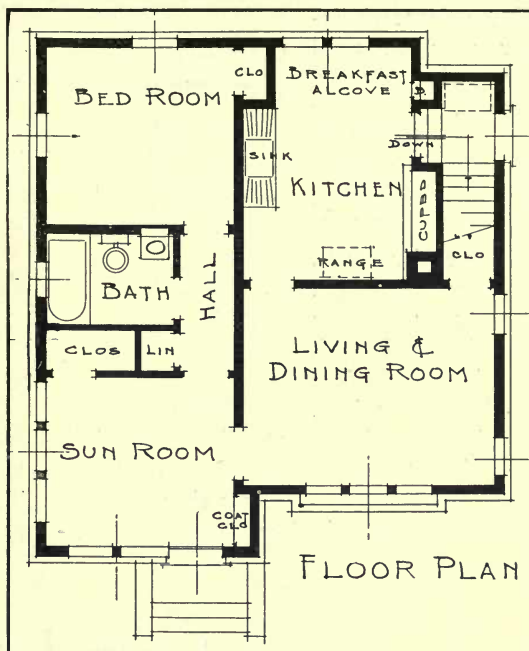
A door may be cut from this hall to the living room if desired.

The basement contains space for the heating plant, a small laundry, fuel and vegetable rooms.

The specification calls for hardwood floors and finish, or pine enameled, and a hot water heating plant. Very careful estimates have been made of the cost to build, in the vicinity of Minneapolis, and the figures indicate that this bungalow could be built as shown,—frame construction with cement plaster over metal lath, and brick up to the sills of the windows, at a cost of from \$2,500 to \$2,700 under present price conditions. Omitting the brick work and installing a hot air furnace would reduce the cost about \$200. The cost of the story and a half house exceeds this by only \$100 or \$200, we are told.

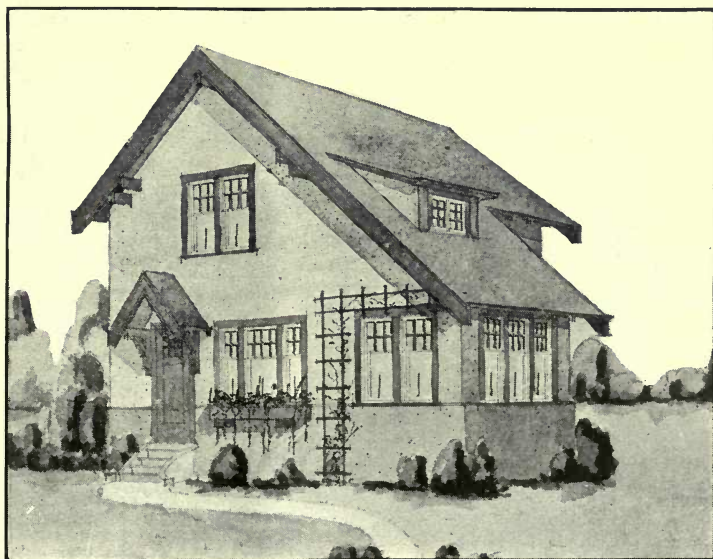
The second design while it covers less ground yet gives more floor space, with the sleeping rooms on the second floor. The entrance is into the living room, with the coat closet and stairs beside the entrance. French doors connect with the sun porch. A cased opening separates the living and dining rooms. The groups of windows give a circulation of air across both rooms.

The kitchen is small. It really belongs to the popular kitchenette type, yet it is ample for the small family. Though the floor space is small the working space is liberal and convenient. The basement stairs give a side entrance at the grade. The



clothes chute is beside the chimney and opens from each hall to the laundry.

On the second floor are two good sized chambers and bath with a linen closet opening from the bathroom in a convenient way. The dormer alcove at the end



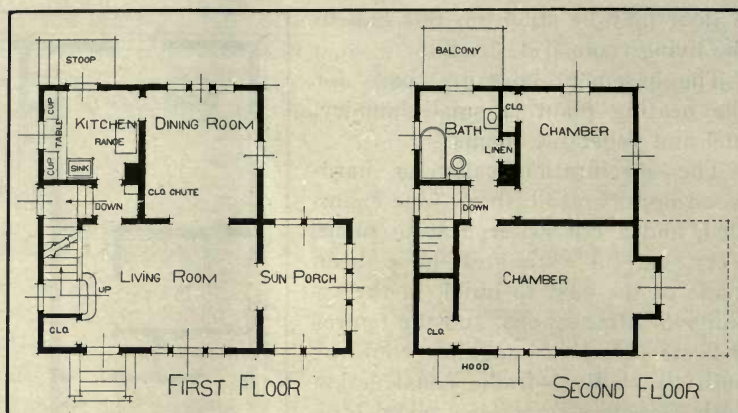
Story-and-a-half cottage.

W. W. Purdy, Architect.

of the front chamber may be used for sewing or for a lounge.

The basement contains the heating plant, laundry, vegetable and fruit rooms and storage.

Such a small home competes very favorably with the tiny flat, for it is not less convenient, and it adds privacy as well as more light and air than can usually be found in the small apartments. Houses that are well built are economical to heat, and an at-



tractive exterior tends to sell a house at a good profit if it is put on the market. These things make a home a safe and sane investment.

A Pleasing Home

WITH its hooded entrance and balcony under the group of windows; with the wide over-hang of the eaves and carefully worked out mouldings, this home is very pleasing to the eye as to the exterior and very livable as to the interior. The first story is shingled in alter-

nate courses, with an architrave treatment. The second story is cement plaster on galvanized metal lath.

The plan is exceedingly well considered and so arranged that it is possible to enter the house and go to any part of it without going through the living room,—a matter

that many housekeepers do not consider necessary, and which others feel to be most essential. While it takes space which otherwise gives the living room more openness, it makes the room easier to heat and less liable to draughts by closing off the stairs.

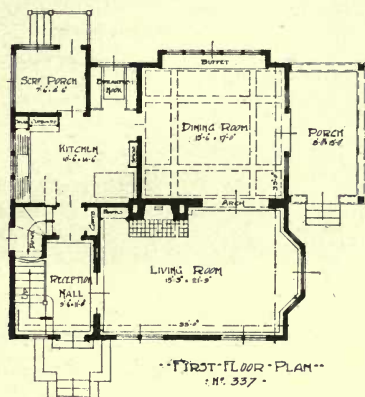
The hooded entrance gives access to the small reception hall, with the stairs beside the door. Slid-



The first story is shingled in alternating courses. *Jud Yoho, Archt.*

ing doors open to the living room and a door connects with the basement stairs and rear entrance, and also with the kitchen. This allows the maid or the housekeeper to go to the front door with few steps and without intruding on the rest of the house. The living room is of good size with a bay at one end and the fireplace on the long inside wall of the room. A wide opening connects with the dining room which has a

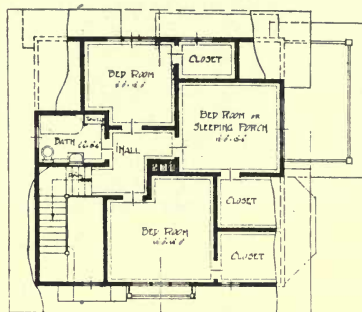
vented into the flue. Oftentimes the range is fitted so snugly between doors and cupboards, that the cook is apt to be a little crowded in her work. The sink, under the window, has double drain boards, and cupboards are built at the end. In addition to these the kitchen has a nicely planned breakfast alcove just beside the dining room door. The table is under a window. The rear porch gives cool working space.



"FIRST-FLOOR PLAN"
"No. 337"

beamed ceiling, and a wide buffet built in under a group of windows. Opening from the dining room is a screened porch with an outside entrance.

The kitchen is particularly well arranged. The range is well lighted, has been provided with good space, and can be readily



"SECOND-FLOOR PLAN"
"No. 337"

On the second floor are three bedrooms with closets under the roof. The bath room is placed over the kitchen sink making an economical plumbing arrangement.

A brick terrace and steps at the entrance, together with the planting makes a very attractive approach.

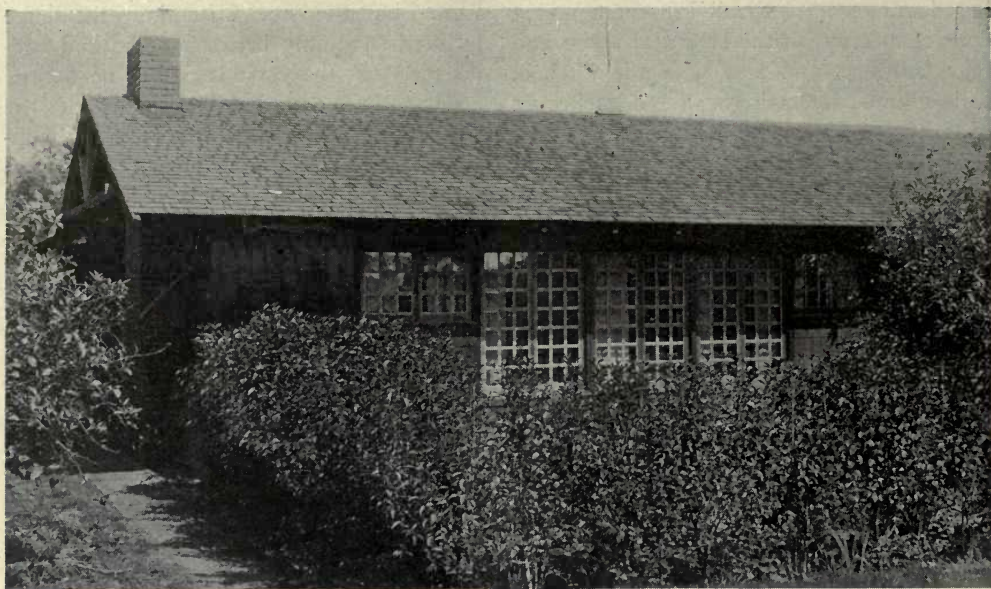
A Picturesque Treatment for the Small House

THE element of the picturesque is gaining a more distinct hold on the American people. Where it was admitted as a foible a few years ago it is now demanded as a necessity. Moreover it is losing its old associations with inconvenience and unnecessary expense. The progressive architect does not sacrifice convenient or necessary points in order to obtain a picturesque effect, but he

uses necessity as the tool of the picturesque.

So much is said about the compact house, which has certain marked advantages in the more severe climates, that there is a pleasure in studying the house designed with more freedom.

The first design of this group shows a house where the rooms surround three sides of a court; the living room across



Small paned glass gives the chief charm.

the front, with the dining room and kitchen on one side and the sleeping rooms on the other side of the court.

The entrance from the porch at the side is into the living room, which opens to the terrace on one side and on the garden in the court on the other. The fireplace is in an angle, from which the service

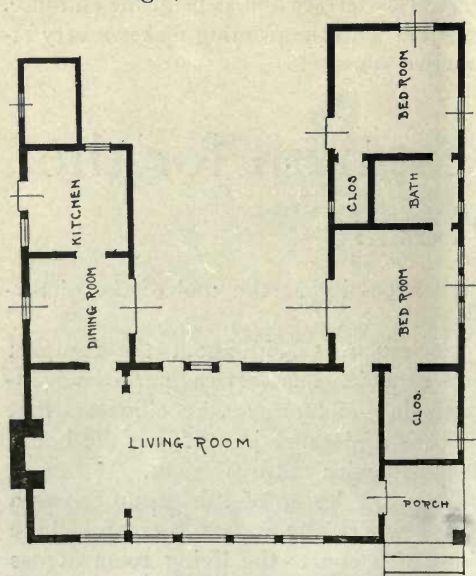
wing of the house is conveniently reached.

Connecting with the bedroom suite is a closet or small dressing room the full width of the porch.

This type of plan is used largely in the summer climes because of the greater exposed surfaces and the difficulty of heating such a house in severe weather. While this is undoubtedly true, when these difficulties can be taken care of efficiently there is no place which so much needs a sunny protected spot where the sunny warmth lingers late in the fall and comes early in the spring as these same "cold country" houses. The time is coming when a glass roofed enclosed court for growing things will be considered no more of an extravagance than a sun porch was a few years ago.

The special charm of the house lies in the group of small paned windows or French doors which fills the center of the living room. The planting which secludes the lawn adds much to the individuality of the home.

The second bungalow shown could be given a similar treatment across the liv-

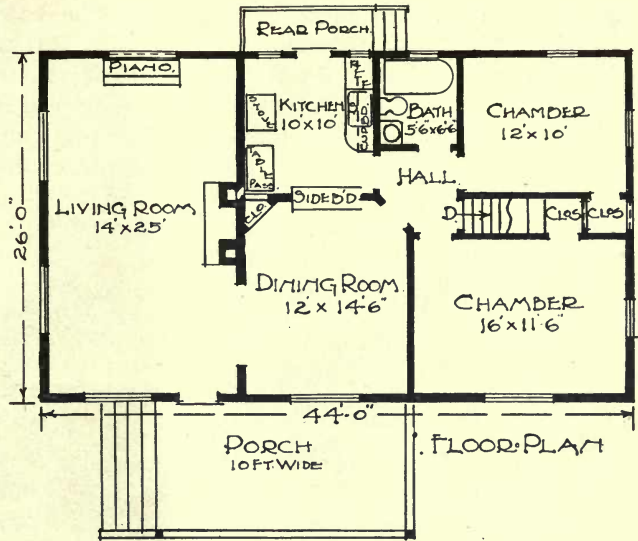


ing room if a bank of windows were desired opposite the fireplace, with the lawn terraced to the windows.

The design as shown makes a very practical and livable plan. The entrance is into the living room, yet very near the dining room, so that the rear of the house is very easily reached through the dining room.

This bungalow is simplicity itself in external appearance, yet it is just the simple plain lines that give character to the craftsman style. Shingles, shakes or clapboards are used for the wall covering with a cobblestone foundation including porch. The basement does not extend under the living room, there being ample space in the remainder for vegetable cellar, laundry, fuel bins and furnace.

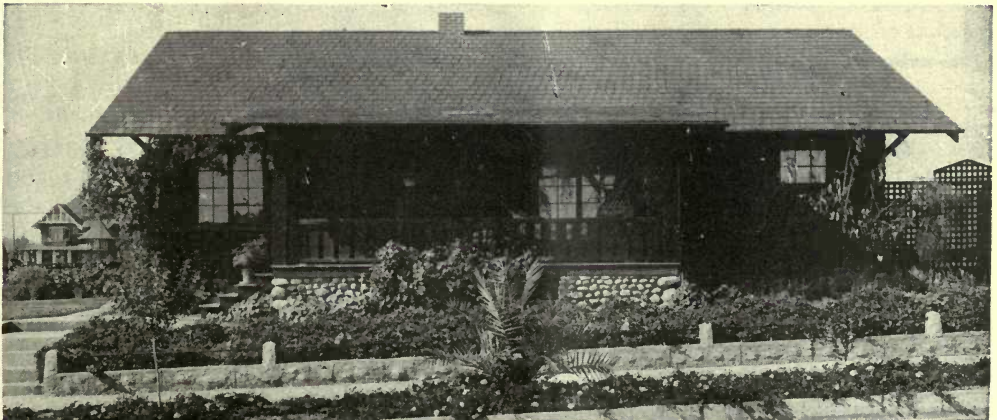
Note the fine proportions of the living room with its fireplace and abundant opportunity for placing of furniture. A cased opening leads to the dining room which contains a sideboard, a china closet with a "pass" to the kitchen and a door opening upon a small hall from which one



may go to the kitchen, the bath room, down to basement or to the chambers.

The rear of the house centers about this tiny hall which gives access to the sleeping rooms, the bath, the kitchen and dining room, also the basement stairs.

The kitchen is most complete in its appointments with its refrigerator iced from the outside, adjacent sink and cupboards over it. On the other side is the table and the stove where a good light falls upon it. The chambers have each a good closet and from that of the front



Simple in its external appearance.

chamber one may go up to the attic space which is ample for good storage.

The basement height is 7 feet 6 inches and the first story 9 feet. Washington fir is used for the wood finish throughout the house.

The dark stained siding below the window sills carry with the trim and make a feature of each window or group of windows, and especially the group which includes the front door.

Extending beyond the rest of the house as it does, the living room is of good size and well proportioned. Its central location gives easy access from the living room to any part of the house. The fireplace is so located as to give place for the kitchen flue in the same chimney. On one side of the house are the sleeping rooms and on the other side the service wing.

The dining room opens from the living room with a wide cased opening. Beyond is the pantry with working shelf and cupboards, connecting with the kitchen. Opening through this space is a small room which may be used for a maid's room. The kitchen is well equipped. The ice box is in the rear entry. The stairs to the basement open from the kitchen.

Opening from the other side of the living room is the bedroom suite, very compact and convenient. A small passage way connects

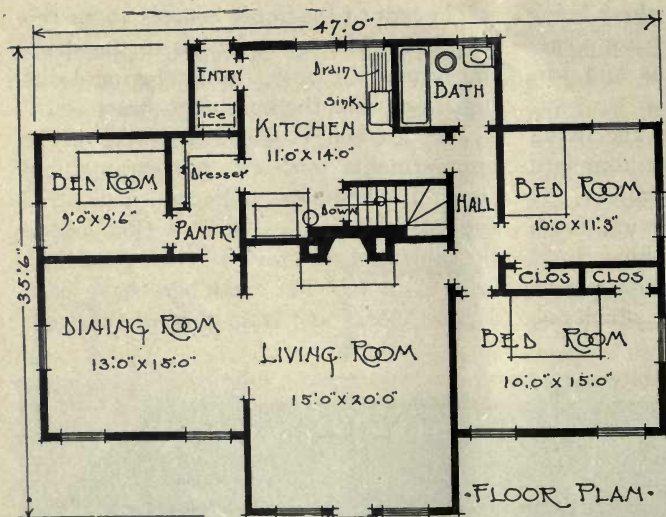
the two bedrooms with the bath and opens into both the living room and the kitchen. Both rooms are supplied with closets. All together it is an unusually interesting plan.

There is a full basement under the house, with place for the hot water heating plant, laundry, fuel rooms, et cetera. There is an outside rear cellar entrance.

In contrast with the small homes just



Expresses self-respect without any pretension.



The third design is unusual both in plan and exterior treatment. The width of the windows set a scale for the building which seemingly reduces its apparent size. A six room bungalow of the dimensions here given is not very small, yet it makes the intimate appeal of the small home. It is not pretentious in any way, yet it expresses an infinite self-respect.



With a picturesque bay of diamond-paned glass.

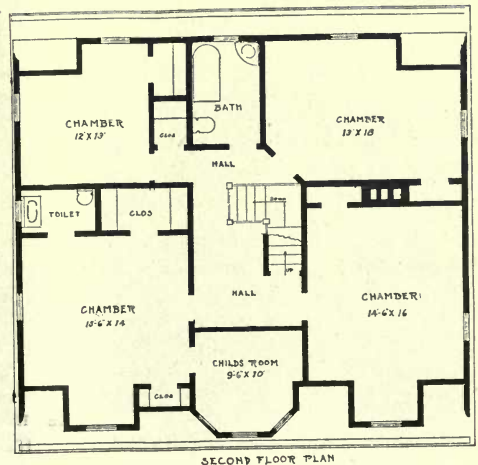
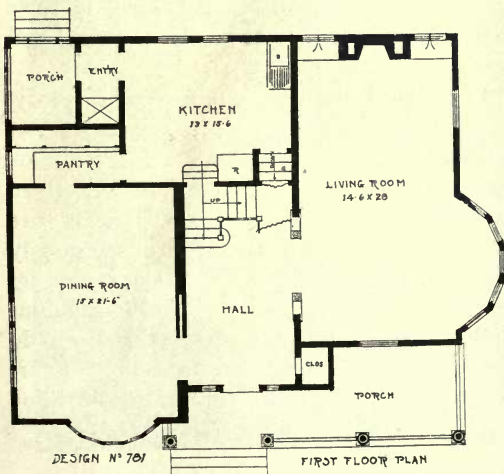
shown is this design for really quite a large house. The width across the front is 42 feet, while the depth is 29 feet on one side and 36 on the other. The eaves overhang the bay in the dining room and, being carried across the porch, give additional room on the second floor under the gambrel roof.

The plan is of the central hall type and the rooms are unusually large; the living room being 15 by 28 feet and the

dining room 15 by 21 feet, with a wide hall between.

The living room has a bay opposite the columned entrance, with the fireplace at the other end of the room. Casement windows opening on either side of the fireplace with seats beneath them, make a very attractive feature of the room.

One wide sliding door separates the dining room from the hall. The many sided bay with its diamond panes of glass



makes a picturesque nook near the door. A well equipped butler's pantry is placed between the dining room and the kitchen. The refrigerator is in the rear entry. There is an enclosed porch beyond. Three steps from the kitchen reach the landing of the main stairs and make a possible communication between the kitchen and the front of the house. Basement stairs go down under the main stairs.

The principal rooms on the first floor are finished in birch and white oak. The kitchen, pantry and rooms on the second floor are of pine or poplar, painted. Hardwood floors are laid throughout the entire first floor of the house, also in upper hall and bath room.

On the second floor are fine, large

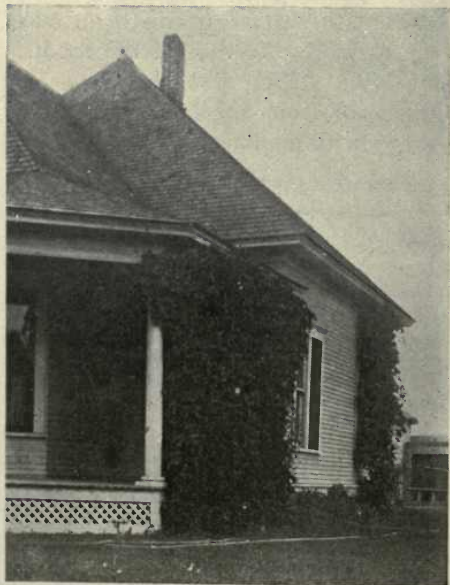
rooms, ample closets being provided and a very cozy little sewing room, at the end of the hall over the front entrance, is secured. There are also provided on the plans two good bed chambers in the third story, besides storage space, reached by a stairway going up over the main staircase.

The height of the basement is 7 feet 6 inches; first story, 9 feet 5 inches; second story, 8 feet 3 inches.

The basement extends under entire house and has a cemented floor, also a completely equipped laundry with set wash trays, etc. There is a hot water heating apparatus in the basement. There is an outside cellar entrance at the rear, underneath the pantry window.

A Suggestion

Ruth Fargo



The vine is rolled out of the way during the winter.

LOOK at my vines. They are Virginia Creeper, closely trimmed, climbing on chicken wire which is fastened to long curtain-like rods hung over hooks on the porch cornice. Those at the back keep the hot sun out of my kitchen window the summer through. Those at the front make a shady, secluded spot for a summer afternoon—friends always know where to find me. And I'm sometimes sorry to come to the bottom of my mending basket, because it is such a comfortable place to sit and sew.

In autumn, the vines are a blaze of glory. Passers-by invariably stop to comment. But when the leaves finally fall I lift the rods from the hooks on the cornice, roll them carefully down so that I do not break wire or vines, and tuck them inconspicuously away under the house—till the next spring. In this way I have a hardy growth of perennial vine for summer comfort, and yet do not have the wire and bare branches obscuring my view and shutting out the sunshine during the short winter days.



*Bertrand & Chamberlain, Architects.
Carl Gage, Associate.*

Portfolio of Interesting Homes



The living room is charming.



The owner's sleeping room.



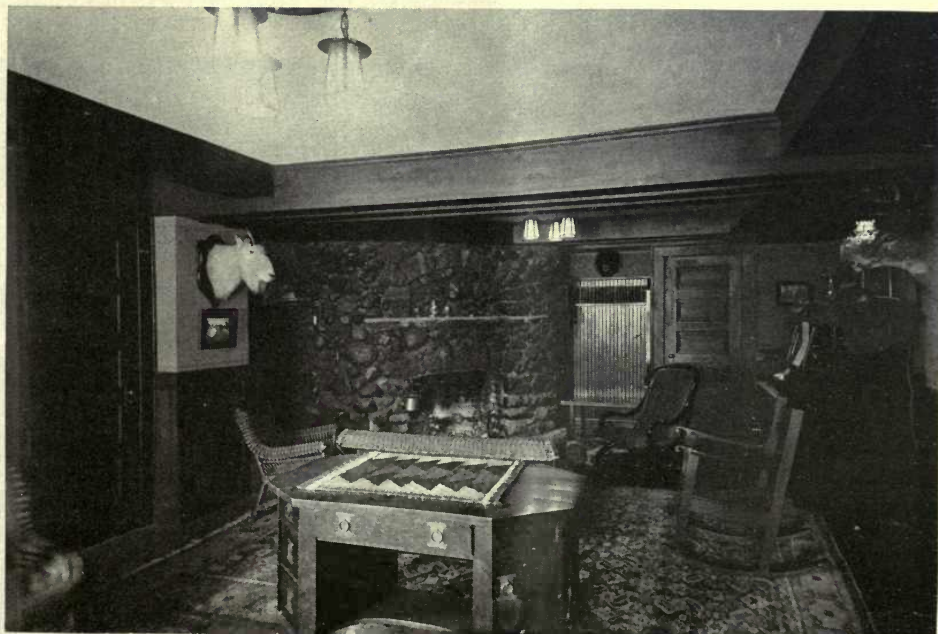
An unusual fireplace in the sun room.



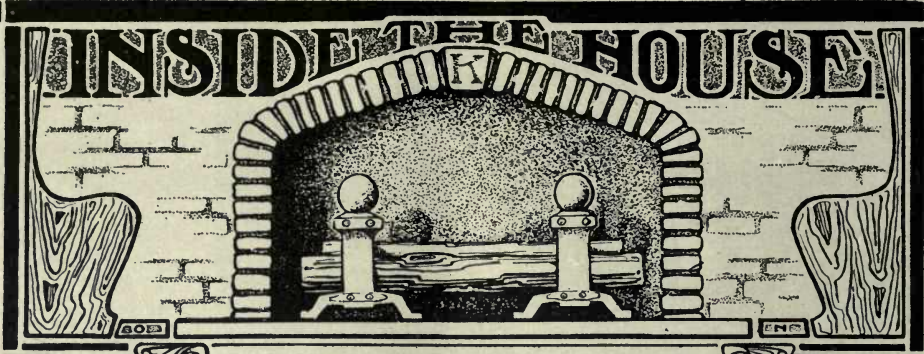
**At the angles
of the roof.**

*Bertrand & Chamberlain
Architects*

*Carl Gage
Associate Architect*



The amusement room is in the basement.



DECORATION *and* FURNISHING

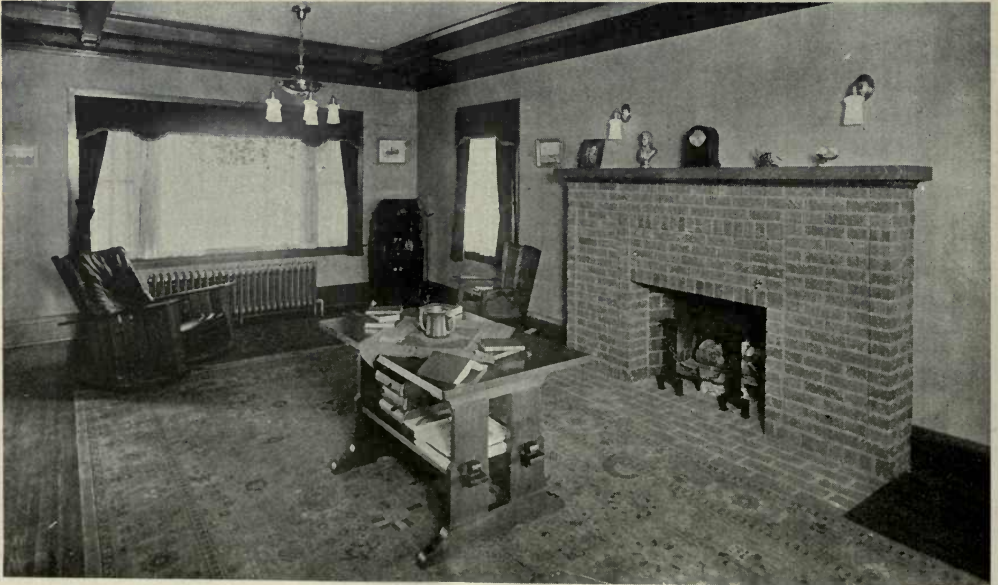
Conducted by Chas. Burdick, Decorator.

A Group of Interiors



THE first photo shows a living room in which the walls have been made a soft tan, in a grass cloth weave, with the hangings of dull mahogany colored velvet edged with dull old gold. The window is unusually large, the center section being of one solid plate while the side windows are of the double hung type.

The glass curtains are of sheer fancy net which permits of an uninterrupted view of the street while the single valance treatment tends to make the window appear somewhat larger. This room receives the greater part of its light from this triple window, but being hung in a light tan paper with the oak wood trim left in its natural



Simplicity in the treatment of the fireplace.

INSIDE THE HOUSE

color and simply waxed, this treatment reflects the light rather than absorbs it.

The French doors leading to the sun room at the other end of the living room are handled in a simple yet effective manner, the same fancy net as that hung at the windows being arranged on the doors with a rod at the top and bottom. This net is carried up to one of the cross bars exposing the two top rows of glass panes and while it suggests privacy and tempers the hardness of the wood trim it does not affect the light from the sun parlor which is so necessary at this end of the living room.

The sun parlor is open on three sides to the sunlight and air and no laces are hung at the windows, the only decorative note being a flat lambrequin valance of English chintz which extends across each group of windows with side curtains at the extreme outside.

The other photo offers a view of the dining room situated at the front of the house and across the wide hall from the living room. This room with the high oak wainscot and Tudor arches carries a strong suggestion of Gothic. Above the wainscot is

an English verdure paper in delightful shades of faded old blues.

The glass curtains at the triple windows are of the same fancy net as those in the living room, while the overdrape is of dull old blue velvet in tones of the wall.



French doors leading to the sun room.

Wall Surfaces and Their Treatment

Frank Alvah Parsons claims that color is a language, each tone of which expresses a definite feeling, different from every other tone. We know this is so of music, but how few of us comprehend the meaning of the harmony of color tones. Many instructive books have been written on the handling of colors as applied to the home,

but as very few homemakers understand the fundamental principles of color harmony, these books are apt to be confusing.

We must first learn the elementary facts of color values and then add a generous portion of common sense before attempting the interior decoration of the home. Other factors outside of the knowledge of

INSIDE THE HOUSE

color harmony must be reckoned with. If we desire for our homes that reposeful quality which is so necessary, the following points must be given serious thought and study:—the architecture of the interior and style of wood trim, the lighting and ex-

There is a strong tendency to treat the walls of the living room in plain effects, but which, on close examination, shows a decided cross grain or a textile weave. Light grayish tans and gray browns makes a most acceptable background for the life of the living room and harmonize beautifully with the fumed oak wood trim which is so popular. Among the two-toned figured papers are to be found many pleasing designs in which the pattern is so small and interwoven as to appear almost plain, providing beautiful and livable backgrounds suitable to any furnishings.

The modern arrangement of homes with generous openings between the day rooms makes harmony of color in all these rooms particularly important, and many are so planned that it requires a genius to make them both harmonious and interesting. In general, splendid results may



View of the dining room.

posure of the rooms, the relation of the rooms to each other and the uses to which each will be devoted.

The wall is a constructive element and should, in most cases, be considered simply as a background against which the pictures, furniture and draperies should appear to the best possible advantage. Some people are imbued with the idea that a large patterned wall paper in two or more colors is the "height of elegance." Such a paper often distorts a beautifully proportioned room or ruins the effect of a charming picture or a rare vase when displayed against such a background.

be obtained by using different tones of the same color in adjoining rooms.

Where the walls are rough or "sand finished" the most pleasing effects may be obtained by using a flat paint which can now be purchased in an infinite variety of shades with tones of great depth of beauty and color. It is now possible to have the wall finished in perfect harmony with the rest of the rooms, either in a soft one color treatment or a two or three color blended effect with a dull transparent overglaze.

New Wall Hangings.

In looking over the new wall papers and drapery fabrics a decided warmth of color

INSIDE THE HOUSE

is noted, particularly in the grays which have been so popular in the past two years. Never was the choice of these materials so varied and interesting as they are at present and it would seem that the manufacturers had almost reached the limit of their possibilities in color design and texture in the goods now displayed in the shops. Conditions abroad are forcing the American manufacturers to their utmost to supply the demand for pleasing and effective wall hangings and among the domestic lines may be found many "textile" effects in restful warm grays, neutral greens, golden browns, tans and faded old blues, any of which should provide a charming and reposeful background for any home.

Of fabrics suitable for door and window hangings there is an infinite variety, although the prices are somewhat higher on account of the scarcity of dye stuffs.

Velours and velvets are very much in demand as they add distinction to the day rooms, particularly if the rooms are treated in quiet tones. Odd as it may appear, this beautiful fabric is the most economical material to purchase, considering the long years of wear it has to offer and its susceptibility to bleaching and redyeing almost any colored desired at the hands of an expert dyer.

Lace curtains, to a great extent, have dropped into the background on account of the many odd sized windows so much affected by the up-to-date architect, making it necessary for the housewife to substitute materials which may be purchased by the yard. For the diaphanous glass curtains, soft marquises, voiles, scrims and sheer "fancy nets" are now offered in a wide range of designs and tints with prices to fit all purses.

Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



This Book on Home Beautifying Sent Free

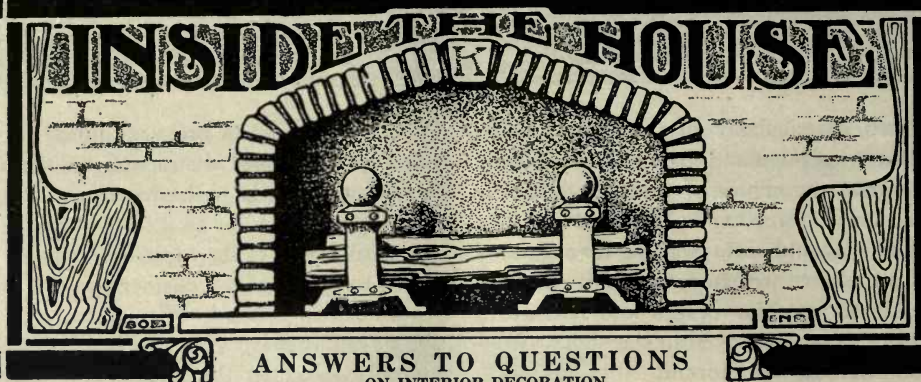
Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

S. C. JOHNSON & SON, Dept. K. E. 11, RACINE, WISCONSIN

"The Wood Finishing Authorities"



Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

A Business Woman's Apartment.

I. R.—I am a constant reader of your magazine and note therein the many helpful suggestions regarding interior decoration. I should be very glad of your advice on a problem I have in furnishing a small apartment for myself. I am a business woman but have concluded to try light housekeeping. Therefore I have rented a four room apartment and wish to have it arranged as nicely as possible, consistent with my small means.

There is a small living room, which is entered directly from small front porch. Living room faces almost directly south, and has one window and a glass door facing south. The woodwork in living room is finished to imitate quartered oak, and the floor is at present painted to match woodwork. The furniture I have for this room consists of a mahogany piano, small mahogany desk chair, Colonial style mahogany desk, mahogany bookcase and two chairs which are to be re-covered. Should like suggestions as to the wall paper to use, color of rug, and also the color to use in having my two chairs re-covered, window curtains and how to treat the glass in door.

There is a dining room which is moderately large, having an open stairway leading out of it. Woodwork and floor are same as in living room. The furniture I have for dining room is very good quartered oak, consisting of a table, chairs, china closet and small side table. Should be glad of suggestions as to paper, floor covering, and window curtains.

Have two nice windows in this room, one admitting the morning sun and the other is a small casement window over the china closet.

I am partial to gray paper and rug for living room, with old blue coverings for chairs, but am afraid you will not approve of this in a room not having white woodwork.

Ans.—We are afraid the woodwork will spoil any attempt to lay out a pleasing scheme for your rooms, so would suggest that you treat it with old ivory paint in a dull gloss.

The walls of the living room may be hung in a warm gray, plain oatmeal paper, with the hangings and chair coverings in dull old rose. A little touch of dull blue in the chair coverings will be pleasing. The rug may be a good domestic in an oriental pattern with old rose predominating. The glass door may be covered with a sheer "all over" net shirred on a rod top and bottom with draw curtains of old rose silk hangings on a separate rod to be drawn when desired.

The dining room should be done in a golden tan with the laces in old ivory or ecru and overdrapes of a pretty dull blue Sunfast hanging straight to the sill and with a ten-inch valance across the top.

The rug should be tan and ivory over a deep blue ground.

In Tones of Gray.

L. H.—I am enclosing sketch of a house we are building. Will you kindly



Why not?—

WHY not plan to have casement windows *thruout* your new home instead of only in the sleeping porch or sun parlor? Make your home *distinctive*.

It is now practical to have casement windows in the living room, dining room, kitchen, bedroom, upstairs and downstairs—casement windows that are tight and storm-proof when closed, that afford perfect control of ventilation and protection from draft,—if they are installed with

WHITNEY CASEMENT WINDOW HARDWARE



No sticking, leaking, rattling, slamming shut or any other troubles of the ordinary hinged casements, if this unique patented window control is used.

You will also enjoy several advantages and conveniences that you cannot have with any other type of window. Let us tell you about them.

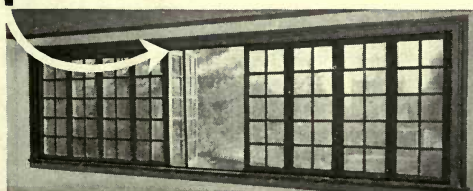
We sell only the patented hardware. Any style, size or design of sash can be used. Write for full information and portfolio of reproductions of beautiful, artistic window effects.

If you live West of the Mississippi, address

Whitney Window Corporation,
311 Fifth Street South,
MINNEAPOLIS, MINN.

If you live East of the Mississippi, address

H. E. Holbrook Company,
445 John Hancock Building,
BOSTON, MASS.



THERE'S JUST

One Flooring

That Combines

Beauty and Durability

¶ When you floor a building with OAK FLOORING you can rest assured that you have done a **distinct** service that will always **reflect** to your own credit.

¶ OAK FLOORING—the flooring that is as permanent as the foundation—will always give complete satisfaction. The first cost is the last, as repairs are eliminated.

¶ For bungalows and moderate cost houses $\frac{3}{4}$ in. OAK FLOORING, **Clean Plain** or **Select Plain**, is the ideal flooring because it is very economical in cost and when laid, has all the appearance of 13-16 in. OAK FLOORING.

¶ $\frac{1}{2}$ in. OAK FLOORING is very adaptable for covering old pine floors in old houses, as well as in new houses over cheap sub-floors.

¶ Nature has given OAK FLOORING that peculiar favor that appeals to the artistic as well as the demand for the distinctive and substantial.

¶ OAK FLOORING can be laid by any carpenter or handy man successfully and during the slack season it makes a very profitable line for any carpenter.

All Reputable Lumber Dealers Sell OAK FLOORING

Write For Booklet—

"America's Best Flooring"

Oak Flooring Service Bureau

1348 Conway Bldg., Chicago



give me some suggestions about interior decoration?

A fire left me with about enough antique mahogany—davenport, one card table, one five-legged table, four chairs and a secretary—to start the furnishing of the living room; one walnut settee and a few odd chairs for the music room, with a piano in mahogany, are about all I have left to start on. What do you think of white woodwork or ivory throughout since ours is a country place? I had thought of gray for the living room but do not want to mix the colors too much. Please suggest an entire color scheme for the lower floor. The music room being northeast and the hall having only one large north window, with glass doors opening on the enclosed entrance on the east, complicate the selection of colors.

Ans.—With your antique mahogany furniture, nothing would be prettier than the old ivory woodwork with a gradation of tones of gray through the entire first floor, with the hangings in rose and mulberry. The treatment may be relieved somewhat (although it would not be monotonous) by using a combination of gray and faded old blue in the dining room with the rug in dull old blue, ivory and gold.

The rugs for living room and music room should be good domestic manufacture of oriental design with plenty of deep rose in the background and the design in light blue, green, tan and ivory.

The hangings may be of either silk or velvets, 50 inches wide with a half width hanging straight at each side with the glass curtains of sheer net in ivory tones which comes in an "all over" design and may be purchased by the yard.

We would also finish the woodwork of the kitchen in enamel in a high gloss white with walls, etc., painted in Colonial yellow.

Treatment of Interiors and Kitchen Arrangement.

H. H. McC.—Enclosed are plans of a house which we are to build soon.

The house will face east, and I wish

suggestions as to finish of walls and woodwork.

The woodwork will be of Georgia pine, the walls papered.

As I have mahogany furniture and will have colonnade between living room and hall, had thought to stain woodwork that color (brown mahogany).

My dining room furniture is mission, so I thought to have dark oak woodwork there, and in library, as I have dark oak bookcases, table, etc., for that room. I will have new rugs, curtains, etc., so please suggest colors, material, etc., for these.

I am thinking of having French doors between living room and dining room; will this be right, or will folding doors be better?

The woodwork on second floor will be white.

Our plan is Keith's design K849, Vol. 5, with some changes. Do you think the range will get sufficient light, with pantry on south side, or should it be placed on north side of kitchen?

The house will have about 50-foot front on lot 100 feet wide, with lovely sycamore trees across front and along north side. Will you suggest color and trim for exterior?

What kind of mantels and what color tiles should I use on first floor rooms.

Ans.—Do not hesitate to ask questions of our Decorative Department. The more you ask, the easier it will be for us to advise you. The plan of your rooms offers a splendid opportunity for the arrangement of a charming color scheme in conjunction with the furniture you already have.

Soft grays or putty shades for living room and blues for dining room are in demand at present. The exposure of your rooms will fit in with this scheme admirably. Georgia pine will take a beautiful mahogany stain, but should be kept to the brown tones. Would suggest hanging the living room walls in a soft gray paper with a four-inch straight edge border at the picture moulding, carrying tones of dull old rose or mulberry. Have the win-

New Price \$2.50

ANNOUNCEMENT

New Price \$2.50

Beginning with the JANUARY number, 1917, the subscription price to KEITH'S Magazine will be \$2.50 and single copies 25 cents.

M. L. KEITH, Publisher.



BAYONNE

Without a Rival

The best ordinary canvas, even if filled and painted in the most perfect manner, cannot reach the water, weather and wear resisting qualities of

BAYONNE

and the flimsiest canvas will now cost you as much, if not more—with paint at \$2.50 a gallon.

Bayonne is laid on the dry boards—requires no filling and only a light finishing coat.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's, page 426.

JOHN BOYLE & CO., Inc.
112-114 Duane Street—70-72 Reade Street
New York City
Branch House—232-234 Market Street
St. Louis



Beaver Board walls never crack, chip or fall.

You can bank on Beaver Board to last as long as the building and give constant

satisfaction. No other wall material decorates so handsomely and gives so wide a range of service.

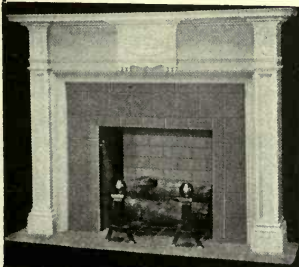
Beaver Board takes the place of lath, plaster and wallpaper. It's completely sanitary.

If you're planning to build or remodel, ask our Design and Decoration Department to help you plan. The service is free.

BEAVER BOARD

The Beaver Board Companies, 657 Beaver Road, Buffalo, N. Y.

Branches in Principal Cities

IN YOUR HOME—WILL THERE BE HORNET MANTELS?

This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.

INSIDE THE HOUSE

dow hanging in plain mulberry repp, sun-fast, or velvet, with the laces made of fancy ecru net which is sold by the yard. Pair laces are being displaced by fancy nets in an "allover" pattern, on account of the many odd shaped windows now being used.

French doors are the "proper" thing and should be hung with this same net, with rod top and bottom; not so much to give privacy as to take off the bareness of the doors. Would suggest carrying this color treatment into the reception hall and up the stairs through the upper hall. The floors may be covered with a fine domestic rug in oriental design and coloring, carrying soft green, tan and a little blue, with mulberry or deep old rose predominating. A slightly different pattern may be used in the hall with a runner to match for the stairs.

The fireplace in living room should be of faience mat glazed tiles in gray with flashes of old rose showing through the dull glaze. The same tile but of a different mould may be used for the hearth.

Finish the dining room trim to match the furniture you now have and divide the walls with a plate rail. Hang the lower wall with a fast color dull old blue burlap with the upper wall in a rich, blended paper in a lighter shade and panel same with a narrow border or place a border at the picture moulding only. The window draperies may be of soft silk curtains at extreme outside with a gathered

valance across the tops of three windows. The laces should hang straight to the sill and made of same sheer fancy net as suggested for living room, but of a slightly different pattern.

Hang a luminous alabaster bowl from ceiling with silver side lights to match. The etching on the bowl may be outlined very lightly with blue. If you carry your dining room out in blue, would suggest that you have the hardware in an antique silver finish. If you wish, a handsome Japanese grass cloth in dull blue with a glint of silver in the background, would be charming.


In regard to the kitchen, would suggest omitting the pantry and placing a work board the full length of south wall with cupboards, drawers and bins underneath. On both sides of south window and starting 16 inches above the work board, we would carry shelves to the ceiling, closed with glass doors. Place range on north wall and sink and drain board on east wall. Have a drop shelf or work table under the windows on west wall. Finish the wood trim in the best quality of gloss white enamel and hang the walls in Sanitas in a gloss white ground divided into one inch squares by narrow blue lines. Also hang same pattern on ceiling in preference to the plain. Washed with ivory soap, Sanitas will retain in newness for years.

The library will get very little sun and would suggest olive and buff with the furniture in oak. Finish the woodwork in a pure olive enamel, rubbed to a dull finish with a chair rail or wide moulding to divide the walls. Hang the lower wall in copper brown burlap or embossed paper in leather or textile weave. The upper wall may be hung in a plain paper with a soft velvet finish in an orange buff shade. The upper wall may have border only, next to picture moulding. The draperies to be in a crude black print on linen or other coarse weave showing orange, green, red and black on a tan ground. The rug should be in a rich coloring with old red predominating. The mantel should be of Grueby tiles in olive green or in colors.

Before You Build

It will pay you to send for
STILLWELL'S BUNGALOW BOOKS

—containing photos,
plans, descriptions
and costs of 132.



Stillwell Homes reproduced from original California designs
—combining beauty, individuality, comfort and economy.

"Representative California Homes"
50 ideal homes, \$2,000 to \$6,000—Price 50c

"West Coast Bungalows"
51 inexpensive homes, \$1,000 to \$2,000—Price 50c

"Little Bungalows"
31 perfect little homes, \$300 to \$1,700—Price 25c

**ALL 3
BOOKS
FOR \$1**
(Postpaid)

We Sell Books and Blue Prints on a Money-Back Guarantee
E. W. STILLWELL & CO., Architects
458 Heune Bldg., Los Angeles

FOR the exposed covering of a house no other wood so successfully withstands the ravages of time and weather as

WHITE PINE

And figuring value in terms of service it is the most economical.

White Pine does not shrink, swell, crack, twist, warp or rot—and once in place it “stays put,” after years of exposure, even in close fitting mitres and in delicate mouldings and carvings. It takes paint and stains perfectly.



“White Pine in Home-Building” is beautiful illustrated and full of valuable information and suggestions on home-building. Send today for this booklet—free to all prospective home-builders

“Helen Speer’s Book of Children’s Toys and Furniture”—a fascinating children’s plan book, from which a child may build its own toys and toy furniture. Prepared by Helen Speer, the toy expert. If there are children in your home, sent free on request.

WHITE PINE BUREAU

12120 Merchants Bank Bldg., St. Paul, Minn.



IN sleeping rooms, dressing rooms, bath rooms and entrance halls, a Morgan Mirror Door gives you the convenience of a full length mirror, occupies no extra space and costs little if any more than an ordinary door.



MIRROR DOORS

May be had in a wide range of designs.

Suggestions for Beautifying the Present or Prospective Home

We have just issued a new 32-page booklet, “Adding Distinction to the Home.” It is copiously illustrated and shows what charming results can be attained at small expense by replacing ordinary doors with French, Mirror or Front Doors. A mine of suggestions for all who expect to build or improve their present home. Sent free on request.

“The Door Beautiful” our 50-page illustrated design book, is intended especially for the prospective home-builder. Every page is replete with suggestions on doors, interior trim, and interior decoration. If you are planning to build be sure to get this booklet. There is no charge to prospective builders.

Look for the name Morgan on top rail

Morgan Sash & Door Company
Dept. A-27, Chicago

Morgan Company, 6 E. 39th Street, New York

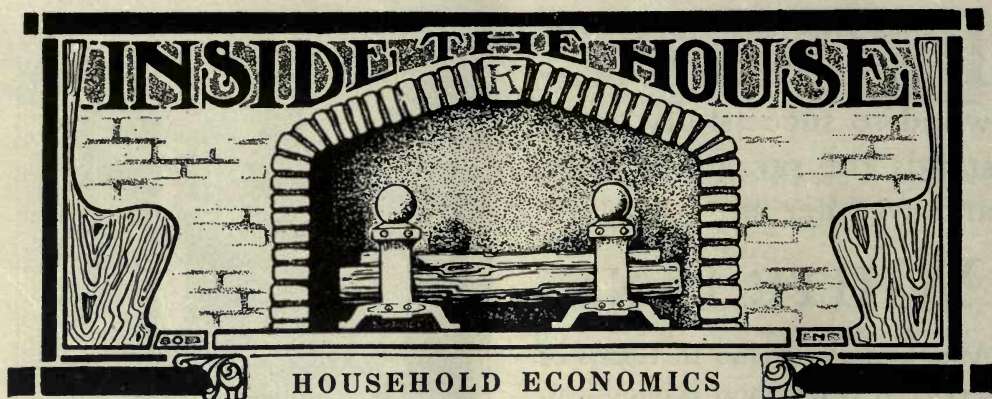
Morgan Millwork Co., Baltimore

Morgan Company, Oshkosh, Wis.

Morgan Sash & Door Company, Detroit, Mich.

Exhibits of finished Morgan Model Doors

in all principal cities



Two Helpful Devices

A Convenient Garbage Can.



Pressure of the toe opens the can.

GARBAGE disposal in the kitchen is almost as much of a problem to the housewife as in a larger way it is to the city.

A garbage can has come to our notice in which the lid is raised with a touch of the toe. Remembering the difficulties of getting the lid off with one hand when the other is fully occupied, the idea of using the toe makes quite an appeal. The garbage receptacle illustrated was first used as a hospital requisite and for use in dentists' and doctors' offices, but so convenient did it prove that it has been adopted for household use. It is made in both small and larger sizes. It is white enameled or porcelain enameled both outside and inside. Think of the luxury of a white enameled garbage pail that can be opened with a touch of the toe.

The housewife, like the farmer, has gotten past the place where the least expensive article in its first cost seems to

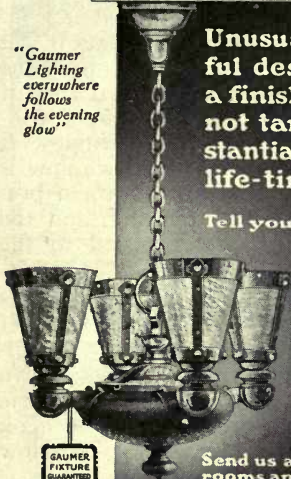
her the wisest and best economy. Since she has learned the commercial value of her own time she realizes that it is not necessary that she should spend of her own vitality and time so lavishly as did the woman of the past generation, in order to save the price.

What might be called the "garbage question" is one of the most vital in the American household today, and from several widely different points of view. First, of course, it is a sanitary question and vitally affects the health of the family and the community. The first real fight against the common house fly, whether by the housewife or the city, must begin by banishing the garbage pail from its easy access. One must realize this every time he notices the side or alley entrance of a many-family apartment house.

There is an old saying that a woman can throw out more with a teaspoon than a man can bring in with a shovel. As a general thing the teaspoon empties directly into the garbage pail. The fine scorn of parsimony which so many housewives exhibit is many times the undoing of the household, and is very closely related to the high cost of living. The good-man of the house also prides himself, as did his father before him, on "being a good provider." How far modern efficiency has touched the garbage pail is a matter of conjecture, in which there is much food for thought.

GAUMER GUARANTEED LIGHTING FIXTURES

"Gaumer
Lighting
everywhere
follows
the evening
glow"



Unusually beautiful designs with a finish that does not tarnish—substantially built for life-time service.

Tell your dealer you want the genuine

**GAUMER
FIXTURES.**

Look for the
**GUARANTEE
TAG**
before you buy.

Send us an idea of your rooms and we will gladly suggest designs.

ADDRESS DEPT. D.

BIDDLE-GAUMER COMPANY
3846-56 LANCASTER AVE., PHILADELPHIA



**Colonial
Fireplaces
ARE RIGHT**

Made to Order
from

\$2000 Up

Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO

The Accepted Authority on Bungalows for Eight Years.

"Homes, Not Houses"



California Bungalows

With all the built-in conveniences which we have devised to make house-keeping and homemaking a pleasure.

Fifth edition "HOMES, not HOUSES,"

123 folio pages with 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, 25c. It costs no more to get THE BEST. Plans made to your own order.

The Bungalowcraft Co., 507 Chamber of Commerce, Los Angeles, Cal.

The Heating Plant's All Right

Have dinner down town any evening and enjoy a bite after the theatre. It may be midnight or the wee small hours before you return home but the heating plant will be doing its work dependably if it is controlled by

**The "MINNEAPOLIS"
HEAT REGULATOR**

Automatic heat regulation is an absolute necessity if you are to enjoy your home during the cold and unsettled months. This device not only maintains a uniform temperature day and night but automatically operates for a lower temperature during the night, lessening fuel consumption while heat is least needed and again in the morning automatically operates for a return to warmer temperature insuring comfortable rooms at the time of arising.

For the home owner who wishes to eliminate all care of the motor during the entire heating season, we supply our non-winding electric motors—an alternating current motor for homes having electric current and a direct current motor with power furnished by four cells of dry battery when electric current is not available.

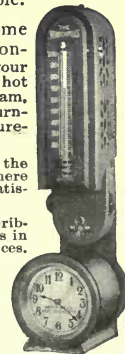
Whether your home is old, new or in contemplation, whether your heating system is hot water, hot air, steam, vapor or vacuum, burning coal or gas—you surely need this device.

Sold and installed by the heating trade everywhere and guaranteed satisfactory.

Send for booklet describing our several models in detail and quoting prices.

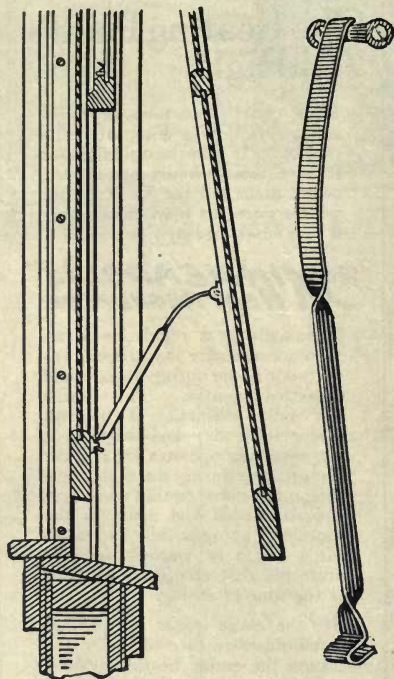
**Minneapolis
Heat Regulator
Co.**

Wm. R. Sweatt, Pres.
2725 Fourth Avenue So.
MINNEAPOLIS, MINN.



Model
No. 55
8-Day Clock

INSIDE THE HOUSE



Raising the sash opens the storm window.

Opening the Storm Window.

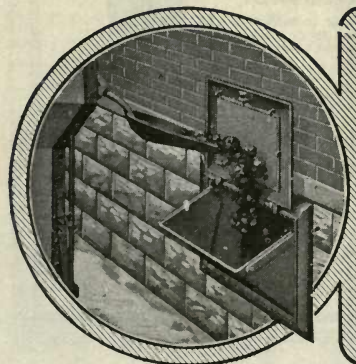
When the mercury is hunting around in the bulb of the thermometer to find a place to stop, one wishes for an automatic way of opening the storm window at night. When the inner window is open and the frost melts on the inside of

the storm window and then freezes it fast the trouble begins. It seems that the storm window only freezes fast when it has remained closed with the inner window open; that if the storm window is always opened when the inner window is raised, the air space between them prevents the melting and freezing, and the outer window is never exposed to the heat of the room.

Working on this principle a device has been invented and put on the market which opens the storm sash automatically as the inner window is opened. Two bars are firmly set to the sides of the sash of the storm window. These hook into the lower rail of the inner window in such a way that the storm sash is pushed out as the inner sash is raised. The curve of the attaching arm is shown in the cut and also the method of operation. The motion sets the outer window at an angle and gives a certain leverage. Usage tends to show that the storm window is less likely to be frozen fast than the inner window when operated in this way.

The Next Day's Dinner.

When a holiday comes on Saturday two dinners may be planned at once. If the roast is undercooked it can be spread when dripping, dredged with flour and re-cooked. To the remaining lettuce can be added balls of cottage cheese mixed with finely chopped parsley or celery.



Majestic Coal Chute

Keeps the coal man from marring the sides of your home, protects your walk, flowers, lawn and shrubs. A glass door serves as a window, giving splendid light to the basement. It locks from the inside and is burglar-proof. It is extra durable, has a heavy steel body—semi-steel door frame and boiler plate hopper. Every home should have one.

Write for Free Book Describing the *Majestic Coal Chute* and other *Majestic Specialties*: Garbage Receivers, Milk and Package Receivers, all-metal Basement Windows, Rubbish Burners, Street and Park Refuse Cans, Metal Plant Boxes, Pipe and Pipeless Warm Air Furnaces, etc.

The Majestic Co., 606 Erie St., Huntington, Ind.



Why

do you equip your home with gas, electricity, hot water heaters, vacuum cleaners and other modern improvements and leave your basement in the same dirty, neglected, unsanitary condition it has been ages? Why not install

a Sharp Rotary Ash Receiver

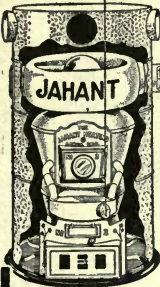
in connection with your heater and get away from the dirty, disagreeable bother of shoveling ashes, provide pure, dustless air for yourself and family, an odorless, sanitary receptacle for garbage and refuse, eliminate all danger of fire from hot ashes, protect the fine furnishings of your home from the ravages of ash dust and bring to your basement the cleanliness, neatness and efficiency required in the modern dwelling? There is no other one device which goes into the home that will give as much real service and genuine satisfaction as a Sharp Rotary Ash Receiver. Made in different sizes and can be installed under any type of heater at very little expense.

If you are building or have a furnace we will gladly send you complete information together with the endorsement of many enthusiastic users. Address

The Sharp Rotary Ash Receiver Co., Inc., Dept. 23, Binghamton, N. Y.



Save \$20 to \$50 on COAL BILL



You pay for a Jahant whether you buy it or not. Your excessive coal bills will soon pay for it. \$20 to \$50 (according to size of house) can be saved every winter on fuel bills by installing a New Scientific Down-Draft Jahant Furnace. Uses every heat unit in coal. Lasts a life time. Never out of repair. Changes atmosphere in home often. Supplies pure, warm, healthful heat, steadily and continuously. Heats every room evenly. Excellent for children, old people, invalids. A comfort to the whole family.

JAHANT EASY TO HANDLE

The New Scientific Down-Draft Jahant Furnace is easy to care for. Needs attention but twice daily in severest weather. Holds fire 48 hours in moderate weather. Burns coal to fine ash, no clinkers. Burns oxygen from outside air—Saves coal. Drafts are simple, easy to control. Heats up quickly in the morning. Does not discharge heavy smoke and soot when properly operated.

We Pay the Freight

We pay the freight anywhere in U.S. or Canada. When you buy of us there are no extras. Our price includes entire equipment, freight paid to your railroad depot.

Burns Air, Saves Coal
The New Jahant Scientific Down-Draft construction burns the oxygen from the outside air and saves 1-3 to 1-2 the coal.

Sold on Monthly Payment

We will trust you if you desire. Buy a Jahant Furnace now. A payment down and you can pay the rest in easy monthly payments—pay as your Jahant saves on your Coal Bills. A Jahant will pay for itself in a few months.

Install Jahant Yourself

Our Heating and Ventilating Engineers fit one of the eight Jahants to your home. You get everything needed. Every part cut to fit. Complete simple instructions for setting up. Any man who can read can set up a Jahant in a short time. Our Engineers' advice FREE.

FREE We give absolutely free a complete set of tools for erecting your Jahant Furnace. Get book "What Users Say" and literature, absolutely free. Heat your home better, easier, at a lower cost. Begin saving, act quickly. NOW.

THE JAHANT HEATING CO., 91 Jahant Bldg., Akron, Ohio, U.S.A.

Money Back Guaranty Bond

We give a 360 day legal Guaranty Bond with every Jahant furnace installed, according to plans. If at the end of 360 days it is not satisfactory it can be returned and the money will be refunded. You judge a Jahant from actual experience.



CAREY Ceil-Board

SUPERSEDES PLASTER FOR WALLS AND CEILINGS

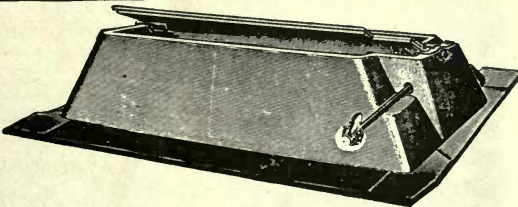
Does away with the inconvenience of plaster. Far more sanitary. Lends itself readily to any sort of treatment—can be painted, papered or varnished. Beautiful paneled effects are secured in Ceil-Board hardwood finishes, golden oak, mission oak and circassian walnut.

Our booklet "Beautiful Interiors" will assist you in planning your house interior. Write for it.

THE PHILIP CAREY CO.

General Offices:

1024 Wayne Ave., Lockland, Cincinnati, Ohio
Offices and Warehouses in Principal Cities



The Peerless-Drake Fireplace Damper

Can { Blow Shut
Not { Get Out of Order

MR. HOME BUILDER: Insist on your mason using the PEERLESS-DRAKE DOME DAMPER in your fireplace.

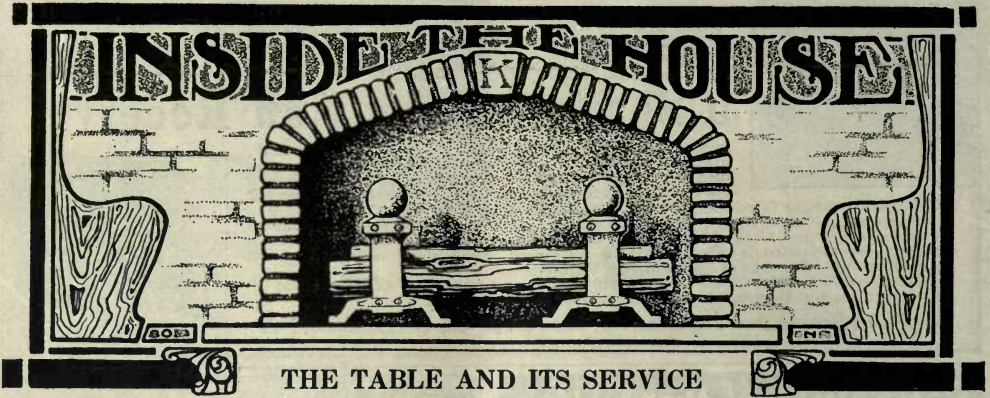
Costs No More Than Others Although Worth It

Ask for Descriptive Booklet

DRAKE MARBLE & TILE CO., 605 Second Avenue South, Minneapolis, Minn.

COMPLETE FIREPLACE FURNISHINGS

You are assured a square deal in Keith's.



Coffee Adulterations

IT is a curious fact that the substances used to adulterate coffee are not injurious in themselves, but actually render the beverage less harmful. However, this sort of adulteration works havoc with one's pocketbook, if not with one's stomach.

Whole coffees are seldom adulterated, although attempts have been made to make imitation berries from starch paste, molded, colored, baked and mixed with real berries, as these could be easily detected. This interesting little industry never assumed alarming proportions, but the housewife should examine her coffee beans, and see that they are whole and smooth, not broken, shriveled, green, or worm eaten. Sometimes inferior beans are "faced," that is, colored to resemble different grades, or "glazed," which

means coated with some of the following substances: Caramel, dextrine, white of egg plus sugar.

Chicory, which is prepared from the dried and ground root of the chicory plant, is the chief adulterant of ground coffee, but many other substances are used. One can but marvel at the ingenuity of the food adulterators who worked

up the following materials into coffee: roasted peas, beans, wheat, rye, oats, brown bread, pilot-bread, charcoal, red slate, bark, pea-hulls, ground corn cobs, and spent coffee grains; these were all found in samples tested in Massachusetts.

Fortunately the test for real coffee is very simple, as it contains such a large percentage of oil, that the grain will float in water. To make the test, fill a glass with cold water and place a teaspoonful of the coffee on the water. True coffee



Siberian coffee—Flowers and ripe berry.

RED GUM "AMERICA'S FINEST CABINET WOOD" RED GUM

AN ENDURING HARDWOOD, YET SOFT AS SATIN TO THE TOUCH.
ITS NATURAL TONE A RICH, WARM BROWN, "A JOY TO THE EYE."



EUROPE WAS USING AMERICAN RED GUM FOR FINE CABINET
WORK YEARS BEFORE AMERICA'S PRIDE AWOKE TO ITS OWN.

Enjoy Beauty?
Write for Samples

GUM LUMBER MFRS. ASSN.

1506 Bank of
Commerce Bldg.

MEMPHIS, TENN.

With Knowledge?
Write for Booklet

Beautiful tiled
bathroom and kit-
chens are no longer
a luxury. Even the
most unpreten-
tious homes can afford

UPSON
FIBRE-TILE

Looks like expensive tile. Lasts longer. Costs
far less. Really artificial lumber with deeply
indented tile pattern. Nail it over old plaster
or to studding, and enamel. Send 2c stamp for
sample and interesting booklet.

THE UPSON COMPANY 160 Upson Point
FIBRE BOARD AUTHORITIES LOCKPORT, N.Y.



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS

EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Catalogue "G-29"
showing a series of
new designs in

"Pergolas"

Lattice Fences
Garden Houses
and Arbors

When writing in-
close 10c in stamps
and ask for Cata-
logue "G-29."

Catalogue "G-40"
—containing very
useful information
about Exterior and
Interior Columns,
will be sent to those
who want it for 10c
in stamps.



BATH - KITCHEN - LAUNDRY



KEWANEE PRIVATE UTILITIES

Give Water and Light Service Equal to
the Best Public Utility Plants in Cities

The largest or smallest residence, no matter where located, can be equipped with all the comforts of the city home. The Kewanee is the original air pressure water system, supplying water under strong pressure for bathroom, kitchen, laundry, garden, garage, barns and stock. Excellent fire protection. No elevated tanks. Anybody can operate. The Kewanee is built as a complete and compact system in our factory and ready for a life-time of good service as soon as the shipping crate is taken off. Cost from \$45.00 up, according to capacity desired. Our dealers are high class mechanics and will install a Kewanee System, with our guarantee of success. KEWANEE PRIVATE UTILITIES give daily service and remove the last objections to comfortable country living.

Water Supply Systems—Sewage Disposal Plants—Electric Light Plants
Gasoline Engines—Gasoline Storage Plants—Vacuum Cleaning Systems

Send for illustrated bulletins on any or all the above

KEWANEE PRIVATE UTILITIES COMPANY, 227 South Franklin Street, KEWANEE, ILLINOIS

(Formerly, Kewanee Water Supply Company) Branch Offices—60 Church Street, NEW YORK and 1212 Marquette Building, CHICAGO



COMPLETE & COMPACT

INSIDE THE HOUSE

will float and will not discolor the water until it has stood some time; while chicory not only sinks, but colors the water a golden brown.



A branch of coffee berries.

Mrs. Ellen Richards, in her book on "Food Material and Their Adulterations," tells us: "that a small proportion of chicory in coffee is considered by many connoisseurs to impart a particularly agreeable flavor." When added to true coffee, it makes a rich dark brown beverage.

As a rule, it is better to buy high-grade coffees, because they go farther, and are

less adulterated, give better satisfaction, and to buy by the package to insure uniformity and cleanliness. Many people who feel the effects of coffee on the nervous system, or who realize that it is not wise for children to drink it, are using cereal coffees, because they are not stimulating. The claims which they make in regard to nutritive value, however, are doubtless exaggerated. These coffees are made of parched grains—of barley, wheat, corn, mixed with pea-hulls and wheat-middlings; molasses, sugar and butter, are often used in roasting these cereals. During the early pioneer days, as well as in the time of the Civil war, these cereal drinks were made at home from corn-cobs, bread-crusts, and even sweet potatoes. It goes without saying, that cereal coffees are less expensive than real coffees and still less so, when made at home. The following recipe may be of interest to those who would like to make their own cereal coffee:

Take two parts wheat to one of barley, roast in the oven until a rich golden brown. Pour one-third cup molasses, two tablespoons melted butter over mixture, stirring until well blended. Let dry, grind and keep in air-tight can.

Most coffee drinkers take the little brown bean for granted, without stopping to wonder whence it came; but it is most interesting to trace it back across the seas to Brazil or Arabia, and this can be easily done in these days of travel movies. After a picture visit to a coffee plantation, hunt up a coffee roasting firm in your city, where you will find the proprietors, as a rule, glad to explain the processes to you, from the receiving of the green beans to the turning out of the ground product, in sanitary packages. They often supplement the trip with a cup of fragrant filtered coffee.



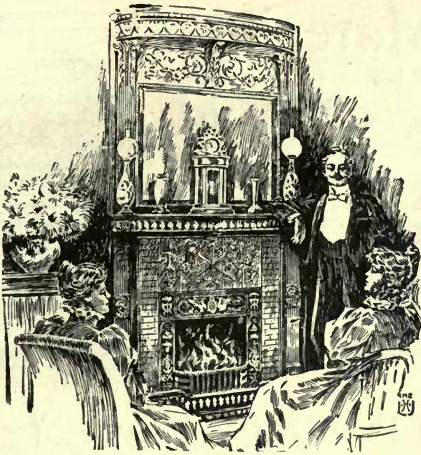
SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price..... 1.00
50 Design Book "Bungalows and Cottages," Price..... .50
One Large and One Small Book, Together \$1.25, Three Books..... 2.00

Many pretty one-story Bungalows and Cottages, Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA



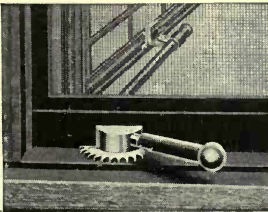
The Jackson Ventilating Grate

will make your fireplace a perpetual pleasure. Burns wood, coal or gas. Unlike the ordinary grate it produces an even temperature thruout one or several rooms, and gives four times the heat of the ordinary grate. Its special feature is a fresh air pipe which draws pure air from outdoors and sends it heated into the room, while the impure air passes up the chimney. Perfect ventilation is thus assured.

Send for Our Free Book "K"
It fully explains the principle of the Jackson Grate, shows the numerous styles and gives full information with prices.

Special catalog of andirons and fireplace fittings mailed on request.

E. A. JACKSON & BRO., 25 Beekman St., New York



The "BULL-DOG" Adjuster

has made out-swung casements practical and popular for the artistic

home of moderate cost. Full details in the unique Casement Window Handbook—

FREE—WRITE TODAY.

THE CASEMENT HARDWARE CO.

7 S. Clinton Street

::

CHICAGO

HESS MEDICINE CABINET LOCKER



The Recessed Steel Medicine Cabinet

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

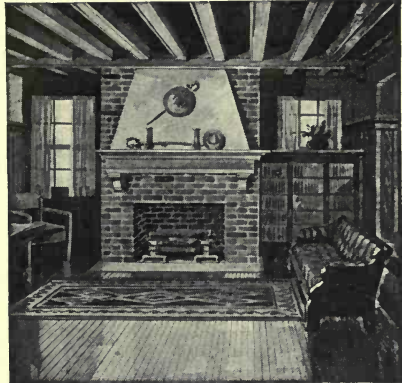
Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free

INTERIORS BEAUTIFUL

200 VIEWS



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size 7½ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

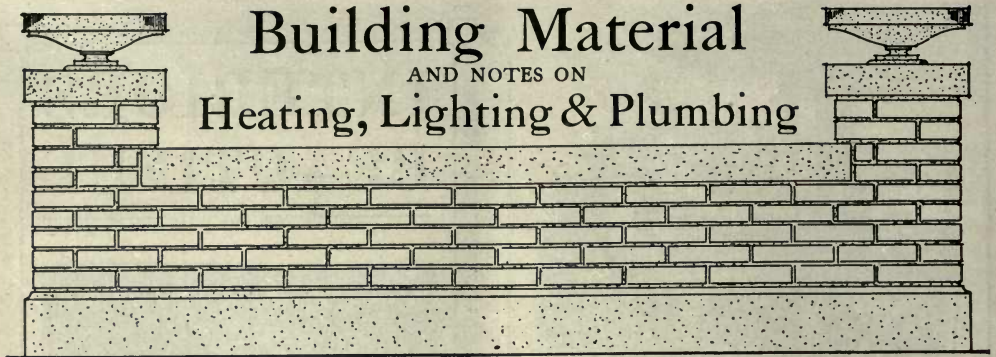
Price, \$1.00; postage, 8c.

With a Year's Subscription
to Keith's Magazine—\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

Do business with our advertisers, they make good.



Causes of Unsatisfactory Painting: Effect of So-Called Adulterants

John Upton

EACH and every one of the several ingredients entering into the composition of paint may be adulterated, or the higher priced ones skimmed, and the low cost ones increased and yet neither the painter nor the owner be able to detect any fault at the time. Good paint will work smooth and easy under the brush but at the same time it will not have the soapy feeling of an emulsion or rosin oil paint. This is difficult to describe but the experienced painter knows what it is. Paint which contains benzine works short, i. e., does not flow out well under the brush. Paint which thickens up when left standing for some hours contains rosin oil, or any paint which thickens up unduly in cold weather, has some oil besides linseed.

The vehicle of paint may be adulterated by using cotton seed oil, fish oil or corn oil instead of linseed oil. When the weather is cold and the paint sets in your can almost like butter you may decide the oil did not all come from flaxseed. To correct this the maker may have put in some extra turpentine (of which the limit should be 10 per cent) or benzine, or even pure cold water. Turpentine acts as a solvent and thins the paint so it can be spread more readily. It prevents the forming of gloss which would keep the next coat from making a good bond. Turpentine also helps to soften the old paint so more is used in the first coat on

old work than in the second coat of new work.

It has a legitimate purpose in paint as much as any other substitute for oil. In some cases good paint will have ten per cent of turpentine, but usually there should be less.

How then shall we tell when paint is poor? We must have an easy and practical way. There is the ready mixed paint bearing the label which is the trade mark of a well known and reliable paint manufacturer. This is an indication of good paint but the paint maker puts out more than one brand. Then get the best grade.

Paint makers are trying to get out a paint which will in every way satisfy the customer, and we do them an injustice when we say their first thought is for profit. Some manufacturers claim that a certain amount of inert material is desirable in paint to neutralize any acid in the other ingredients and prevent injury to the oil. It is also said that this will prevent settling and caking in the cans.

But for these purposes only a small percentage is allowable (say 10 per cent) and if there is much more, as indicated by the analysis of mixed paint, or added by the painter it must be for the purpose or cheapening or stretching the paint.

Some of these substances frequently put in lead paints are calcium carbonate called whiting, English whiting or Paris white; silica, barytas, Gypsum chalk, and

PERMANENT! BUNGALOWS - HOUSES - GARAGES - BARN READY BUILT

By Our Permanent Ready-Built System

Your own good judgement can write a check to you for actual hundreds of dollars.

DON'T waste even one dollar on your new home! Write us and let us show you why we save you 40%. Remember we cut in big quantities, by machinery; no waste material, no waste labor, no waste freight. In erecting there is big saving in labor to you. Two men have erected our \$1,500.00 house ready for plaster in ten days! We ship you all material, all cut, fitted, each piece, all numbered like plans. Your building is made easy and simple. Plans sent complete to detail—skeleton framing plans and everything; anybody can understand them.

WE ARE RIGHT IN THE HEART OF THE BIG FIR LUMBER INDUSTRY OF THE PACIFIC NORTHWEST—FROM FOREST DIRECT TO YOU

PERMANENT: Our ready-built structures are distinctly permanent structures. Your bungalow, house, garage, or barn, will be substantial, *permanent*, in every sense.

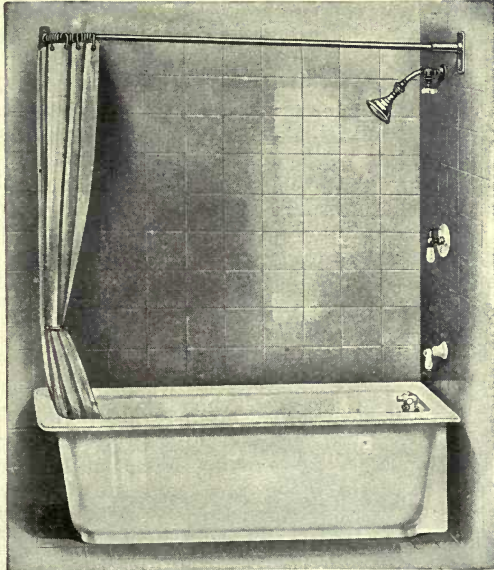
BARNs: We are specializing all types of Barns, including Dairy, Horse, Combination and Implement Barns and Silos, designed for future extension. You can erect with your own men. *Great saving in cost and labor to you.*

SEND FOR FREE PLAN AND PRICE CATALOG

Contains plans with photographic pictures of structures *we have actually built*, and low cost of which, therefore, we can prove to you. We will be glad to send catalog, but would request, to show your good faith, that you send approximate size of bungalow, house, garage or barn, etc., that you desire.

All our work is guaranteed. Correspondence invited.

NORTH PACIFIC CONSTRUCTION COMPANY, Pacific Building, CENTRALIA, WASH.



Enameled Iron Recess Bath

A beautiful built-in bath equipped with shower and mixer, the curtain running full length of the tub.

This design insures the utmost luxury and comfort in bathing.

L. WOLFF MFG. CO.

601 W. Lake St., CHICAGO

SHOWROOMS: 111 N. Dearborn Street

ochres. Lime, sometimes used as an adulterant, costs only a small fraction of the price of white lead. Barytas is quoted by the ton and costs about one cent per pound and silica (pulverized sand) has been sold at sixty cents per hundred.

There is a demand for cheap paint and there are some cases where it is all right to use, as a cheap paint is better than none at all, so it would not be as bad if they were sold for what they are and not under a misleading label.

There are some materials which may be used in paint, under some conditions, in certain quantities, and give good results, but which under other conditions, or used in too large proportions, must be classed as adulterants.

It has been claimed that a small amount of sulphate of baryta is an improvement to white lead as it makes it more opaque and prevents darkening by sulphur compounds, but this substance is generally considered an adulterant and if used in large proportions, it surely is such. Zinc will give the same results and is much better to use in every way.

Barytas may be detected by a gritty feeling which it gives the paint when it is rubbed between the thumb and finger since it is not ground as fine as the lead or zinc.

There is another substance frequently used in large proportions in making paints. This is sulphate of lead, or sublimed white lead which differs from the corroded white lead in many ways.

It is claimed that in proper quantities these materials make the paint much better than the white lead alone, but we must consider that these claims are based on the chemical qualities rather than on the actual conditions met with in using paint and we must class this material with those which are used to make paint cheaper even though at the same time they may sometimes make it better.

Coloring matter does not usually affect the quality of paint when only a light tint is produced by adding color to white paint, as a little more oil and turpentine are added to even things up. When dark paints, as red, brown, or black are made, dark pigments are used such as iron oxide or lead oxide. These give a cheaper paint which can be made with any suitable white pigment or base. They are more commonly used for barns and out-

buildings. A good grade of white or light tinted paint, ready mixed or home mixed will cost \$1.50 to \$1.80 per gallon. Colored paints come cheaper (less than \$1.00 per gallon) if made from colored pigments.

Men who make and sell paint will hardly admit you can do it yourself but the white lead people say that you should always do so. It looks as though the man who had the money could do as he pleases. Good materials properly combined will make good paint whether the mixing be done in a factory or somewhere else.

It is a rule among reliable painters there should not be much over 10 per cent difference in the estimates for a given job where the same specifications are to be honestly followed unless someone has made a mistake in measuring or figuring. Yet in some instances bids will be 25 per cent below others and it is very easy for the unscrupulous contractor, who finds he has bid too low, to save himself from actual loss by skimping on materials or labor or both.

Two men built themselves elegant houses here twenty-five years ago. They did not slight the building in any way, except by the use of yellow ochre for the priming coat. The first paint lasted well, the second time the paint came off in flakes, the next time in larger proportions. Had they then removed the clapboards and replaced them with new, they would have saved money. Instead they removed the paint by burning and scraping, which proved very unsatisfactory.

Yellow ochre forms a hard non-absorbent non-porous skin which in itself might be a good protection to the wood, but is not a good surface over which to apply a coat of paint, though French ochre in the finishing coat is all right.

Cement and Lime.

Portland cements are nearly all identical in chemical analysis and will meet the required specifications of the "American Society for Testing Materials," so one is safe in using any well-known brand of Portland cement for making mortar, as long as it is in good condition and is not too old. If you care to test the cement, however, the most practical way is to make a pat of neat cement, keeping it in a moist place for twenty-four hours, then



**"Don't Even Think of
Building without this Book!"**

"My dear, it makes every vexatious problem of homebuilding as plain as day—from the selection of a building site to the choice of a roof material.

"It's full of photographs and delightful floor plans that fairly make your mouth water. It's complete and surprisingly readable.

"In connection with wall construction it describes

Kno-Burn

Trade Mark Registered

Expanded Metal Lath

a plaster base for interior ceilings and walls that prevents cracking and gives you walls of perfect smoothness.

"Then, too, KNO-BURN Metal Lath absolutely does away with those horrid looking dark streaks you've seen in the ceilings of so many houses.

"Did we use it? —of course!

"That's why we were able to paper with perfect confidence as soon as our walls were plastered, instead of waiting a year for the house to 'settle.'

"How can you get it?

"Just send 10c to cover cost of mailing and ask for Booklet 829"

North Western Expanded Metal Co.
982 Old Colony Bldg., Chicago, Ill.



\$784

Buys all material except masonry to build this five room house. Plans free. Other houses in plan book.

Going to Build Remodel or Repair?

**Send
for**

These Free Books and Save Money

GET our big catalog and plan book. Our catalog quotes money-saving prices on everything needed in building material—lumber, flooring, doors, windows, interior trimmings, porch work, screens, hardware, plumbing and heating equipment, water supply outfits, etc.



**Beautifully
Illustrated
PLAN BOOK**

Our plan book shows skillfully planned designs for all kinds of homes that can be built at low cost. Every contractor, carpenter and home builder should have these books. Get lowest prices on material—be able to make better contracts—show your customers good home building designs—let our architects develop plans from your rough sketches.

Write for Books Today

They are filled with helpful suggestions on home building and home furnishing. How to paint, make alterations and repairs, etc., at lowest cost. Send postal or coupon for free books today.

CHICAGO MILLWORK SUPPLY CO.
America's Greatest Sash and Door House
1421 W. 37th Street
CHICAGO

**Send Your
Lumber
and
Millwork
Bill for Free
Itemized
Estimate
Price**

COUPON

Chicago Millwork Supply Co., 1421 W. 37th St., Chicago
Gentlemen: Please send your FREE Books.

Name _____

Town _____

State _____

Occupation _____

Street
or R. F. D. _____

boil it for three hours. If it shows no signs of disintegration, it is all right. This is a very reliable test.

Lime differs from cement in that it is a natural product, while Portland cement is an artificial one. We have to take lime as it comes, its quality depending upon the purity of the limestone from which it is made. Lime is made by calcining limestone, which is mainly calcium carbonate and magnesium carbonate, the latter being classed as an impurity. Some limes contain as much as 35 per cent magnesium carbonate, which, of course, makes it a poor lime. These impurities in lime do not have any chemical action on the mortar, but simply act as adulterants like water does in milk; it simply takes so much more to get the same results. Since commercial limes in different parts of the country vary from 65 per cent to 97 per cent pure, you can readily see why it is necessary to have different mixtures for different limes. Good lime should possess the following characteristics:

1. Freedom from clinkers and cinders and with only a small percentage of other impurities.
2. It should be in large lumps, free from dust.
3. It should slake very readily in water, forming a very fine, smooth paste without residue.
4. It should dissolve in soft water.
5. It should increase from $2\frac{1}{2}$ to 3 times in bulk.

Poor limes may be used for mortar for brick and stone work, but they should not be used in plastering. Lime should never be kept in a damp place as it absorbs moisture from the air and soon becomes useless as a building material. For best results lime should be slaked as soon as possible after it is burned. Slaked lime will keep indefinitely if kept moist. Hot mortar dries out very quickly and shrinks considerably, causing cracks in the mortar joint. It is far better to let it cool for at least twenty-four hours before using, and there is no reason why this should cost more or take more time if the work is planned ahead.

Hydrated lime, a specially slaked quicklime, is used very extensively in the United States for plastering and masonry, especially in cement lime mortar. This lime keeps well, is easy to handle and makes good strong mortar.

Sand is used in cement mortar to cheapen it and prevent shrinkage. In lime mortar it adds strength in proportions up to three of sand to one of lime. After that, any increase of sand weakens it. Sea sand is not desirable because the alkaline salts attract and retain moisture, which acts on certain soluble substances in the lime and brick, causing them to appear on the surface in form of white powder, commonly called whitewash, and is very noticeable on red brick work.

W. H. Hefelfinger.

A Simple Test for Sand.

Sand for plastering, which comprises a large proportion of the volume of the plaster, is not usually given very much attention. As each year larger quantities are required of all building materials, greater care must be exercised in the selection of natural products to insure a satisfactory quality. A simple test is here given which shows how much loam or other substance may be mixed with the sand.

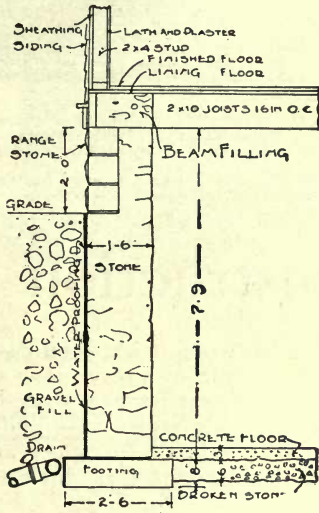
"Take a pint bottle, fill it one-quarter full of sand, add enough clean water to bring the level up to the middle of the bottle, and then give it several violent shakes, and let the contents settle. If the water is muddy and the sand which thus separates itself from the mud on top is less than three-quarters of the solids at the bottom of the bottle, that sand is not fit for plastering, nor for brick-laying mortar. It is pretty good for certain garden purposes, but don't spoil good lime cement or plastic materials of any kind with such stuff. It never will produce a good job."

Hydrated Lime.

Speaking of hydrated lime, an exchange says that this "is the only safe and intelligent way to buy lime, if the money it costs is to be considered at all. Using hydrated lime, it is impossible for the workman at the building job to destroy the material, so it actually gets used as lime in the work. Not to use hydrated lime means a practical certainty that 75 to 80 per cent of the lime value will be destroyed in the making and drawing off of the putty at the mortar box. There is no way for the contractor to get the worth of his money in a lime purchase except by buying hydrate.

BUILDING *the* HOUSE

*A Handbook Every Home-Builder
Should Have*



(Fig. 6)
SECTION THROUGH BASEMENT WALL

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition

Price, \$1.00; postage, 4c.

Published by

M. L. KEITH

McKnight Bldg.

Minneapolis, Minn.

For Simplest and Grandest Homes



EDWARDS

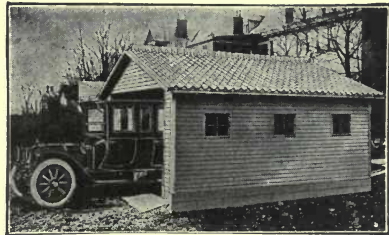
Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of Metal Spanish Tile is yours for the asking. A postal will bring it.



Own Your Own Garage

All Sizes—All Prices

An Edwards METAL Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and safe! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.

\$69.50
and up

Write today—right NOW!

The Edwards Manufacturing Co.

*The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.*

521-541 Culvert St.,

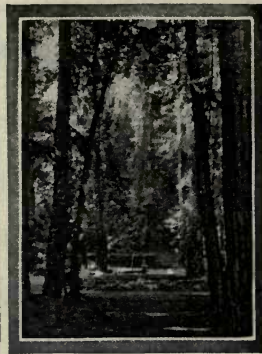
Cincinnati, Ohio



WOODS

AND

HOW TO USE THEM



EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH'S staff of wood experts. This department is created for the benefit of KEITH'S readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

Fire Losses vs. Construction



MAKING cognizance of the advertising campaigns of other materials which are blaming lumber for our fire losses the National Lumber Manufacturers' Association have issued a booklet challenging the erroneous statements and giving tables and statistics.

The several detached units of the Lumber Industry of America state that they do not desire to urge the use of wood except where wood is best for the user. Nor do the manufacturers of the various kinds of lumber seek to foster the use of their particular products for purposes which might be better served by some other wood.

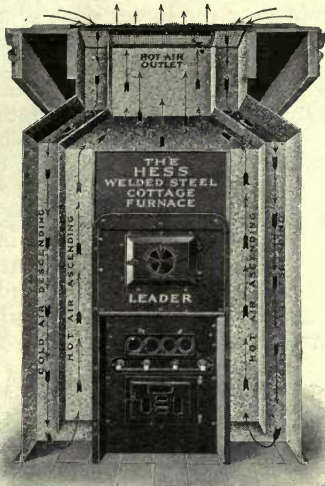
But they all do desire to keep the general consuming public, and those by whose counsel that public is guided, correctly informed as to improved methods of application of wood to all building purposes.

Any thoughtful study of the subject tends to show that American fire losses, like other kinds of American wastefulness is due first and chiefly to carelessness. We are fairly justified in saying that much of it is due to gross,—almost inconceivable carelessness. Old buildings are filled with fire hazards,—the owners and the tenants know they are hazards yet make no effort to remove them nor to change the conditions. In

building with wood, what might seem to be the most ordinary precautions against fire are not taken. Runways are left for rats and mice through walls and floors and attics. Common matches are left about exposed, though these little animals are known to be "fire bugs." Exposed wires, defective flues, explosions from gasoline and kerosene are all too common. What is more important is the mental attitude of the victim of a fire. Even though a serious loss to the community or neighborhood was caused by such a neglected hazard, he feels that he should receive the sympathy of the community. In an European city he would be prosecuted for the loss which his carelessness brought upon his neighbors.

Sapwood and Heartwood.

Quoting from the Building Code recommended by the National Board of Fire Underwriters, 1915, taking timbers of yellow pine or Douglas fir as types, it should be noted that "each annual growth ring is composed of a band of dense, heavy, dark summerwood and a band of lighter, softer springwood. The greater the proportion of summerwood, the greater the weight and strength of the timber. The principle, referring to the number of growth rings and the proportion of summerwood as a measure of density and hence of strength, applies to all woods in



Prepare for Winter

¶ A Hess welded steel furnace, of the pipeless or one-register type, will warm your cottage or bungalow cheaper than a stove, circulate the heat better, save all the dirt and muss upstairs, and in every way supply comfort and convenience.

¶ For two story houses we advise the separate-pipe furnace if considerable heat is required in the bedrooms.

¶ We make and sell both kinds direct to consumers and contractors, allowing *two winter months trial* before we are paid. Our factory prices are lower than you can obtain from dealers or agents, and our guarantee, direct-from-maker-to-user, with the trial period, insures you against any disappointment.

¶ Send us a sketch of your house and we will tell you what we will charge for a complete equipment, delivered to your station with plans, directions and tools for installing.

HESS WARMING & VENTILATING COMPANY

1217 Tacoma Building

:

:

CHICAGO, ILLINOIS

That Bungalow

which you intend to build next Spring will need the soft, artistic tones of

Cabot's Creosote Stains

to make it complete and harmonious.

Paint doesn't suit bungalows. It forms a hard, shiny coat that is foreign to their character and "atmosphere." The Stains produce deep, rich and velvety colors that harmonize perfectly with the style of building and surroundings. They are 50 per cent cheaper than paint, and the Creosote thoroughly preserves the wood.

You can get Cabot's Stains all over the country. Send for free samples of stained wood and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists

Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



Stained with Cabot's Creosote Stains
Sidney Lovell, Architect, Chicago, Ill.

Unusual Shingles That Save Money

They are laid $6\frac{1}{2}$ " to the weather at the sides of this house and $4\frac{1}{2}$ " to the weather on roof—more than ordinary exposure.

YOU CAN DO THIS WITH

"CREO-DIPT" STAINED SHINGLES

17 Grades

16, 18, 24-inch

30 Colors

because we not only select shingles of unsurpassed quality that is hard to find in the open market, but we stain them in our factory by a special process, and preserve them in creosote so that they do not curl out of shape. They last twice as long as ordinary shingles and save the muss, expense and waste of staining on the job.

Write today for colors on wood and Book of "CREO-DIPT" Homes. Names of architect and lumber dealer appreciated.

STANDARD STAINED SHINGLE CO.

1022 Oliver Street

No. Tonawanda, N. Y.

Factory in Chicago for the West.



Architects—S. L. R. Rousseau, N. S. Pittsburg, Pa.

Advertisers in Keith's Magazine are reliable.

which there is a marked contrast between the character of the springwood and the summerwood.

The special requirements for timbers which constitute good quality deal with their strength and with their lasting power. The strength of any timber will be determined by its weight or density; the size, quality and distribution of knots; and the presence or absence of defects. In fact the density or dry weight of wood may be regarded as a measure of its strength.

The new grading rule adopted by the United States Government following its investigations of the subject, together with the American Society for Testing Materials, and adopted in 1915, bases the grading of yellow pine timbers on the structural density of the wood. The high grade quality is called "dense pine" and the second grade of lower strength value is called "sound pine." The specifications for these classes have been issued by the Southern Pine Association, New Orleans. A similar rule is now being prepared for Douglas fir which seems to follow the same general lines as yellow pine.

Where maximum strength requirements are desired the quality "dense" pine should be specified, but where the strength requirements are not of the highest character the grade "sound" pine will be found sufficient.

With reference to knots their size, character and distribution may materially affect the strength of any good timber. Quoting again from the Board of Fire Underwriters:

"The weakening effect of knots also depends upon their position, as well as their soundness, tightness, and the

amount they distort the grain of the wood from a straight line. A comparatively small knot near the lower edge of a beam may be more harmful than a large knot located elsewhere. For example, a series of tests made upon loblolly yellow pine beams by the U. S. Forest Service, showed that the average strength of such beams with knots located in the bottom quarter of the middle half of the beams, was reduced 25 per cent below that of similar beams with knots located in other portions. In such cases a knot near the neutral plane may act as a pin and serve to strengthen the beam against failure by horizontal shear.

"The number, character and location of defects in timber has much to do with its strength value. Checks and shakes in beams reduce the area which resist horizontal shear. Such defects are most harmful in the middle half of the height of a beam, as they are then comparatively near the neutral plane where their effect is greatest. The best place, to judge of the effect of such defects, is on the ends of the timber."

The lasting power of timbers will be determined both by the kind and the quality of the wood used and by the conditions which obtain in the building in which it is employed. The timbers may have sapwood and heartwood in varying percentages. Sapwood is usually short-lived and where conditions are favorable to decay, will usually decay very rapidly. Heartwood, of practically all species, on the other hand, is comparatively long-lived. In buildings where the humidity is low such timbers usually last 25 and 30 years and longer when practically all-heart timbers are used.

For heavy timber construction, the National Lumber Manufacturers' Association advise that where untreated timbers are used, it will be found advantageous to paint the ends and bearing surfaces of any timber where it comes in contact either with other timbers, with stone walls, metal or concrete surfaces; where a high grade quality of distillate coal-tar creosote should be employed. The rotting of timbers is one of the trials of the home builder. There seem no reasons why he should not take similar precautions in his building, to avoid this trouble, that are advised for the big building and for the heavy construction.



Get FREE Finished Samples and Big Door and Trim Book

They show you how you can produce the most beautiful effects and finishes in hardwood trim, doors and floors in "beautiful birch." No wood finer though many cost more—birch furniture is standard. Ask your dealer. Send postal card TODAY.

**NORTHERN HEMLOCK & HARDWOOD
MANUFACTURERS ASSOCIATION**

203 F. R. A. Building

Oshkosh, Wisconsin



THE NATIONAL BUILDER

Fred T. Hodgson, Editor

A Complete Building Journal

It Provides:

Full Building Plans every month, up-to-date cottages, bungalows, houses, apartments, etc.. plans 36x24 inches—quarter-inch scale with photos of exteriors and interiors.

Complete Estimates and Bills of Materials—covering every part of the work; a great help in figuring—you can use the prices of material in your town.

Construction Details—Of the utmost practical value.

Consulting Service—Free to subscribers, reliable information on any and every building subject desired.

Every kind of building is covered by *The National Builder*—concrete, tile, brick, frame; and it is full of expert information concerning every type of modern construction. A complete building encyclopedia.

24 Big Numbers with Full Building Plans for \$3.00

(The regular price is \$2.00 per year—
\$1.00 for 6 months)

(Sample copies 20 cents)

Use the Coupon—Save \$1.00

PORTER-HODGSON CO., Publishers
1307 Ellsworth Bldg., Chicago, Illinois

Enclosed find.....for which send

The National Builder for.....years.

Name.....

City.....State.....

(If you live in Canada send \$2.50 for one year, \$4 for two years)



Design No. 327 by Jud Yoho, Estimated Cost \$3200.

If you are planning a real home—plan a bungalow and consult my

NEW BUNGALOW BOOK

1916 De Luxe Edition

Compiled and written by a man of experience and reputation. Illustrated with exterior and interior photos, plans, sizes of rooms, cost, etc., of the cream of the 1000 pretty, distinctive, practical BUNGALOWS, actually built for \$400 to \$4000, suited to any climate. Get this largest exclusive bungalow book, 112 pages of invaluable building suggestions. Price.....

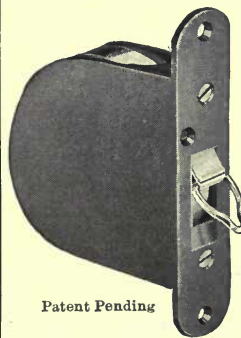
\$1.00

Smaller edition of same only 50c. Send check, money order or stamps. Money back if not satisfactory.

JUD YOH0, *The Bungalow Craftsman*

470 Bungalow Bldg.,

Seattle, Wash.



Patent Pending

Caldwell Sash Balances

Uniform Mortises

For use in all classes of new work

Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counter-balance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular
Caldwell Mfg. Co.
6 Jones St., Rochester, N. Y.

IXL ROCK MAPLE, BIRCH AND BEECH FLOORING



"The Finest Milled
Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Land & Lumber Co.
Hermansville, Mich.

Our Next President

Gifford Pinchot
Milford Pike Co., Pa.

Philadelphia, Pa., September 7, 1916.

Mr. Max L. Keith,
Editor, Keith's Magazine,
Minneapolis, Minn.

Dear Sir:

It is the duty of every American citizen to make and support openly his choice among the candidates for the Presidency. That duty is especially solemn this year because great events and great decisions are certain to confront us during the next Administration. I am writing to give you my reasons for my own choice.

I am neither a Democrat nor a Republican, but a Progressive. Yet, there being no Progressive nominee, unless I choose to support a candidate who cannot be elected, I must vote for either Wilson or Hughes.

For many months after his inauguration, I thought well of President Wilson. In many respects I liked what he said about what he was going to do. He talked well and made a good impression. It was only when I began to check up what he said by what he did that I was forced to change my view.

In the end I came to see that President Wilson has a greater power than any other man in public life to say one thing but do another, and get away with it.

The facts which justify this statement are common knowledge.

We have all heard him tell Germany publicly that she would be held to strict accountability; and have learned afterward that he had actually let her know secretly at the time, by the mouth of his Secretary of State through the Austrian Ambassador, that what he said he did not mean. We have all seen him prove that he did not mean it by his total failure to exact reparation, apology, or even disavowal for the murder of Americans on the Lusitania.

I do not say that Wilson should have thrust us into war. There was no need of war. But there was need of courage to give us peace with self-respect. If Wilson had shown courage this country would not have skidded from one crisis to the next, again and again narrowly escaping disaster.

For more than a year after the world-war began, Wilson did not raise a finger to put us in a condition of defense. Only the proverbial good luck of America has kept us from paying the bitterest price for his unforgivable neglect.

We have all heard him declare for efficiency in Government, and have seen him set the pork-barrel first and throw efficiency away. I have known official Washington from the inside for six Administrations. In that time the Government business has never been so badly done and so extravagantly as it is now done under Wilson.

We have all heard him announce himself as the champion of Civil Service reform; and have seen him turn the Government Departments over to the spoilsmen as no other President has done in twenty years.

I cannot vote for Wilson because I cannot trust him. He does not do what he says. Hughes does. Therefore my choice is Hughes, and I shall work and vote for him.

Very truly yours,

Gifford Pinchot



CHARACTER BOND

MAXIMUM QUALITY AT
A PRICE YOU CAN
AFFORD TO PAY.

Your Home

Is Built for

Ease and Comfort

What Comfort Is to Your Home, So Your Stationery Is to Your Business

You want to impress those who deal with you that you are a dignified and responsible concern, and it is therefore immensely important that your stationery carries the necessary qualifications to impress your customers, and to whoever you write, that you are that kind of a concern.

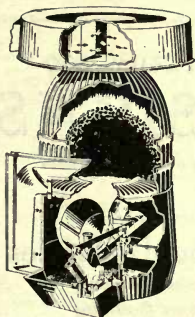
The selection of **CHARACTER BOND** is a step in the right direction. Snappy and impressive, it will materially add to the attention value of your letterhead and stamp you upon the minds of those with whom you correspond as progressive and worthy of attention.

Permit us to convince you of the correctness of our claims for **CHARACTER BOND** by sending you samples. Then make it a point to see that your next order for letter sheets carries specifications to print on **CHARACTER BOND**.

McClellan Paper Company

Sole Distributors of **CHARACTER BOND**

MINNEAPOLIS, MINN.



"From Overfed to UNDERFEED"

Over 25,000 furnace and boiler users have changed from the old-fashioned top feed—always "overfed"—to the Williamson **NEW-FEED UNDERFEED**. Fuel saving of one-half to two-thirds GUARANTEED.

GET FREE BOOK NOW

A postal brings illustrated book to any home owner, architect or contractor. Write that card today—learn how YOU can guarantee your customers big fuel savings by recommending the **UNDERFEED**.

THE WILLIAMSON HEATER CO.
56 Fifth Avenue, Cincinnati, Ohio

KEES

Furnace Regulator

For Warm-Air Furnaces

Automatically closes the drafts when the house is warm and opens them when the temperature drops below the required degree. Prevents dangerous overheating, saves a lot of time, trouble and worry and keeps an **even, healthful temperature** in the home. Will pay for itself in a single season in fuel saved.

SEND FOR OUR FREE TRIAL OFFER

F. D. KEES MFG. CO., Beatrice, Neb.

BOX 102



HUDSON STRIP ASPHALT SHINGLES

SAVE TIME
AND MONEY



Can be laid in half the time and with two-thirds of the nails necessary to lay other shingles.

Send for particulars.

ASPHALT READY ROOFING CO., Dept. 79, 9 Church Street, NEW YORK



"Bungalows" or "Attractive Homes"

Send for a copy of one of our new plan books, either "Bungalows", containing 100 designs of moderate priced bungalows or "Attractive Homes" containing 100 designs of story-and-a-half and two-story houses. Our designs are up-to-the-minute in detail and arrangement and incorporate the new features in home building such as, sleeping porches, sun rooms, built-in conveniences, etc. **Either Book \$1. Postpaid-Both for \$1.50**

LINDSTROM & ALMARS, Architects

291 Plymouth Building

Minneapolis, Minn.

"You Build for a Life-

KEITH'S BIG OFFER

A Year's Subscription to "KEITH'S" with a Copy

Your Choice

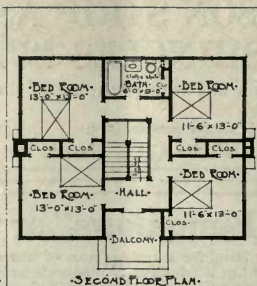
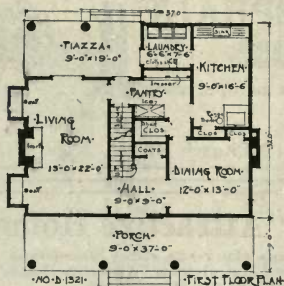
FOR
\$2.

Vol. 1.	130 Bungalows (New Edition)	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D 1321 from "Keith's"

This modernized Dutch-Colonial design is a very compact, practical plan with every desirable feature of arrangement. Cost complete, about \$4200.00. Width, 37 feet; depth, 32 feet.



What You Get

From 250 to 300 DESIGNS

By Leading Architects

From 75 to 100
Practical Articles
on timely subjects of
Home-Building

Decorative Schemes for
Your New Home

Many Interior Views of
Up-to-Date Moderate
Cost Homes

M. L. KEITH,
Editor and Proprietor

When remitting by check, add bank exchange.

Time---Do It *RIGHT!* "

To The Home-builder!

of the *BIG April Bungalow Number* EXTRA and

of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" A Pocket Handbook on Construction	1.00
" 11.	38 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (3000 and up)	.50

FOR
\$2.

for Two Dollars

Twelve Big House Building Numbers of KEITH'S Magazine, including a copy of our recent 100-page

Special Bungalow Number

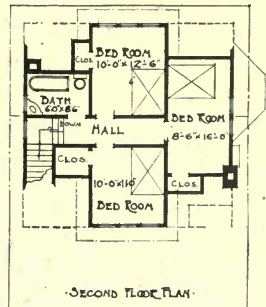
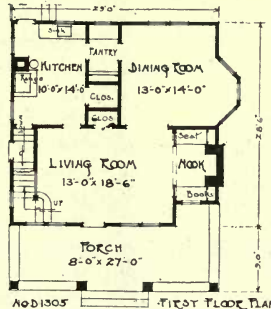
containing 25 plans of attractive bungalows and authoritative articles on bungalow building.

The service of our architectural and designing departments in answering questions on construction, design, interior planning, beautifying the grounds or any subject pertaining to the interests of home-building.



Design D 1305 from "Keith's"

Almost a two-story house, yet the low roofing and wide cornice give a soft bungalow effect. Wall heights of the second story room are five feet where they meet the rafters. Full basement. Width, 29 feet; depth, 28 feet, 6 inches. Cost complete, about \$2,500.



828 McKnight Bldg.
Minneapolis, Minn.

SPLINTERS AND SHAVINGS

The Use of Glue.



HE glue pot is a valuable adjunct to most households. Perhaps it would give us better service if people understood how to buy good glue and how to prepare it. Good glue should be a light brown color, semi-transparent, and free from waves or cloudy lines. Glue loses much of its strength by frequent remelting; therefore, glue which is newly made is preferable to that which has reboiled. The hotter the glue the more force it will exert in keeping the joined parts glued together. In all large and long joints it should be ap-

plied immediately after boiling. Apply pressure until it is set or hardened.

Glue, being an animal substance, must be kept sweet. To do this keep it cool after it is once dissolved, and not in use. In all cases keep the glue kettle clean and sweet by cleaning it often. Good glue requires more water than poor. Good glue will require from one-half to more than double the water that is required with poor glue, which is clear and red; the quality can be discovered by breaking a piece. If good it will break hard and tough, and will be irregular on the broken edge. If poor, it will break comparatively easy, leaving a smooth, straight edge.

It is well to ascertain the amount of water the glue will take up and then to put the glue and water together at least six hours before heat is applied, and if it is not soft enough then, let it remain longer in soak, for there is no danger in letting good glue remain in pure water, even for 48 hours. If glue is of first-rate quality, it can be used on most kinds of woodwork very thin, and will make the joint as strong as the original.

While thin glue is all right for some things, it is not so good for all close-grained woods. The glue should be tempered to the kind of wood used. Have the stuff warm on the edges so as to keep the glue from setting too quickly. Be sure to squeeze out the glue until the work is wood to wood in putting on the clamps to hold it while drying.

The addition of a small quantity of chloride of calcium to the glue during mixing has been found to prevent cracking. This is due to the fact that the chloride of calcium attracts moisture from the air in sufficient quantities to keep the glue in its proper condition and prevent it from drying out to the extent of cracking. Glue thus prepared will stick to glass, metal, etc., and can even be used for putting on labels without danger of their dropping off. It is also claimed that a very small quantity of glycerine added to the glue will produce this same effect.

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912,

Of Keith's Magazine on Home Building, published monthly at Minneapolis, Minn., for October 1, 1916.

State of Minnesota, County of Hennepin—ss.

Before me, a Notary Public in and for the state and county aforesaid, personally appeared M. L. Keith, who, having been duly sworn according to law, deposes and says that he is the owner of the Keith's Magazine, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, to-wit:

1. That the names and address of the publisher, editor, managing editor, and business managers are:

Publisher—M. L. Keith, Minneapolis, Minn.

Editor—M. L. Keith, Minneapolis, Minn.

Managing Editor—M. L. Keith, Minneapolis, Minn.

Business Manager—M. L. Keith, Minneapolis, Minn.

2. That the owner is:

M. L. Keith, Minneapolis, Minn.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are:

None.

M. L. KEITH.

Sworn to and subscribed before me this 19th day of September, 1916.

J. H. PALMER.

(Seal)

My commission expires Feb. 10, 1920.

KEITH'S MAGAZINE

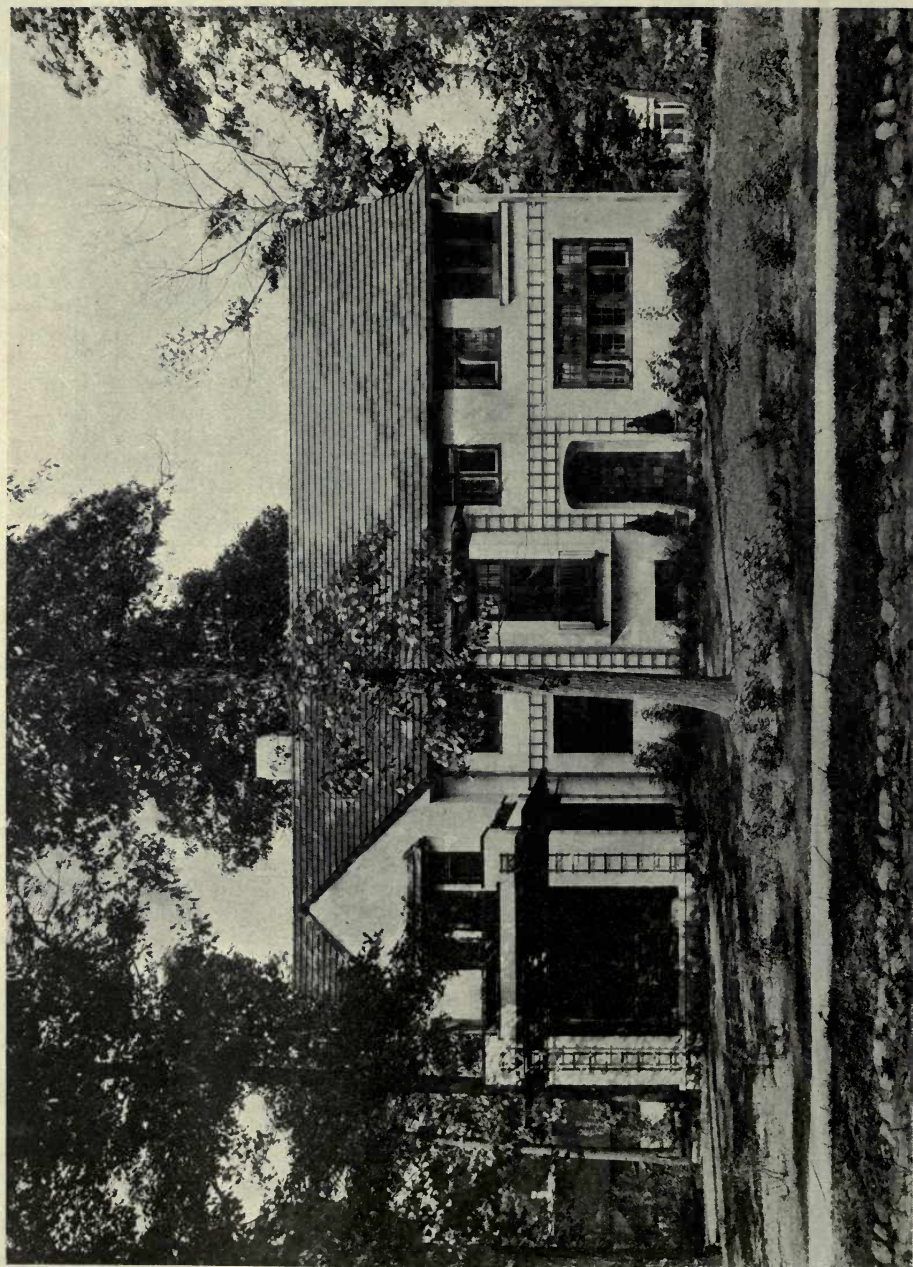
ON HOME BUILDING

CONTENTS FOR DEC., 1916

Just a Word	382
A Well-Planned and Attractive Stucco House— <i>Charles Alma Byers</i>	385
Some Interesting Living Rooms for Moderate Sized Houses— <i>Helen Farley Brill</i>	389
A Modernized Farm Kitchen— <i>Edith M. Jones</i>	392
A Few Books— <i>Anthony Woodruff</i>	395
How She Did It— <i>Evelyn M. Watson</i>	398
Cobble-Stones Adapted to the Bungalow	400
Half-Timber Work	401
A Tiny Bungalow	403
Designed for Brick and Stucco	404
Repose and Charm	406
Portfolio of Interesting Homes	412

DEPARTMENTS

Inside the House—	
Decoration and Furnishing	416
Answers to Questions on Interior Decoration	420
Household Economics	426
The Table and Its Service	430
Building Material and Notes on Heating, Lighting and Plumbing	434
Woods and How to Use Them	438
Splinters and Shavings	442



A pleasing stucco house.

Davis, McGrath and Kiebling, Architects.

KEITH'S MAGAZINE

VOL. XXXVI

DECEMBER, 1916

No. 6

A Well-Planned and Attractive Stucco House

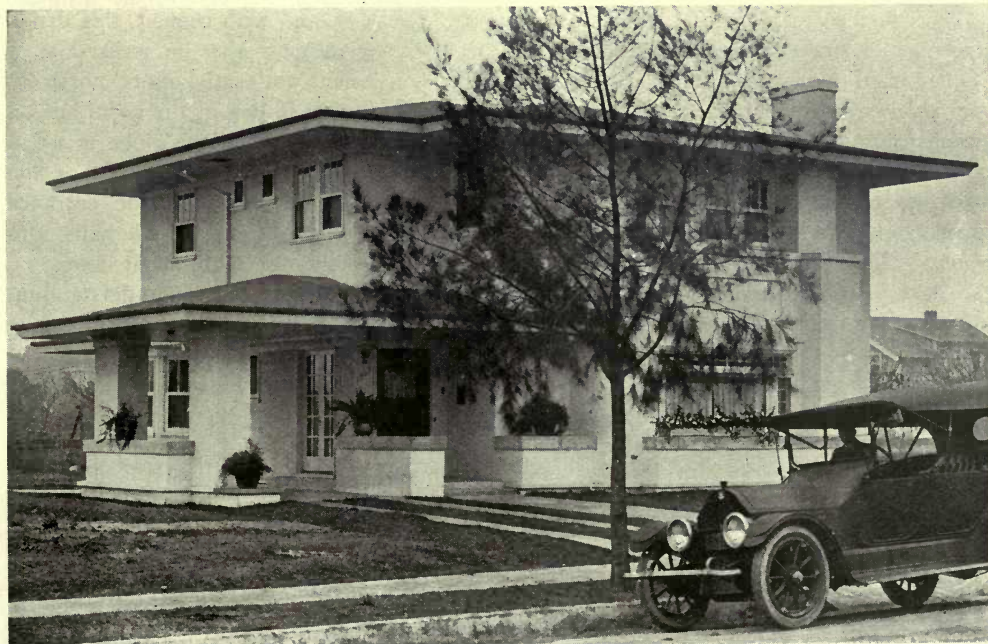
Charles Alma Byers



O every prospective home-builder,—and who does not have this dream,—to most people, in fact, every new house which they see is a possible home which they study with relation to their own needs.

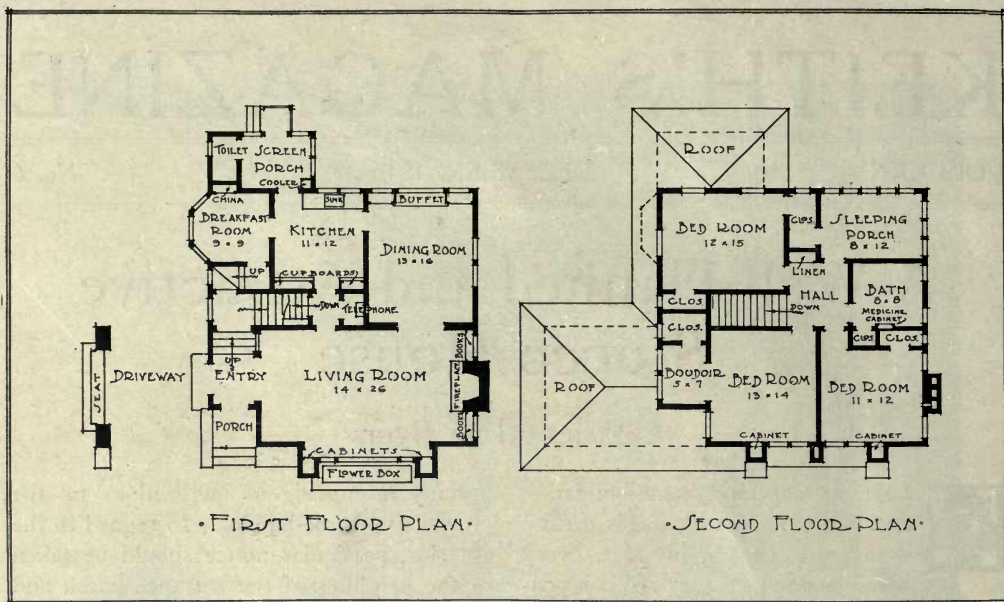
Here is shown a two story house which presents a number of decidedly distinctive features, in both outside construction and interior designing, which should prove es-

pecially interesting as suggestions to the prospective home-builder. In regard to the exterior, particular notice should be taken of the handling of the entrance porch and of the *porte-cochere*, together with their several ledges so excellently suited to the liberal use of potted plants and shrubs, as well as of the long flower-box beneath the lower front window. And as to the interior, attention is called to the numerous built-



The structural lines are simple and dignified.

A. S. Barnes, Architect.



in features and to the convenience of the arrangement, especially in respect to the combined front and *porte-cochere* entrance hall. The house, in short, constitutes a most charming moderate-priced home in its many details.

The outside walls are of white cement stucco over metal lath, and the mildly pitched roof is covered with an asbestos composition, surfaced with crushed slate, of greenish-gray color. The latter is finished with a rather prominent roll-edge, and the broad roof extension, amounting to approximately three feet, is plastered in the soffit. Both the tiny entrance porch and the *porte-cochere* are floored with cement and cement of dark gray also comprises the thick coping of the low walls and ledges, including the flower-box. The structural lines are simple and dignified, and the predominance of white, relieved of possible monotony by the greenish-gray roof, the dark gray cement work, and the mahogany front door, gives further dignity and charm to the exterior.

It will be noticed that the low roof which covers the *porte-cochere* also continues as a protection for the front entrance, and that

it is identical in design with the main roof—to which arrangement and design is due much of the exterior attractiveness of the house. Between the two massive square pillars of the *porte-cochere* is constructed an excellent concrete seat, and, since its entire area is floored with cement, this driveway extension may also be utilized as a very convenient and satisfactory porch or veranda, serving in lieu of the usual one on the front. An electric-light globe is set in its ceiling directly over the center of the seat, and French doors provide entrance from the space into the small hall—into which also opens the main front door.

To obtain a still clearer understanding of the appreciable convenience afforded by this entrance arrangement the accompanying floor plans should be referred to. From this entry space rises the staircase, with a landing at the height of four steps, and by continuing directly over this landing the breakfast room, kitchen, or any of the other rear rooms may be reached without passing through the living room.

On the first floor are living room, dining room, kitchen, breakfast room, and the usual rear screened porch, and on the sec-

ond floor are three bedrooms, a small boudoir, a sleeping porch, and the bath room. The floor space is economically utilized throughout, and the arrangement, especially in respect to connections, is exceptionally convenient. Between the living room and the kitchen is a short passageway that gives access to the basement stairway and to a small closet for wraps, and sliding glass doors intervene between the living room and the dining room.

On the second floor the only space used for passageway purposes is the small square landing hall, and from it direct connection is given to all of the rooms, except the boudoir, which naturally is an adjunct of one of the bedrooms.

Excellent closets and many charming built-in features also lend to the interest of the floor plans. In one end of the living room, for instance, is a massive brick fireplace with a built-in book case at each side—which bookcases, containing shelves for four rows of books, have plain glass doors and reach to a height of four feet six inches, with small windows above their shelf-like tops. In this room are also two tiny cabinets, built into the wall at each side of the front window group. The dining room has an attractively planned buffet, consisting of cabinets and drawers capped with a deep sideboard shelf in the center and a tall china closet at each end, the combination occupying the entire width of the rear end wall. Above the countershelf is a long mirror and a broad window, and above each of the china closets, which have leaded-glass doors, is a small window. In

the wrap closet off the living room is a shelf for the telephone, and a sliding panel enables the instrument to be also used from the dining room. The kitchen is equipped with much built-in cupboard space, besides the usual conveniences, and the breakfast room has a neat little china cupboard, while on the rear screened porch, adjoining which is a lavatory, the laundry tubs are placed but not shown and also a draught cooler.



Fireplace and bookcases in the end of living room.

The boudoir, bedrooms and the sleeping porch on the second floor have clothes closets each of which have small windows, and in the landing hall is a cabinet of linen drawers. The closet of the sleeping porch also gives direct communication with one of the bedrooms. The two front bedrooms also have a small wall cabinet each, to correspond with the ones of the living room, and in the bath room is still another closet, as well as the usual built-in medicine cabinet.

The woodwork of the entrance hall, living room and dining room is of Juanacosta, or Mexican mahogany. This wood, which is becoming quite popular in this country for interior finish, is of reddish-brown color



A well-planned buffet and cupboards.

and takes a very handsome finish, with either a dull or a highly polished surface. The ceilings in this part of the house are bordered with a flat wood cornice, and the dining room walls are finished with a paneled wainscot, consisting of painted canvas panels between wood battens, capped at the height of four feet with a plate rail. The woodwork throughout the remainder of the house, on both floors, is of pine enameled white; and all floors are of oak, except in the kitchen and bath room, where pine, covered with linoleum, is used. The breakfast room also has a paneled wainscot, capped with a plate rail, which, in this case, reaches to a height of five feet.

The walls of the entrance hall and dining room are tinted a rich buff shade, and the ceilings are done in light cream. Paper is used for the wall covering in the dining room, while the ceiling here is also tinted a light cream; and the breakfast room walls are finished with a hand-painted border, predominating in Dutch blue. The bed room possessing the boudoir has its walls covered with rose-patterned paper, but in the other sleeping rooms the walls are merely tinted, the two other inside ones having

hand-decorated borders. In the bath room and kitchen they are finished to a height even with the tops of the windows and doors, with smooth-surfaced hard wall plaster, which is enameled white and warked off into six-inch squares, creating a sort of tile effect. The kitchen sink is of a composition known as "flexostone."

The house possesses many windows, which give to the interior a flood of nat-

ural light. The sleeping porch has two of its walls entirely composed of windows, of the outward-swinging casement type, making it a most desirable out-door sleeping place. The electric lighting fixtures of the living room and dining room consist of inverted domes, and in the bed rooms conveniently placed wall lights are used in conjunction with the usual fixtures.

The house has a twelve-by-fourteen-foot basement underneath the center, which is walled and floored with concrete. A hot-air furnace located here supplies the necessary heat. The workmanship throughout is of the best, and the house is warmly and durably constructed, making it suitable for almost any climate.

This home is located in Los Angeles, California, and was built at an approximate cost of \$4,000. For about \$500 additional the architect estimates that it might be constructed of hollow building tile and cement, instead of metal lath and cement, as in this instance. If a maid's room were desired, it could be added as an extension to the rear of the screened porch, which perhaps would still improve the outside appearance of the house.

Some Interesting Living Rooms for Moderate Sized Homes

Helen Farley Brill

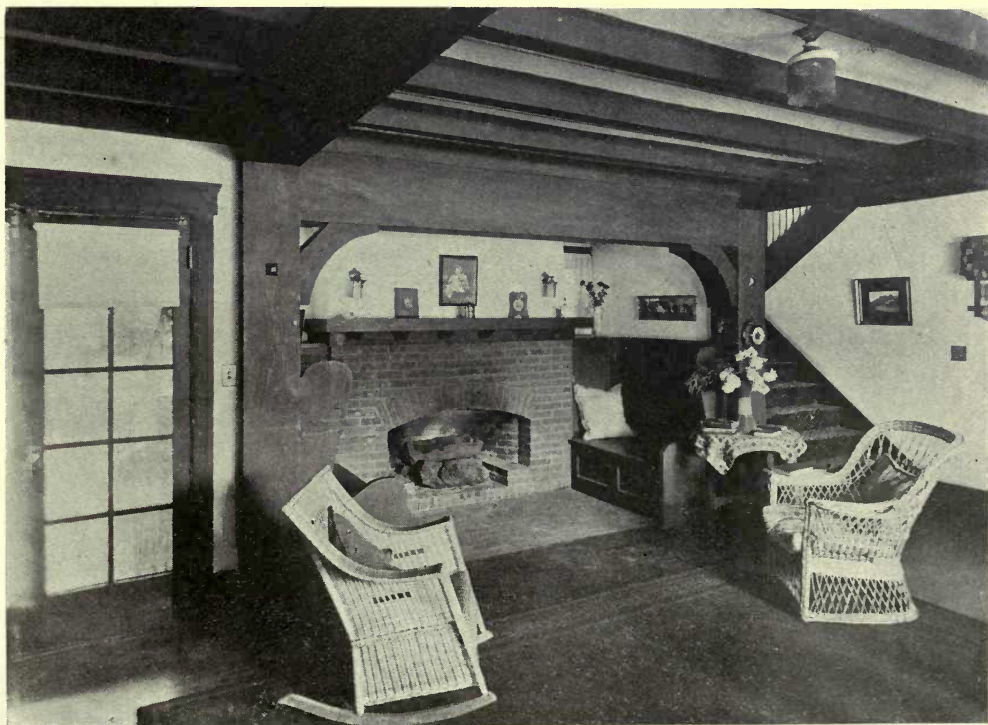


HE five photographs of living rooms shown here are taken in moderate sized houses; they are all different in style, and each one has an individuality of its own that is very pleasing; and all are designed and furnished in excellent taste.

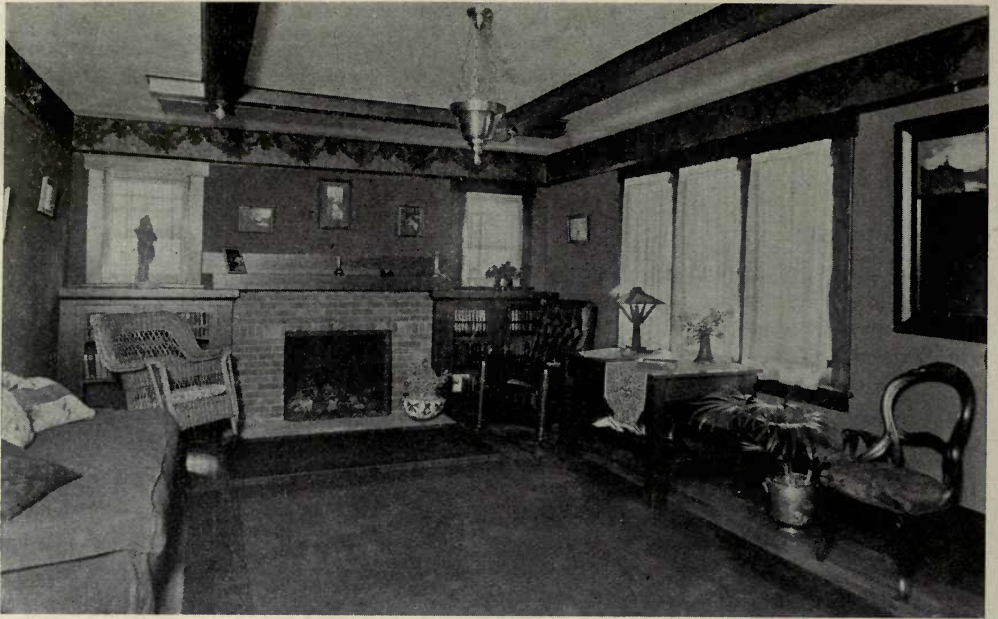
The first photograph is the living room of a so-called English style of house. The ingle nook is most attractive, and very practical, in that it is wide enough for several large comfortable chairs, as well as the built-in seats at either side. The fireplace is wider than usual, and the quickly slop-

ing back of the fire opening throws out the maximum amount of heat into the room. The woodwork is redwood, stained a dark grey, and wax polished. The staircase at the side of the ingle nook forms a very interesting feature.

The living room of a five-room bungalow is shown next. It is finished in dull brown and yellow shades brightened by a touch of color in the frieze. The brick fireplace at the end of the room is very simple in design, but with the book cases at either side gives a home-like appearance to this cosy living room.



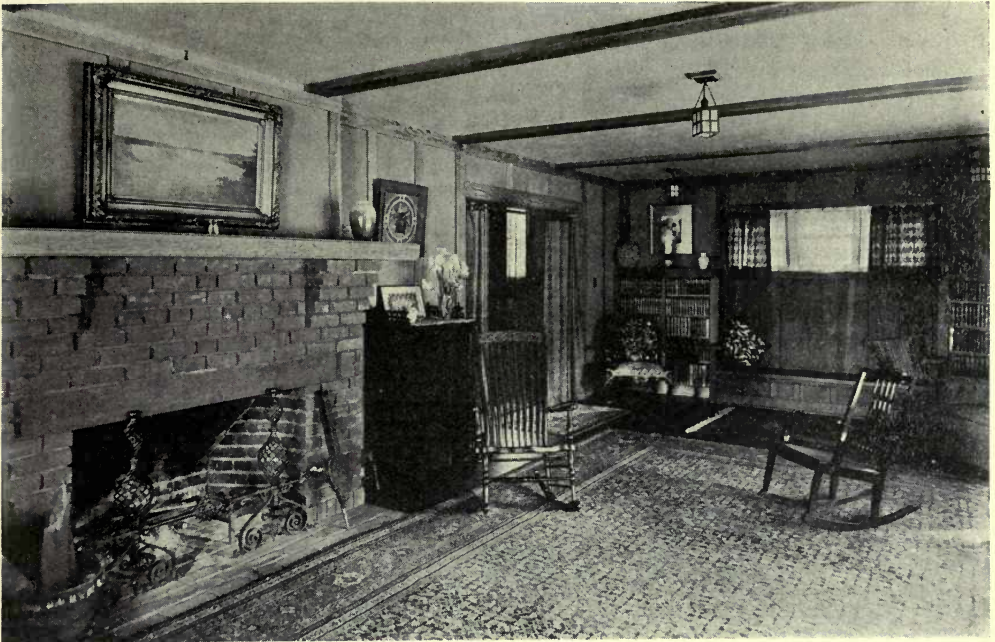
The wide inglenook.



Living room in dull brown and yellow.



An unusual ceiling.



The brick of the fireplace is corbeled out to carry mantel shelf.



Furnished entirely in wicker.

A very unusual and interesting ceiling treatment is next shown, the cove giving additional height to the room without losing any of its cosy effect. The paneled walls are stained a rich brown, finished in a dull gloss, which harmonizes well with the red brick fireplace. The electric light fixture hanging from the ceiling is unique and interesting in design.

The fireplace in the next living room is built of brick with the joints deeply raked out, giving shadow lines around each brick. A wide lintel carries the chimney breast above the fire opening. Brick is corbeled out to carry the heavy mantel shelf. The

paneled treatment of the walls gives a simple but effective decorative scheme.

Another living room is furnished entirely in wicker of excellent design. The table in the center is particularly interesting with its wide shelf underneath and pockets at each side for magazines. Wicker furniture has come into great favor in the last few years. Since it may be finished in any color, it may be toned to fit into any color scheme or used with any kind of wood. It is pleasing in appearance and is in keeping with any style so it is especially good for odd pieces in a room. The treatment of the curtains in this room is quite unusual.

A Modernized Farm Kitchen

Edith M. Jones



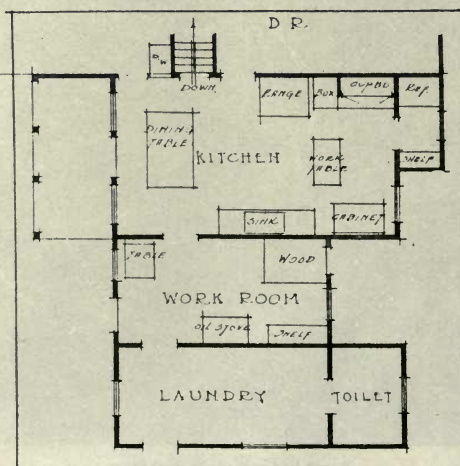
THE apparatus and methods of carrying on the work of a home vary according to the means and education of the people. But it is true, in spite of the changes which have come with the progress of time, that the simple needs of humanity have not varied.

I sometimes wonder, however, if we half appreciate the great changes that have come into our lives through the improved methods which invention and scientific progress have given us.

I was reminded frequently of this while motoring through the east this summer. There were so many picturesque but abandoned "old oaken buckets" hanging idly in so many farm yards. Each time I noticed one I unconsciously compared the lives of the women of today with

the women of "ye olden tyme." Surely conditions are constantly improving, and yet it seems to me there is more and more complaining about the drudgery of housework.

For instance, take this one thing of lifting the bucket in the well and carrying the water to the house. Think of the actual hard work and exposure for a single pail of water. Nowadays we can rarely find even the simplest house, either in the city or the country, without running water or a pump of some kind in a kitchen sink. This change from the old to the improved methods cannot be estimated, for water plays such an important part in every kitchen, yet this is only one of many important and helpful changes that have come into modern life.



It is interesting to be in touch with housewives nowadays and watch how rapidly progress is changing all home conditions. It is especially interesting to see how the farm houses are keeping pace with the city houses even though it is not always so easy to accomplish results.

I am reminded of a visit which I made three years ago to the country home of some New York friends. This home was on the old farm where this man had spent his boyhood days. There was little left of the old farm house because it had been enlarged and made into a modern house with every convenience and luxury that money or skill could conceive. The beauty of this country home, the background of the wonderful hills and valleys of New York state, the ever-

changing panorama of view and distance seen from every window, made me realize that money and trained workmen could indeed make life in the country a veritable paradise.

But while there I had an opportunity of comparing the old with the improved methods and the sharp contrast made a great impression upon me. The adjoining farm had been recently purchased by a man who was also a guest of my friends. The place had great possibilities, but, like so many of the old eastern farms, everything had been neglected for so long that it was hard to know just where to begin to make improvements.

The kitchen was especially out of repair. Although the owner felt the impor-

tance of this part of the house he felt limited as to the amount of money he could allow, as there seemed to be so many other necessary demands.

He asked me to help him with the work and I think I never enjoyed watching results more.

When I first saw the kitchen it was small, poorly lighted, with no cross ven-



The side porch of the farmhouse.

tilation, etc., etc., and incidentally among other poorly arranged things, the only pump was some distance from the house.

This summer I visited these same friends again and had an opportunity to see the changes which had taken place in this other farm house. Of course I was naturally most interested in the kitchen. The work we had begun had been finished and other things had been added until the result was a complete transformation.

The kitchen had been enlarged by removing the partition between the old kitchen and an adjoining small room. This gave cross ventilation, more light and a beautiful view. A large closet at one end was made into a storage room and by putting in a window it is cold

enough without ice for winter storage, and in summer the refrigerator, which is in this room can be iced from without.

A fine porcelain sink with drainage and two pumps, one for the drinking water and one for the soft water, at either end of the sink has been installed. A large cupboard was built in for linen, silver, dishes and kitchen pans, etc., and a large additional kitchen cabinet for baking supplies was placed near the sink. The floor was covered with a good looking linoleum. The side walls were painted a soft green and the woodwork was painted white enamel with the light green in the door panels. There is a fine large range with a hot water jacket and beside it an ample wood box on castors for cleanliness and convenience. A large work table, also on castors, can be moved where the work demands or rolled back against the wall when not in use. Neat sash curtains were hung, and screens carefully fitted at doors and windows.

Back of the kitchen was a large story and a half shed and this exceptional height made a most airy and ideal summer workroom. We put up a partition to divide the work to be done here, and carefully whitewashed it all. The part nearest the kitchen is used for churning the butter, preparing the vegetables and in summer much cooking is done on an oil stove, thus keeping odors and heat away from the rest of the house. There is also a large built-in storage wood box which can be filled from the outside and from which the housekeeper can easily refill her box beside the range in the kitchen. During the busy summer season when it is necessary to have extra men this room also affords a splendid place for the help's table, as it is always cool, airy and clean. This arrangement keeps much confusion and dirt out of the kitchen, to the relief of the housewife.

The men have also a washroom in one corner of the laundry and this, too, re-

lieves the kitchen of one of the old time-honored undesirable customs.

The part farthest from the kitchen is used as the laundry, but as there are so many interesting things about this room, in the next issue of the magazine I will give a more detailed account than would be possible at this time.

Opening off the laundry is the toilet with a large window, a bathroom seat and a septic tank. These septic tanks are not only very sanitary but they soon pay for themselves in added convenience and comfort.

A short distance from the house is the dairy house. As this is a stock farm the dairy house is always an interesting, busy place. Perhaps the most interesting thing to me is what it is made to do for the kitchen in utilizing the same steam equipment for the kitchen dishes that is used ordinarily for the milk cans. I will describe this process in another issue, as it has proved not only interesting but very efficient.

While at the farm this summer we made a few more changes which are proving worth while. Among other things we discovered an old dumb waiter which had been built into the house but for years had not been used. After watching the housekeeper make many trips to the cellar I suggested that we think out a plan to save a few of these unnecessary steps. It was then I was told of this dumb waiter, and the problem was easily solved. We screened it all around and hinged a door at the front. This allowed free circulation of air but protected against flies, mice and dirt. This lift is filled with all the necessary supplies in the cellar for the day, and after each meal the left-over food, etc., is lowered from the kitchen to the cellar. This simple device actually saves hundreds of steps, keeps the food in a clean condition and does away with the refrigerator for several months of the

year, as the old fashioned cellars are always ideal places for storage.

Another home-made device I want to describe later is a most unique solution of a shower bath. It is installed in the laundry so I will describe that also in the next number.

Indeed, when I think how much has been done at this farm with a little careful planning and a little money, I realize how really worth while it has all been. The farm kitchen at best is a busy, busy place, and everything that can possibly be afforded should be given to the too often overburdened farmer's wife. Statistics prove that more cases of insanity come from farmers' wives than any other one class of women. It surely is true that they need every labor-saving device

that is practical and possible, and it is wonderful what can be done if people will only stop and think. Sometimes these little conveniences cost very, very little, and often the work can be done by some one of the men on the farm, but from lack of initiative or carelessness, or more often still, through the habit of enduring things and saying, "Oh, that is fine but we really can't afford it," we let slip from our grasp the little improvements which so often prove such blessings.

Some one has very wisely said, "The man that can make two blades of grass grow where one grew before has surely done something; but the person who makes one step do that which took two before should also be given credit."

A Few Books

Anthony Woodruff



T seems undoubtedly true, however much we may deplore the fact, that the privately owned library is passing. Walls lined with books are not so usual in the families of the younger generation. This does not mean, necessarily, that people read less, for in days of the large libraries the owners made no pretensions to having read all or sometimes even a large proportion of the books on their shelves. It means rather, in a good many cases at least, that books as a part of the furnishings of the home are not so highly considered. The seldom used books are not accumulated and saved as they used to be.

This has its unfortunate side, for a familiarity with even the backs of books—their names and authors—has a cultural value to the developing child, and their ready accessibility often invites him to read, opening a new world to him.

Nevertheless even at the present time no home is really complete without its book shelves, be they few or many. Convenient

public libraries have obviated the necessity of large libraries of standard works to those who do not care for an individual ownership of the books. Current periodicals largely fill the place which used to be accorded to the "latest books," as in the hurry of events the latest things are almost superseded before they can be put into book form. Fortunately there are enough old-fashioned people who still read books, business people who are driven to something which will take their minds off their work for a few minutes, ambitious people who can not be satisfied with the more or less superficial presentation of a subject which is given by the current press and who wish more information, society dames, and others, who must read the "best sellers"; all of these call for place for a few books.

There are always convenient corners for building in book cases, either large or small, according to the desire of the home builder, but the placing of a few books is sometimes a more difficult problem than arrang-

ing for a small library. The few books must be just where they are wanted for use; beside the fireplace, within reach of the cozy seat, where there is a good light; in fact, in some cozy, restful place which invites the busy man or woman, or which cajoles the child into a happy half-hour with a book, or which, on the other hand, places the book which is wanted where it can be

of the little book cases is in line with the mantel shelf and conforms to it in detail. At the same time it is high enough not to interfere with the head room when the seat is occupied. The white woodwork, while carrying out the colonial treatment of the mantle and interior finish of the room, is especially effective in its application to the seat and to the nicely designed seat end which supports the book shelves.



A few books by the fireplace.

taken up for the spare moment.

The well lighted "chimney corner" seems the ideal place for the "small shelf of books" which has come into fashion with Dr. Eliot's suggestion. The inglenook with the cushioned seat and high book shelves shown in the photograph gives a very successful solution of the problem. With two windows the corner is well lighted. The seat is just near enough to the fireplace for comfort, and the book shelves take the only available space in the corner which is not otherwise utilized. The whole scheme has been very cleverly handled. The lower shelf

The second photograph shows a solution of the problem when it is desired to give a place for magazines and music as well as for a few books. The case is in a corner and is built deep enough to hold music and the larger periodicals, and its projection into the room suggests a seat across the remaining end of the room, and a seat end-to correspond is built against the wall. Notice that the top of the case comes in line with the meeting rail of the window.

When the books are gathered in small cases only they are likely to be distributed all over the house. In the living room are the latest publications, fiction or otherwise, according to the tastes of the family, and the late magazines. In the boy's room are his own books. In the children's room the fact that they are ragged and torn with much usage does not banish the favorite books from the shelves.

Mother can have her late novel and her housekeeping books as well as those she needs for her study club, and father can have something to read himself to sleep when he can not get his business cares off his mind without their help.

For the guest room here is a list which was found in one hospitable home and published in Collier's Weekly:

Hawthorne's "Tanglewood Tales."

"The Golden Treasury of Songs and Lyrics."

Holmes' "Autocrat of the Breakfast Table."

Emerson's "Conduct of Life."

Thackeray's "Rose and the Ring."

Anthony Hope's "Prisoner of Zenda."

"Marcus Aurelius."

The Bible.

Bernardin de Saint Pierre's "Paul and Virginia."

Stevenson's "An Inland Voyage."

Dickens' "Christmas Carol."

"Life of Savonarola."

Fairy Tales, including Hans Andersen, "Bluebeard," "Aladdin," etc.

Stevenson's "New Arabian Nights."

Yeats' "Land of Heart's Desire."

We would suggest a slightly different list, though the one given would certainly fit into almost any mood of one who was not too essentially "modern" and perhaps a bit scornful of older things.

Our list would begin with a volume, or better, compilations from the poets as one of the essentials, but containing some of the later poets: Hovey, Lanier, Markham, Bliss Carmen, Le Gallienne, to mention only a few.

A volume of Emerson, surely, and possibly one of Thoreau.

Hope's "Prisoner of Zenda," and perhaps some of Tarkington's small volumes, "Cherry" or "Monsieur Beaucaire."

"Marcus Aurelius"



Book and music room.

and the Bible surely, and also "Paul and Virginia."

Dickens' "Christmas Carol."

A "Life of Savonarola" and beside it George Eliot's "Romola" and perhaps Mrs. Oliphant's "Makers of Florence."



In the amusement room.

"Arabian Nights," and a volume or more of Stevenson. We should include "Child's Garden of Verses and Essays."

We should add to the list a volume of Rabindranath Tagore, the famous Hindoo poet now in this country, and perhaps a volume of Riley or Eugene Field, or both. Late fiction may be added, but if so it requires constant changing if it is to mean anything to the guest. This list was compiled remembering that the guest who has time to read is usually a woman.

That house is fortunate which has an ex-

tra room, an amusement room, or one which is devoted to music. This room may be placed under the roof or in the basement if there is not space for it elsewhere. In any case it is the room devoted to the comfort and pleasure of the family and their friends. Cozy seats and cushions are especially desirable. Here is a place for the treasures picked up in travel,—or in the junk shop, and here is most plainly discernible the tastes and individuality of the owners, for this is in a way the clearing house of the family ideals.

How She Did It

Evelyn M. Watson



HAD often wondered about Marjory Decker, a friend of mine. She had a tremendously big family and all sorts of hard work to do and

was always without a maid. In fact, she just didn't have a maid and never expected to have one. How she did her work was a mystery, until one day I found the secret.

In the first place Deckers owned their home. This was just the incentive lazy John Decker needed to keep him interested in life. He *had* to keep earning to keep up appearances in harmony with their little home and he *had* to busy himself around the yard at night, which brought him into contact with Marjory and her philosophical way of do-

ing things. That is, he not only lived with her, but he worked with her and shared her pride in the home. Her interest kept him active and made him the man he is.

A pampered wife in a flat would have ruined John Decker, but ambitious Marjory was not that sort.

But as for Marjory's work, I never knew how she did it until I found out her whole secret all in a twinkling. I called one morning when she was washing. She came to the door particularly well dressed, and smiling.

"Why," she said in reply to my exclamation, "I always wear a pretty dress on wash mornings. I make a ceremony of it. Each Wednesday, midweek, I wash and each Wednesday I put on a



The veranda.

fresh seersucker dress (doesn't need to be ironed, you know), do my hair becomingly, and enter the work as if it were a real celebration. I go in to find the pleasure in it; I am happy in doing it, and the result is success. I even wear white stockings—first, because they are clean and restful, but most of all because they are a little bit fancy."

Then she went on to tell me all about it.

"Why, my dear, wash days and workdays are real pleasures to me; not my hard necessity but my privilege and joy. There is a pleasure in work; it is an object in life to me, rather than a necessary but hateful means to some other end. A thing that is worth doing, and that it is necessary to do, can just as well be done with pleasure as in a grudging spirit. Play the "Pollyanna" game and it is surprising the amount of pleasure you can get out of work. If a woman really can not bring herself to do the necessary work in this spirit, she has no right to do it at all, for it embitters herself and can not be pleasant to those about her."

"Now, for myself I have my little program of work for each day. It is all necessary in order to accomplish what I want done, and I couldn't rest until it is done. Then rest is a luxury."

"We have paid for our own little home here—have brought up Cousin Joyce's sick boy and have two little ones of our own. We are going to sell this place and move into a larger one soon; we are going to

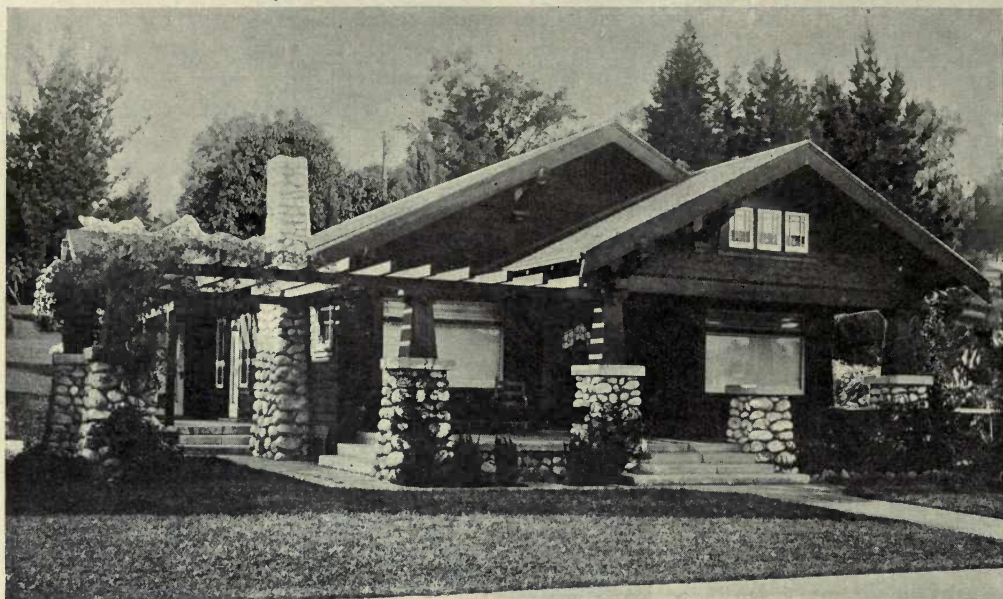
build again and can pay for it out of the proceeds from this place. Think of it, we have lived here three years and improved it a thousand dollars simply by a veranda, the garden lattices, the pergola, the window boxes in the dining room, the cement cellar floor and the tasteful decorations. We did so much of this ourselves that really it was no layout. But now we must have a bigger place for the children.



Flower boxes in the dining room.

This was Marjory's secret. She had cultivated a love of work. It helped her in her tasks; it made her careless husband into a thrifty one; it enabled her to own her home and to look forward to a new one.

After all, what Marjory did is not a bit more than most women can do—and should do—put their hearts to their tasks and enjoy them, to enjoy life.



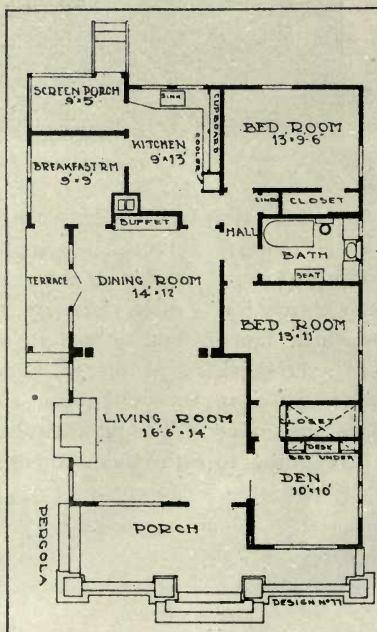
The use of field stones.

Bungalowcraft Co., Architects.

Cobble-Stones Adapted to the Bungalow

MANY people are fond of the somewhat rustic effect, which may be added to a house, by using the field stone, or cobble stone, on chimney, porch piers, etc. We illustrate an excellent example of this rustic and somewhat free hand architecture; a combination of rough frame work and stone. The *portecochere* may be omitted if desired, without detracting greatly from the artistic beauty of the house.

The exterior is cov-



ered with weatherboarding and the roof is of shingles with a good pitch and well braced so that it will be perfectly secure under any amount of snow or rain.

The house is 28'x48' over all. The living and dining rooms are of good size and are finished with light golden oak, papered walls and hardwood floors. The one having a built-in fireplace and the other a well designed buffet, with plenty of space for the display of glassware.

The two rooms are divided by a drop beam and two tapering columns. The doors on either side of the buffet are of two panel design and make this wall of the room symmetrical.

The terrace opening from the dining room by means of French windows is an attractive feature, and with its vine covered pergola beams makes a cozy retreat away from the more conspicuous part of the house.

The breakfast room is another very attractive room, with a French door leading out to the terrace and an entry either to the kitchen or dining room. This room is finished in white enamel woodwork

while the walls are of delft or old blue.

The house is complete and well arranged; the small hall connects all rooms with the bath room.

The den is finished to match the living room and is provided with a disappearing rolling bed that goes under the built-in writing desk and under the raised floor in closet.

The abundance of windows will be valued when light and ventilation are considered and the large closets and buffet kitchen, with every built-in convenience, are features which will be recognized as most desirable, and which will be appreciated by the housewife.

Half-Timber Work

THERE is always something pleasing in timber work set in the stucco finish of a house. It may be, in part, due to the reminiscence of the charming "old country" half timber houses where there was a heavy timber construction and the spaces between the timbers were plastered to make the whole into a wall that was solid and tight. The timber work was not a matter of ornament but was a constructional feature of the building. The plaster between was merely an expedient for making a close wall. The honesty of the construction was one of its charms. Modern building methods have developed simpler forms and when we use timber work it is because we like the looks of this work. It is very decorative and is attractive, especially in a gable or to make an especial feature of a projecting part of the house.

The house here shown has a brick veneer to the sills of the first story windows, with a stucco finish above. The outside trim and half timber work is in Washington fir, stained a tobacco brown.

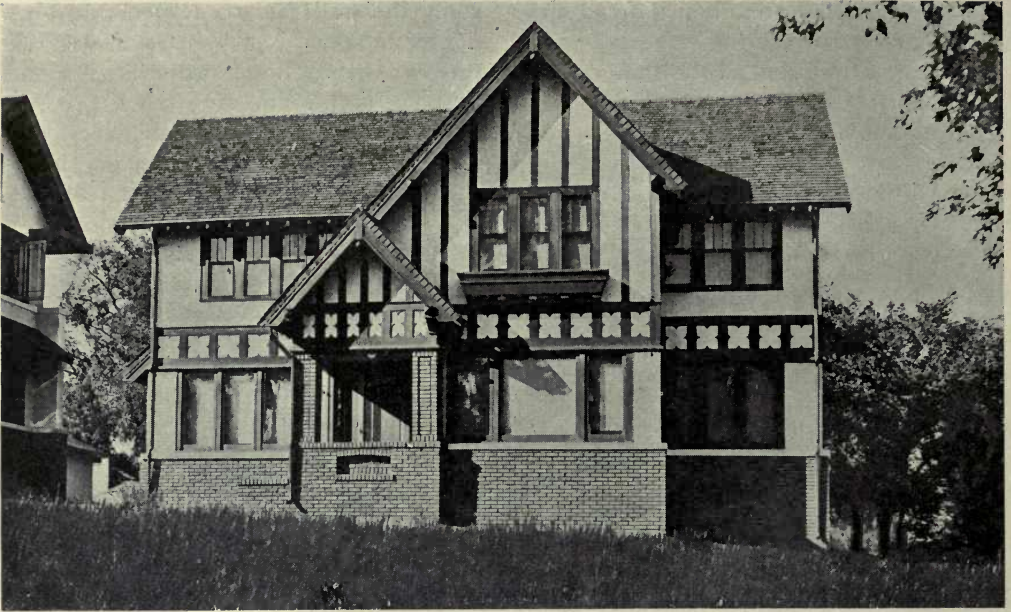
The working drawings call for extra

wide footings and concrete foundation in continuous molds to preclude the possibility of settling, and the linofelt insulation and double air-space in outside walls insure warmth in winter and coolness in summer.

The basement has large amusement room with full length casement windows, a brick fireplace and outside door opening into a recess which has an outside fireplace for Fall and Spring garden parties. The basement also contains the usual features of hot water heating plant, automatic hot water heater, vegetable room and laundry.

Entrance is given on the first floor through a roomy, light vestibule to a central hall, ample in width with a substantial oak stairway set well back in the hall. It is flanked on the right by the large living room and on the left by a hospitable dining room. Beyond the stairs is a roomy coat closet, a toilet and lavatory with outside light, and a stairway to the amusement room.

The living room has a beamed ceiling and a broad tile fireplace. The large sunroom is connected with living room by double French doors, and a cosy library with built-in bookcases and much wall space for books



Brick, stucco and timber work.

Lindstrom & Almars, Architects.

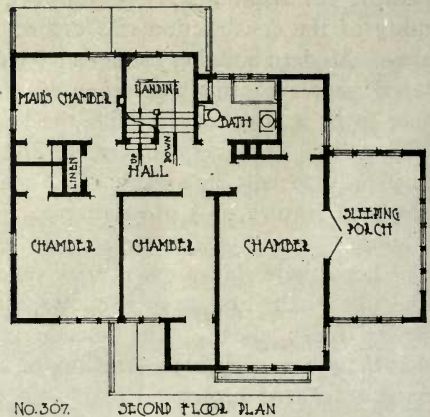
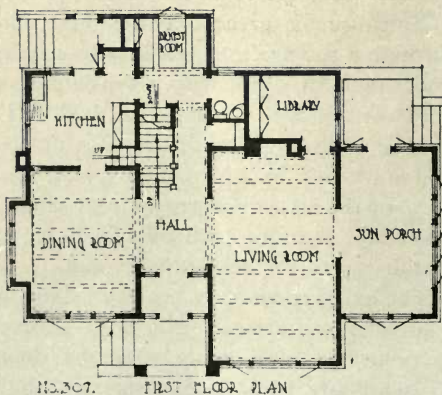
opens off one end of the living room. From the sun-porch there are doors opening onto the rear porch overlooking the garden.

The ceiling of the dining room is also beamed. It has a group of casement windows which fill the front of the room and a recessed buffet of exclusive design, with windows over.

A breakfast room is recessed near the kitchen. It has built-in seats and table and

also a convenient cupboard. The kitchen has a one-piece sink, ample cupboard room, recess for icebox with outside icing door and a rear porch and closet. The working arrangements are planned to lessen work and insure comfort. The stair landing is reached directly from the kitchen by four steps.

On the second floor are four good sized chambers each with a large closet. The



large sleeping porch opens from the largest bed room which is presumably the owner's. These together with the light closet which is large enough to be used as a dressing room make a very convenient suite. The sleeping porch has casement windows, open-

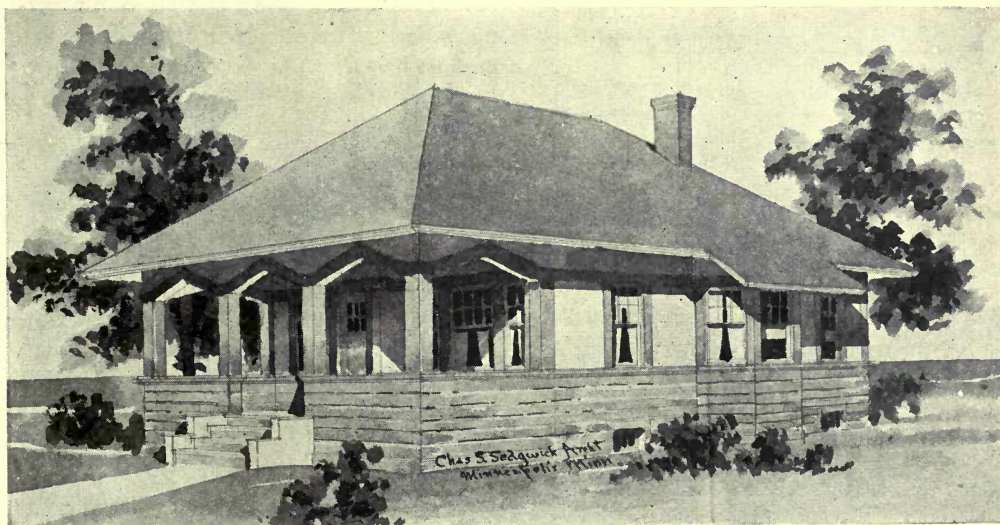
ing out. The bath room is tiled, with a built-in tub and pedestal lavatory, and also a linen cupboard. The overhang of the rear part of the second floor makes the stair landing roomy enough for a lounge. In the attic is found good storage space,

A Tiny Bungalow

BECAUSE they can not build a big house, one perhaps beyond their present needs, many people do not attempt to have their own home. Here is presented a bungalow which has been designed for such needs. It is small in size, 24 feet in width and 30 feet in depth

central hall and between the two bedrooms a bath and three closets, one opening from the hall for coats and one from each bedroom, very conveniently placed.

Beyond the living room is the dining room with an opening to the living room



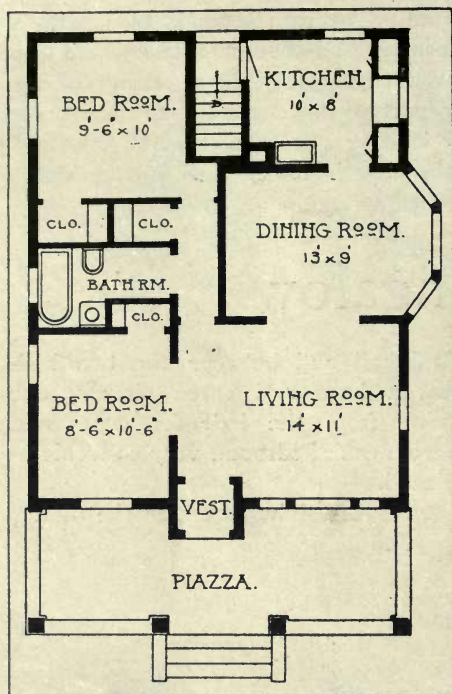
Wide drop siding is carried up to the window sills.

Chas. S. Sedgwick, Architect.

exclusive of the piazza. It is economical to build, the rooms not large, and the design is accommodated to the small family. The plan is arranged for a south frontage, with a piazza 8 feet wide across the front, and a central vestibule opening into the living room. At the left of the entrance is a narrow bedroom that may be used for a small library if desired. At the rear on the same side is a second bedroom, reached by a

sufficiently wide that the two rooms may be used as one if desired. A bay fills one end of the dining room very acceptably, giving the room good light and air.

The kitchen is beyond the dining room and is fitted with convenient cupboards and working space. Two steps down from the kitchen is the rear entrance with the basement stairway connecting directly with the grade entrance.



There is a full basement under the house, with cement floor, which may be fitted in the usual way. There is only one chimney, with flues to accommodate the heating plant in the basement as well as the kitchen and laundry.

The woodwork of the house, casings, doors, etc., are of Washington fir which is stained Mission brown, or birch may be used. The floors are natural birch.

The exterior of the bungalow is covered with wide drop siding up to the sill course of the windows. Above the sills it may be sided with narrow siding, shingles or covered with stucco. If narrow siding is used it should be painted white. All of the exterior wood and the wide siding below the windows are to be given a stain in Mission brown and all sash painted white. The shingles of the roof are stained brown. The eaves are carried low with a wide projecting overhang.

Designed for Brick and Stucco

THE accompanying design was planned for a "west-front," facing one of the boulevarded streets for which Minneapolis is famous. The sun porch projecting to the front enables the owner to get the advantages of the view up and down the drive.

Going up the brick steps and through the vestibule one enters directly into the living room. The fireplace, with bookcases under the high casement windows on either side, makes a very attractive nook beside the stairs. From the other end of the room a pair of French doors open into the sun room, while the opening between the living and dining rooms is simply cased. Opening from the passage beyond the living room is the coat closet. The door is provided with a full beveled plate mirror.

The sun porch is glazed with casement windows and transoms over them. A dining porch is beyond the dining room which is reached for service from the kitchen either through the kitchen porch or through the dining room. In the dining room is a recessed buffet. There is a pass cupboard between the dining room and the kitchen, with a cupboard in one end and a work table under the window.

The kitchen is fitted with built-in cupboards, sufficient space for a large gas or electric range. The sink has double drain boards. It is placed under a high window and set 3 feet from the floor. The landing of the main stairs is reached by easy stairs from the kitchen, both using the upper run to the second floor. The refrigerator is placed on the rear porch, which is screened.



The projecting sun porch enlarges the view.

W. W. Purdy, Architect.

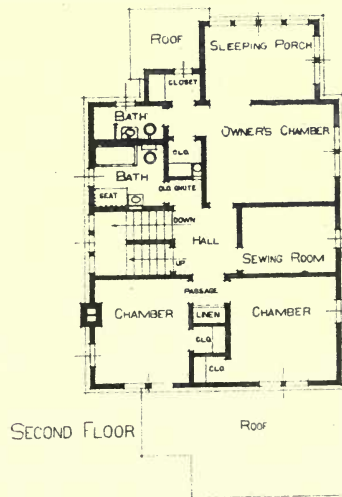
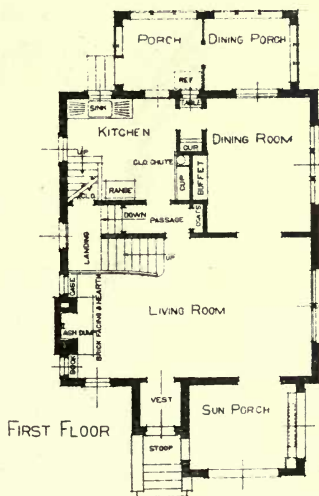
A lattice separates the rear and dining porches.

The finish on the first floor is oak, given a walnut stain, waxed and rubbed. The floors are of maple throughout. The inside walls of the sun room are of brick the same as are the outside walls.

In addition to the laundry, furnace and fuel rooms the basement contains a work-

shop and an additional toilet as well as considerable storage room.

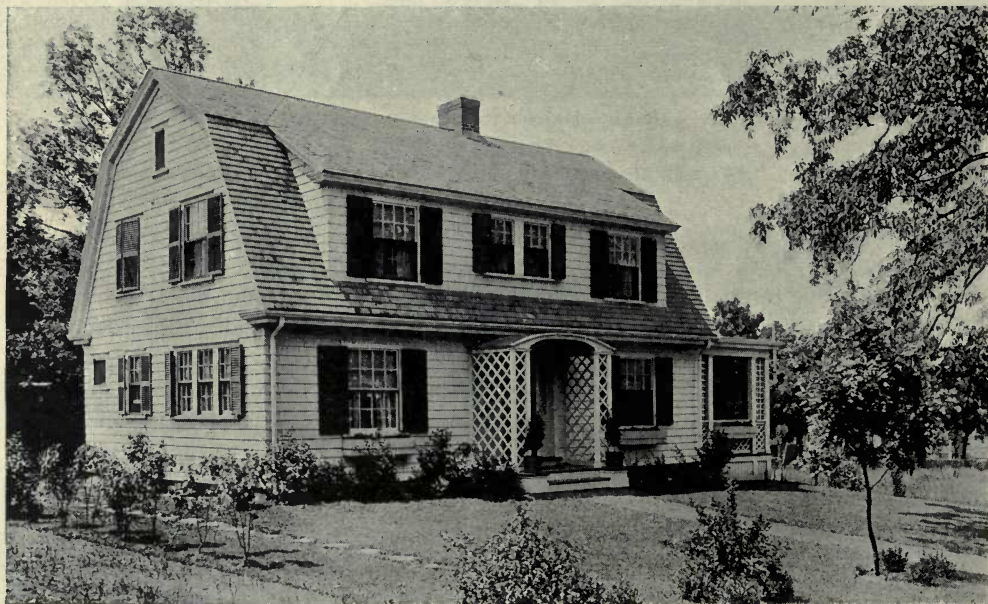
On the second floor are two fair sized chambers across the front of the house, each with good closets, and a linen cupboard between them. The small sewing room is yet large enough that it can be used as a child's sleeping room. The owner's chamber is placed at the rear, on the southeast corner



of the house and the sleeping porch opens from it. A private bath room equipped with a shower connects with this room. The general bath room opens off the main hall. In the attic are two maids' rooms and a toilet. The bath rooms are tiled. The floors are of maple. The second floor is finished in pine, which is white enameled, with birch mahogany doors.

The exterior color scheme is a golden rod brick in the veneer for the first story, a light cream or tan colored cement above, and the roof shingles a faded maroon. The windows in sun-porch are casements hinged to swing in. On the south side of the sun-room the window stool is extended to form a plant ledge, under which is placed a long, low radiator.

Repose and Charm

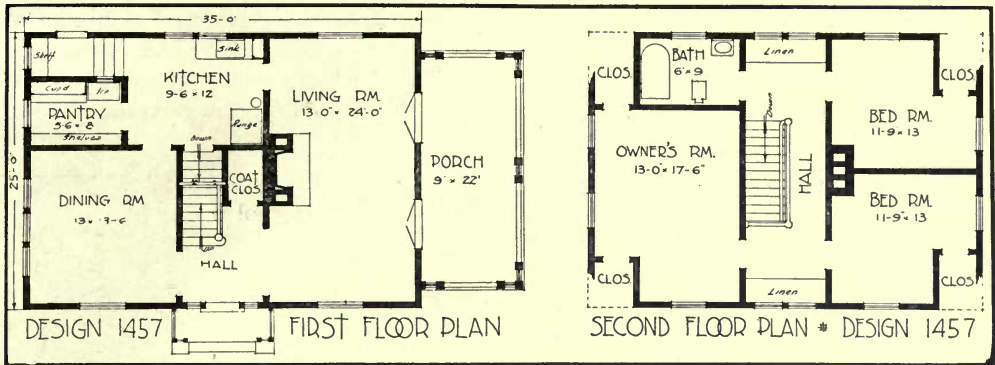


It has a quaint yet very modern air.

THE pleasing quality in the small house is especially called to the attention in the home here shown with the latticed porch. It has a quaint, yet very modern air which shows its descent from colonial progenitors while being completely modern at the same time. Again we are impressed with the fact that nothing is more satisfying than a house in white and green.

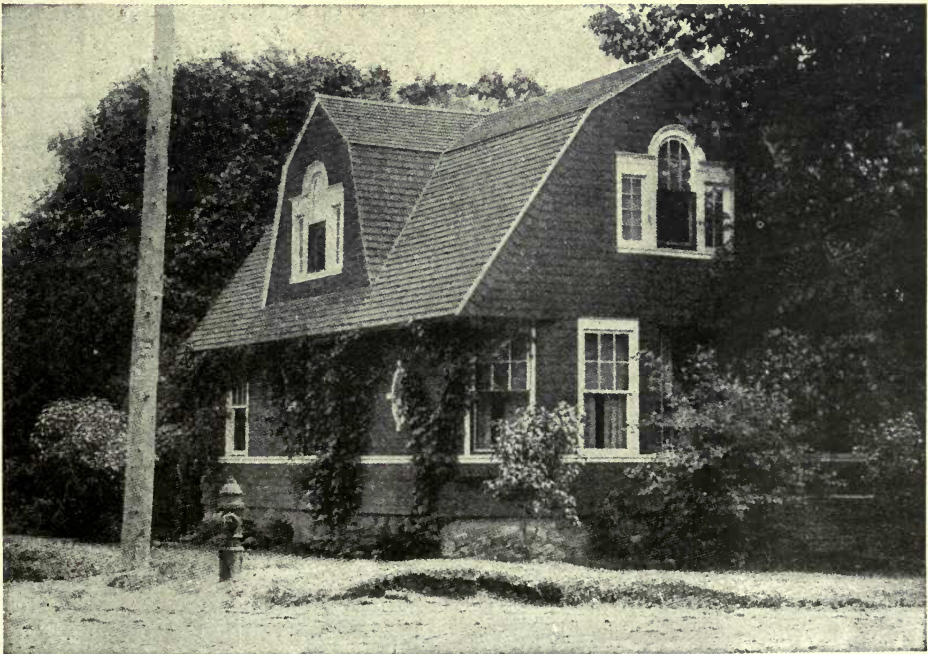
The full second story height is cleverly carried up in the dormer, while the gambrel

ends and projecting eaves carry the feeling of the one-story house. The lower as well as the upper sash is divided into small panes in the New England way. The trellised treatment of the porch corners and of the lattice bound posts at the entrance with its latticed enclosure promises a clambering rose or some beautiful vine for its covering when nature has had time to mature something lovely as the trellis invites. The formality of the small trees in tubs strikes a very pleasing note.



Turning to the plans we find the house quite as livable on the inside as it is inviting on the outside. The entrance from the porch is into a central hall, lighted from the side lights on either side of the door. A wide cased opening communicates with the living room which extends across the entire width of the house, with the sun porch beyond. Two pairs of French doors open to the porch. A wide fireplace fills the center wall of the living room, and the house is so planned that this chimney

gives a flue for the kitchen range, an arrangement not easy to obtain while always desirable. A door connects the living room directly with the kitchen. Some housewives would prefer to have no door between kitchen and living room, preferring direct communication between the kitchen and the front door, and the possibility of getting up stairs without going through either the living room or the dining room. This could be accomplished by making a passage way through the coat closet.



A different treatment of the gambrel roof.

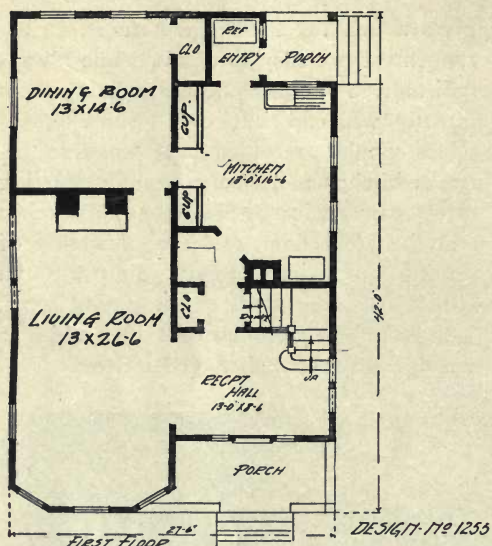
On the other side of the hall is the dining room with its wide window in front and group of three windows on the side. Beyond, but without direct connection with the dining room, is the pantry, opening from the kitchen. Here are shelves and cupboard and also the ice box, convenient to both kitchen and dining room and iced from the entry.

The pantry provides cupboards and working space for the kitchen. The sink is well

of the hall, affording place for blankets and the lighter bedding as well as linen.

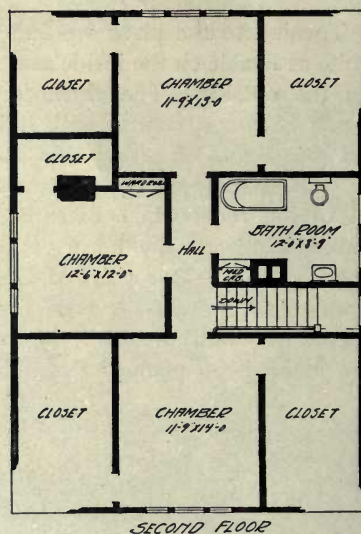
There is a full basement under the house with the usual arrangements for heating plant, laundry, storage, etc. The furnace flue, fireplace and range flues are all accommodated in one chimney.

A very different treatment of the gambrel roof is shown in the next design, which is also well arranged, giving, as is usually the case with a gambrel roof, a



lighted and has a small cupboard beside it. The basement stairs go down from the kitchen. The rear entrance is at the grade level, with a shelf beside the door, very convenient for the delivery man, and may be reached through a regular delivery window with automatic locks.

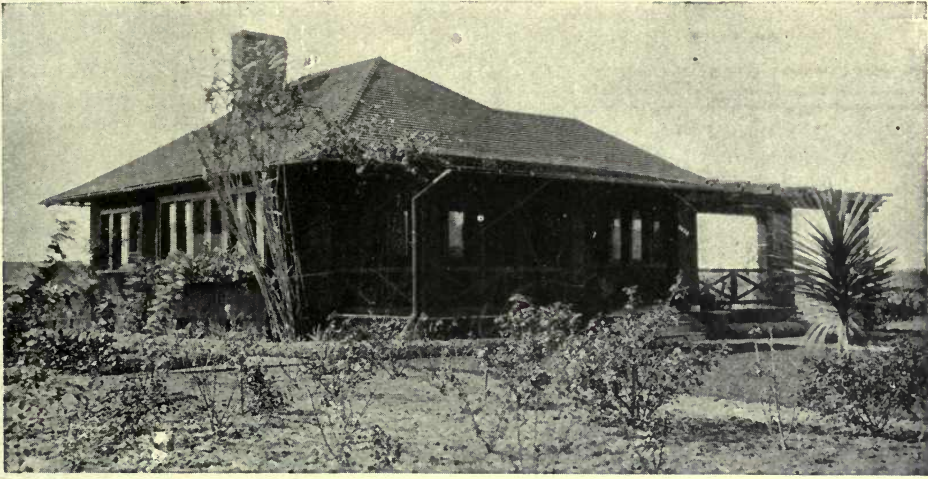
On the second floor are three bed rooms and a bath, with closets under the roof which give excellent hanging space. The bath room is over the kitchen making the plumbing pipes very direct and economical in arrangement. A door may be cut from the owner's room to the bath room, adding greatly to his convenience, if so desired. Linen cupboards with wide shelves are placed under the high windows at either end



rather surprising amount of room. At the same time no type of house requires such skillful handling as the gambrel roof. If not well proportioned it looks top heavy and awkward, or "queer" while a successful gambrel is very pleasing.

The entrance is from the porch beside the bay of the living room into a reception and stair hall, from which the kitchen may be reached through two doors. Notice the convenient closets, in one of which could be placed a lavatory by the kitchen door. By a slightly different arrangement steps from the kitchen could reach the stair landing.

The long living room is entered near the center of its long side from the en-



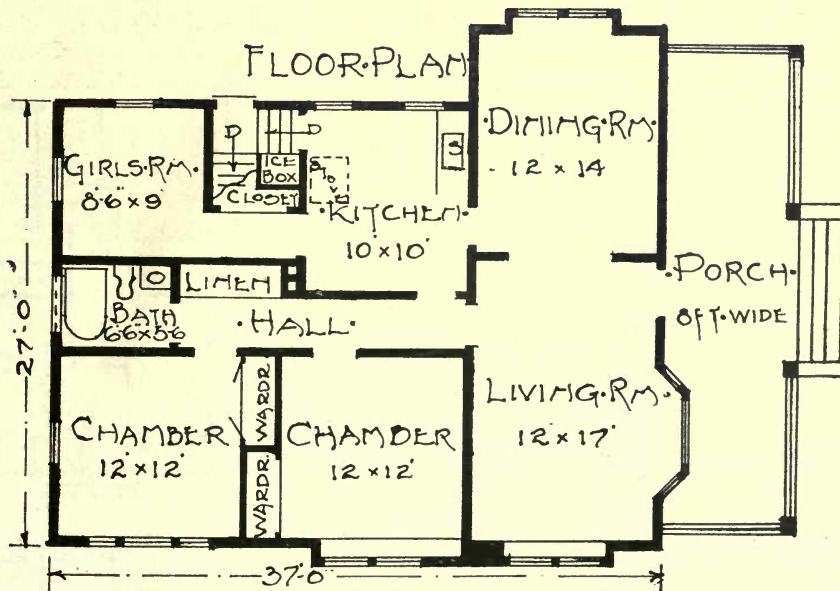
An attractive small bungalow.

trance hall, with a view of the fireplace at one end and the bay of windows at the other. Three windows are grouped by the fireplace with a high window under which the piano or other furniture may be placed. Beyond the living room is the dining room, which has the unusual convenience of a closet. It is entered directly from the kitchen, which is well equipped with cupboards. The sink is

well lighted and the refrigerator is in the outside entry, easily iced from the porch.

On the second floor are three good bedrooms, each with a group window in the gable which gives it full ceiling height, with the bathroom and stairs in the fourth gable. The space under the slope of the rafters is utilized for closets and storage rooms.

The plan is especially studied with ref-





The long lines of the roof are simple and good.

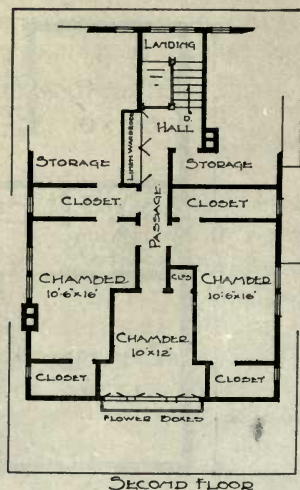
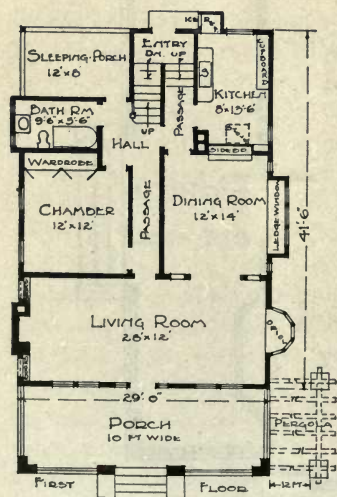
erence to maximum amount of space to minimum expense. The finish throughout the house is pine, although poplar or cypress painted or stained, or hardwood could readily be used in the principal rooms with good effect.

There is a full basement under this

house, with hot air heating apparatus provided.

The shingle exterior with its brown stain, moss green roof and white trim, is most attractive in the setting of green.

The next is an attractive little bungalow designed on simple lines. The floor



plan has been very conveniently arranged.

The entrance from the porch is into the living room. The dining room is only partially separated from the living room by the wide cased opening. A wide bay projects giving a seat under the windows in living room and the front chamber. A passageway from the living room connects the family chambers and the bath. The chambers are fitted with wardrobes, giving excellent hanging and shelf space without taking much width from the rooms. A wide linen cupboard opens from this hall and it also gives entrance to the kitchen. Beyond the kitchen, with a closet over the basement stairs, is a small maid's room. The rear entrance is at the grade level and connects with the basement stairs. The ice box is placed beside these steps and iced from them. If the range be placed by the chimney in the kitchen, the ice box may be so placed as to open in the kitchen while being iced from the entry steps.

The wood finish and floors throughout are Georgia pine and may be finished natural or be given a slight stain to get a gray or brown tone.

There is a basement under the rear portion of the house in which the furnace and laundry are placed.

The exterior is covered with "shakes" and given a coat of stain.

In its general lines the last bungalow is simple but the detail of roof dormers, porch piers and pergola give character to the whole, making it very pleasing.

Brown stained siding, shingles and timbers, white sash, green roof and rough red brick make up the color scheme. The living room is pleasing with its brick fireplace and books at one end and the quaint oriel window at the other. The sideboard and ledge window of dining room can be seen through the columned opening. These rooms are finished in dark stained Washington fir.

The dining room is served from the kitchen through a passage way allowing two doors to shut out the odors of cooking from the rest of the house. Both the range and the sink are convenient to the dining room. The refrigerator is iced from the rear entry. The finish and floor in the kitchen is of hard pine. Four steps lead down and out, or continue to the basement, which is 7 ft. 6 in. deep, under rear portion only and contains laundry and hot water plant. Ashes and laundry may be carried out from this stair without passing through the kitchen.

A passage way connects the living room with the rear of the house, where the stairway is located. The owner's chamber and sleeping porch are easy of access to the bath as are also the rooms upstairs.

On the second floor are three chambers, while the closets seem unusually generous. A roomy linen wardrobe opens from the hall.

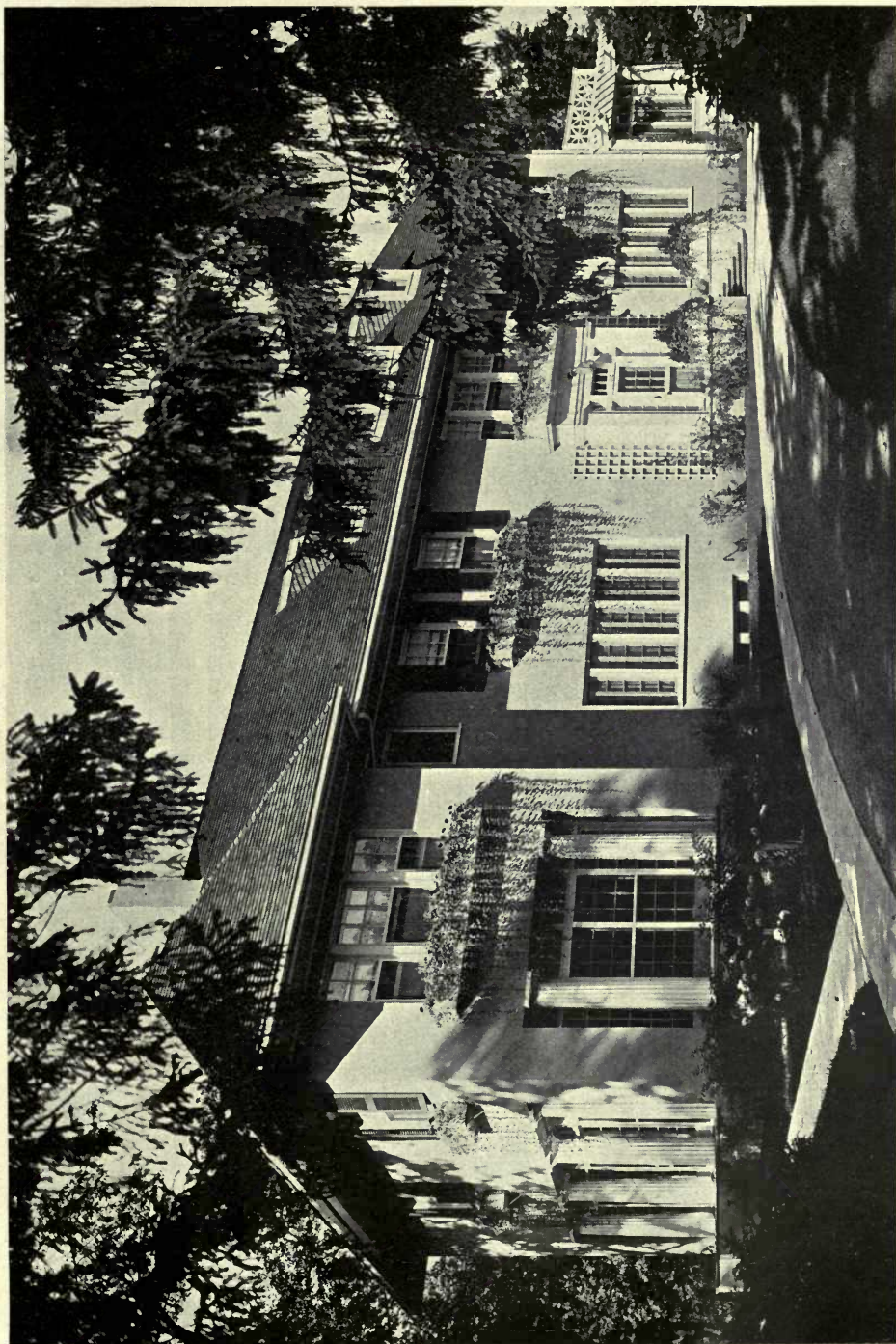
The pergola carriage entrance is effective with its cut beams overhead and the possibilities of vines and blossoms.



Portfolio of Interesting Homes

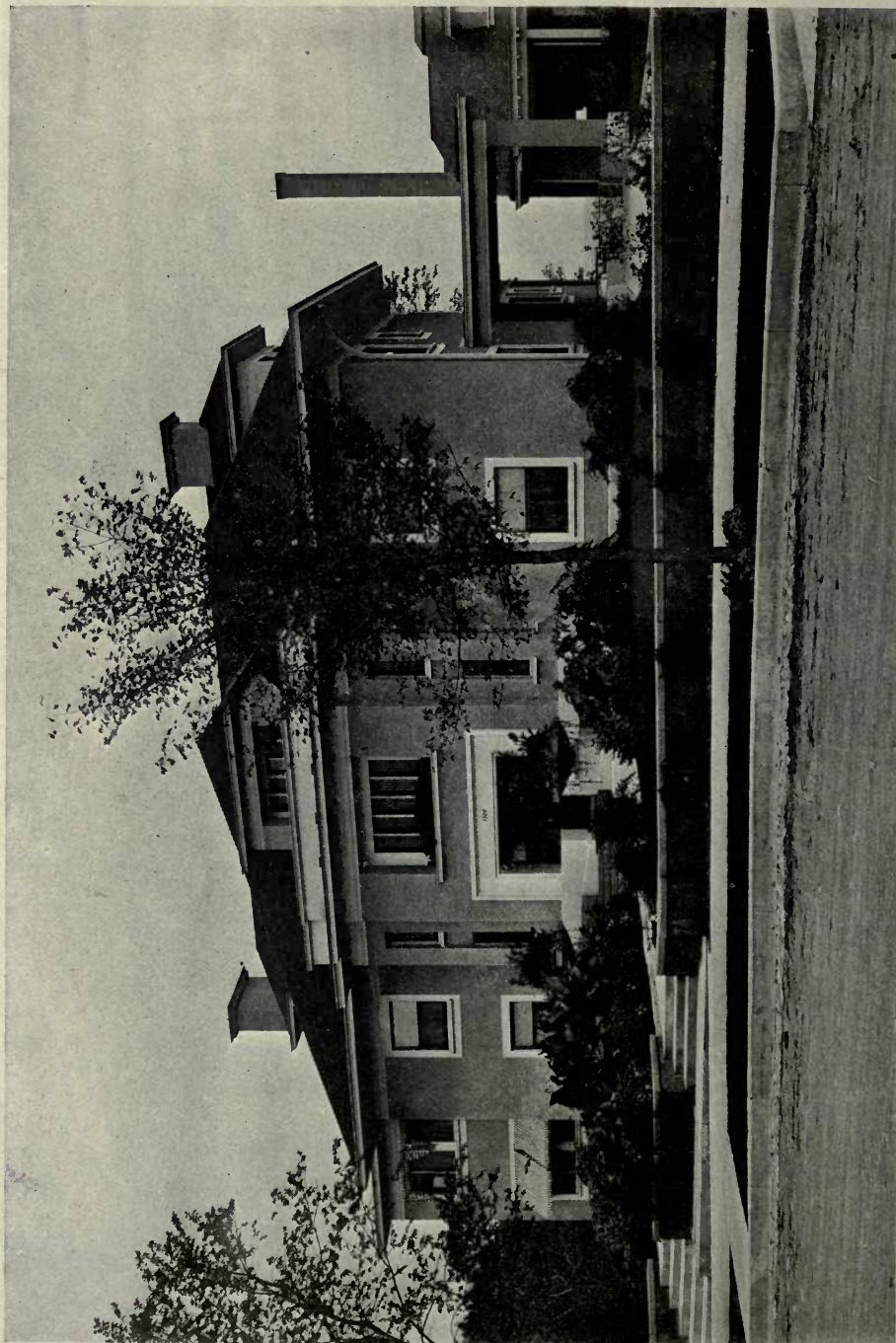


The entrance is the special feature of the facade.



A stucco home with free Colonial treatment of details.

Lebenbaum & Marx, Architects.

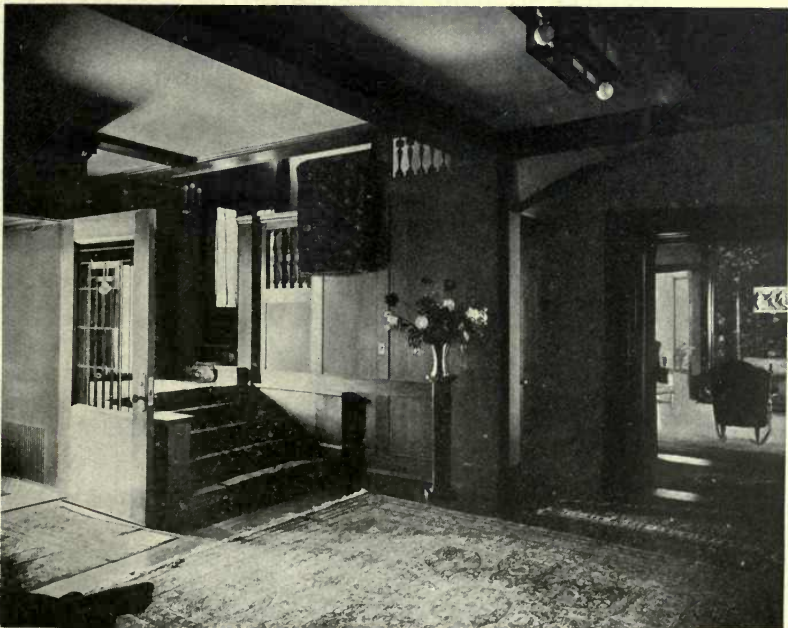


Stucco and stone.

George H. Maher, Architect.



The living room.



The hall.



DECORATION *and* FURNISHING

Conducted by Chas. Burdick, Decorator.

Sincerity

“**W**HERE we are to live and love and have the best part of our being is no place for any sort of pretense.”

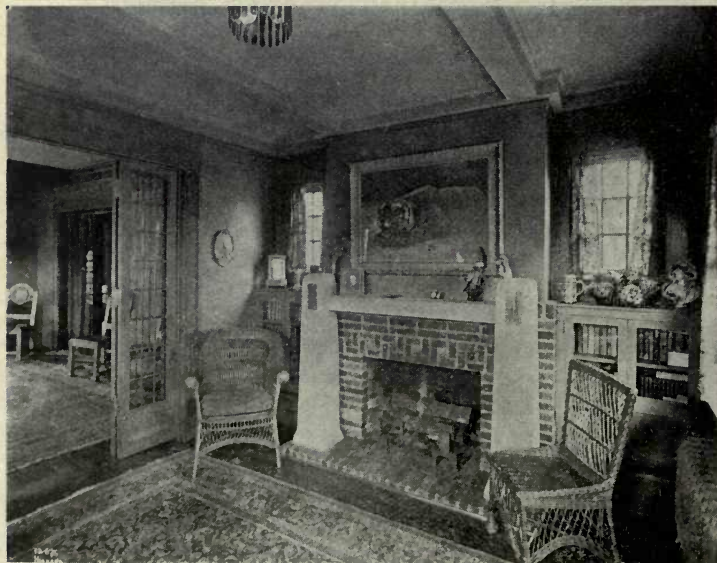
We have in the last two decades experienced an awakening. After a long period of heedlessness we have come at last to a realization that beauty of form and color is essential to our home life.

Simplicity and sincerity should form the keynote of the interior of our homes. If the inside of the house is over-elaborate or if it does not suggest its owner's individuality, it is an obvious failure.

In the successful furnishing of the home there is no set formula that one can follow. There are, however, a few fundamental principles which must be

observed. Good proportions, restful coloring, simplicity, and elimination of anything superfluous, are essential.

Each room must be decorated according to its use, and the impression it is intended to produce upon the mind. For the general family room pronounced colors and patterns should be avoided as they obtrude themselves to the exclusion of everything else. The family

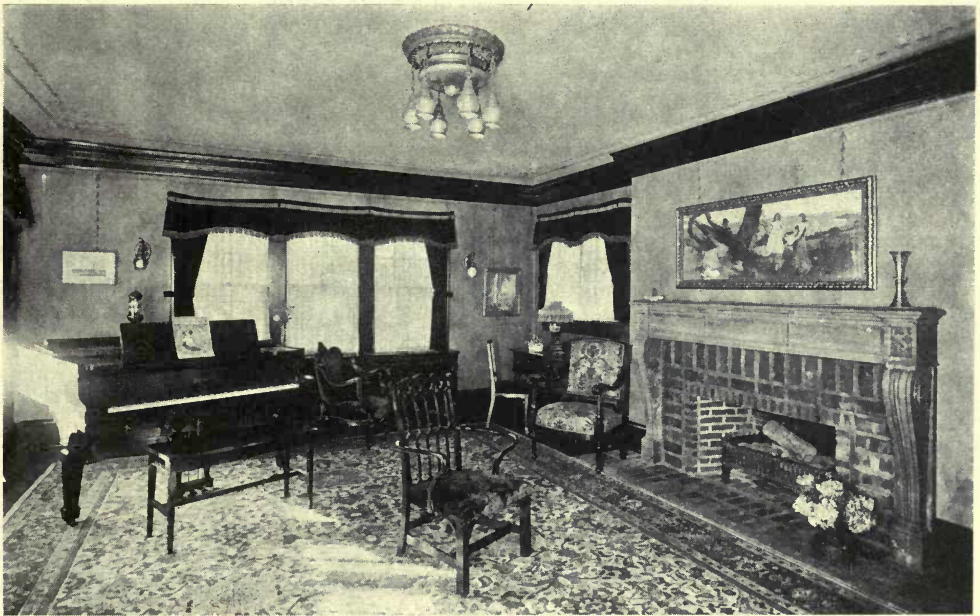


The unusual fireplace is the feature in the sun room.

INSIDE THE HOUSE

room is the heart of the home, decidedly informal in character, simple yet sincere. It should have an atmosphere of comfort and repose that is felt by all who enter. In the selection of furniture and accessories each piece should be carefully chosen with reference to some specific

The living room illustrated in this number is of pleasing lines suggesting comfort and livableness, qualities which are sometimes lacking in costly homes. The fireplace is of generous proportions, in dull glazed tiles with over mantel of carved marble. The walls are hung with



The living room has a fireplace of generous proportions.

use. In this we are applying the rule of simplicity which teaches us to avoid overcrowding our rooms. If we have a superabundance of furniture then we must apply the rule of elimination and remove all superfluous pieces. Bear in mind that this room must be lived in every day and must not be cluttered with unnecessary and meaningless details.

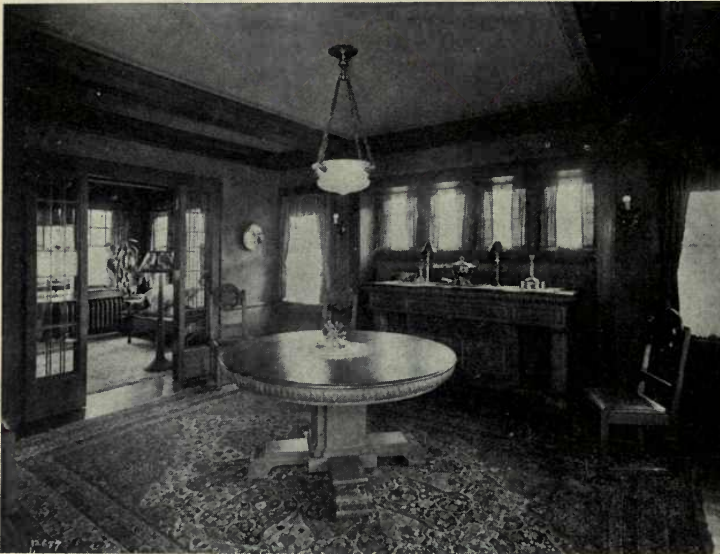
The family room should be a haven for rest and recreation, bringing to mind that old Saxon verse, "East, West, Hame's best."

a heavy paper in a soft autumn tan in a charming stippled effect with a well executed stencil which renders the seams unnoticeable. The hangings are of deep toned velvet made up in a lambrequin effect with old fashioned pipe plaits, and edged with silk fringe and dull gold galoon. All of the furniture as well as the wood trim is in solid mahogany while the deep piled rug is a gem of the orient.

Across a spacious hall of this house is the dining room done in soft warm gray with a charming stencil border fitted be-

INSIDE THE HOUSE

tween the tops of doors and cornice. The beautifully carved table and sideboard, so deftly treated in the Italian Renaissance school, is stained a soft gray to match the wood trim and the seats of the chairs are covered with a soft gray Spanish leather.



The dining room in soft warm gray.

Through the glazed doors is offered a glimpse of a pretty little sun room, with windows on three sides, overlooking a beautiful formal garden with a shimmering lake in the distance. This cozy retreat is done in the same gray stain with the walls hung in gray green and ceiling in ivory. The feature of this room is the unusual fireplace built of rough tapestry brick surmounted with an over mantel of rough oyster white stucco and independent columns of the same material. Insets of Gruby green tiles in high relief make a pleasing note.

One of the most fascinating of all the problems in the furnishing of the home is

the planning of the sun room.

A review of our domestic architecture for the past few years will show that the great demand for sunshine and open air living makes this link between autumn and spring an absolute necessity to the

modern home. The sun room to be really attractive should not be overfurnished yet a lavish use of color is permissible, particularly in the hangings and upholstery. An ornately furnished sun room lacks repose and comfort and in warm weather will appear stuffy and uninviting.

Where sun rooms have interior surfaces of brick, nothing is so suggestive of summer as a trellis against the walls supporting shimmer-

ing green vines growing from large pots arranged at the base.

Gayly colored chintzes or cretonnes on black or tan grounds are the popular stuffs for hangings. Straight hangings should not be arranged at each window thus shutting out the light and air and giving the room that "clothly" effect, but rather a valance embracing a group of windows with straight hangings only at the extreme outside.

There is a wide range to choose from when selecting furniture. Willow, wicker or rattan has the preference as it is cool, form-fitting and lends itself so nicely to chintzes and cretonnes. The stains and

INSIDE THE HOUSE

finishes are almost endless. Some are in ivory enamel outlined in ebony, others in tobacco brown, forest green and Kaiser gray while one set consisting of chair, rocker, table, foot stool, chaise lounge and tea wagon was in sealing wax red with a brilliant luster. This set would be stunning in a sun room with the window hangings and upholstery in a black and white striped chintz with large cabbage roses picked out in bright red.

Nature being a source of so many ideas may be called upon for an inspiration in the treatment of the dining room. Tapestry papers in soft faded wood tones, now so popular, forms a splendid background for a few well executed pictures. As an example, take a room with tobacco brown oak or mahogany furniture with the upholstery in soft leaf green. The walls could be treated to suggest distant trees and foliage in shadowy, subdued tones of gray green which would give an effect of space and freedom. Or what could be more perfect than a dining room done in faded tones of Goblin blue, the floor covered with a mottled rug in deep blues with hangings of soft blue silk and filmy glass curtains of dainty ivory voile. With

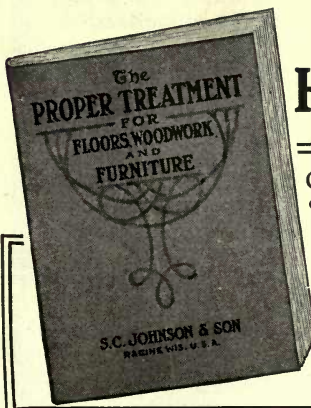
this treatment a pleasing note of contrast may be brought out in the antique silver of the lighting fixture.

The library suggests concentration of thought and study and must be quiet and dignified in character. The best decorative results are obtained by using dull tones or orange, soft olive greens and the autumn shades found in maple and oak leaves. Comfortable chairs of dark fumed oak, fitted with soft cushions of brown leather, tapestry or velours should invite the tired business man to an hour's reading, his favorite book being at hand in the pocket of the arm rest. A deep luxurious davenport across one end of the room offers a suggestion of repose.

Today the housewife gives even more serious thought and study to the proper decorations of her walls than to the selection of her furniture. Choice rugs, carefully selected pictures and rare art objects react on each other in a happy way.

The proper assembling of such articles of furniture and art objects as are harmonious in form, texture and color for the embellishment of the home, can be accomplished only by serious thought and study.

This Book on Home Beautifying Sent Free



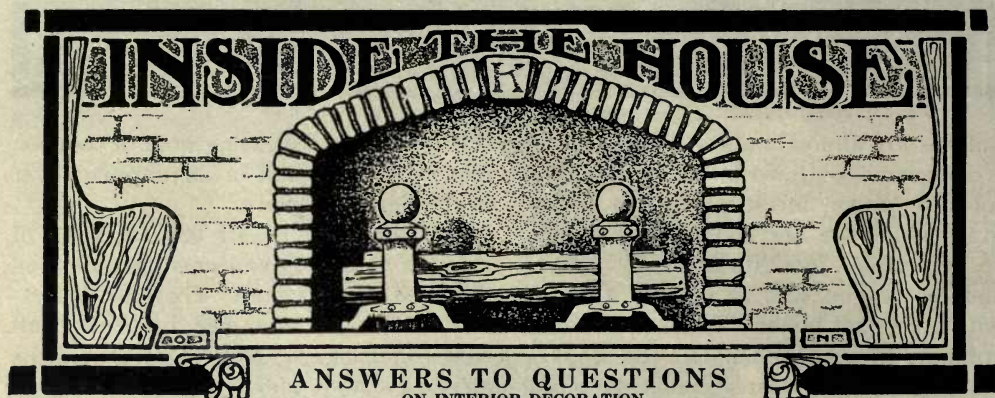
Contains practical suggestions on how to make your home artistic, cheery and inviting. Explains how you can easily and economically keep the woodwork, piano and furniture in perfect condition.

Building?

This book will tell you of newest, most attractive color combinations for interior decorating. It gives complete specifications for finishing inexpensive soft woods so they are as beautiful as expensive hard woods. We will send you this book free and postpaid.

S. C. JOHNSON & SON, Dept. K. E. 12, RACINE, WISCONSIN

"The Wood Finishing Authorities"



Letters intended for answer through these columns or by mail should be addressed to "Keith's Decorative Service" and should give all information possible as to exposure of rooms, finish of woodwork, colors preferred, etc. Send diagram of floor plan. Enclose return postage.

A Dainty Color Scheme.

I am mailing at this time the first floor plan of my home and wish to ask your advice about the wall decorations. The rooms are covered with canvas now and I intend having them painted and stenciled in light colors.

First, the rooms marked "hall" and "reception room" are now in one, with white woodwork. Would old rose walls, mahogany furniture, maroon hangings, et cetera, be perfectly correct for this room?

Second, the living room is a very dark room with dull black wood and raftered ceiling. Would a blended yellow paint be suitable for this?

Third, the dining room is in natural wood.

Ans. You have made a very wise move in covering your walls and ceilings with canvas as the plaster will always crack more or less.

The rooms that were formerly the reception room and hall, would be charming if done in rose as you mentioned in your letter. We would find a decorator that understands the handling of blending colors and start at the base with the deeper tone and blend out toward the ceiling, having the ceiling in a blush rose tint. Have the walls a very delicate color with the hangings also in a delicate rose silk with very little ornamentation in the way of trimmings. At the top of side wall place a four-inch stencil worked out in very faded tones of rose, ivory and Nile green with the background in soft gray.

Maroon colored hangings would spoil the daintiness of this room.

The wood trim should be in old ivory enamel. Do not hang too many pictures or place too many pieces of furniture in this room. The rug should be a delicate Kermanshah with a rose background or a good domestic copied from a Kermanshah.

Do not use a blended effect for the dining room as it would become tiresome, but reserve the blending for the reception hall. Have the living room in a soft golden tan or buff that will reflect light with the hangings in golden brown. Also have the rug in plain browns or, if in oriental colors, allow the brown to predominate.

A Two-family House.

J. B. A. I have recently become a subscriber of yours and would esteem it a favor if you would kindly give me the benefit of your experience and advice in connection with a two-family house on a 40x100 foot plot (24x56, exclusive of front porch), which I am about to build near New York City, as per sketch enclosed.

We intend occupying the first floor ourselves and to rent out the upper floor.

The outside: First floor is to be of siding; second floor, shingles; roof, asbestos shingles; front balcony, both floors to be cased in as is also the rear sun balcony.

Will you kindly suggest a color scheme for the outside of the house, and also give me your suggestions for the interior decoration?



Your Own Ideal of a Home Is in One of These Two FREE Books

THESE books are the *guides to Economical building* which have saved money for thousands. Make them save for you. Save 25% to 50%. Cozy houses \$300 up! 300 plans, photos, color schemes, exact costs—FREE! Buy at our wholesale prices. Over 100,000 home owners and 10,000 contractors are our regular customers.

Through these books, you can buy your home wholesale either Standard or ready-cut—as you prefer. We sell *standard material in standard lengths, or Ready-cut to fit*. Books fully describe both ways. Plans free. No delays. Highest grades. Send coupon and save \$200.00 to \$500.00 on your home!

Send For Them—
Use The Coupon

GORDON-VAN TINE CO.
843 Federal St.
Davenport, Iowa

Please send me Free the books checked.

- ☐ Standard Home Plan Book.
☐ Ready-Cut Home Plan Book.
☐ Garages (Ready-Cut and Portable.)
☐ Summer Cottages.

I am particularly interested in

Gordon-Van Tine Co.

Satisfaction Guaranteed or Money Back

843 Federal Street

DAVENPORT, IOWA

Established Half a Century

Name

Street No. City

State Occupation

INSIDE THE HOUSE

A fire-place with book cases on each side is planned to occupy the entire right side of the living room; also French doors with windows on either side, leading out on to the front balcony from the living room.

Our parlor furniture is of highly polished mahogany with blue upholstery and built along heavy lines. The parlor rug has a blue body.

The dining room furniture is of Jacobean inlaid quartered oak with leather trimmings to match. The dining room rug has a reddish, brown background.

The foyer, living room and dining room will have parquet floors. We intend to use the first bedroom as our own and to reserve the second bedroom for guests, having a folding divan bed in the latter.

In our own bedroom we have a brass bed and we would like to have the room finished in blue.

Could you also recommend window treatment and location and style of electric light fixtures?

Ans. With reference to the exterior treatment, would suggest that you finish the first story in dull olive with the upper story in tobacco brown stain. The shingles will look well in their natural gray tone. The casings should be in cream or Colonial yellow. If you will mail a rough sketch of your home to the paint manufacturing companies they will send you color sketches showing a number of charming exteriors.

Your living room may be a little dark on dull days on account of the deep porch, so would suggest golden tan or cream with blue hangings which will blend nicely with your rug and furniture coverings. Would also suggest that you have the mahogany furniture rubbed down to a dull finish.

With your dining room furniture in Jacobean period and necessarily of oak and the brown rug, you will find that a golden brown will be pleasing with the hangings in a lustrous bronze gold sun-fast.

The reception hall should be hung with the same paper as used in living room.

The owner's chamber facing north should be done in yellow with the furniture in mahogany in the colonial style. A yellow tan or warm buff colored rug with the hangings in yellow cretonne showing some rose and green would be charming.

The guest chamber may be in gray and rose with a plain colored rug. We would suggest using a solid colored rose rug in place of the gray brussels.

The lighting fixtures for living and dining rooms should be semi-indirect, using the luminous alabaster bowls suspended from the center of the ceiling.

Choice of Color Schemes.


P. F. B. Will you please answer one or two questions in regard to my new bungalow? My living room which is 15x27 faces the west. The trim is oak, brown mission finish, the furniture brown wicker. Will gray walls, old rose rug, curtains and willows be out of harmony? Or would ecru walls, tan and blue rug, blue curtains, etc., be in better taste? The standing trim in my upstairs bedrooms is ivory. Shall I give the oak doors (two-panel), and floors, brown mission or natural finish?

Ans. Both color schemes are splendid without much preference. However, with the mission brown wood trim and the western exposure, we would favor the ecru, brown and blue scheme.

If you decide on the gray scheme, select a warm gray and have the old rose in quite a deep tone. The rug should show lots of life; in the orientals, a Sarouk for first choice, with a Kermanshah next. If you prefer a domestic you will find many beautiful patterns copied from the orientals in the Anglo-Persian line; also in Hartford-Saxons.

As for the doors of second floor, do not leave them in the oak finish but treat them same as balance of wood trim, unless you do not mind the expense of substituting birch doors and finish in mahogany.

Would suggest that the floors be finished without any stain and keep them as light as possible, simply two coats white shellac and waxed.



This Book Means a Saving to YOU


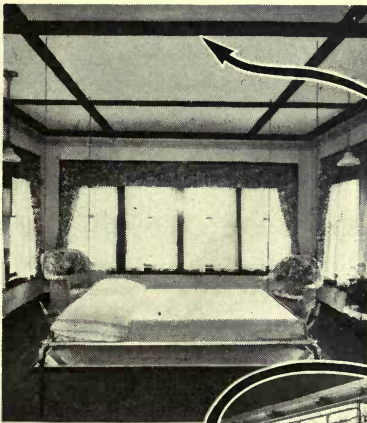
This book may save you needless expense. Read how thousands of other home lovers are saving money and getting more beautiful interiors with

CAREY
Ceil-Board
SUPERSEDES PLASTER FOR WALLS AND CEILINGS

It eliminates the expense as well as the dirt, delay and dissatisfaction that attend the construction of plastered walls and ceilings. Sound-proof, weather-proof, vermin-proof, sanitary, clean, fire-resisting, Carey Ceil-Board, in plain finish or natural hardwood grain is the ideal interior finish.

Write today for samples and copy of this book which will be sent free.

THE PHILIP CAREY CO
General Offices:
1024 Wayne Ave., Lockland, Cincinnati, Ohio
Offices and Warehouses in Principal Cities

The Bed That Vanishes Into the Ceiling Right Side Up.

The Ceiling Bed

Puts an extra bedroom in the ceiling. Convenient, easy to operate, saves wall and floor space. Ideal for small houses, sun parlors, porches, etc. Lightens housework, saves expense. The comforts of two rooms in one. Write for information.

Sorlien Ceiling Bed Co.,
414 Sixth Ave. S., Minneapolis, Minn.



THERE'S JUST One Flooring

That Combines
Beauty and Durability

❑ OAK FLOORING possesses these very vital qualities and rightly deserves the name of—

"America's Best Flooring"

❑ OAK FLOORING—the flooring that is as permanent as the foundation—will always give complete satisfaction. The first cost is the last, as repairs are eliminated.

❑ For bungalows and moderate cost houses ¾ in. OAK FLOORING, Clean Plain or Select Plain, is the ideal flooring because it is very economical in cost and when laid, has all the appearance of 13-16 in. OAK FLOORING.

❑ ¾ in. OAK FLOORING is very adaptable for covering old pine floors in old houses, as well as in new houses over cheap sub-floors.

❑ Nature has given OAK FLOORING that peculiar favor that appeals to the artist as well as the demand for the distinctive and substantial.

❑ OAK FLOORING can be laid by any carpenter or handy man successfully and during the slack season it makes a very profitable line for any carpenter.

All Reputable Lumber Dealers Sell OAK FLOORING

Write For Booklet—

"America's Best Flooring"

Oak Flooring Service Bureau
1348 Conway Bldg., Chicago

INSIDE THE HOUSE

The Children's Room.

L. F. Will you help me a little? I have already got so much help from your department. Am enclosing plan of main floor of Swiss chalet we are building. Floor below takes in maid's room, large play room or billiard room, laundry room, furnace room, coal room and garage.

What I want to know is about inside finish. Specifications call for Oregon fir for living and dining room. What stain shall I give it? The bedrooms, bath and kitchen are enameled. I am to have flat tone paint on walls, rather rough finish.

My furniture in living and dining rooms is mahogany, dull, in Sheraton period and very handsome. All the rugs I possess are Indian blankets. I have a rare collection of Navajos—thirteen of them—large and small. Must use them for a while. The fireplace is recessed, built of tapestry brick; have not decided what color to use; please advise.

The things I most want advice on are stain for woodwork in living and dining rooms, color for these walls, color for draperies, what kind between living and dining room, and color of rug when I buy one for the dining room.

Also in the nursery,—the children are boys, two and four years old. Would you advise use of gray or dull blue enamel instead of white? Some say it is better and different. What sort of shades?

Ans. Answering your questions on decoration and wood finish, would suggest that you stain the wood trim in a warm tobacco stain. Considering that your living room will need a light treatment, you will find that a golden tan will be charming with the hangings in deep old rose or terra cotta.

The dining room will look very pretty if treated in blue with the ceiling in gray. The portieres between the two rooms may be made of either velvet, velours or cotton sunfast, the dining room side to be in deep old blue, with old rose or terra cotta on the living room side. The rug for the dining room may be in a chenille in a self-toned blue having a plain blue field

with three darker shades of plain blue for the border.

The children's room will look delightful if treated as a nursery, having the wood trim in gloss white ivory with a narrow card rail about 5 feet above the floor. Hang the lower wall with dull oil cloth and paint with flat oil in desired color. The upper wall and ceiling may be tinted or treated in flat oil in a lighter shade and embellished with Mother Goose pictures as fancy dictates. If the room is done in rose, the wood trim would look very pretty if enameled in apple green. As for window shades, would suggest using the ordinary oil painted opaque shade, ivory white on the inside with a dark color, say a good olive, for the outside.

In the dining room and living room we would omit the opaque shades and use draw curtains made of casement cloth to draw to one side with traverse cords.

Gum Wood As a Finish.

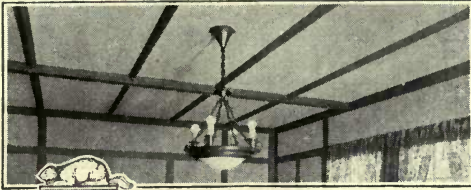
F. S. Please tell me about gumwood. Can it be used as a finish for inside work? Will it take a mahogany stain? If the woodwork is mahogany would the floors in natural oak be permissible. Demonstrators of stains and varnishes recommend this combination. What wall paper would go with this finish for living and dining rooms? Living room has north and east exposures.

Ans. Gumwood is used a great deal for interior trim throughout the south and makes an ideal trim, if finished in brown acid stains. It will not take a mahogany stain as it will appear very muddy or brownish.

Birch takes a splendid mahogany stain and if well done is hard to distinguish except for the grain. Dark oak floors in shellac and wax or a dull rubbed varnish finish, will be better than natural finish if used in connection with mahogany trim.

A soft olive green carrying a suggestion of brown, would look well with the mahogany trim for a north living room.

The dining room would be charming if done in a putty or warm gray with the hangings in deep old rose.



For Ceilings ALWAYS

Study the ceiling proposition—look into all other ceiling materials—and you'll agree with us that there's no excuse for any other kind of ceiling in your new home or the old one, but Beaver Board.

It's the one ceiling that keeps its shape—no lath shadows, because there are no laths, no bulges or cracks. Delightful paneled or beamed effect. Paneling can be as pronounced or as unobtrusive as you choose.

Beaver Board is the modern, sanitary wall and ceiling material—handsome in appearance, permanent as the wall itself. *Write for sample.*

The BEAVER BOARD COMPANIES
658 Beaver Road - Buffalo, N.Y.

Branches in Principal Cities

BEAVER BOARD



JACKSON Ventilating Grate

THE only open grate that warms and brings in outdoor air, and takes out the air of the room that is impure. It is a constant and perfect ventilator, having a fresh air supply on the principle of the hot air furnace. Will heat rooms on two floors if desired, and will burn coal, wood or gas. Keeps fire from fall to spring. Made in many patterns, to fit any fireplace. Catalogue No. K shows styles and prices. May we send you a copy?

*Special Catalog of Mantels, Andirons and
Fireplace Fittings, sent upon request.*

E. A. JACKSON & BRO., 25 Beekman St., New York

IN every line there is one product that is recognized as pre-eminent. Among woods for home-building this position has for three centuries been accorded to WHITE PINE

White Pine does not shrink, swell, crack, twist, warp or rot—and once in place it “stays put,” after years of exposure, even in close fitting mitres and in delicate mouldings and carvings. It takes paint and stains perfectly.

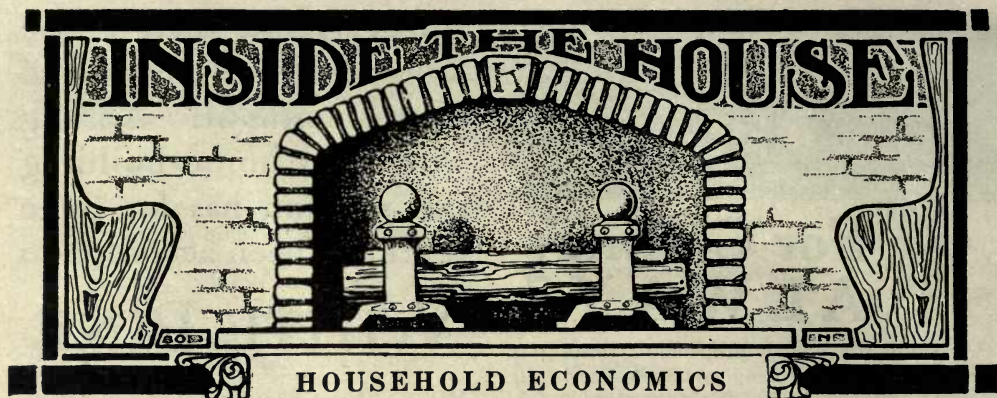


“White Pine in Home-Building” is beautifully illustrated and full of valuable information and suggestions on home-building. Send today for this booklet—free to all prospective home-builders.

“Helen Speer's Book of Children's Toys and Furniture”—a fascinating children's plan book, from which a child may build its own toys and toy furniture. Prepared by Helen Speer, the toy expert. If there are children in your home, sent free on request.

WHITE PINE BUREAU

2220 Merchants Bank Bldg., St. Paul, Minn.



Domesticating Electricity—The Electric Range

THE latest word in cooking,—though the last word is yet far away—is the electric range.

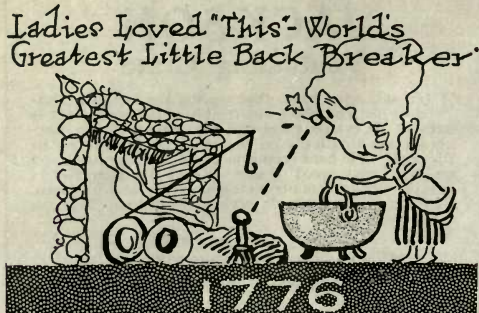
The development of the processes of preparing food for human consumption as portrayed in these foolish cuts yet expresses a thread of truth in the way that old disadvantages have been overcome by adopting a radically different principle as a source of heat. We can overlook the fact that a very successful and modern method has been omitted.

We are now in the age of electricity, and the electric range has come to stay until—we can not even guess what will come next. Electricity has established its place as the household maid-of-all-work of the first part of the twentieth century. It has established itself in every kind of home from the cottage to the mansion, where it sweeps and cleans, washes and irons, toasts and broils and boils. Now that all requisites for cooking have been embodied

in one system we have the complete electric range which has become sufficiently economical in installation and in use to be practicable in any home.

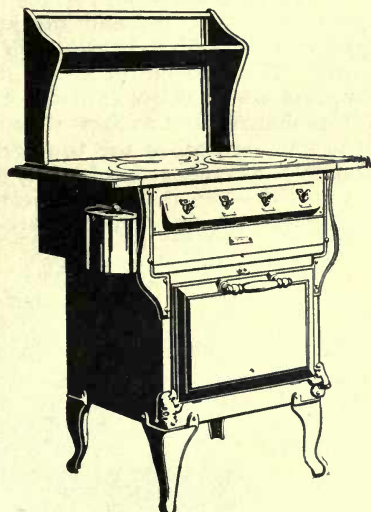
The problems, which the electric range has had to solve are: the production of the greatest amount of heat possible from the electric current; the concentration of this heat so that the greatest amount shall be directed against the utensil which is to receive it; the insulation of this heat so that very little may escape in any direction other than where it is used; together with an installation sufficiently strong that it will stand the wear and tear of heavy and constant usage; and a simplicity of construction which allows any part to be easily repaired or renewed.

Much heat has always been wasted in all cooking operations, as every cook knows, for the excessive heat in the kitchen has always been one of her trials. Only with the coming of electricity has it been



INSIDE THE HOUSE

possible to regulate accurately the amount of heat which is given to a cooking vessel and to know how much heat it is getting. Electric heat is a definitely measured thing. By turning a switch any one of three degrees of heat may be given to any burner with a wider range for the oven. In appearance the electric range does not differ greatly from the well known types of gas range, in their general forms. The placing of the oven may be either the "underneath" or the "elevated,"



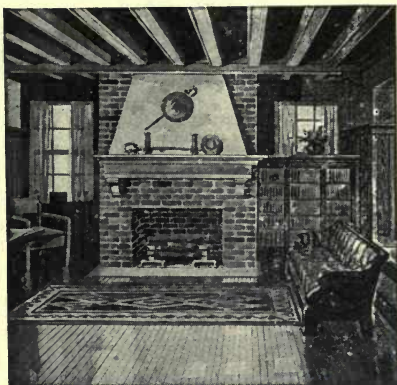
The modern electric range.

sited to kitchens where the space is limited, or the cabinet type with two ovens beside the range burners. The range shown in the cut has an underneath oven.

Electricity is an ideal heat for broiling and toasting. The top burner in the oven faces downward, is excellent for broiling and is supplied with a broiling equipment. The possibilities of insulating the heating chambers give an especial advantage. The electric oven with its thermometer attachment is the delight of the cook, accustomed to watching for the narrow margin between the scorch and the under done. The oven is built on the principle of the fireless cooker, with thoroughly insulated walls. Suppose you have company for dinner and have provided a ten pound roast of meat. You turn the high

INTERIORS BEAUTIFUL

—200 VIEWS—



IN planning the new home or in the remodeling or decorating of the old one, the interior treatment, both as to architectural detail and decoration and furnishing, is very important. Correct expression of decorative schemes is a difficult matter for the average person to handle. In view of this, we have published in "INTERIORS BEAUTIFUL" two hundred selected views of the interiors of successfully planned and decorated homes and give, in the captions under the illustrations, the scheme of decoration used.

Fourth revised edition, just off the press, is beautifully printed on enameled paper and has embossed paper cover. 112 pages. Size $7\frac{1}{2}$ x 10.

Contents:

Halls and Stairways, Living Rooms, Dining Rooms, Sleeping Rooms, Dens and Fireplaces, Billiard Rooms, Kitchens, Outdoor Living Rooms and Garden Rooms.

Price, \$1.00; postage, 8c.

With a Year's Subscription
to Keith's Magazine--\$2.00

M. L. KEITH

828 McKnight Bldg., Minneapolis, Minn.

Talk About Real Pleasures!



heat into the oven for fifteen minutes, according to the instructions, then put in the roast and let it sear for twenty minutes on high heat, then turn the oven heat to low, and let it remain for an hour and a quarter, then turn all heat off, thus getting a perfect roast, with none of the juices evaporated and dried out, and with no danger of hurrying it, nor difficulty in holding for the belated guest. Neither has the hostess-cook felt it necessary to keep it on her mind all afternoon. The process can be repeated with no uncertainty having once been tested.

Meats naturally shrink in roasting, due to the loss of part of the moisture and flavor. As much of this as can be retained adds to the tenderness and the digestibility, the deliciousness as well as the nourishing qualities of the meat. Experiments show that electrically cooked roasts show less shrinkage than those cooked in other kinds of ovens.

It is claimed that not only is there a saving in quantity through the smaller reduction in weight in the roasting, but also that less expensive cuts may be used with satisfaction, when more of the flavor and juices are retained.

The greatest drawback to the use of

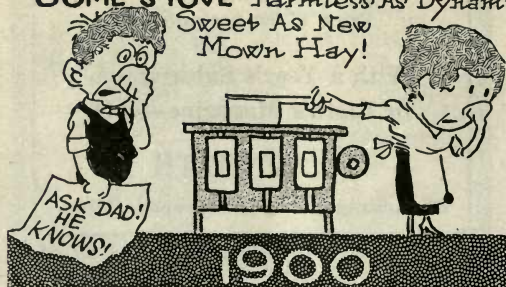
electricity for cooking in the mind of the thrifty housewife, has been the fear that the operating cost would add an unbearable burden to the already too high cost of living. The special rates for large consumption which is given in the larger cities together with the fact that electricity is not used all of the time during the cooking, as for example, the oven being shut off when the proper heat has been attained, seem to reduce the cost to a fair figure.

The cost of cooking by electricity has been tabulated, for 13 families, using an electric range for all of their cooking, through a period of three or four consecutive months by the electric company in a city where the rate is $8\frac{1}{2}$, 6 to $2\frac{1}{2}$ cents per kilowatt hour. These are what might be considered average small families, there being several children in some of the families. The electrical bills for the range alone, for these thirteen families average \$3.19 a month during the period observed.

Electricity emancipates the housewife from the kitchen. She is not chained to the range during the whole time of an important culinary operation for fear something will be burned.

SOME STOVE - Harmless As Dynamite!

Sweet As New Mown Hay!



But This Is The Way They Suffer Today



Add to Its Attractiveness as Well as to Its Utility



YOUR FIREPLACE is the center of your home and is an important factor in the decorative scheme. Make it complete.

Select your fireplace furnishings from our complete stock as shown in our beautiful catalog. It's easier and more satisfactory because of our exceptional assortment. Only the very best of materials are used in their manufacture. We can give you any desirable period design as well as the modern up-to-date design.

If interested, send for our beautiful catalog.



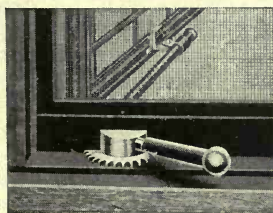
DRAKE MARBLE & TILE CO., 605 Second Avenue S., Minneapolis, Minn.

When you finish
or refinish your house we have
some useful information for
you on the treatment of interiors
if you will write for it.

BERRY BROTHERS
INCORPORATED
World's Largest Varnish Makers

Established 1858

Factories: Detroit, Walkerville, Ont., San Francisco



The "BULL-DOG" Adjuster

has made out-
swung case-
ments practical
and popular
for the artistic

home of moderate cost. Full details in the
unique Casement Window Handbook—

FREE—WRITE TODAY.

THE CASEMENT HARDWARE CO.

7 S. Clinton Street

CHICAGO

Now You Can Have a Clean, Dustless Basement

No more dirty, disagreeable ash shoveling—No more ash dust in the house—No more danger of fire from hot ashes—No more litter in the basement. Do you know that for a small outlay you can install in your home one of the greatest improvements in years.

The SHARP Rotary Ash Receiver

The only modern, sanitary and efficient way of caring for ashes, garbage and refuse.

Provide pure, dustless air for your family. Protect the fine furnishings of your home from ash dust. Prevent the danger of fire from hot ashes—Quit the dirty, dreaded ash shoveling and have a clean, neat and sanitary basement.

The Sharp Rotary Ash Receiver can be easily and cheaply installed under any type of heater at any time. Made in different sizes to meet the requirements of any size building. Illustration shows rotary ash receiver for large heater.

We will gladly supply you with full information together with endorsement of many enthusiastic users.

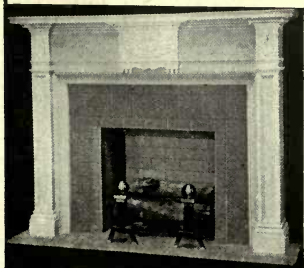


**THE SHARP ROTARY ASH
RECEIVER CO., Inc.**

Dept. 25
Binghamton,
N. Y.

Districts
open for
representa-
tives.
Architects
See
Sweet's
Index.

IN YOUR HOME—WILL THERE BE HORNET MANTELS?



This Colonial design Mantel of selected birch mahogany finish or white primed, excellent proportions, is priced for wood work only

\$28.00

There are scores of other shown in our handsome catalog, some as low as \$17.75 with Grate and Tile.

SEND FOR OUR CATALOG TO-DAY—IT'S FREE

Hornet Mantel Company

1127 Market St.,

ST. LOUIS, MO.

INSIDE THE HOUSE

THE TABLE AND ITS SERVICE

Conducted by HELEN F. LITTLE

Christmas Eats and Christmas Sweets



HE kitchens of "our own United States," with their varied preparations for the holiday season, reminiscent of many lands across the seas, are literally "melting-pots." The delicious spicy smells of "leb-kuchen," honey-cakes, almond-wreaths, and all the other delectable "fifty-seven" varieties of German "kuchen" mingle with the varied and savory aromas of English plum pudding, Norwegian "Jule-kage," New England mince and pumpkin pies, German roast goose, French bon-bons and pastry, and our own oysters, turkey, cranberry sauce, and pop-corn, to announce the achievement of American Christmas menus, and Christmas goodies. These must in truth be deemed "strictly neutral," as they claim kinship impartially with many nations.

Such a typical menu is given below, together with directions for several "eats and sweets."

Attractive decorations for the holiday season may be arranged with hanging baskets of ground pine and poinsettias. Little pine trees and red shaded candles make gay decorations, especially for



Christmas Eats Christmas Sweets.

Christmas entertaining. If there is a fireplace of course there must be a "Yule Log," in the burning of which charming rainbow flames can be produced quite as brilliant as the old drift-

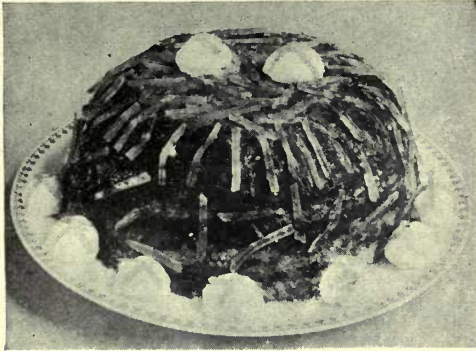
wood fires of the New England coast. Any one who has listened to stories in the light of a driftwood fire, with its dancing, many-colored flames, would secure driftwood for his Yuletide at almost any price. The driftwood washed upon the shores, remains from ancient sea-going craft, filled with broken copper nails, saturated with salt water in which it lay so long, is impossible to most people now; but here is a modern way of producing similar results. Bore holes in the log which is to be used for the Christmas fire, fill these holes with copper chloride or copper sulphate (to take the place of the copper nails), and close the holes with shavings, wads of paper, or anything to shut up the chemical until the fire touches it. Then will come the rainbow flames.

The Christmas dinner here outlined has a strictly "Neutral" Menu selected from the offerings of all the nations in their ways of preparing Christmas Eats.

INSIDE THE HOUSE

Christmas Dinner.

Oyster Cocktail or Consomme
 Celery Olives Salted Wafers
 Roast Turkey or Goose with Chestnut
 Dressing
 Mashed Potatoes Creamed Onions
 Sweet Potatoes
 Cranberry Jelly or Frappe
 Head Lettuce or Endive with French or
 Thousand Island Dressing
 English Plum Pudding with Hard
 or Foamy Sauce
 Pumpkin and Mince Tartlets
 Vanilla Ice Cream
 Raisins Nuts Bonbons
 Coffee



The Christmas plum pudding.

Plum Pudding.

The crowning feature of the old English Christmas dinner was the plum pudding, decorated with holly, which was brought in flaming bright with burning brandy. The recipe given is an American variation, in which finely mashed carrots are used with excellent results in place of the more expensive eggs.

1 qt. cooked mashed carrots, $\frac{3}{4}$ lb. finely chopped suet, $\frac{1}{2}$ lb. sugar, $1\frac{1}{2}$ tsp. salt, 2 c. flour, $\frac{1}{2}$ tsp. cloves, 1 tsp. cinnamon, $\frac{1}{2}$ tsp. grated nutmeg, $\frac{3}{4}$ lb. currants, $\frac{3}{4}$ lb. raisins, $\frac{1}{2}$ lb. citron.

Sift dry ingredients, and dredge fruit with some of the flour; mix all together, steam $3\frac{1}{2}$ hours in a buttered mold. Serve with "Yellow Sauce," prepared by beating together yolks of two eggs and one cup powdered sugar. Fold in whites of two eggs, and add flavoring.



Home Comfort

Winter and Summer

WOULD you like to keep the cold air, rain and snow out of your home during Winter weather?

Would you like to have plenty of air circulation, broad, unobstructed views from your windows and perfect control of ventilation and drafts during Summer weather?

You can have both by having your windows installed with

WHITNEY

CASEMENT
WINDOW HARDWARE



—the patented sash control that makes case ment windows practical in any and every room of the home, does away with sticking, leaking, rattling and slamming shut and makes case ment windows tight and weather-proof when closed.

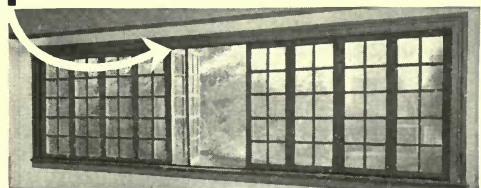
We sell only the patented hardware. Any style of sash can be used. Write for full information and interesting portfolio of illustrations.

If West of Mississippi
address—

If East of Mississippi
address—

**Whitney Window
Corporation,**
311 Fifth Street South,
MINNEAPOLIS, MINN.

**H. E. Holbrook
Company,**
445 John Hancock Building,
BOSTON, MASS.

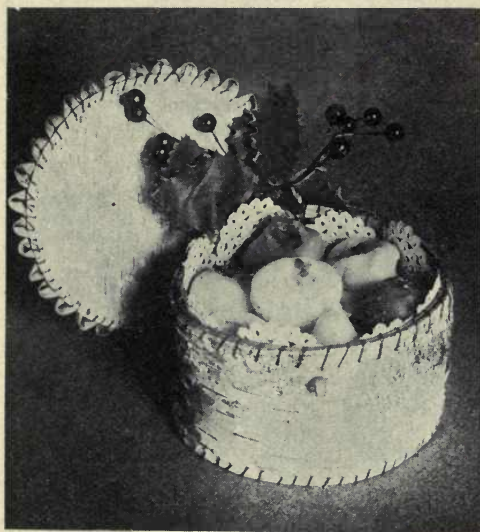


INSIDE THE HOUSE

Rich Cookies.

1 c. butter, $\frac{3}{4}$ c. sugar, 4 egg-yolks. 3 tbsp. milk, 4 c. flour. Makes one hundred cookies.

Cream butter, work in sugar. When well mixed, add egg-yolks, milk and flour. Roll very thin, brush with white of egg, sprinkle with sugar, chopped nuts, cocoanut, angelica, almonds, citron, and candied cherries to simulate holly wreaths.



A birch bark box of sweets.

These cookies can be cut in many shapes, and lend themselves readily to decoration. In addition, they fairly melt in one's mouth when properly prepared.

Chocolate Caramels.

1 c. sugar, $\frac{1}{2}$ c. molasses, 2 sqs. chocolate, 2 tbsp. butter.

Boil together until a very firm ball is formed, pour into pan, and cut into squares when cold. Cocoanut, nuts, or marshmallows may be added.

White Taffy.

2 c. sugar, $\frac{1}{2}$ c. vinegar, 2 tbsp. butter.

Melt butter, add sugar and vinegar, stir until dissolved. Boil until brittle in cold water, cool on buttered plates. Pull

and cut in inch pieces. This can be colored with fruit coloring.

Fruit Paste.

One of the most wholesome sweets for children, as well as the easiest to make is prepared by grinding together one pound of stoned dates and one pound shelled walnuts. Knead until smooth, work into balls, and roll in powdered sugar. This will keep indefinitely.

The above candies, together with fancy cookies, make Christmas gifts which may be attractively arranged in the little brown Japanese baskets, tied with red ribbon, with a spray of holly on top.

Chocolate Popcorn.

2 c. white sugar, $\frac{1}{2}$ c. corn syrup, 2 oz. chocolate, 1 c. water.

Put these ingredients into a kettle and cook them until the syrup hardens when put in cold water. Pour over four quarts of crisp, freshly popped corn, and stir well to insure even coating of the kernels.

Holiday Parties.

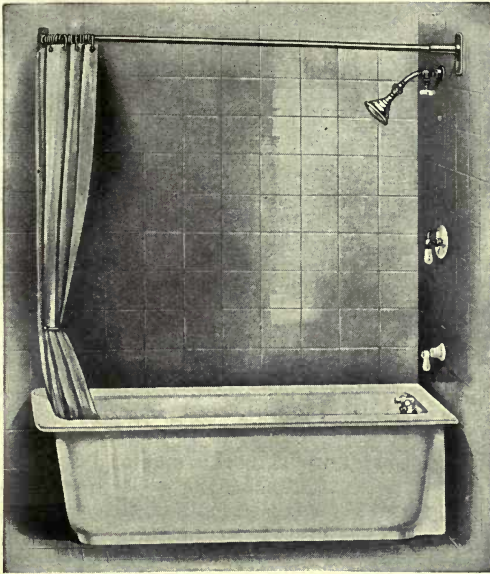
What to serve when entertaining one's friends during the holidays is a problem which may be solved by these suggestions:

Tiny mince or pumpkin pies with whipped cream garnish, into which has been folded grated cheese. The top crust of apple pies may be omitted when this garnish is used. Coffee may be served with these individual pies.

Sandwiches cut in the shape of a Christmas-tree, with a filling of green pepper and cream cheese. Serve with these hot chocolate in cups to whose handles has been tied a sprig of evergreen with a tiny red bow.

Little cakes with red and white frosting, and ice cream.

Christmas Salad. A fruit salad with whipped cream dressing, garnished with cherries. Marguerites to be passed with this are made by covering long wafers with beaten egg-white, which has been sweetened and flavored, and into which are folded nutmeats, cocoanut, raisins, or candied cherries. These are then delicately browned in the oven.



Enameled Iron Recess Bath

A beautiful built-in bath equipped with shower and mixer, the curtain running full length of the tub.

This design insures the utmost luxury and comfort in bathing.

L. WOLFF MFG. CO.

601 W. Lake St., CHICAGO

SHOWROOMS: 111 N. Dearborn Street



Design No. 524, by Jud Yoho
Estimated cost \$2800

All About Bungalows

BUNGALOW BOOK
1916 De Luxe Edition

Contains the cream of 1000 practical and distinctive bungalows actually built for \$400 to \$4000, suited to any climate, with photos of exterior and interior views, plans, size of rooms, cost, etc. Also valuable suggestions on bungalow building written by an expert.

The Largest exclusive
Bungalow Book published. 112 pages, Price **\$1.00** Postpaid

Worth many times its cost to any prospective builder. A smaller edition of same, only 50 cents. Send check, money-order or stamps. Money back if not satisfactory.

JUD YOH0, THE BUNGALOW
471 Craftsman Bldg., CRAFTSMAN,
Seattle, Wash.

Temperature Right Day and Night

THIS device maintains exactly the desired temperature both day and night, while a simple adjustment of the clock attachment will enable you to secure automatically and silently at set hours a lower temperature during the sleeping period with a return to warmer temperature at the time of arising.

The "MINNEAPOLIS" HEAT REGULATOR

affords supreme comfort with the added results of safety and a saving of fuel.

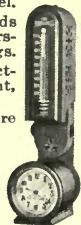
Has proven its merit in thousands of homes for 31 years, and is universally specified in all modern dwellings.

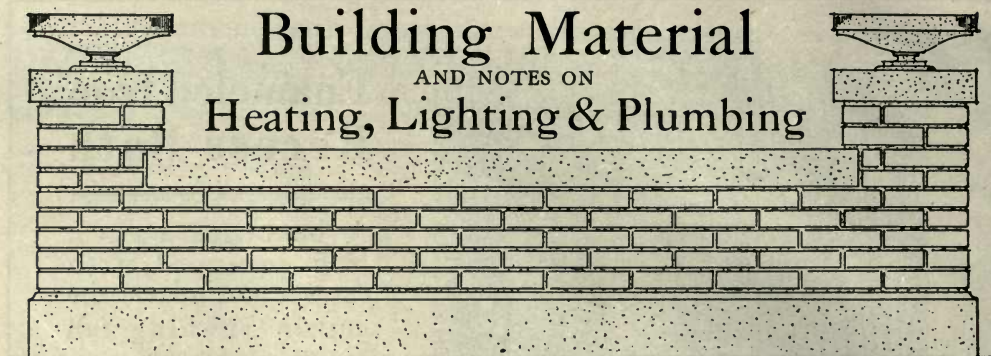
Easily installed and works perfectly with any kind of heating plant, burning coal or gas.

Your heating contractor or hardware dealer handles the "Minneapolis."

**MINNEAPOLIS
HEAT REGULATOR CO.**

WM. R. SWEATT, Pres.
2725 Fourth Ave. So., Minneapolis, Minn.





The Formation of Clinkers and How to Avoid Them.

THE most common cause for clinkers forming in the fire bed of the furnace, causing so much trouble, is due to the improper use of the slice bar, according to a heating journal. This applies not only to all bituminous coals, but to anthracite as well.

"Stirring the fire with the slice bar, so that the green coal works down on the grate, will start clinkers; and clinkers formed in this manner contain unburned coal which cannot be recovered."

"Care should be taken in filling the fire-box to see that fuel is evenly spread over the entire grate. Firing unevenly has a tendency to start a clinker."

"Shaking the grates too hard which allows green coal to work down through the fire, is just as bad practice as using the slice bar improperly."

"The use of the slice bar should be confined to working the stratum of ash (which collects on the grate) through the grate spaces. The slice bar may also be used for cracking the fuel bed from the bottom only to admit additional air, care being taken not to disturb the different strata of fuel, as explained in preceding paragraphs."

"Ash from coal containing a high percentage of sulphur, lime, and iron is easily fused and is very liable to clinker. Serious clinking depends largely on the quantity and character of these fluxing properties and the temperature of the fuel bed. High ash coals are not therefore entirely responsible for clinker formations."

"As a rule, clinker formation can be

prevented to a large extent by proper firing and regulating methods."

"In checking a boiler by abruptly closing off the air supply under the grate and opening the cold air check—also closing the damper in the smoke hood—reduces the draft tension over the fire to such an extent that the fusing of the ash (the impurities, such as sulphur, lime, and ash, acting as a flux) is bound to occur. This applies to anthracite as well as bituminous coal."

"This demonstrates the importance of running a boiler at an even rate of combustion, as by so doing the trouble experienced with clinkers may be materially reduced."

"When it is necessary to force your fire, care should be taken not to check the boiler too abruptly, when checking is necessary."

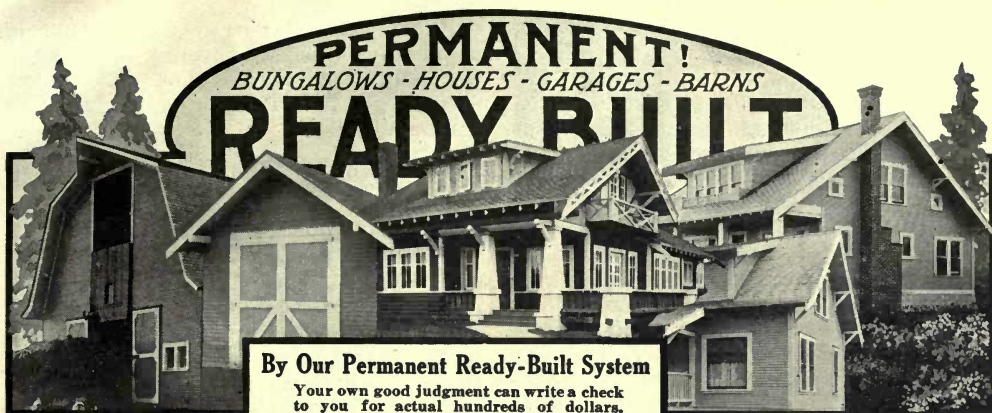
Type of Heating Plant and Fuel Efficiency.

In determining the type of heating plant which shall be installed in the new home the two factors of cost and efficiency are of prime importance. Of these the first cost is only a part and must be augmented by the upkeep and repairs, while the fuel efficiency and the length of life of the plant are quite as important a part and must be included in figuring the cost of the heating plant. The efficiency concerns itself with the amount of fuel required and the amount of comfort attained and also the elimination of annoyance and unnecessary trouble in obtaining it.

The types of heating plant in general use, the hot air furnace, steam, and hot water, with a growing use of vacuum and vapor apparatus may be ranked in about the order named in first cost of installa-

PERMANENT!
BUNGALOWS - HOUSES - GARAGES - BARNs

READY BUILT



By Our Permanent Ready-Built System
Your own good judgment can write a check to you for actual hundreds of dollars.

DON'T waste even one dollar on your new home! Write us and let us show you why we save you 40%. Remember we cut in big quantities, by machinery; no waste material, no waste labor, no waste freight. In erecting there is big saving in labor to you. Two men have erected our \$1,500.00 house ready for plaster in ten days! We ship you all material, all cut, fitted, each piece, all numbered like plans. Your building is made easy and simple. Plans sent complete to detail—skeleton framing plans and everything; anybody can understand them.

**WE ARE RIGHT IN THE HEART OF THE BIG FIR LUMBER INDUSTRY
OF THE PACIFIC NORTHWEST—FROM FOREST DIRECT TO YOU**

PERMANENT: Our ready-built structures are distinctly permanent structures. Your bungalow, house, garage, or barn, will be substantial, *permanent*, in every sense.

BARNs: We are specializing all types of Barns, including Dairy, Horse, Combination and Implement Barns and Silos, designed for future extension. You can erect with your own men. *Great saving in cost and labor to you.*

SEND FOR FREE PLAN AND PRICE CATALOG

Contains plans with photographic pictures of structures *we have actually built*, and low cost of which, therefore, we can prove to you. We will be glad to send catalog, but would request, to show your good faith, that you send approximate size of bungalow, house, garage or barn, etc., that you desire.

All our work is guaranteed. Correspondence invited.

NORTH PACIFIC CONSTRUCTION COMPANY, Pacific Building, CENTRALIA, WASH.



Hess Welded Steel Pipeless Furnace.
One large register supplies heat and draws off cold air from the floor.

Advertisement of the

HESS STEEL FURNACE

The HESS furnace NEVER LEAKS—for every seam is riveted and welded. It is EVERLASTINGLY TIGHT.

Two styles,—PIPELESS, with one hot—and—cold register, or REGULAR, with separate registers and pipes.

BURNS ANY FUEL; hard or soft coal, coke, wood, slack, screenings or lignite, and delivers every unit of heat. You can use the cheapest fuel in your neighborhood and get best results;—worth considering when fuel prices soar.

EVAPORATES PLENTY OF WATER, to properly moisten the atmosphere. Other furnaces, hot water and steam, fail in this.

Is sold DIRECT FROM FACTORY TO YOU; factory profit only—and more for your money than you get from dealers.

FULLY GUARANTEED, and sold on trial. No risk to you—you must be satisfied before we are paid.

Send us a sketch of your house and we will submit plan showing how to heat it and estimate of cost.

Special rates to Contractors.

HESS WARMING & VENTILATING CO., 1217 Tacoma Building, Chicago, Ill.

tion, with an inverse order in the amount of fuel required, according to Alfred G. King in his book of questions and answers on heating. He says that "Approximately a building requiring twelve tons of coal to warm it with hot air (with cold air supply) can be warmed by direct steam with nine tons of coal, by hot water with eight tons, and by vacuum or vapor apparatus with eight or slightly less than eight tons of coal."

The fuel companies have compiled a somewhat different ratio from figures gathered from their customers and the actual amount of coal used in the different types of heating plants. They find that with a house which requires twelve tons of coal to heat with hot air (the air may be recirculated) eleven and a half tons will be required for steam and ten and a half for hot water. The efficiency of any heating plant and especially hot air depends so largely on the construction of the house, how well built and well insulated it may be, as well as on the installation of the plant itself and the directness of the hot air pipes to the rooms to be heated, that it is difficult to get a definite basis for such a set of figures.

The first authority quoted also says: "The average life of a furnace is from ten to twelve years, with approximately twenty-five per cent of its first cost expended for repairs. The average life of a steam boiler and system is from twenty to twenty-five years with perhaps ten or twelve per cent of its first cost expended for repairs. The average life of a hot water job is twenty-five or thirty years with a possible expenditure of ten per cent of its first cost for repairs. The percentage likely to be expended for repairs may seem a little misleading because they have not the same basis but each is based on the first cost of the heating plant.

Not only must the home builder consider carefully the system of heating which is best suited to his needs, but the type of furnace itself may make a difference in his fuel bills in the grade of fuel used, the amount of attention necessary, etc. A complete combustion of the gases means using all, or at least a greater percentage of the fuel than is the case when these gases escape unburned or are thrown off as smoke. When selecting a furnace see where and how the smoke flue connects with the fire box. The gases

distilled from the fresh coal should in some way be passed through or over the fire before reaching the flue. It is necessary to get sufficient air at the point of combustion.

Smoke—What and Why?

Though it has not yet fired the popular imagination one of the most important questions of the time, to the homebuilder as well as to the efficiency expert, relates to the efficient return in heat, or power, of the fuel which goes into the heating plant. Smoke and soot are two of the forms in which the product of fuel is dissipated or obstructed when it should have been turned into heat, placed where it is needed.

We quote from articles in *The Heating and Ventilating Magazine* by Charles L. Collette and Frederick T. Oakes, C. E., on the development of smoke and the combustion of coals.

"It is an established fact that in the burning of coal, and especially soft coal, there is a gas thrown off which is not generally burned, known as carbonic oxide. The reason this is not consumed is that the oxygen in the air is used up before the surface of the fire is reached. Therefore the essentials for burning coal without smoke are the amount of air taken in both under and above the grate, as well as the size of openings between the grate bars, and the space for combustion above the fire."

"The early engineers had no difficulty in learning the cause of smoke and it was agreed that it was due to imperfect combustion of the gases which make up the bigger proportion of the heating value of soft coals."

"The natural consequence of adding fresh fuel to the top of the fire is to produce the following result: The heat of the fire under the fresh fuel caused the gases in the fresh fuel to distill. This distillation of gases occurred in a chamber which is not hot enough to ignite these gases. Upon striking the comparatively cool surfaces of the boiler they are condensed into smoke and pass up the stack unburned.

"It was very early learned that the elimination of smoke could only be accomplished by the complete burning of all of the gases which meant the elimination of waste and lower coal bills."

BAYONNE

Without a Rival

The best ordinary canvas, even if filled and painted in the most perfect manner, cannot reach the water, weather and wear resisting qualities of

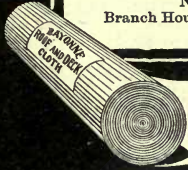
BAYONNE

And the flimsiest canvas will now cost you as much, if not more—with paint at \$2.50 a gallon.

Bayonne is laid on the dry boards—requires no filling and only a light finishing coat.

Write for Sample Book "C" giving prices and laying instructions. See Sweet's, page 426.

JOHN BOYLE & CO., Inc.
112-114 Duane Street—70-72 Reade Street
New York City
Branch House—202-204 Market Street
St. Louis



RED GUM

"THE LOVELIEST CABINET WOOD
IN ALL THE WORLD."

NATIVE TO AMERICA. PLENTIFUL.
BEAUTIFUL. WORKABLE. TRY IT.

RED GUM

KNO-BURN

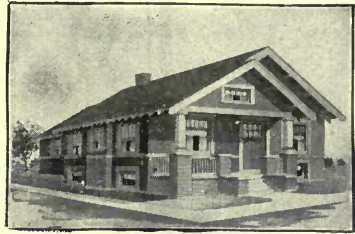
(Trade Mark Registered)

EXPANDED METAL LATH

"Puts the Stick in Stucco!"

North Western Expanded Metal Company

982 Old Colony Building, CHICAGO, ILLINOIS



\$784

Buys all material except masonry to build this five room house. Plans free. Other houses in plan book.

Going to Build Remodel or Repair?

Send
for

These Free Books and Save Money

GET our big catalog and plan book. Our catalog quotes money-saving prices on everything needed in building material—lumber, flooring, doors, windows, interior trimmings, porch work, screens, hardware, plumbing and heating equipment, water supply outfits, etc.

Our plan book shows skillfully planned designs for all kinds of homes that can be built at low cost. Every contractor, carpenter and home builder should have these books. Get lowest prices on material—be able to make better contracts—show your customers good home building designs—let our architects develop plans from your rough sketches.

Write for Books Today

They are filled with helpful suggestions on home building and home furnishing. How to paint, make alterations and repairs, etc., at lowest cost. Send postal or coupon for free books today.

CHICAGO MILLWORK SUPPLY CO.
America's Greatest Sash and Door House
1421 W. 37th Street
CHICAGO

Send Your
Lumber
and
Millwork
Bill for Free
Itemized
Estimate
Price

COUPON

Chicago Millwork Supply Co., 1421 W. 37th St., Chicago
Gentlemen: Please send your FREE Books.

Name _____

Town _____

State _____

Occupation _____

Street

or R. F. D. _____



WOODS

AND

HOW TO USE THEM




EDITOR'S NOTE.—When the building idea takes possession of you—and the building idea is dormant or active in every person; when you feel the need of unbiased information, place your problems before KEITH's staff of wood experts.

This department is created for the benefit of KEITH's readers and will be conducted in their interest. The information given will be the best that the country affords.

The purpose of this department is to give information, either specific or general, on the subject of wood, hoping to bring about the exercise of greater intelligence in the use of forest products and greater profit and satisfaction to the users.

Lumber Experts and European Conditions.

 HE utter devastation of certain parts of Europe, as reported by those looking toward its upbuilding after the war has ceased, is almost beyond belief, according to the reports submitted.

The United States government, in co-operation with American lumber manufacturers are sending abroad a corps of experts to study European conditions and the part United States must take in the rebuilding. Present conditions have been briefly summarized from earlier reports in the following way:

"In Belgium the forests have been entirely destroyed and the nation so wrecked physically and financially that it will have to be entirely rebuilt, and this rebuilding will have to be financed by the major powers.

"Northern France must be rebuilt, enormous distances of railroad lines laid, with a consequent demand, almost beyond estimate in quantity, for railroad ties and sleepers, and lumber will be required to entirely rebuild the farm buildings, villages and cities. This need will be definite, regardless of the outcome of the war.

"England has been denuded of its forests as well as those of Scotland and the supply of lumber already exhausted. Imported lumber will be needed for the future building until new forests grow to

take the place of the timber cut to use for war purposes.

"In Italy the timber supply is gone, used in war operations.

"In Spain the forests have been cut and the lumber sold to the warring nations.

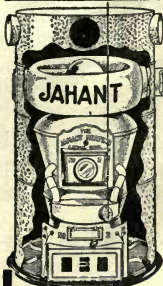
"In Germany no estimate of conditions has been made, but the need may be only less than that of the other nations in proportion to the extent to which the German government has foreseen the future and prepared to meet the emergency by the holding of great tracts as public forests.

"Russia has great supplies of standing timber, Baltic pine chiefly, but during the war at least this is not available; and even after peace is declared, the report states this timber, owing to its quality, is not suited to the demand."

To meet this situation it was decided to send a commission of experts abroad consisting of five trade commissioners who should be especially chosen for this investigation; men especially qualified to secure and report detailed information about the requirements of European lumber consumers, and the methods and capacity of European lumber producers.

In order to get men qualified for this investigation, examinations were held covering forestry or timber production; manufacture of forest products and marketing of forest products. A thesis on investigation methods was required, and a knowledge of one of the following lan-

Save \$20 to \$50 on COAL BILL



You pay for a Jahant whether you buy it or not. Your excessive coal bills will soon pay for it. \$20 to \$50 (according to size of house) can be saved every winter on fuel bills by installing a New Scientific Down-Draft Jahant Furnace. Uses every heat unit in coal. Lasts a life time. Never out of repair. Changes atmosphere in home often. Supplies pure, warm, healthful heat, steadily and continuously. Heats every room evenly. Excellent for children, old people, invalids. A comfort to the whole family.

JAHANT EASY TO HANDLE

The New Scientific Down-Draft Jahant Furnace is easy to care for. Needs attention but twice daily in severest weather. Holds fire 48 hours in moderate weather. Burns coal to fine ash, no clinkers. Burns oxygen from outside air—Saves coal. Drafts are simple, easy to control. Heats up quickly in the morning. Does not discharge heavy smoke and soot when properly operated.

We Pay the Freight

We pay the freight anywhere in U.S. or Canada. When you buy of us there are no extras. Our price includes entire equipment, freight paid to your railroad depot.

Burns Air, Saves Coal

The New Jahant Scientific Down-Draft construction burns the oxygen from the outside air and saves 1-3 to 1-2 the coal.

Sold on Monthly Payment

We will trust you if you desire. Buy a Jahant Furnace now. A payment down and you can pay the rest in easy monthly payments—pay as you Jahant saves on your Coal Bills. A Jahant will pay for itself in a few months.

Install Jahant Yourself

Our Heating and Ventilating Engineers fit one of the eight Jahants to your home. You get everything needed. Every part cut to fit. Complete simple instructions for setting up. Any man who can read can set up a Jahant in a short time. Our Engineers' advice FREE.

FREE We give absolutely free a complete set of tools for erecting your Jahant Furnace. Get book "What Users Say" and literature, absolutely free. Heat your home better, easier at a lower cost. Begin saving, act quickly. NOW.

THE JAHANT HEATING CO., 92 Jahant Bldg., Akron, Ohio, U.S.A.

Money Back Guaranty Bond

We give a 360 day legal Guaranty Bond with every Jahant furnace installed according to plans. If at the end of 360 days it is not satisfactory it can be returned and the money will be refunded. You judge a Jahant from actual experience.

Before You Build



It will pay you to send for **STILLWELL'S BUNGALOW BOOKS**

—containing photos, plans, descriptions and costs of 132.

Stillwell Homes reproduced from original California designs—combining beauty, individuality, comfort and economy.

"Representative California Homes" **ALL 3 BOOKS FOR \$1**

50 ideal homes, \$2,000 to \$6,000—Price 50c

"West Coast Bungalows" **FOR \$1**

51 inexpensive homes, \$1,000 to \$2,000—Price 50c

"Little Bungalows" **FOR \$1**

31 perfect little homes, \$300 to \$1,700—Price 25c (Postpaid)

We Sell Books and Blue Prints on a Money-Back Guarantee

E. W. STILLWELL & CO., Architects
459 Henne Bldg., Los Angeles

Caldwell Sash Balances

Uniform Mortises

For use in all classes of new work

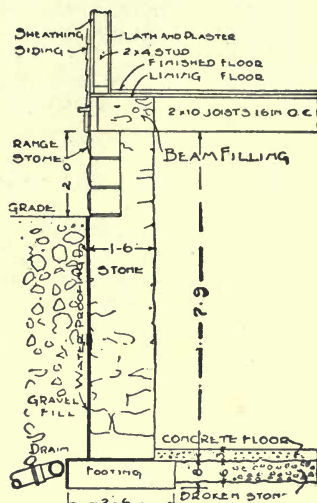
Box frames unnecessary. Mortises cut at mill reduce cost of installing. Counterbalance sashes at any given point. They outwear ordinary weights and cords. Unaffected by atmospheric conditions. Cheapest method for modernizing old windows, as alterations in sashes and frames are not necessary. Sashes should be weighed before ordering.

Write for circular
Caldwell Mfg. Co.
6 Jones St., Rochester, N. Y.

Patent Pending

BUILDING the HOUSE

A Handbook Every Home-Builder Should Have



(Fig. 6)

SECTION THROUGH BASEMENT WALL

A great many homes are built without an architect's supervision. When this is the case, go out on the job with a copy of this book in your pocket, and you will not only be able to recognize faulty work, but you can give intelligent instructions to the workmen and show them how to do it right.

See that your home is built right. Look after the construction yourself, and with this book to guide you, faulty work will be detected and you can accomplish more and better results.

Revised Edition
Price, \$1.00; postage, 4c.

Published by

M. L. KEITH

McKnight Bldg.

Minneapolis, Minn.

guages: French, German, Italian, Dano-Norwegian, Swedish, Spanish or Russian, with the ability to speak and write good English as an essential.

The entire expenses of one commissioner are to be paid by the government, while the cost of the others, including the services of a Russian interpreter will be borne by the National Lumber Manufacturers Associations. All are appointed by the Department of Commerce, and the department are making every effort to get men with wide practical experience in the lumber industry.

Reports from Washington state that at least one hundred and thirty men took these examinations. The men receiving the appointments are expected to confer with manufacturers throughout the country to ascertain precisely what information the latter consider to be of the greatest value to them. This work is expected to be well under way before the end of the year. After these preliminary conferences, the commissioners start at once for Europe.

"One will make a study of the lumber requirements of the United Kingdom, Holland and France. One will cover the market of southern Europe and northern Africa, including Spain, Italy, Greece, Algiers and Egypt. Another will be required for the Central Empires, covering the markets of Germany and Belgium and perhaps Turkey, and the production of southern Germany and Austria. The fourth commissioner will go to Norway and Sweden to make an estimate of the lumber producing power of those countries, and the fifth is scheduled to cover Russia, Siberia and Roumania, where is situated, supposedly, the world's great timber supply of the future.

Later reports from Washington state that while two or three experts, men exceptionally well fitted for the work to be carried out by the expert Trade Commission passed the first examinations, yet the board charged with the selection of its members, deciding that it was not possible to fill satisfactorily all positions, appointed a second examination. Many claimed, it was said, that they were not given time enough to take the first examination.

Probably competent investigators were never selected for any work of the kind with any more care than these.

The Paper Mills to Use Waste Tan Bark.

With the present tension in the paper industry any substitute for the expensive rag stock is eagerly sought. When that substitute is discovered in a "waste product" from the lumber mills the discovery is doubly valuable.

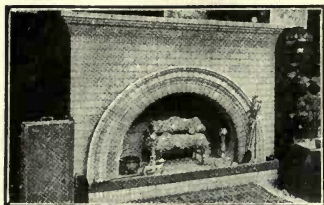
It is estimated that there is enough waste from the sawmills of the South alone to produce twenty thousand tons of paper a day.

A method for using waste hemlock tanbark to partially replace expensive rag stock in the manufacture of felt roofing has been developed at the Forest Products Laboratory and is now being used commercially by co-operating mills, according to an announcement made by the Forest Service. It is stated that, in these mills, from 20 to 30 per cent of the rags are being replaced by waste bark and that the quality of the finished product is equal to that manufactured solely from rags. Members of the Forest Service who have been conducting the experiments say that the utilization of the bark will make it possible to effect a considerable saving in the manufacture of felt roofing.

According to the census of 1909, over 698,000 tons of hemlock bark were produced each year in the United States. After the tannin is extracted this bark is used for fuel purposes, for which it is said to have a value of 60 cents per ton.

In addition to the use of the bark for roofing, papers made at the Forest Products Laboratory, on the basis of 80 per cent of waste tanbark, have been successfully printed on a commercial twelve-roll wall-paper printing machine, and give promise of being entirely satisfactory. Other paper of the same make-up has been made into fiber conduits by a commercial manufacturer.

Other possible uses of waste bark which suggest themselves, say the Forest Service paper experts, are the use of bark mixed with ground wood for the production of wall board, or with sulphite screenings in the manufacture of car liners. Studies already made at the Forest Products Laboratory indicate that it may be possible to use waste hemlock and oak tanbark in making sheathing paper, carpet liners, bottle wrappers, deadening felt, and the like.



Colonial Fireplaces ARE RIGHT

Made to Order
from

\$2000 Up

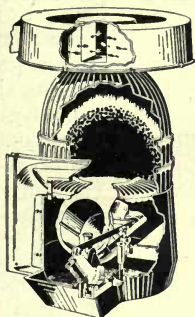
Tell Us What Your Wishes Are—Have Your Fireplace Right

Colonial Fireplaces are *economical* both in labor saved when installed and in consumption of fuel. Our booklet "The Home and the Fireplace" contains a mine of information. Send for it today.

COLONIAL FIREPLACE CO.

4612 West 12th Street

CHICAGO



"From Overfed to UNDERFEED"

Over 35,000 furnace and boiler users have changed from the old-fashioned top feed—always "overfed"—to the Williamson **NEW-FEED UNDERFEED**. Fuel saving of one-half to two-thirds **GUARANTEED**.

GET FREE BOOK NOW

A postal brings illustrated book to any home owner, architect or contractor. Write that card today—learn how you can guarantee your customers big fuel savings by recommending the **UNDERFEED**.

THE WILLIAMSON HEATER CO.
56 Fifth Avenue, Cincinnati, Ohio



Get FREE Finished Samples and Big Door and Trim Book

They show you how you can produce the most beautiful effects and finishes in hardwood trim, doors and floors in "beautiful birch." No wood finer though many cost more—birch furniture is standard. Ask your dealer. Send postal card **TODAY**.

**NORTHERN HEMLOCK & HARDWOOD
MANUFACTURERS ASSOCIATION**

203 F. R. A. Building

Oshkosh, Wisconsin

The Accepted Authority on Bungalows for Eight Years.
DON'T BUILD until you see this new bungalow book,

"Homes, Not Houses"

California Bungalows



With all the built-in conveniences which we have devised to make housekeeping and homemaking a pleasure.

123 pages, 249 illustrations showing artistic bungalows inside and out. Bungalow building for any climate. Cost of each house and plan given. \$1.00 post paid. Sample pages free. Smaller book showing 38 small Bungalow Homes, etc. It costs no more to get the **BEST**. Plans made to your own order.

The Bungalowcraft Co., 507-K, Chamber of Commerce, Los Angeles, Cal.

For Simplest and Grandest Homes



EDWARDS

Metal Spanish Tile Roofing

Its scores of vital, practical advantages cost no more than common roofing, yet mean tremendous economy—it needs no repairs and outlasts several ordinary roofs because of its practically indestructible metal construction.

It is absolutely wind, weather, storm, fire and lightning proof.

Easy to apply. No soldering, no special tools—any ordinary mechanic can apply it. Interlocking system by which tiles dovetail into each other makes the roof absolutely water tight and provides for expansion and contraction perfectly—summer and winter. It is guaranteed non-breakable.

HOME-BUILDERS—Simply send us today the dimensions of your building and we will tell you by return mail exact cost of all material. Our new book on beautifying the modern American home by use of **Metal Spanish Tile** is yours for the asking. A postal will bring it.



Own Your Own Garage

All Sizes—All Prices

An Edwards **METAL** Garage means year 'round protection and economy. Easily put up anywhere by anybody. No more "joy" rides. No more heavy garage rental bills. Car always handy and *safe*! Fire-proof and thief-proof. All styles, sizes and prices. Ask for handsome illustrated book which pictures and describes the very Edwards Garage for you.
Write today—right NOW!

\$6950
and up

The Edwards Manufacturing Co.

*The World's Largest Makers of Metal
Ceilings, Metal Shingles, Metal Roof-
ing, Siding, Rolling Doors, etc.*

521-541 Culvert St.,

Cincinnati, Ohio

SPLINTERS AND SHAVINGS

Does Your Chimney Smoke?



F black smoke pours out of your chimney you are wasting your good coal as well as violating the smoke ordinance. Since a man in the fire room of a factory or apartment building cannot always tell, without going outside to look, whether the chimney is smoking or not, a writer in *Power* suggests placing a mirror outside the building and setting it at such an angle that the men, looking out of the window, can see the reflection of the top of the stack in the mirror. In some cases, where one mirror cannot be properly located, two might be used for the purpose.

Beware of the Porter's Brush!

The housewife who prides herself on sweeping the carpet every morning and the barber shop porter who dusts one's coat after every shave are both criminally liable for the occurrence of epidemics of infectious disease, according to Dr. W. H. Wightman, professor of surgery at the Creighton Medical college and former instructor of bacteriology at the University of Chicago.

Dust.

If you live in Chicago and would avoid arrest: Don't shake a rug from window or porch; don't sweep dirt from house or shop into the street; don't throw things away in the street.

Chief of Police Healey, yielding to the requests of the civic co-operation committee of the Industrial club, has issued an order directing that the ordinances for municipal cleanliness be enforced strictly. If necessary he was to make arrests.

Vacuum Cleaner to Feed Bees.

A clever scheme, that appears to have originated in Scotland, is to gather pollen from the flowers with a vacuum cleaner for use as food for bees. The heather on wide stretches of moors provides ample supplies, and it is said that in some places

the young bees have been mostly reared on this pollen.

Industrial Commission in France.

The American Industrial Commission is engaged in making a survey of the devastated section of France, to determine what America can do towards the rehabilitation of her sister republic. Noble Foster Hoggson, president of the New York building firm, who is in Europe as a member of the commission, is making a particular study of the question of industrial housing, town planning, the need for factories and other commercial structures, not only as to their planning and construction, but also as to their equipment.

Small Pieces of Furniture.

The little things count for a great deal in the comfort and elegance of a room. I wish the people who buy meaningless pedestals of onyx and brass, or elaborate jardinières, vases, or bric-a-brac, would spend the money on footstools, or nests of tables. A footstool is almost essential to the comfort of a short woman. The very prettiest ones are Jacobean, with tops of brown cane, frames and twisted legs of warm brown oak, but there are any number of ways of making satisfactory footstools at home.

A nest of four tables, in oak or mahogany, are both useful and good looking. Sometimes you can pick up a set of lacquered ones, which used to be called tea-poops, but they are apt to be rather tippy. Another convenient thing is a round coffee table to be used in the library, its top about eighteen inches from the floor.

Planting Trees with a Machine.

A machine which plants from 10 to 15 thousand forest tree seedlings a day is now being used at the Letchworth Park Forest and Arboretum, in Wyoming county, N. Y., according to officials of the Forest Service who are acting as advisers in the work. Previously the planting has been done by hand at the rate of 1,200 to 1,500 trees each day per man.



Architects—Shiner & Appel, New Haven, Conn. Owner—Wm. A. Thiel. Contractors—Lund & Lohne. 24-in. Shingles on side walls stained with "Dixie White" harmonize with moss green roof and green blinds. A better effect than wide clap-boards.

Many Prominent Architects

are making good use of 24-inch "CREO-DIPT" Stained Shingles with heavy butts for side-wall work. Save repair and repainting expense; give unusual beauty.

"CREO-DIPT" STAINED SHINGLES

17 Grades

16, 18, 24-inch

30 Colors

Preserved in creosote and stained any color desired by our special process. Selected cedar shingles—no wedge-shapes, no waste. Such shingle quality and such even stains save expense, time, worry. They cost less than staining on the job. The open market does not afford such shingles.

Write for our Book of "CREO-DIPT" Homes and Sample Color Pad. Name of Architect and Lumber Dealer appreciated.

STANDARD STAINED SHINGLE CO., 1022 Oliver St., N. Tonawanda, N. Y.
Factory in Chicago for West

HESS MEDICINE LOCKER



The Recessed Steel Medicine Cabinet

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks nor swells. Dust and vermin proof. Easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

HESS, 917-L Tacoma Building, Chicago
Makers of Steel Furnaces Booklet Free



Box 102

KEES Metal Building CORNERS

Used with lap siding, give a mitred effect without the slow, expensive work of beveling. Make stronger, neater, more durable corners—cost less than corner boards. Fit perfectly—hold paint like wood.

Send for free samples, also samples of Kees-Gossett storm sash and window screen hangers.

F.D. KEES MFG. CO. BEATRICE, NEB.

IXL ROCK MAPLE, BIRCH AND BEECH FLOORING



"The Finest Milled Flooring in the World"

One important feature is the **wedge shaped tongue and groove** which enters easily, drives up snug and insures a **perfect face** at all times without after smoothing, an advantage that is not obtained by any other manufacture.

Our method of air-seasoning and kiln drying has stood the test for thirty years.

Address

Wisconsin Lumber Co.
Hermansville, Mich.



Hartmann-Sanders Co.

MAIN OFFICE AND FACTORY:
ELSTON AND WEBSTER AVES.
CHICAGO, ILLINOIS

EASTERN OFFICE:
6 EAST 39TH STREET, NEW YORK

Catalogue "G-29" showing a series of new designs in

"Pergolas"

Lattice Fences
Garden Houses
and Arbors

When writing inclose 10c in stamps and ask for Catalogue "G-29."

Catalogue—"G-40"—containing very useful information about Exterior and Interior Columns, will be sent to those who want it for 10c in stamps.

For All Kinds of Houses

from bungalows and camps to suburban residences and country mansions, the deep, rich colors of

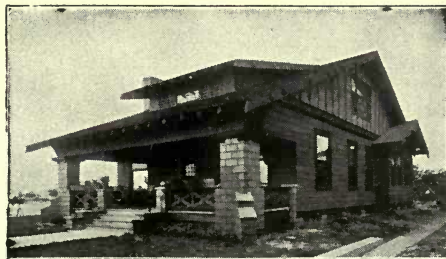
Cabot's Creosote Stains

are most beautiful and appropriate for the shingles, siding or timbers. The colors are clear and transparent and bring out the beauty of the grain of the wood instead of covering it as paint does. They cost only half as much as paint, can be put on twice as fast, the colors are lasting, and the Creosote "is the best wood preservative known."

You can get Cabot's Stains all over the country. Send for stained wood samples and name of nearest agent.

SAMUEL CABOT, Inc., Manufacturing Chemists
Boston, Mass.

Cabot's Stucco Stains—for Cement Houses.



Bonfoey & Elliott, Architects, Tampa, Fla.
Stained with Cabot's Creosote Stains.

The machine was designed to set out cabbage and tomato plants, but works equally well with trees. It is about the size of an ordinary mowing machine and is operated by three men and two horses. One man drives the team while the other two handle the seedlings. The machine makes a furrow in which the trees are set at any desired distance, and an automatic device indicates where they should be dropped. Two metal-tired wheels push and roll the dirt firmly down around the roots. This is a very desirable feature, it is said, because the trees are apt to die if this is not well done. Two attachments make it possible to place water and fertilizer at the roots of each seedling. Another attachment marks the line on which the next row of trees is to be planted.

No cost figures are available yet, but officials say that the cost will be much less than when the planting is done by hand. It is stated that the machine can be used on any land which has been cleared and is not too rough to plow and harrow.

Don't Mix Sawdust and Cement.

There has been discussion of the use of sawdust in mixing concrete. Professor M. F. Costello, head of the department of agricultural engineering of the Iowa state college, does not advise its use.

Where a floor less firm than concrete is desired, paving blocks of some form of asphalt construction or some other flooring may be used. The wearing qualities of any concrete work would depend upon the hardness of the materials mixed with the cement. For this reason quartz sand is always considered the most desirable.

Parcel Post Convention With China.

Parcel post rates between this country and China, under the convention recently concluded by the two countries to take effect August 1, 1916, have been announced by the United States Post Office Department.

Parcel post packages exchanged between these countries must not weigh more than 11 pounds or measure more than 3 feet 6 inches in length, and 6 feet in length and girth combined, and, in the case of parcels for or from non-steam-served places in China, must not exceed

25 cubic decimeters (1 cubic foot) in volume.

Postage on parcels sent from the United States to China is at the rate of 12 cents per pound or fraction of a pound; and from China to the United States at the rate of 35 cents (Chinese currency) per pound or fraction of a pound, except that, on parcels for or from non-steam-served places in China, an additional Chinese domestic parcel postage may be levied and collected by the Chinese service. Parcel post packages for China may be registered.

Modernism.

I remember, I remember,

The house where I was born;
The little window where the sun
Came peeping in at morn.

You'd hardly know the old place now,
For dad is up-to-date,
And the farm is scientific
From the back lot to the gate.

The house and barn are lighted
With bright acetylene,
The engine in the laundry
Is run by gasoline.

We have silos, we have autos,
We have dynamos and things;
A telephone for gossip,
And a phonograph that sings.

The little window where the sun
Come peeping in at morn
Now brightens up a bathroom
That cost a car of corn.
Our milkmaid is pneumatic;
And she's sanitary, too;
But dad gets fifteen cents a quart
For milk that once brought two.

—Exchange.

Gasoline by Rittan Process.

About two years ago announcement was made of the process of producing gasoline worked out by Dr. Walter F. Rittman of the bureau of mines. Since that time the process has become a commercial success, and a company has been formed to exploit the process, chiefly in foreign countries. An estimate is given showing the cost of making gasoline by this process by the bureau of mines. The estimated cost of a five-tube plant is \$20,000. The net monthly capacity is 5,000 barrels. Yield of gasoline 850 bar-



MAXIMUM QUALITY AT
A PRICE YOU CAN
AFFORD TO PAY.

Your Home

Is Built for
Ease and Comfort

What Comfort Is to Your Home, So Your Stationery Is to Your Business

You want to impress those who deal with you that you are a dignified and responsible concern, and it is therefore immensely important that your stationery carries the necessary qualifications to impress your customers, and to whoever you write, that you are that kind of a concern.

The selection of **CHARACTER BOND** is a step in the right direction. Snappy and impressive, it will materially add to the attention value of your letterhead and stamp you upon the minds of those with whom you correspond as progressive and worthy of attention.

Permit us to convince you of the correctness of our claims for **CHARACTER BOND** by sending you samples. Then make it a point to see that your next order for letter sheets carries specifications to print on **CHARACTER BOND**.

McClellan Paper Company

Sole Distributors of **CHARACTER BOND**

MINNEAPOLIS, MINN.



"Bungalows" or "Attractive Homes"

Send for a copy of one of our new plan books, either "**Bungalows**", containing 100 designs of moderate priced bungalows or "**Attractive Homes**" containing 100 designs of story-and-a-half and two-story houses.

Our designs are up-to-the-minute in detail and arrangement and incorporate the new features in home building such as, sleeping porches, sun rooms, built-in conveniences, etc. **Either Book \$1. Postpaid-Both for \$1.50**

LINDSTROM & ALMARS, Architects

291 Plymouth Building

Minneapolis, Minn.



HUDSON STRIP ASPHALT SHINGLES

SAVE TIME
AND MONEY

Can be laid in half the time and with two-thirds of the nails necessary to lay other shingles.

Send for particulars.

ASPHALT READY ROOFING CO., Dept. 79, 9 Church Street, NEW YORK



Decorative Service

WHERE detailed plans for HOUSE DECORATION are desired with samples and prices of wall paper, fabrics, window drapes, etc., the moderate fee of \$1.00 per room or \$5.00 for the entire house will be charged to defray the expense of our decorator's time in working up the plan, securing and mailing samples. Address

Keith's Decorative Service, McKnight Bldg., Minneapolis, Minn.



SEDGWICK'S "BEST HOUSE PLANS"

NOW READY—NINTH EDITION—JUST OFF THE PRESS

Up-to-Date 100 Selected Designs Bungalows, Cottages and Homes, Price.....\$1.00
Eighth Edition, 200 Selected Designs Cottages and Houses, Price..... 1.00
50 Design Book "Bungalows and Cottages," Price..... .50
One Large and One Small Book, Together \$1.25, Three Books..... 2.00

Many pretty one-story Bungalows and Cottages, Church Portfolio 50c. If you want the BEST RESULTS, consult a man of experience and reputation for GOOD WORK. If you want a small ECONOMICAL HOME, don't fail to send for these books.

CHAS. S. SEDGWICK, 1135-K Lumber Exchange, MINNEAPOLIS, MINNESOTA

"You Build for a Life-

KEITH'S BIG OFFER

A Year's Subscription to "KEITH'S" with a Copy

Your Choice

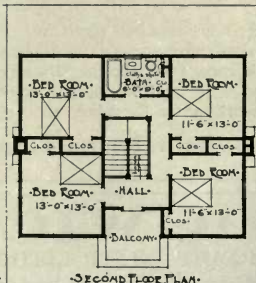
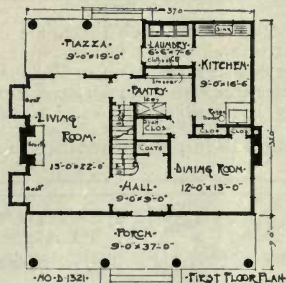
FOR
\$2.

Vol. 1.	130 Bungalows (New Edition)	\$1.00
" 2.	104 Houses costing \$2000 to \$3000	1.00
" 3.	125 " " 3000 to 4000	1.00
" 4.	175 " " 4000 to 5000	1.00
" 5.	175 " " 5000 to 6000	1.00
" 6.	126 " " 6000 and up	1.00



Design D 1321 from "Keith's"

This modernized Dutch-Colonial design is a very compact, practical plan with every desirable feature of arrangement. Cost complete, about \$4200.00. Width, 37 feet; depth, 32 feet.



What You Get

From 250 to 300
DESIGNS

By Leading Architects

From 75 to 100
Practical Articles
on timely subjects of
Home-Building

**Decorative Schemes for
Your New Home**

**Many Interior Views of
Up-to-Date Moderate
Cost Homes**

M. L. KEITH,
Editor and Proprietor

When remitting by check, add bank exchange.

Time---Do It RIGHT!"

To The Home-builder!

of the *BIG April Bungalow Number* EXTRA and
of Any Book

Vol. 7.	100 Houses, Brick and Cement	\$1.00
" 8.	50 Garages (\$150 to \$1000)	1.00
" 9.	Interiors Beautiful, 200 Views (Revised)	1.00
" 10.	"Building the House" A Pocket Handbook on Construction	1.00
" 11.	38 Duplex Houses and Flats	.50
" 12.	100 Artistic Homes (3000 and up)	.50

FOR
\$2.

for Two Dollars

Twelve Big House Building Numbers of KEITH'S Magazine, including a copy of our recent 100-page

Special Bungalow Number

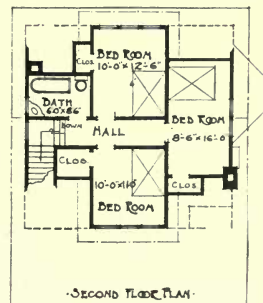
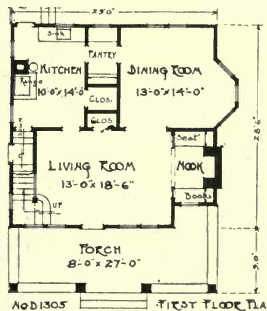
containing 25 plans of attractive bungalows and authoritative articles on bungalow building.

The service of our architectural and designing departments in answering questions on construction, design, interior planning, beautifying the grounds or any subject pertaining to the interests of home-building.



Design D 1305 from "Keith's"

Almost a two-story house, yet the low roofing and wide cornice give a soft bungalow effect. Wall heights of the second story room are five feet where they meet the rafters. Full basement. Width, 29 feet; depth, 28 feet, 6 inches. Cost complete, about \$2,500.



828 McKnight Bldg.
Minneapolis, Minn.



THE NATIONAL BUILDER

Fred T. Hodgson, Editor

A Complete Building Journal

It Provides:

Full Building Plans every month, up-to-date cottages, bungalows, houses, apartments, etc., plans 36x24 inches—quarter-inch scale with photos of exteriors and interiors.

Complete Estimates and Bills of Materials—covering every part of the work; a great help in figuring—you can use the prices of material in your town.

Construction Details—Of the utmost practical value.

Consulting Service—Free to subscribers, reliable information on any and every building subject desired.

Every kind of building is covered by *The National Builder*—concrete, tile, brick, frame; and it is full of expert information concerning every type of modern construction. A complete building encyclopedia

24 Big Numbers with Full Building Plans for \$3.00

(The regular price is \$2.00 per year—
\$1.00 for 6 months)

(Sample copies 20 cents)

Use the Coupon—Save \$1.00

PORTER-HODGSON CO., Publishers
1308 Ellsworth Bldg., Chicago, Illinois

Enclosed find for which send

The National Builder for years.

Name

City State

rels. With fuel oil at 50 cents per barrel gasoline will cost 7.8 cents per gallon; with fuel oil at \$1, gasoline will cost 9.47 cents; with fuel oil at \$2.10, gasoline will cost 13.9 cents. These figures are estimates based on a five-day test.—*Metallurgical Engineering.*

All-America.

"The development of that true spirit of continental solidarity with the peoples of Central and South America for which we are striving would be set forward immeasurably if we would give more attention to their language and literature. The teaching of Spanish should be made compulsory in our public schools.

"Upon them rests the task of developing in the youth of the country a broader understanding of the forces that have shaped American history, a keener appreciation of the significance of the development of free institutions on the American continent and a deeper sympathy with the aspirations of sister nations, who like ourselves, are endeavoring to translate into realities the ideals of American democracy.

"The history of the Spanish-American struggle for independence is the most inspiring record. The obstacles that the North American colonies had to overcome were no so formidable as those which confronted the revolted Spanish colonies. The story of this struggle, if properly presented and interpreted, would make the youth of our country appreciate the similarity of their ideals and our own."

—From an address by Wm. G. McAdoo.



City Water Convenience in Your Country Home

Enjoy all the conveniences of finest modern homes—hot and cold water anywhere, anytime. Sanitary sewage disposal, electric light, with a

KEWANEE SYSTEM

Simple, dependable, easy to install. Thousands in satisfactory use. Let us refer you to KEWANEE users near you. Write for Bulletin free, telling about KEWANEE Special Features.

KEWANEE PRIVATE UTILITIES CO.
226 Franklin Street
Kewanee, Ill.



NA
7100
K4
v.35-36

Keith's magazine on home
building

**PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET**

UNIVERSITY OF TORONTO LIBRARY
