



Formerly AMERICAN CARPENTER AND BUILDER

Member of the Audit Bureau of Circulations—Circulation Audited and Verified April, 1923

American Builder

Entered as second-class matter July 1, 1906, at the post office at Chicago, Ill., under the Act of Congress of March 3, 1879.

Published on the first day of each month by

AMERICAN CARPENTER AND BUILDER COMPANY

WM. A. RADFORD, *President, Treasurer and Editor-in-Chief.*
 E. L. HATFIELD, *Vice-President and General Manager.*
 BERNARD L. JOHNSON, *Editor.*
 ROLAND D. RADFORD, *Secretary.*

DELBERT W. SMITH L. H. REICH..... } *Advertising*
 C. R. W. EDGEMBE E. B. WOLFROM..... } *Staff*

Publication Offices:

Radford Building, 1827 Prairie Ave., Chicago

TELEPHONE: CALUMET 4770

EASTERN OFFICE: 261 BROADWAY, NEW YORK CITY

SUBSCRIPTION RATES

One year, \$2.00; six months, \$1.00; single copies, 35 cents. Extra postage to Canada, 50 cents; to foreign countries, \$1.00.

PROTECTION FOR OUR READERS

The publishers of the AMERICAN BUILDER reserve the right to decline any advertising they believe is detrimental to the interest of its readers; to edit advertising copy and to change or eliminate any statements that reflect injuriously or cast discredit upon other building products, machinery, equipment, supplies or tools.

Be sure in writing to advertisers to say: "I saw your advertisement in the AMERICAN BUILDER."

ADVERTISING RATES

Furnished on application. Advertising forms close on the 15th of the month preceding date of publication.

VOL. 35

June, 1923

No. 3

Table of Contents

	Page		Page
Around the Family Table.....	85	Carefully Planned, Characterful Home.....	117
No Check in Building, Say We.....	85	What Do You Know About Fibre Wall-board?.....	118
"Better Homes" Week, June 4th to 10th.....	85	Revising Building Codes.....	122
Friendly Chats with the Editor.....	89	Curved Extension Increases Crane Efficiency.....	124
A Runaway Market?.....	89	Apartment Buildings Produce Profit.....	125
"You Can Do It Better with Gas".....	89	Modern Two-Apartment Building.....	125
Re-Routing Human Effort.....	89	Staining Interior Woodwork.....	126
Bookcases and the Better Home.....	89	Quaint House of Clinker Brick.....	130
Washington's "Better Home" Enthusiasts.....	90	What's New?.....	132
The "Better Homes" Home in Our National Capital.....	91	Grate Baskets for the Fireplace.....	132
Cement Brick Industry Grows.....	92	New System of Reinforced Concrete Construction.....	132
A Structural and Finish Wood—Beautiful Southern Pine.....	96	Saving Steps in the Kitchen.....	132
Home Planning Talks.....	100	A New Colored Concrete Hardener.....	134
"A Good Set of Plans Means a House Built Along Our Client's Idea, That Is Convenient, That Fits in with General Standard of the Neighborhood, and Has Good Re-Sale Value".....	100	Strong and Sturdy Two and One-Half Horse-Power Gasoline Engine.....	134
Blue Ribbon Homes.....	101	Portable Spray Painting Equipment.....	134
A Straight-Line Symphony.....	101	Workmen Like This Carrier.....	136
Curtains Mean Home.....	102	The Day of the Iron Scaffold Bracket.....	136
The Popular English Cottage Type.....	104	Metal Weatherstripping the New House.....	136
Home in Southwestern Style.....	105	Rubbish Burner of Concrete.....	138
Well-Designed Larger House.....	106	Brings Out a Half-Bag Tilting Mixer.....	138
Columns That Give Permanent Structural Beauty.....	107	Perfection in Mortising.....	138
A Town or Country Home.....	108	The Day of the Clothes Dryer.....	140
A Stately Mansion.....	109	Brightening Up of Terrazzo and Hardwood Floors Is Now Part of Annual Spring Cleaning.....	140
Stained Shingles for Siding.....	110	The Carpenter's Daily Helper.....	140
An Elastic Wall Primer Is Good Paint Base.....	111	How Every House May Enjoy Soft Water.....	142
An Attractive English-Style Residence.....	113	Keeping Garage Doors Under Control.....	142
The Bungalowette.....	114	Handy Portable Power from the "Ford".....	142
The Bungalowette Rent Cure.....	114	Oil in Home Heating.....	144
Some Sleeping-Porch Ideas.....	115	Lays Easily, Interlocks, Finds Own Level, Does This Concrete Block.....	144
Fine, Substantial Residence.....	116	New Method of Sizing Concrete or Plaster to Be Painted.....	146
		News of the Field.....	148
		April Construction Increased 7 Per Cent Over March.....	148
		Kilmoth Cedar Lining for Clothes Closets in Strong Demand, Says General Manager Krieger.....	148
		Mahogany Association Elects Officers.....	150
		Southern Pine Association Book, "Modern Homes," Used in Part for European Distribution.....	150
		Will Invoice Universal Cement by Sack Hereafter.....	150
		Grading Committee of Southern Pine Association Makes Important Recommendations.....	150
		Winners in Hospital Contest Announced.....	152
		Signs of the Times.....	152
		South Philadelphia Opens Plastering School.....	152
		Idaho in Vanguard on Forest Protection.....	152
		White Magic.....	155
		The Electrical Department of the American Builder.....	155
		A Dutch Colonial Electrical Home.....	155
		Electrify All Buildings.....	156
		Our Home Electrical No. 3.....	156
		Locating the Switches.....	158
		Our Home Electrical No. 3 Design in Two Colors.....	159
		Convenience Outlets and Portable Luminaires.....	160
		Illumination and Production.....	162
		Well Lighted Display Pays Big.....	164
		Every Woman's Message to Architects.....	166
		Colonial Bungalow of Six Rooms, Design in Two Colors.....	167
		Selecting the Proper Lighting Unit.....	170
		Books, Booklets and Catalogues Received.....	176

AN INVITATION TO YOU

The AMERICAN BUILDER cordially invites and urges you to enjoy the privileges and benefits of its Correspondence Department. Any phase of any building question may be profitably and instructively discussed in this department. If your problem is a knotty or technical one submit it to the Correspondence Department and secure the benefits of the opinions of other experienced builders. It's a "give" as well as a "take" department and you are asked to relate your achievements and tell how you have conquered difficulties as well as to ask for information and advice. Rough drawings are desired, for they make clear involved points. We will gladly work over the rough drawings to meet publication requirements. The Correspondence Department is your department. Use it freely and frequently.

**Why Architects,
Contractors and
Dealers
Recommend**

**Andersen
FRAMES**

1. Immediate delivery—no expensive delays waiting for special custom made frames.
2. 121 sizes ready for every purpose.
3. Delivered in two compact bundles plainly marked and easily handled.
4. 7 parts instead of 57. No small parts to be lost or broken.
5. A frame up in ten minutes. No sorting, measuring or refitting. Pockets and pulleys in place.
6. Accuracy gives smooth-running windows, yet excludes all weather.
7. Modern machinery, methods and specialization lowers cost at factory; quickness of assembly saves you time, labor and money on the job.
8. Better results in frame brick or stucco buildings.
9. White Pine preserves original accuracy and gives continuous service.
10. Made by the largest exclusive standard frame manufacturer. The trade-mark is absolute protection.



**Andersen Frames Ready
in 121 Sizes and Styles**

IT'S a big advantage to get window frames whenever you want them.

Any Andersen dealer can deliver immediately 121 different sizes of Andersen Window Frames. He need only carry 11 standard sizes to do it; by interchanging heights and widths of these stock sizes he can furnish frames for any purpose.

The saving of time in obtaining Andersen Frames is carried through every operation of their use. Carpenters needn't sort out many small and troublesome parts. Using only a hammer they can nail up the 7 units into a complete frame in 10 minutes. Once in place, White Pine keeps Andersen Frames from warping, shrinking, cracking or rotting.

Booklet Sent Without Charge

Let us send you complete information about Andersen Frame advantages. Please tell whether you are building your own home, or whether you are interested as an Architect, Contractor, Carpenter or Dealer.

Andersen Lumber Company

Dept. A-6

Bayport, Minnesota

(Formerly South Stillwater)

**Andersen
FRAMES**

FRIENDLY CHATS *with the* EDITOR



A Runaway Market?

SITTING in the grandstand we fail to develop any pessimism of current reports of conditions in the building material market. We are told from one quarter that prices are too high; from another, that we can never hope building material producers to keep step with the demand. Labor, too, we are asked to view with alarm, is extremely grasping.

Current conditions are a natural result of everyone's desire to build. The Government, by desisting from building proposed structures, has been an ameliorating influence; the recent decision of many corporations to forego the erection of structures of the larger type has been another.

We would like to see building labor, generally, meet the situation with good judgment instead of a mercenary viewpoint. It is mounted on a fast horse, which it may easily find beyond control. Again, building interests—contractors and dealers—should not double or treble their orders beyond the amount actually needed. They should not duplicate their orders.

The railroads are making Herculean endeavors to care for the unusual situation. With all working considerably together we can have a well-controlled market—which has advantages over a runaway one.



"You Can Do It Better with Gas"

FRESH from our regular Monday morning's tussle with the ash basket—two bushelsful, and dumped into a regular ashpile of an alley—we find ourselves greatly interested in what the Gas Age-Record tells of our friends in the gas industry doing in the way of domestic heating. Denver particularly comes to mind in this connection. We see where sixty-nine more or less experimental house-heating installations were made in that city, and all were successful, so much so that the present aim is to start in with five hundred additional houses next fall.

We can see a great future for gas as a displacer of coal in the heating of homes, but we feel that our friends in the gas industry will have to provide a monthly rate whose total cost will not exceed the householder's present expense for fuel coal. Offhand, thinking again of those ash baskets, we would be will-

ing to admit an extra expense; not too much, but enough to make ourselves feel that, having a clean winter and spring alley, any slight extra expense was worth it.



Re-Routing Human Effort

FROM blue flannel collar to white collar has been the traditional general conception of advancement in the world of work.

But a shortage of skilled hands to do necessary tasks has caused a New York institution to search out white collar men there and set them to learning various manual trades.

If this shift in transplanting men goes far enough, it will inevitably result in fresh emphasis being placed on the dignity of those who toil with their hands.

On the false notion that greater "respectability" would meritedly be attained by his taking a white collar "position" for which he is unfitted, one may arbitrarily pass up opportunity to go with the flannel shirt gang where his aptitude could win for him wealth and justified pride in achievement.

The ground floor, in the dirt and smoke, is the best place in the world to gain a working knowledge of men and material operations.

Possibly the next few years will produce many men who can describe their successful career thus: 'From white collar to flannel collar to fur collar.'—Pennsylvania Railway News.



Bookcases and the Better Home

UNQUESTIONABLY the future of books lies with the home owner, as distinct from the renter. Books, unfortunately, are household impedimenta which the once-a-year-moving tenant decides to do without. But the house which does not accumulate books never attains the true proportions of a home. As we said of Books and Bookcases in our March number of AMERICAN BUILDER, and as The House Beautiful states in its May number, the problem of their most suitable arrangement will repay study in order to render them acceptable adjuncts of any room in which they are to be used and fitted into.



Breaking Ground for the "Better Homes" Week Demonstration Home, Sheridan Monument Plaza, Washington, D. C. Left to right in the foreground: Secretary Herbert Hoover of the Department of Commerce; Donn Barber, Architect of the Demonstration House; Miss Lida Hatford, Chairman Washington "Better Homes" Committee. The little lady with the big smile and the legal looking document is Mrs. William Brown Melony, Editor of the Delineator, sponsor of the "Better Homes" Movement. At the extreme right, Col. Clarence O. Sherill, President Harding's Personal Aide.

Cement Brick Industry Grows

By ROBERT F. SALADE

WITH the tremendous increase in building construction throughout America came a necessity for more rapid methods of brick-making. It was not so much a question of low prices as it was the need of abundant supplies of material. In many instances the builders had exceedingly large orders, calling for the use of millions of brick, but the available supply of brick was low, and in numerous cases a sufficient quantity of this most useful product could not be had for important construction work. Today, this problem has been solved to a great extent by the advent of cement brick.

During the last decade remarkable improvements have been made in automatic cement brick-making machinery, and the methods of manufacture have also been greatly improved. At the present time there are many new cement brick-making plants in various parts of the United States working to full capacity. As a matter of fact, the majority of these plants have more orders for cement brick

than can be filled for many months to come. The use of cement brick is increasing so rapidly that additional brick-making plants are being installed in many different sections of the country to provide for the builders' needs. This new American industry proved successful from the start, and the future for it looms brilliant, indeed.

What is said to have been one of the first cement

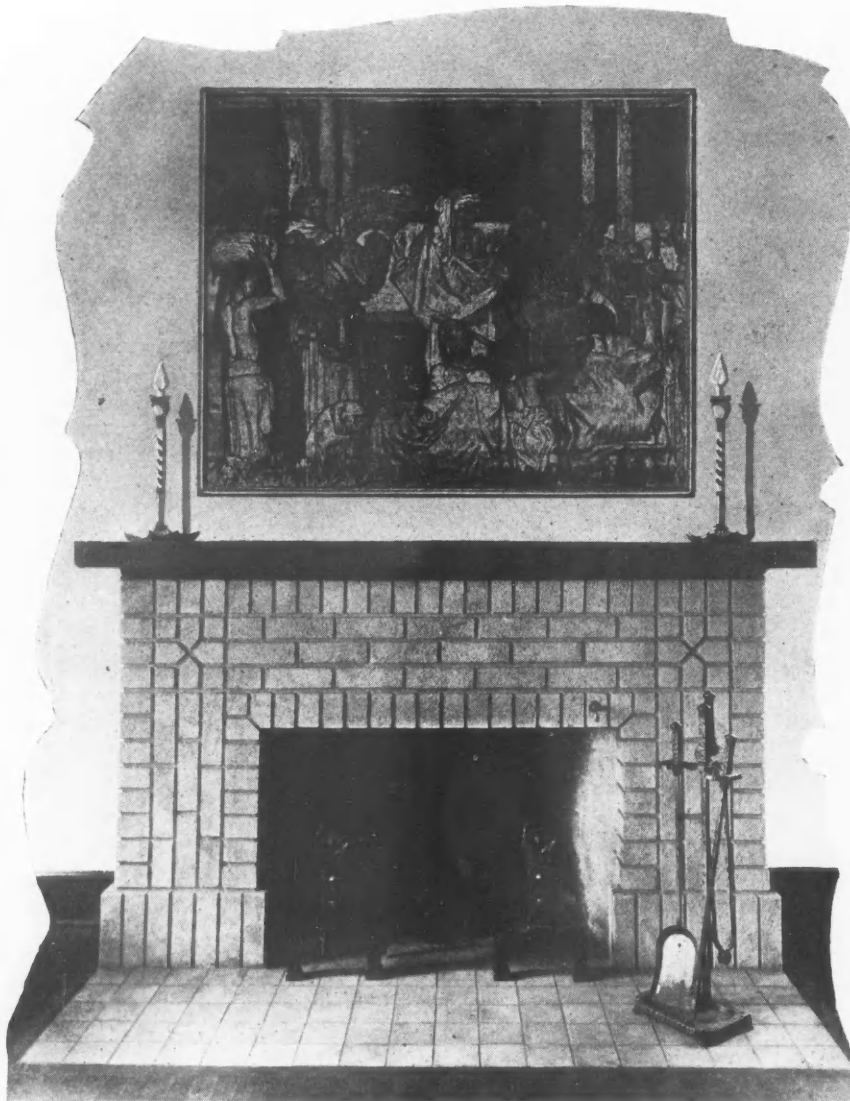
brick-making plants in the world was that which was founded in Philadelphia by Stedman Bent about 10 years ago. Mr. Bent and his associates began experimental work with a cement brick-making machine invented by a well-known mid-western man. This work was continued for more than two years in a small plant erected on the banks of the Schuylkill River. Millions of cement bricks were subsequently produced, some of

good grades and others of doubtful quality. In time the good bricks were disposed of to several prominent Philadelphia builders. A large quantity of these bricks were used in the construction of a row of two-story houses in the year 1918, and others of poorer grade were utilized in the walls of a number of power houses, including a power house for the Philadelphia General Hospital.

Later on, as Mr. Bent's experimental work developed more efficient methods of manufacture, he decided to move his plant to Brooklyn, N. Y., where it is now turning out concrete brick of excellent quality under the name

of the Brooklyn-Crozite Brick Corporation.

At this writing there are nine cement brick-making plants in the City of Philadelphia, all together producing a total of more than 200,000 cement bricks every day. One of these plants, which only recently was equipped, is making an average of 50,000 cement bricks per day. It is expected that within the next few months several additional plants will be installed, and



The Beauty and Utility of Cement Face Brick Commends It for Ornamental Fireplaces, Chimneys, Porches, Garden Walls and So Forth, Aside from Its Use in All Types of Buildings.

that in the near future more than 350,000 cement bricks will be made daily in Philadelphia. All of the manufacturers referred to are over-sold for the present year.

Philadelphia has always been noted as a "red clay brick city," and down to this date only a comparatively small number of face cement bricks have been used in building construction in this city, but the time is doubtless coming when face cement brick will be utilized here on a large scale. In Philadelphia, however, millions of the common grades of cement brick are now being used in conjunction with common clay brick, in the construction of "party-walls" for houses, walls for garages, etc. In truth, there has been a scarcity of the common grades of clay brick, and the new supplies of common cement brick came along just in time to help out the builders in an emergency.

One of the great advantages of common cement brick is in the fact that very large quantities of such material can be manufactured in a short space of time, and each brick will be of approximately the same standard size, weight and strength. This means that the builders may be assured of a plentiful supply of cement bricks, ready for use a few days after they have been removed from the steam curing rooms. The modern cement brick-making plant requires only a comparatively small amount of space, and the plant can be operated both day and night to the same advantage. The majority of such plants are now running day and night in the effort to keep up to the demand for their product.

It should be understood that in the suburban districts of Philadelphia many homes and other buildings have been constructed of concrete blocks, while others have been built with face concrete brick. The same may be said of many other sections throughout the United

States. The common grades of cement brick are not used as face brick, of course, but they are used in conjunction with clay brick for many different purposes. For example, a large theatre in Pennsylvania is constructed on a "fifty-fifty" basis of clay brick and common cement brick. Other examples of this character could be mentioned.

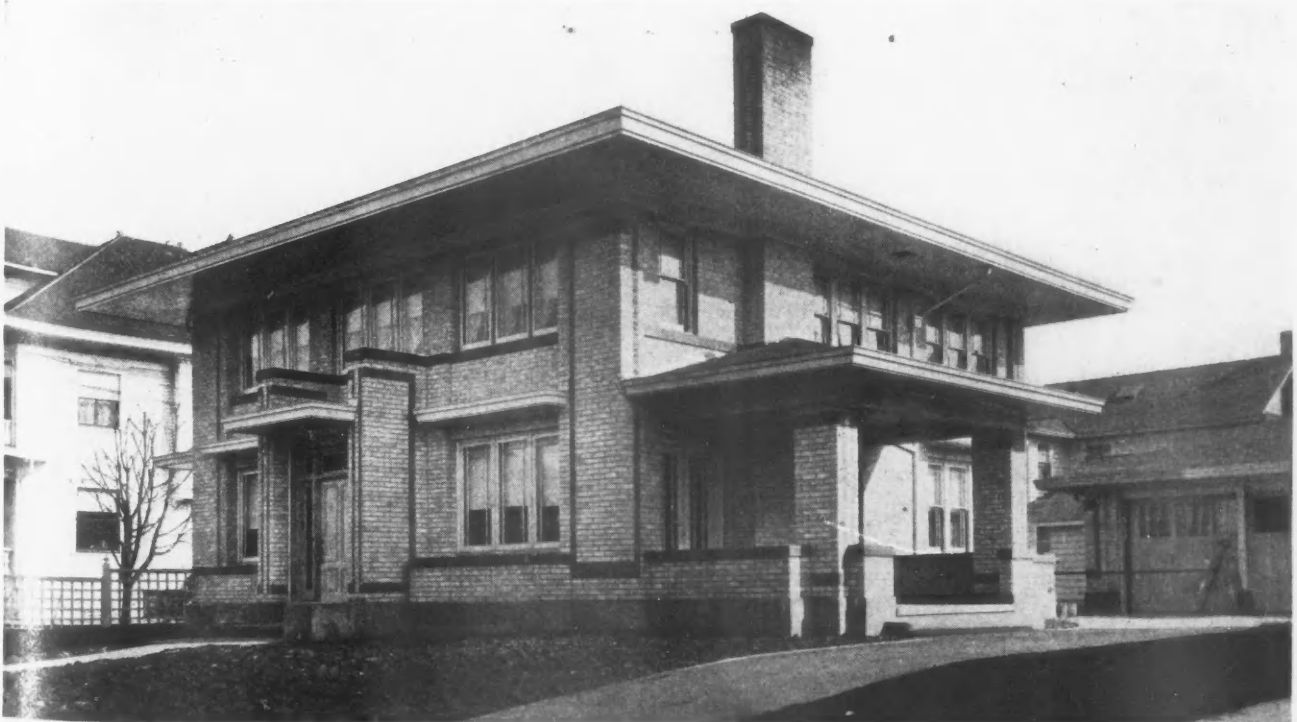
The newest cement brick-making plant in Philadelphia is equipped with one mammoth "Besser" machine which is capable of molding 100 cement bricks per minute. When working at its full capacity this machine will mold 50,000 common cement bricks in a day's time. A rough description of the complete plant is offered as follows:

How Common Cement Bricks Are Made

Note—The common cement brick is made of various materials, such as portland cement, crushed cinders and sand; portland cement, crushed stone and sand; or portland cement, crushed slag and sand. The water must be free from oils, acids, strong alkalies or vegetable matter. The general formula is one sack of portland cement to not more than $2\frac{1}{2}$ cubic feet of fine aggregate, to not more than 3 cubic feet of coarse aggregate.

The standard size of cement brick is $2\frac{1}{4}$ by 4 by 8 inches, although they are being made in other sizes to suit the particular requirements of builders.

In the yard of the new plant referred to is a spacious "pit" lined with concrete, and sunk about 8 feet below the surface of the ground. An endless chain conveyor runs from the bottom of this pit to a point inside of the plant where the big mixing device is located. The aggregates are first screened in the yard, and the properly graded materials are then dumped into the pit. The conveyor automatically carries the aggregates from the



A Beautiful New Home in Portland, Ore. Built of Cream Rough Texture Cement Brick With Old Gold Trimmings.



This Handsome New Million Dollar Hotel at Williamsport, Pa., Is Faced with "Shope" Cement Brick. W. L. Stoddard, Architect, New York City.

pit to the mixer, where the cement is added to the batch.

So efficient is this plant in every detail that there is continuous production of brick, from the moment that the machinery is put into action until the time when it is to be shut down. It is the remarkable "team-work" that makes possible the production of 50,000 bricks every day without interruption. As the aggregates are being conveyed to the mixer, which is located on a platform directly above the brick making machine, another conveyor is carrying bags of cement to the platform. Immediately as the bags of cement are received here they are opened and the cement is poured into the mixer. The "batch" is first mixed dry, and then is wet-mixed. The mixer batches are continuously being delivered to the brick-making machine.

This huge, new-style brick-making machine automatically molds and presses eight cement bricks at one operation, or up to 100 bricks per minute. The freshly-molded bricks are placed on self-racking pallets, each pallet holding eight bricks. The pallets are then stacked upon a steel car of special construction, to be taken to the steam curing room. The tracks for the

cars are so laid out that while one loaded car is being wheeled to the curing room, an empty car arrives for loading. The pallets containing the bricks are constantly being stacked up on a car. Each car will hold 50 of the pallets, or a total of 1,200 bricks. The tracks upon which the cars run extend from the brick-making machine into the curing rooms.

The five curing rooms of this plant are supplied with hot water vapor by a 35 H. P. steam boiler and a series of pipes running the full length of the curing rooms. In the middle of the floor of each curing room is a concrete trough, and this contains the hot water pipe, the trough being filled with water up to the pipe level. The process of setting, or hydration, calls for both warmth and moisture, as the too rapid evaporation of water which was used in the concrete brick when manufactured must be prevented. It is also essential to protect the concrete from sun and drying winds, as circulation of air about the brick will cause rapid evaporation of moisture from the concrete before the necessary chemical changes, or transformation of the cement, have been completed. The hot water vapor treatment in the curing room is ideal for this purpose, the temperature ranging from 100 to 120 degrees F. The wet steam does not dry out the brick but maintains the required degree of temperature, moisture and warmth.

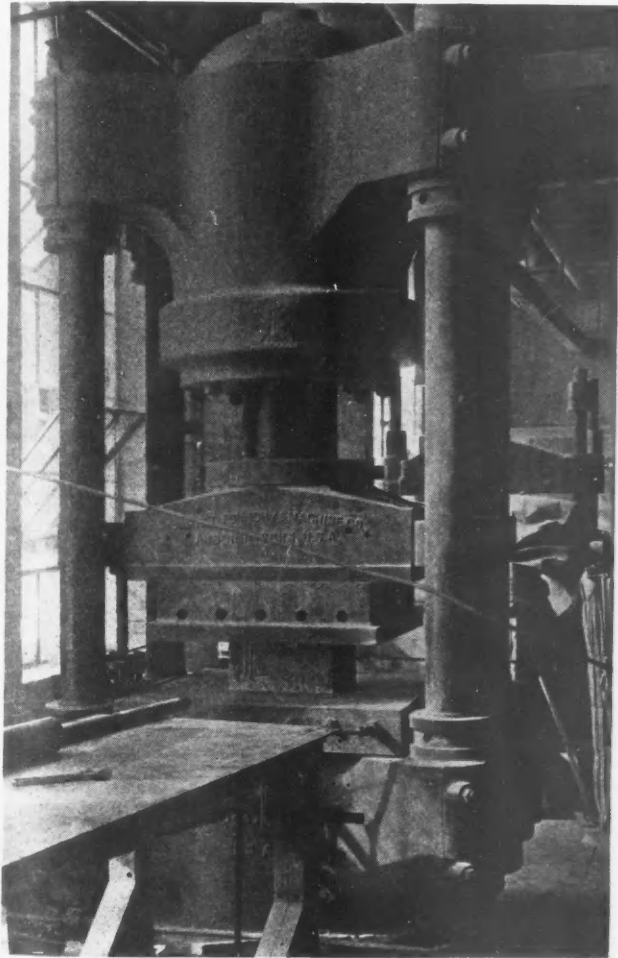
Each one of these five curing rooms is 80 feet long and 8 feet wide, and is equipped with double tracks for holding two lines of trucks. The capacity of each curing room is from 16,000 to 20,000 bricks. Ordinarily, the brick remains in the curing tunnel two or three days, according to the temperature and weather conditions. At the end of that time the bricks are removed to a storage yard or shed, where they are to remain for hardening at least two weeks before being laid up in building walls.

How Cement Face Bricks Are Made

The better grades of cement face brick are manufactured in much the same manner as the common cement brick, only the fine face brick cannot be made as rapidly as the ordinary kind. The face-brick plants are located in various parts of the United States and are producing cement bricks in more than 60 different shades and textures. One of the largest plants is operating as follows:

The aggregates used are sand and gravel, washed clean and graded in the sizes required. These sizes range from "fines" up to pea gravel. The special face brick is made of one part cement, three parts of fine and medium grade sand, and three parts of coarse

sand and pea gravel. Aggregates of these grades are delivered by motor trucks to the main floor of the plant, and the proper proportions of these aggregates are shoveled into a "batch skip" by which the material is elevated and dumped into a great power mixer. As the aggregates reach the mixer the cement is added to the batch. First, the batch is mixed dry for about one minute, then there follows wet mixing for about one minute. The quantity of water used makes what is considered a medium wet mixture. The mixing device sits upon a platform, the latter resting upon another platform of large dimensions rising 4 feet above



Cement Brick in a Testing Machine. Ordinary brick has a compressive strength (flat) of 1,500 pounds per square inch.

the main floor. The mixer batches are delivered over the lower platform to "Shope" brick-making machines which are set upon the main floor around the main lower platform.

Each one of these brick-making machines has a capacity of 3,500 common cement brick and 1,000 to 2,000 face brick in a period of eight hours. By this method of manufacturing cement brick a patented self-racking metal covered pallet is employed which holds 10 bricks. Pallets of this design are stacked up one above another, on a patented pneumatic-tired rack truck, and the bricks are then carried to the curing room.

This plant is equipped with four curing rooms which

are supplied with steam by a 75 H. P. boiler through a main pipe, steam for each room being tapped off through a smaller pipe from which it passes out into the room through the perforations in the small pipe. Each one of these curing tunnels will hold 15,000 brick in the racks. The period required for curing under this system is not less than 24 hours. The cured brick are stacked up on the outside of the enclosure, and afterwards are moved to the stock-room adjoining the shipping platform. A second pipe line conducts steam from the boiler to an enclosed radiator, the heat from which is circulated through the building by a motor-driven fan.

By the use of the Shope brick-making machine the brick are molded face up, the faces being puddled with water and cement and then agitated, resulting in a water-proof surface. At the same time the floated, stippled and wire-cut faces are produced, and coloring is added where ornamental face brick are desired.

The new-style cement face bricks are beautiful in face and color. They are also exceedingly strong, waterproof, fireproof, permanent in color, square, true in line, and of uniform size. Face bricks of this variety are now being used in 8-inch hollow-wall construction for residences, garages, service stations, etc. And the beauty and utility of concrete face brick can be readily understood when the fact is mentioned that they have been used in the construction of large office buildings, churches, high schools, factories, hotels, apartment houses, and many handsome homes. Moreover, this brick is being used in the construction of ornamental fireplaces, chimneys, porches, garden walls, and so forth.

There are now at least a dozen different firms in the United States manufacturing concrete brick-making machines and accessories, and the names of these concerns will be furnished on request to any one interested. The majority of the firms referred to are in a position to supply complete brick-making plants, and their service includes practical instruction in the manufacture of all kinds of cement brick, given by expert engineers. A complete brick-making plant may cost from \$25,000 to \$50,000 or more to install.

Demand for Brick Ever Increasing

The success of cement brick and the rapidly increasing demand for it does not mean that the manufacturers of clay brick are due to lose business. The fact is that there will always be plenty of profitable business for all manufacturers of good brick, no matter what the particular make-up of that brick may be. The demand for both the common grades of brick and the best grades of face brick is ever increasing, and it shall keep on increasing until the end of time. New uses for both clay brick and cement brick are being discovered almost every day. It is to say that the entire brick manufacturing industry will be rushed with all the business that it can handle for the next 10 years. At the present time there is a great demand for the common grades of both clay and cement brick.

A Structural and Finish Wood— Beautiful Southern Pine

By ALBERT R. ISRAEL

EDITOR'S NOTE: *This is the third of a series of articles on important finish and structural woods, now appearing in American Builder.*

IN the Southern States from Virginia to Texas are found the Southern yellow pines, from which so large a proportion of the structural and finishing wood used in this country is produced.

Throughout the extensive area—Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Oklahoma and Texas—in which southern pine grows and is manufactured, the principal methods of logging in vogue are wagon and team—mules or oxen—in the smaller operations, and steam skidders and loaders and other mechanical devices in the larger operations.

Excepting in the small individual operations the familiar spurs and logging railroads are employed to convey the logs from the woods to the mills,

but occasionally a tract of timber is located sufficiently accessible to a stream to permit of floating the logs to the sawmills.

Sawmills in which Southern Pine is made into lumber and timbers, in the great majority of instances, are of particularly high standard with respect to equipment, methods of manufacture, management and facilities. They employ the most modern machinery and all the larger plants have planing mills, dry kilns and such other up-to-date facilities for handling and treat-

ing lumber that can be found in any lumber producing section of the world.

The term "Southern Pine" today includes the species of yellow pine hitherto known as Longleaf, Shortleaf, Loblolly and Cuban pines. Two classes of timber are designated under this heading, viz.: dense Southern

Pine and sound Southern Pine, it being understood that these two terms are descriptive of quality rather than of botanical species. Based on this "density rule," a new classification for structural Southern Pine timbers has been established, which eliminates the names "Longleaf," "Shortleaf," "Loblolly," etc.

Dense Southern Pine includes, for structural purposes, the best pieces of what hitherto has been known as "Longleaf," and excludes the occasional pieces of inferior quality. It also includes those pieces of Shortleaf, Loblolly and Cuban pines, which, because of their

density and high percentage of summer wood, are equal in strength to Longleaf, as has been shown from numerous tests by Federal and other reliable agencies and authorities.

Dense Southern Pine, in brief, shall show on one end or the other an average of at least six annual rings per inch, and at least one-third summer wood, or else the greater number of the rings shall show at least one-third summer wood, all as measured over the third, fourth and fifth inches of a radial line from the



Because of Its Many Different Adaptabilities Southern Pine Is Commonly Termed the "All-Purpose Wood" and "The Wood of a Thousand Uses."

with. Wide-ringed material excluded by this rule will be acceptable provided that the amount of summer wood as above measured shall be at least one-half.

Sound Southern Pine includes pieces of Southern Pine without any ring or summer wood requirement.

Because of the many different purposes for which Southern Pine is employed it has been commonly termed the "All-Purpose Wood," and "The Wood of a Thousand Uses." In the government bulletin, "Uses of Commercial Woods of the United States," it is said of Southern Pine:

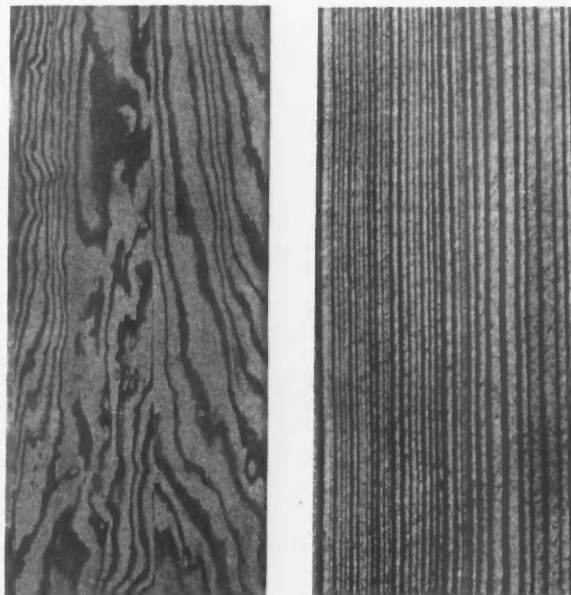
"In a large part of the country it is so universally used that there are few places of importance it does not fill."

For every kind of heavy construction—for piling, trestles, trusses, beams, sleepers, joists, columns, rafters, sills—wherever great strength and endurance are essential, Southern Pine occupies a place of first importance.

The latest available government reports, issued in 1918, showed that Southern Pine supplied 54 per cent of all lumber used in railway car construction in the United States; over 30 per cent of all lumber used in manufacture of agricultural implements; 33 per cent of all lumber required in normal times for ship and boat building; 86 per cent of wood paving materials; more than 33 per cent of woods used in machine construction—steam shovels, hoists, cranes, well-drills,

dredgers, crushers, presses—in which the wood must possess in high degree the elements of strength, toughness and durability; 36 per cent of all lumber employed in building freight and passenger elevators.

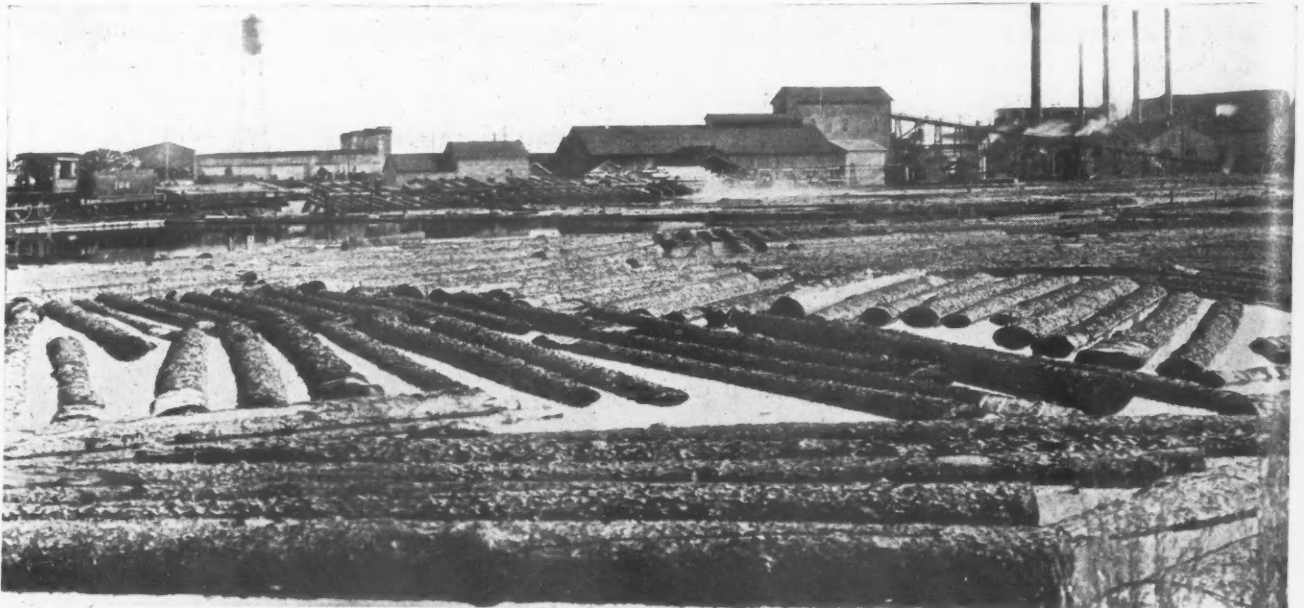
Southern Pine supplies about one-fourth of all wood



Southern Pine Has an Exceptionally, Even, Handsome Grain (See Left Illustration). "Edge Grain" (right illustration) is recognized as equal in every way to the more expensive hardwoods.



An Illustration Cannot Do Justice to the Beauty of Southern Pine as Used in the Living Room of the Residence of L. Cumbee Johnson, Esq., Birmingham, Ala., Frank Hartley Anderson, of the Same City, Having Been the Architect. The compact, velvety texture of the wood lends beauty and distinction to interiors.



Occasionally a Tract of Timber Is Located Sufficiently Accessible to a Stream to Admit of Floating the Logs to the Sawmills. Other methods bring into play steam skidders and loaders and other mechanical contrivances, and wagons drawn by mules and oxen.

used in the manufacture of boxes and crates and a large proportion of all lumber that goes into the build- of homes, farm structures, business and industrial plants in the United States.



A Factor in Southern Pine Popularity Is Its Plentiful Supply and Accessibility, to Which Careful Grading, Seasoning and Intelligent Handling Contribute.

For years Southern Pine has been regarded as the natural choice for house-framing and in later times it has come into very extensive use for interior finish and trim, its merit as a wood for finer uses now being well established. It is virtually the only wood used extensively in frame-work, siding, ceiling, flooring, sheathing, sashes, doors, rails, spindles, newel posts, cabinet work and every variety of dressed or turned exterior and interior finish.

Southern Pine for all purposes is as carefully and efficiently manufactured as any of the more expensive woods, it is easily procurable and is readily available in all standard sizes, lengths and grades in practically all the retail yards from the Rocky Mountains eastward to Canada, the Atlantic and the Gulf.

As an interior finish wood, Southern Pine is ideal because of its beautiful texture and varied grain, which make it especially suited for use in fine joinery and high varnish finish. It does not "fuzz up" or show "knife marks" in the planing process and requires less labor and expensive hand-scraping to secure smooth, satin-like surfaces. It is bright and attractive in natural color and a minimum of labor and material is required to obtain the finest effects in staining, painting and varnishing, while it holds its finish better than most woods.

Southern Pine may be given any standard wood finish, taking stains, varnish, hard oil and paint perfectly. In fact, there is absolutely no color or tone effect in perfect, permanent interior finish that cannot be obtained with the use of high grade Southern Pine properly treated.



In This Attractive Hall the Panelling and All the Staircase Woodwork Is of Southern Pine, as Is Also the Floor.

Southern Pine flooring, notwithstanding it is comparatively low in price, is not in any sense a "make-shift" or "cheap" substitute for the hardwoods commonly used in the past for high class floors. The lower cost of Southern Pine flooring as compared to other woods suited to such use, is largely due to the fact of its plentiful supply and accessibility and not to any inferiority.

Southern Pine flooring has an exceptionally handsome, even grain, a compact, velvety texture and a pleasing natural color. Darker colors may be obtained by use of stains or varnish. Because of the close, compact grain of Southern Pine it makes a smooth, easily finished floor, presenting a uniformly even surface that resists wear as effectually as any hardwood and withstanding decay longer than any other wood used for flooring.

Unlike much other material, Southern Pine flooring has comparatively few short lengths. This feature, combined with its superior workability, makes it especially easy to work and lay. Two distinct forms of Southern Pine flooring may be obtained, one known as edge-grain, and the other as flat-grain. Edge-grained, also known as comb-grained, rift-sawed and quarter-sawed, is so cut that the edge of the grain is

presented as a wearing surface. Flat-grain Southern Pine flooring, when cut from the same quality of logs, may be equally as hard as edge-grain, but is less durable. The flat-grained, however, costs less than edge-grained and is particularly suited for use in rooms that are carpeted or are not frequently subjected to moisture.

The best authorities today recognize edge-grain Southern Pine floors as the equal in every way of the more expensive hardwoods, and architects everywhere are specifying its use in many of the finest homes, apartment houses, ballrooms, assembly halls, offices, banks, hotels, railway stations, schools, theatres, libraries, churches, stores, factories, and all kinds of public buildings. The United States Navy has found edge-grain Southern Pine flooring superior to any other available material for battleship decking.



National Capital Begins "Better Homes" Campaign

(Continued from page 91.)

An essential part of this code are the specifications for types of house construction which will insure permanence and safety of construction. Only the physical aspects of the Payne home, built at Easthampton, Long Island, N. Y., in 1660, have been altered to conform with present knowledge of the science of building construction. The house is fire-resistive throughout. It was

built, in four weeks, of concrete block stuccoed.

One of the most interesting features of the construction of this national demonstration house was the co-operation extended by a majority of the associations of building materials manufacturers throughout the country and numerous individual manufacturers.

Funds to construct the home were provided by Associated Metal Lath Manufacturers, Crane Company, Copper & Brass Research Association, Yale & Towne Manufacturing Company, American Face Brick Association, Portland Cement Association, W. M. Ritter Flooring Corporation, Curtis Companies, Common Brick Industry of America, Beaver Tile Company, Kilmoth Cedar Products Company, Fairfacts Fixture Company, Atlas Portland Cement Company, Standard Textile Products Company, National Lead Company, Murphy Varnish Company, Wallpaper Manufacturers Association, Fish Brick Company, American Gas Association, Society for Electrical Development, Inc., Oak Flooring Bureau, General Electric Company, National Slate Association, Vendore Slate Company, General Fireproofing Company, Truscon Steel Company, Maple Flooring Association, Northwestern Expanded Metal Company, Gypsum Industries and Home Owners' Service Institute.

HOME PLANNING TALKS

*By Our
Head Draftsman*



“A Good Set of Plans Means a House Built Along Our Client’s Idea, That Is Convenient, That Fits in with General Standard of the Neighborhood, and Has Good Re-Sale Value.”

PROBABLY nine out of every ten who read this will be able to count upon their fingers the instances where proper selling effort has failed in persuading a client to build a home from plans instead of “out of head.” The big bulk of prospective home owners—the ones who may be grouped in the Five Thousand to Ten Thousand Dollar class—are already “sold” on the merits of having a set of plans properly drawn before the work is gone ahead with.

But now suppose we deal with the hard-fisted intending builder of a home; the man, let us say, who always insists on having something tangible to show for his money, and who—without understanding the real value of a set of plans—refuses or hesitates over the expenditure of the extra amount necessary. He need not necessarily be a “crank”—as cranks go. He may have a thoroughly understandable hesitation about spending good money for a collection of white lines on a blue ground which he cannot even use for wrapping paper after the house is completed. He sees no reason why he cannot make the proper suggestions and give the required ideas to the builder as the building progresses—let the house built itself, one might say, as it goes along. It all seems absurdly simple; the house goes up, and extra money is saved.

Money may be saved. But it is on paper, and it is usually the hard buyer who can prove that it is saved—on paper—who refuses to utilize the proof of other figures—white figures on blue print paper. Superficially our hard prospect has a fine idea, and theoretically it ought to work out. But we have only to think of a few horrible examples in our own localities, where such houses have gone up, hit or miss, to realize how illogical it all is. The logical trend in business today

is toward letting the qualified builder do his work in the way it should be done. It can be conceded that the builder knows how futile building without a proper set of plans would be.

We all are called upon, in the course of a working year, to render belated advice to this type of prospect who, hesitating over the first logical outlay for plans, has ventured into the building pool beyond his depth; who “pinches a penny and lets go of thousands.”

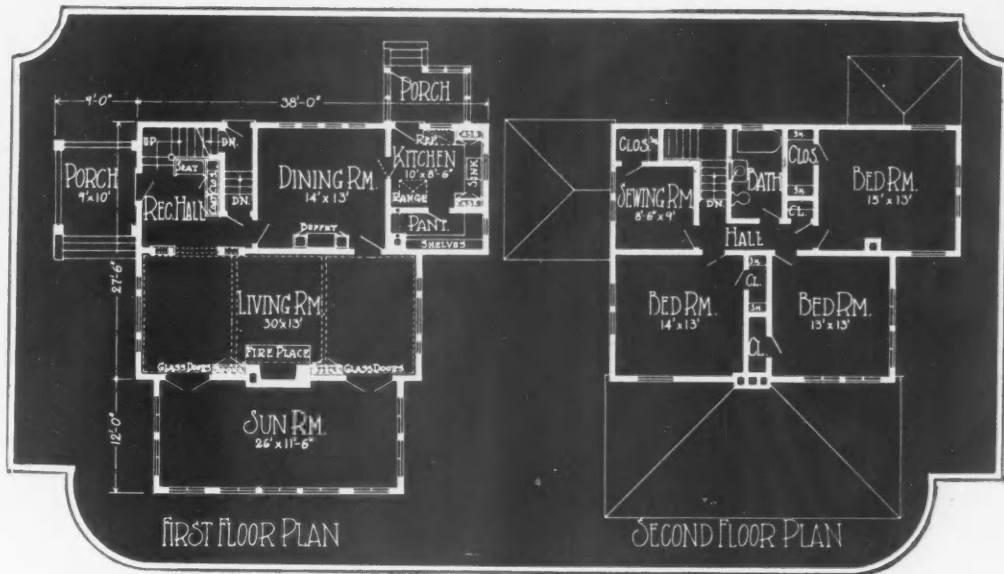
If we turn aside from the purely practical consideration of saving money, we encounter other things necessary in a well planned structure. The needs of the prospective builder’s family are important, of course. We give him what he wishes in the way of size, convenient room arrangement, etc.

Equally important is how the house is to fit in with the general standard of the neighborhood. Here is a detail of planning about which our client knows little, but on which everything depends. How will the house look alongside Mr. Jones’ Spanish mission style bungalow? And will that Dutch Colonial of Mrs. Sutherland’s to the left make our fairly well-dimensioned prospective dwelling look like the proverbial “Thirty Cents”? Or can we still keep to our simple “homey” plan, but so place the new house in relation to its site, and its garden and its future grounds—even if they are small and narrow—that we present as brave a front to the street as either of the more pretentious residences at our side? Well, plans help us to do that for our prospect, and the result is that the house so planned goes up, suffering no whit by reason of its lesser cost, and possessing a re-sale value which is going to increase, rather than decrease with time. It requires a set of plans to end a contract profitably for all concerned.

All buildings illustrated in the American Builder are real buildings that have actually been constructed and found to be practical and popular. Anyone interested in obtaining working plans and other detailed information should consult the nearest architect, builder or dealer, or write the American Builder, 1827 Prairie Ave., Chicago.

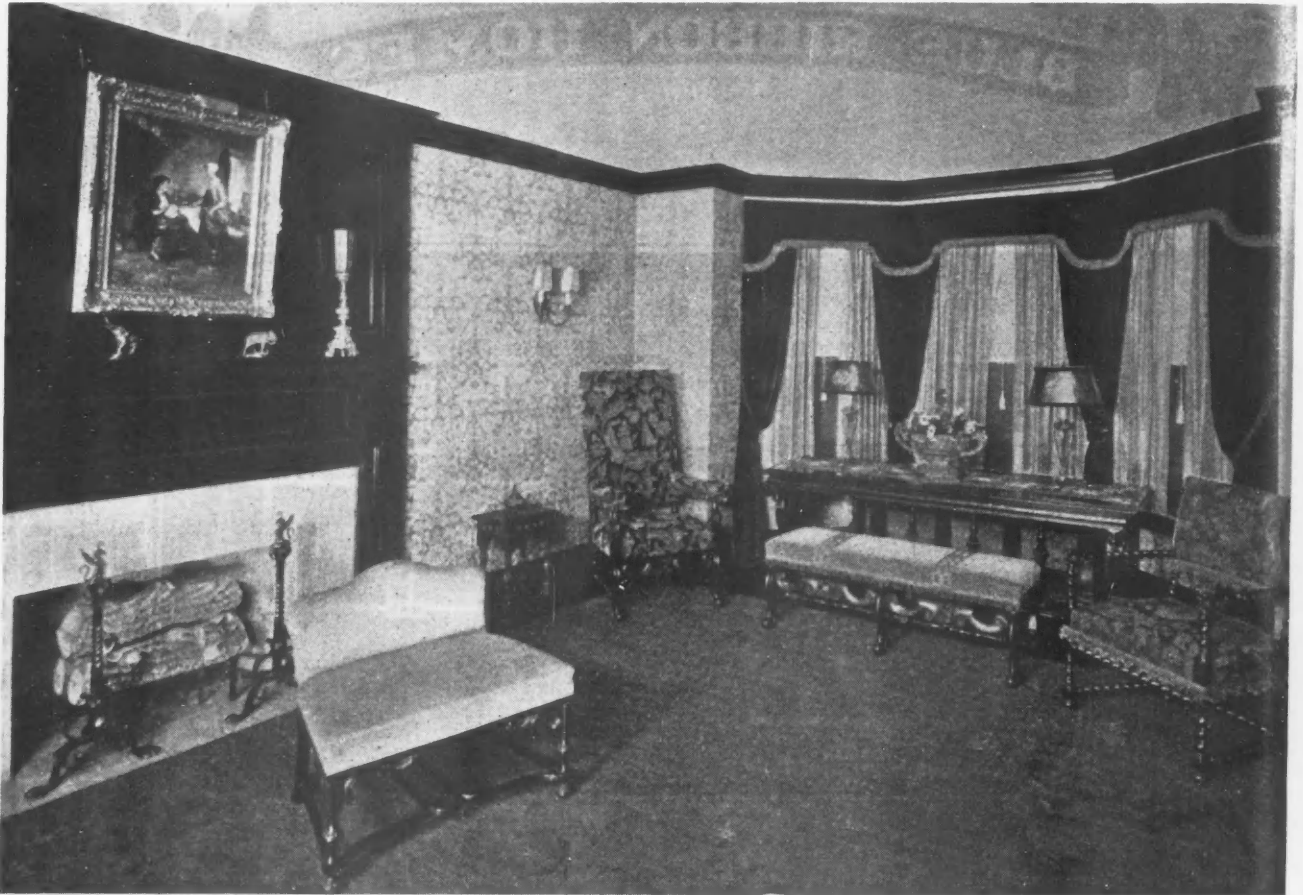
BLUE RIBBON HOMES

PRACTICAL & ARTISTIC



A STRAIGHT-LINE SYMPHONY. Here is a home without a single superfluous line, and with an entire absence of frills. Yet it gives a much more pleasing impression than many houses costing even double or treble as much. Why? The lines are pleasing. There are patterned windows, upstairs and down, which carry the eye along in easy verticals and horizontals, and the handling of the cornices and the wide siding used give other lines that structurally are all that can be desired. The use of stucco for the upper story exterior is a happy thought, and breaks

up whatever monotony might come from too severe handling of the exterior. Inside it is a very commodious home of eight rooms, including sun room. The latter leads out from the living room, and together these two are quite as attractive a combination of two daily-used rooms as you would wish to find in a house. A front porch, with reception hall; a rear porch, with outside icing door for the refrigerator; ample closet space—all these are other advantages of this very attractive home.



An Excellent Living Room Treatment. The flat valances, the side drapes and the tie-backs are a deep blue velour, fringed. The inner curtains are sill-length, and are cream silk gauze, fringed. The draw shade is of Austrian shade cloth, white. The fireplace is walnut, natural brown finish—blue and brown always complement each other.

Curtains Mean Home

Window Drapings Almost the Most Vital Decorative Element in the Home, and Rooms are Bare and Cheerless When Curtains are Down

By JOAN SLAUGHTER

THE nicest sort of a little lady moved next door to me the other day. I peered through my window—what woman would not, knowing she was to have a new neighbor?—and felt happy. She seemed just the kind of a neighbor we would wish in our block. They finished moving that afternoon.

And that evening the curtains were up!

You don't know what that means to a woman, you builders of houses. The building is finished when you have followed the plans. It is a house and, let us hope, a good one. But it is not a home until—

Until the window drapings are up!

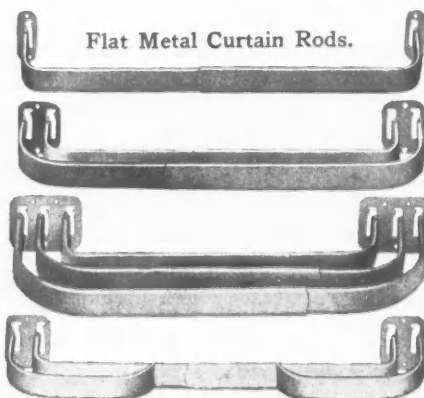
It did not occur to me as strongly as that until I had paid a neighborly call to find whether I could be of service. We are growing to be a great city where I live, but not so

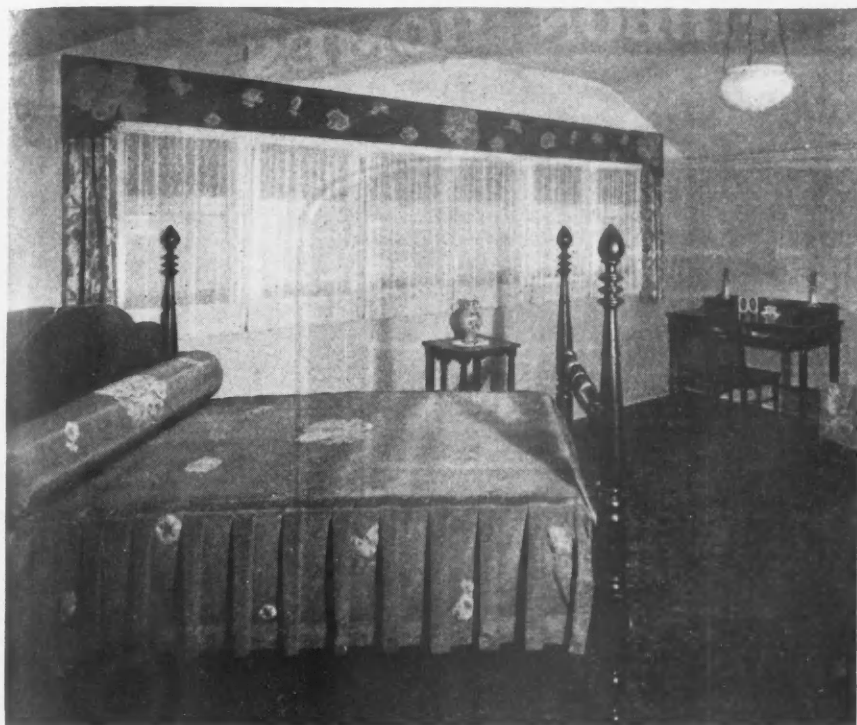
great as to prevent our still being neighborly. My hostess saw me looking at the curtains.

"I suppose you wonder why I put those up so soon? O, you need not blush; it is a thing any woman would notice—and the windows not even washed! Well, I can't imagine anything drearier than moving into a house. Everything is piled helter skelter, and it

gives one a headache thinking of where to begin first. But this time I began with the windows, and it is surprising how big a change it made. Straightening things up seemed simpler, and it was an easy matter to take the curtains down again to wash the windows when I had a chance to take my breath again. You see the brackets and curtain rods were so nice and simply made that it was no effort at all."

She had some of those very new





What a Cheerful Bedroom! The bed drapings and the window valance are of bluish gray poplin, silk tapestry fruit and flower motifs applied thereon. The window side drapes are a gayly flowered cretonne, framing curtains of dotted white marquissette.

Quite as important as the drapings themselves is the hanging. A woman wishes her curtains to hang right, after her trouble in getting them ready. It is important to have rods which will not sag, rust, turn black or tarnish. It is best to have the triple-rod installed, since it takes up a minimum amount of room, and you then have rods ready for the housewife to effect any kind of draping effect she wills.

The Pro and Con of Valances

One builder I know tried to discourage a woman from having her windows arranged for valances. Now if there is anything a woman wants in her home just now it is valance drapings—or lambrequins, as some term them. No matter if the ceilings are low, as they were in this particular case, valance drapings are suitable; the high-ceilinged

(Continued to page 111.)

and easily managed flat rods that you just tip up to get on or off and which give such a nice hang to the drapes, and as our own windows have been supplied with them we got to talking of the various ways and means of making a room acquire character by a proper arrangement of the window drapings.

I don't think mere man appreciates all that window drapings mean to a woman. You architects and builders turn out houses for us that are almost tailor-made; you have nearly everything in them which we desire. The house furnishing people supply almost everything else. You have taken away the necessity of our making our house homey and comfortable; but you can't take away our feminine prerogative for making it still comfier with drapes and things.

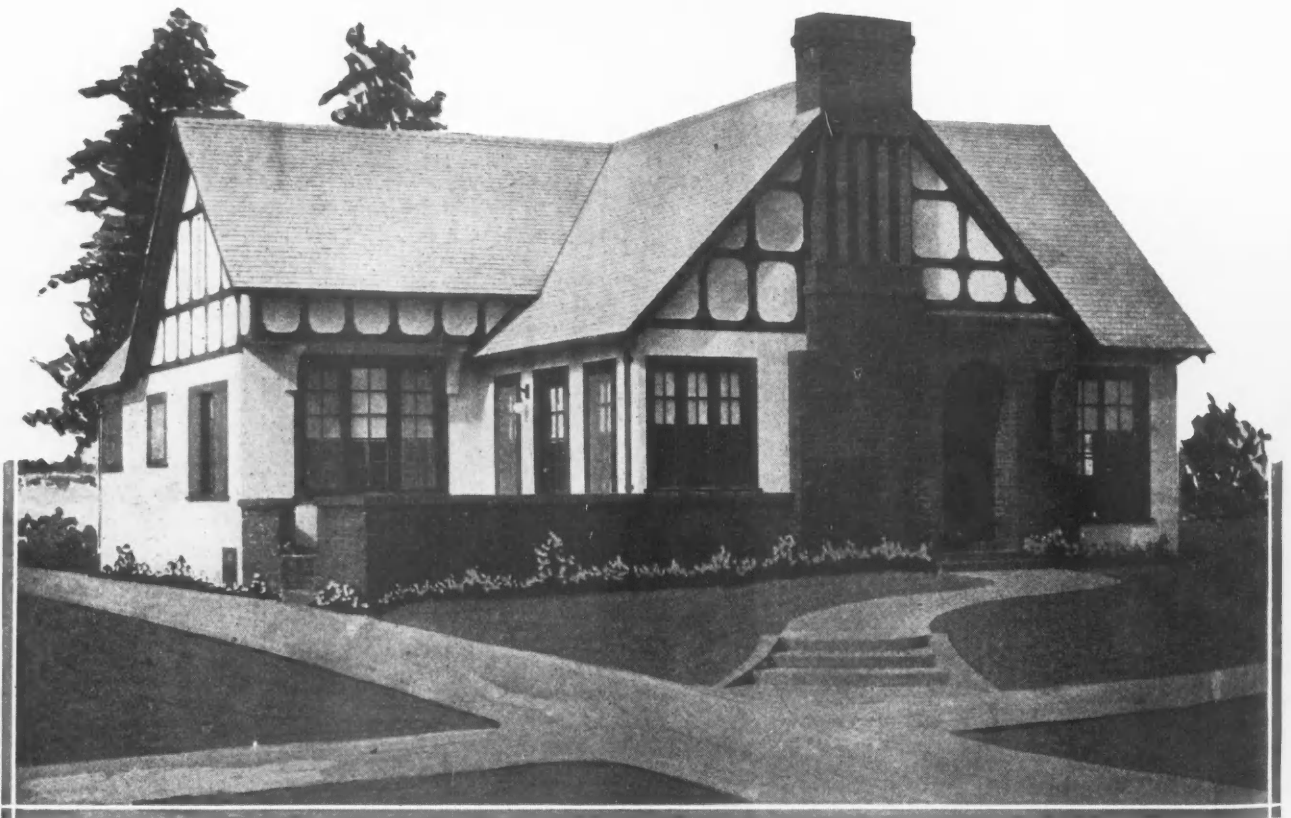
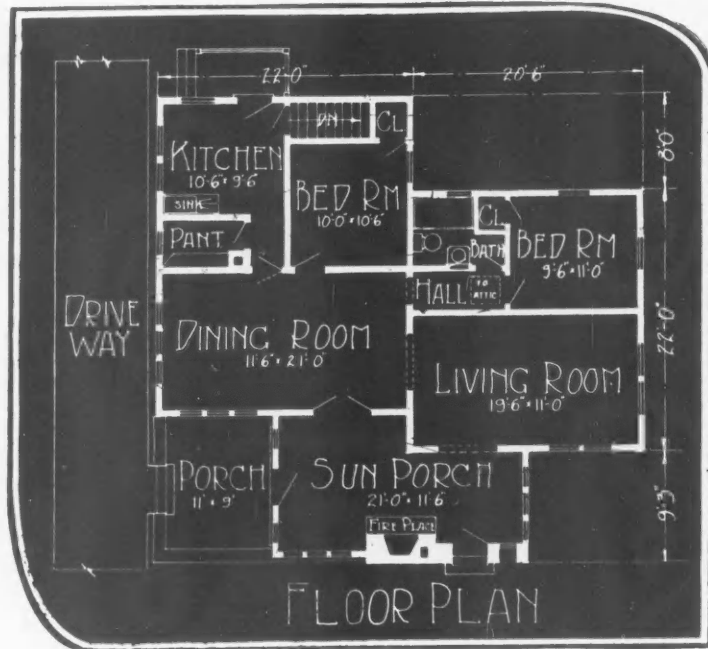
All women are intensely interested in window draping. As any woman knows, window drapings help her to effect the greatest transformations in her home interior, with the least expenditure. They give her endless opportunities for changes that are not permitted in furniture, rugs or other decorations. She can change her windows twice a year, shortening the long dark days of winter with bright color effects, and welcoming the breezes of summer with drapings of washable materials that resist damage from sun and dust.



A Cool, Summery Breakfast Room. Blue and white from curtains to rug, on the table and chairs, on the china—even to the flowers in the vase. Side walls are robin's egg blue, with white above the moulding and overhead. Valances, blue denim; side drapes, blue flowered cretonne; curtains, white dotted marquissette.

BLUE RIBBON HOMES

PRACTICAL
&
ARTISTIC

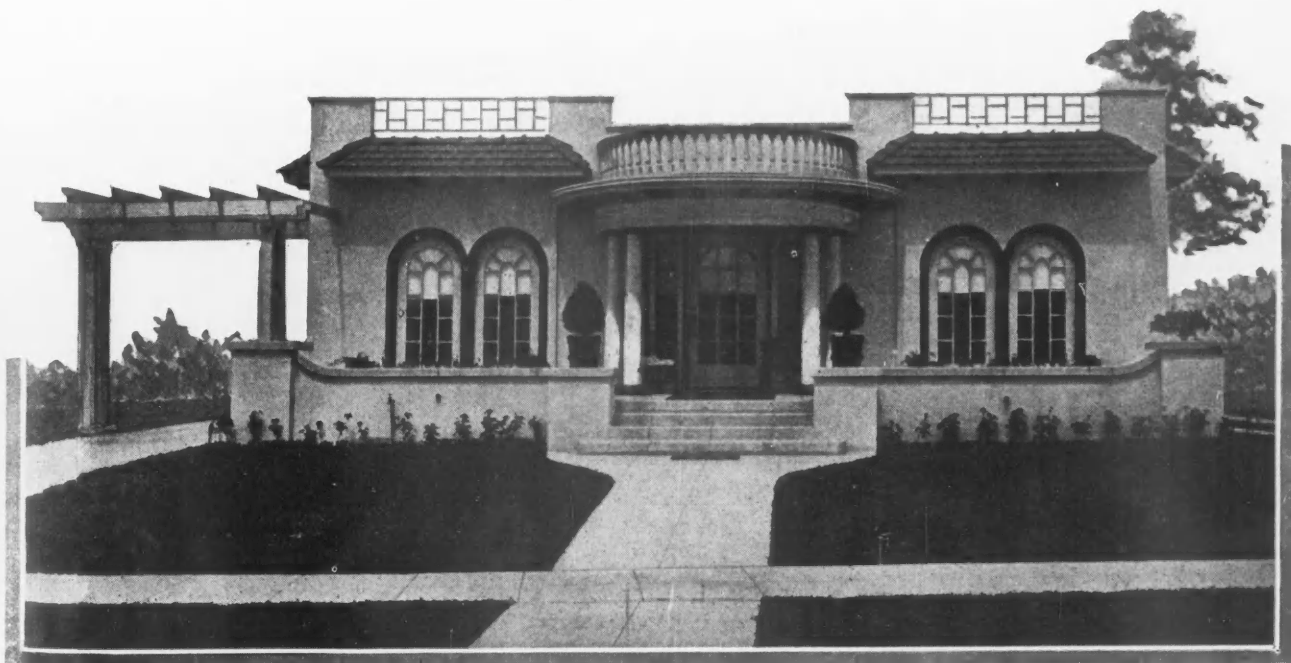
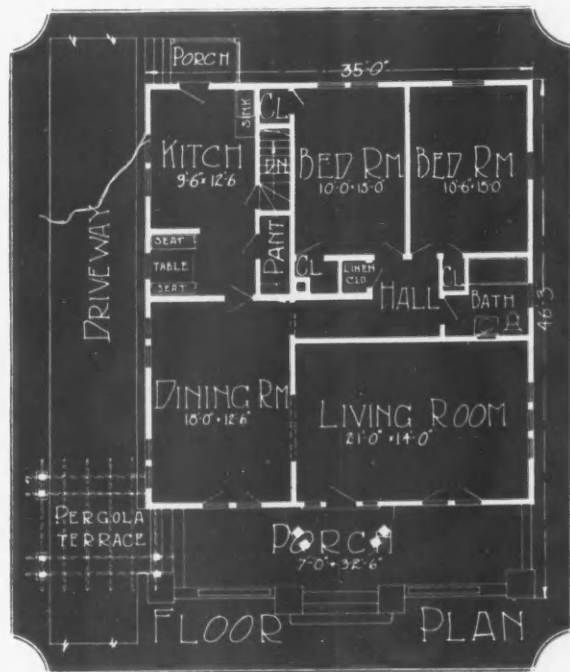


THE POPULAR ENGLISH COTTAGE TYPE. It is doubtful whether, in any country, attention has been devoted to the cottage and small residence in much the same way as has been in England. There is something "homely"—in the right English sense of the word—about the English type of cottage or small house. It snuggles down into its surroundings, and becomes one with the surroundings gracefully. In the one illustrated, the timbered

handling of the gable ends lends character to the stucco exterior, and variety is gained still further by the intelligent handling of the brick detail used. There are six rooms, including the sun porch, for the latter is really integral with the house. A house of this nature demands the pleasant decoration and framing of trees and shrubbery. It also appears to the best advantage when erected on a generously proportioned lot, and would look well on a corner.

BLUE RIBBON HOMES

PRACTICAL & ARTISTIC

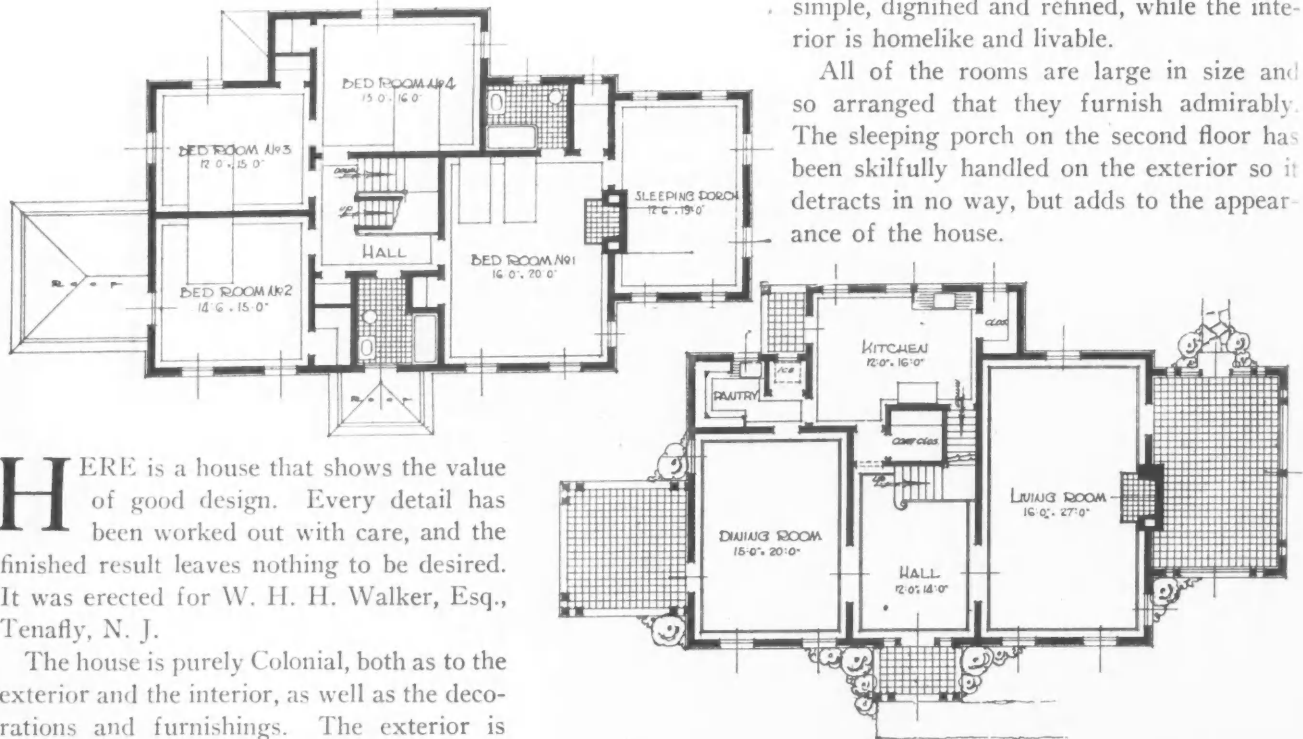


HOME IN SOUTH-WESTERN STYLE. There are traces of early Spanish mission influence in this home, with its low stuccoed exterior, and the jutting tiled roof. The arching of the windows, also, helps carry out the impression of Spanish origin. We have a wide, hospitable entrance porch roofing the central portion of the entrance terrace, and the full length window-doors lead at will into the living room or the dining room. Though not indicated, there is room in the living room for a fireplace against the

inner dividing wall. Our dining room leads directly to the kitchen, which latter has a breakfast nook, inclosed pantry, and opens on to a rear porch handy for the kitchen task one can do outside where it is cooler. The bedrooms have full privacy. If possible, a patio could be placed in the center of the floor plan, moving the bedrooms back toward the rear of the lot, and giving space for an additional side room. A good idea would be to have these rooms all arched, creating a fine decorative opportunity.

Well-Designed Larger House

By R. C. HUNTER & BRO., Architects



HERE is a house that shows the value of good design. Every detail has been worked out with care, and the finished result leaves nothing to be desired. It was erected for W. H. H. Walker, Esq., Tenafly, N. J.

The house is purely Colonial, both as to the exterior and the interior, as well as the decorations and furnishings. The exterior is

simple, dignified and refined, while the interior is homelike and livable.

All of the rooms are large in size and so arranged that they furnish admirably. The sleeping porch on the second floor has been skilfully handled on the exterior so it detracts in no way, but adds to the appearance of the house.



One Can Imagine the Enclosed Living Porch of This Handsome Colonial Dwelling as Becoming Easily the Most Popular Room of the House. It carries out in logical fashion the theory of the house design, with everything worked out carefully to give a simple, dignified, refined exterior and interior.

The enclosed living porch is the most popular room in the house. An open porch is also provided off the dining room. Four bed rooms, two baths and a sleeping porch are found on the second floor. Two servants' rooms, a bath, a trunk room and storage space are provided on the third floor, no plan of which is shown. The view of the hall is characteristic of all the interior rooms. It is gratifying to see the growing popularity of the simple, elegant Colonial interior, as distinct from the interior of no determinate period, and which suffers often from over-elaboration that is at once expensive and unpleasantly non-impressive. No type of building is exteriorly or interiorly as economically erected and furnished as a Colonial type of building; and the fact that it is becoming increasingly popular is a tribute to critical public taste in what constitutes a better sort of home.



Columns That Give Permanent Structural Beauty

FOR thousands of years, from far off antiquity, architects and builders have found nothing so utilitarian and beautiful as the column. Most of all the famed buildings of the ages owe much of their character and beauty to the use of columns as important exterior and interior structural details. Much of the charm of old Colonial houses in our own country, and of the plantation mansions of the old South was inherent in the use of the column, an element popular wherever men build beauty as well as sound construction into the structures they erect.

A column fulfills its purpose when it really supports the structural weight above it. It should never be a

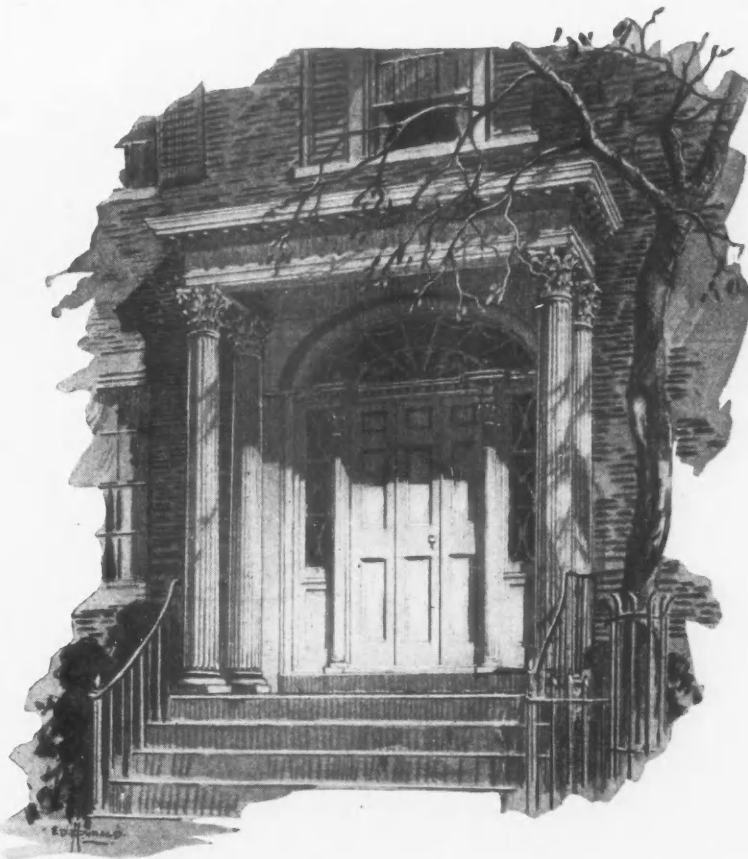
false ornamental detail, forcing the structural support to be gained elsewhere. Steel is a material which lends itself particularly well to column construction and is capable of yielding that sharpness of line and fine architectural detail which a genuinely attractive column ought to possess. It is encouraging to note the care given to proper architectural treatment in these columns. No longer is the architect and builder forced to use hybrid designs of that terrible period some have called "American Economic." The old classic orders have been drawn upon for inspiration, and the steel columns, from capital to base, are artistically and architecturally perfect.

As a general rule, it will be found that Roman or Greek Doric goes well with the simpler design of building. Roman Corinthian, Greek Ionic and the more florid variations due to Renaissance influence fit in logically with the more pretentious type of building, interiorly and exteriorly.

A certain make of copper bearing steel used in column construction offers many varying decorative possibilities, being capable of finishes such as statuary bronze, oxidized copper, verde antique, white, marbled, or natural wood.

For porch use, and for pergolas, the steel column is weather-proof to withstand wind and weather exposure.

Steel columns are not necessarily expensive, and compare favorably as to price with those made of other materials. One column manufacturer, noted for the architectural perfection of his steel columns, sends blueprints free of charge—so detailed as to help architect and builder secure the full utility of steel columns.

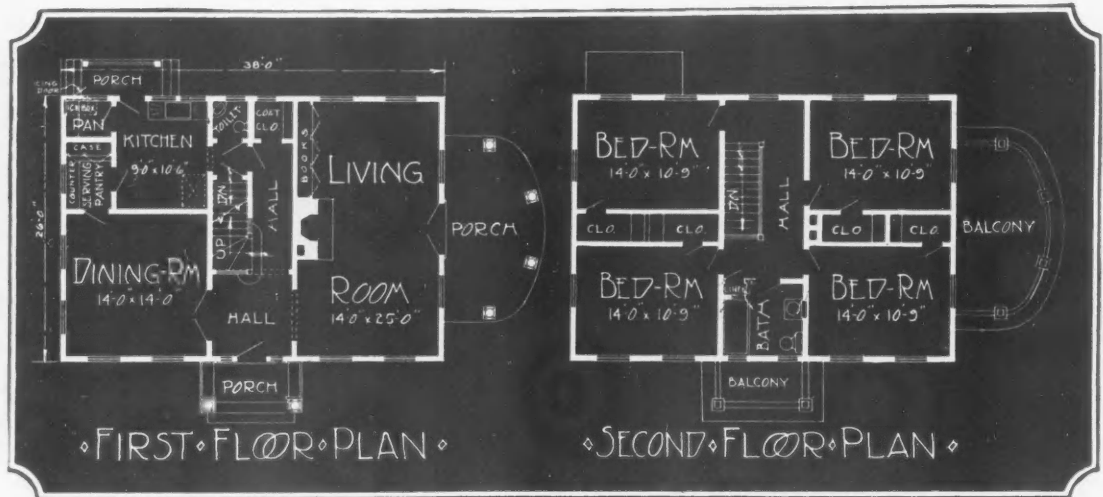


Much of Charm of the Colonial Is Inherent in the Proper Use of Columns. With proper care and discretion exercised in their choice, steel columns become a useful, ornamental and lasting structural investment.



Metal Column Capitals, Left to Right: Roman Corinthian, Modified Corinthian, Green Ionic, Italian Renaissance Ionic, Roman Doric, Plain Doric, Greek Doric, Modern Doric.

PRACTICAL & ARTISTIC **BLUE RIBBON HOMES**

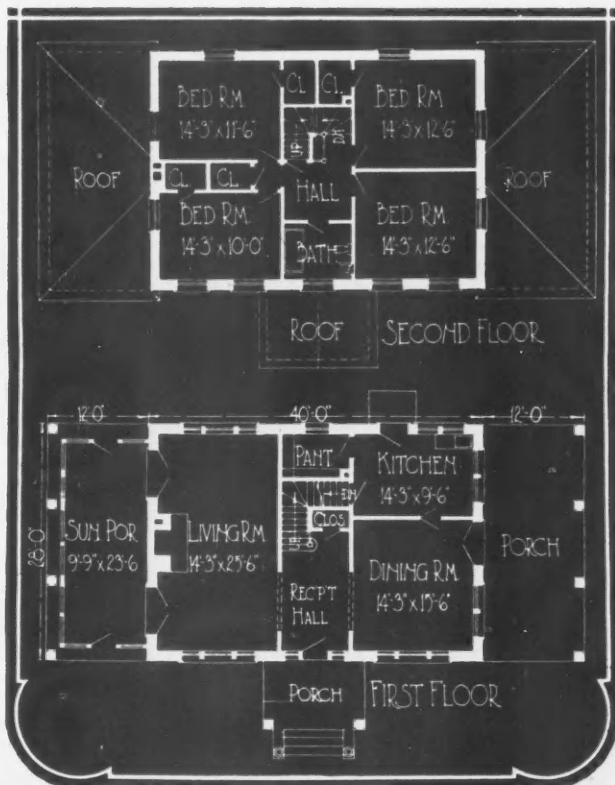


A TOWN OR COUNTRY HOME. This is a fine type of the modified Colonial, equally appropriate for the man who wishes a substantial city residence or for the farmer who feels quite competent to give himself the same range of household comfort and advantages as his city brother. The exterior is of frame, white, set off agreeably by the green blinds. There is a tiny entrance porch and a veranda with circular second floor balcony at one end.

This veranda makes a genuine living room of the long room extending the width of the house at that end. Downstairs are the living room, dining room and kitchen. Upstairs are four fine large bedrooms, with bathroom, and ample closet room. The fence adds a decorative note and is an essential in rural localities as a discourager of such of our peripatetic dumb friends as might wish to enter—to the havoc, possibly, of the flower beds and the lawn.

BLUE RIBBON HOMES

PRACTICAL & ARTISTIC



A STately MANSION. Here is a beautiful and imposing stone residence that anyone would be proud to call home. It has a very impressive appearance that suggests substantial worth and character. It is large, beautiful and designed in exceptionally good taste. The exterior with its rough finish makes it especially attractive and it would stand out distinctively in any city. The interior arrangement is ideal and is excellently adapted for entertaining whenever

the occasion should arise. On the ground floor the porch leads into the reception hall. To the left is the immense living room and through this is the sun porch that is bound to prove attractive, being open throughout the year. The other porch on the right could also be converted into a sun porch as it is the same size, 9 feet 9 inches by 23 feet 6 inches. The four roomy bedrooms and bath occupy the second floor.

Stained Shingles for Siding

Soft, Semi-Transparent Stain Adds Charm, the Vertical Grain Sheds Water Quickly, and a Winter-Warm, Summer-Cool Siding Insured with Great Saving in Color and Appearance Upkeep

THERE is much to be said in favor of stained red cedar shingles as a sidewall covering for the small two-story and bungalow types of

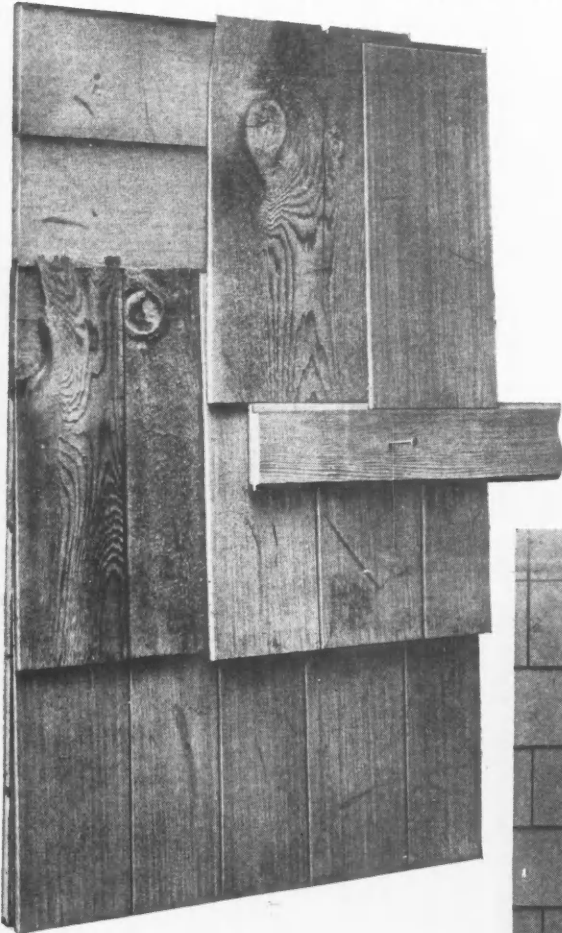
wood. Then, too, stained shingles of good color quality require little in the way of color upkeep. But there is more than pleasing appearance attached to the popularity acquired by stained shingles. There is a story of real economy—a lowering in construction costs:

**Cost Per Square of a Colonial Siding Sidewall
(7½-Inch Exposure)**

¾"x10" clear red cedar Colonial siding.....	\$15.60
Waste and cutting.....	.78
Nails03
Carpentry labor	1.50
Paint and labor.....	4.45
	<hr/> \$22.36

**Cost Per Square of a Weatherbest Stained Single Sidewall
(7¾-Inch Exposure)**

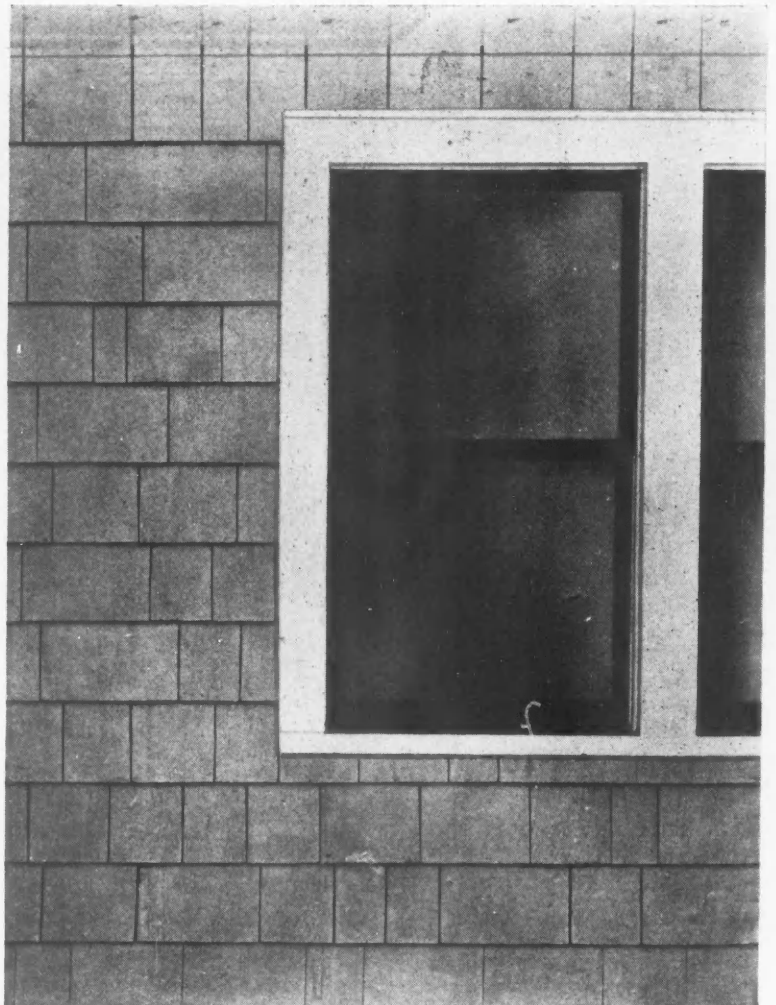
16" all clear, all vertical grain stained shingles.....	\$6.95
Waste and cutting.....
Nails, zinc-coated20
Carpentry labor	2.15
Paint and labor.....
	<hr/> \$9.30



The Under Course of Shingles Need Not Be the Best Grade, Since It Is Not Exposed to the Weather. The outer course should be best grade, with no defects, and with vertical grain.

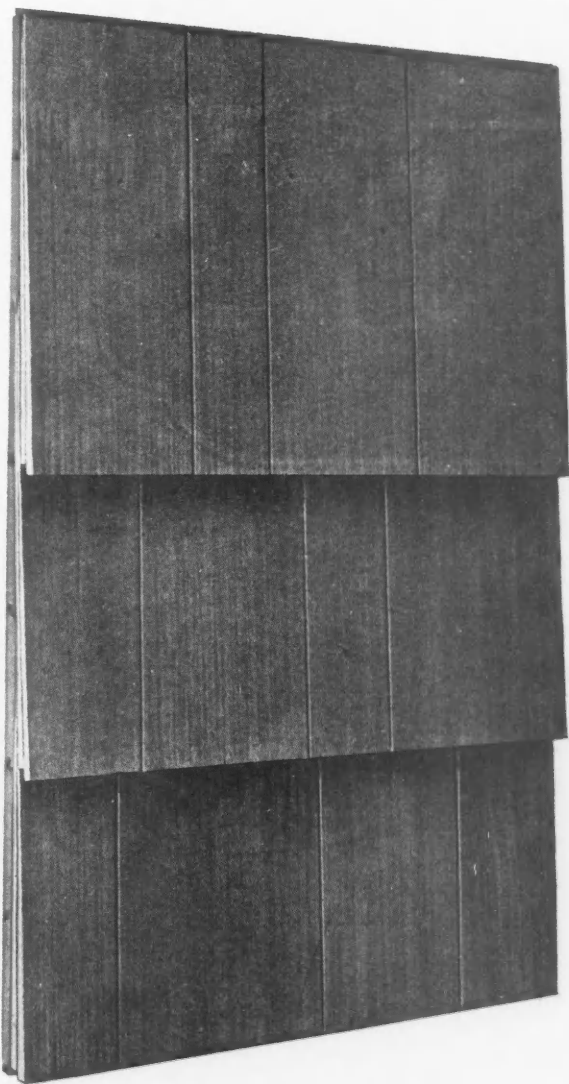
residences. Properly nailed, they make an ideal house covering.

It is undeniable that the soft, semi-transparent colors of properly stained shingles lend an added charm to a building. Particularly is this true in the case of the smaller two-story and bungalow types of residences embodying six or eight rooms. Wooden shingles have long been recognized as one of the best of building materials for keeping a house warm in winter and cool in summer. Another of their good features is the manner in which their vertical grain quickly sheds all water, thereby eliminating the possibility of water lodging in crevices and in the end causing deterioration of the



It Is Undeniable That the Soft, Semi-Transparent Colors of Properly Stained Shingles Lend Added Charm to a Building.

A considerable saving is secured by laying the 16in. size shingles $7\frac{1}{2}$ in. to the weather. To some this may not seem practicable, but this method of laying has been indorsed by the Association of Shingle Manufacturers and an inspection of shingles laid in this manner will disclose two full laps—an effective barrier to heat and cold. When the thickness of the shingles at any point is measured it will be found to be the equal of bevel siding. None but strictly all clear, all vertical grain shingles should be laid in this way.



Observe That the Outer Course Is So Laid as to Have the Butts Create a Drip. No extra nailing necessary. The one nail passes through both shingles.

The cheaper grades of shingles allowing of imperfections a few inches from the butts should not be used.

A unique and economical method of laying 16-inch or 18-inch shingles so as to secure the wide "Colonial" course effect is shown in the accompanying illustration. By laying in double courses a 10-inch exposure may be secured. It will be noted in the illustration that the under course of shingles need not be the best grade of red cedar, as this course is not exposed to the weather. The outer course, however, should be the best grade of shingles, allowing of no defects and being strictly

vertical grain. No extra nailing is necessary as each nail passes through both shingles. Note the grooved board, or straight edge used to insure even lapping of the butts. Large 24-inch stained singles are likewise popular for this "Colonial" type of sidewall construction.

It is inadvisable to ever stain flat grain (slash grain) shingles. Flat grain shingles cannot absorb the stain in a manner to allow permanency of color as their hard, flint-like surface makes it impossible for the stain to penetrate into the pores of the wood and the stain quickly washes off.



Curtains Mean Home

(Continued from page 103.)

rooms are in the minority anyhow these days, except for some instances in the California type of dwelling. Please, Mr. Architect and Builder, see that this little detail of proper rod equipment for valances or lambrequins is taken care of in that house you are building!

In the bedrooms, bathrooms and kitchen the housewife will want to use a plain or gathered valance—it is so easily laundered, and looks well. Elaborate rooms, such as the living room, library or dining room require more formal treatment, and shaped or fitted lambrequins suggesting permanence and dignity are preferable. Midway between elaborate lambrequins and plain valances are the very smart box plaited valances and those made with French headings. Lambrequins accentuate the rich figurings of window drapings of mercerized and silk damasks, armures, tapestries, colonial and other silks. Poplins, velvets and repps make beautiful lambrequins, and are best trimmed with a deep braid or fringe.

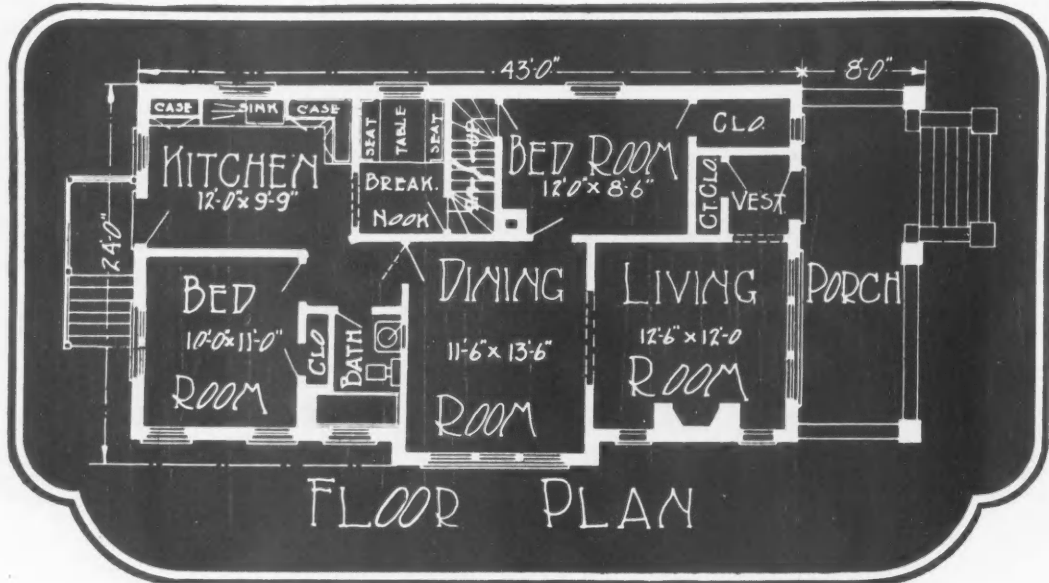
The Correct Draping Length

The length and width of overdraperies often assist the home decorator in improving the architectural effect of a room. (Yes, Mr. Architect and Builder, we women often have to use draperies to hide the architectural defect of a room, too, sometimes!) Long, narrow draperies seem to push up a low ceiling; short, wide draperies relieve the effect of a high ceiling. Generally speaking, a woman likes a sill of medium height, so she can have the inner curtains come to the apron—that piece of woodwork beneath the window sill. If the sill is very low, and there is less than 12 inches of wall space between the window apron and the baseboard, the draperies ought to hang to the baseboard. If there is more than 12 inches of wall space between the window apron and the baseboard the draperies should come to the bottom of the window apron.

Narrow windows may be widened by hanging the drapes over the wall at the sides of the window; and wide windows may be narrowed by hanging the drapes over the side of the window. In all cases the drapes should cover the window casing.

PRACTICAL & ARTISTIC

BLUE RIBBON HOMES

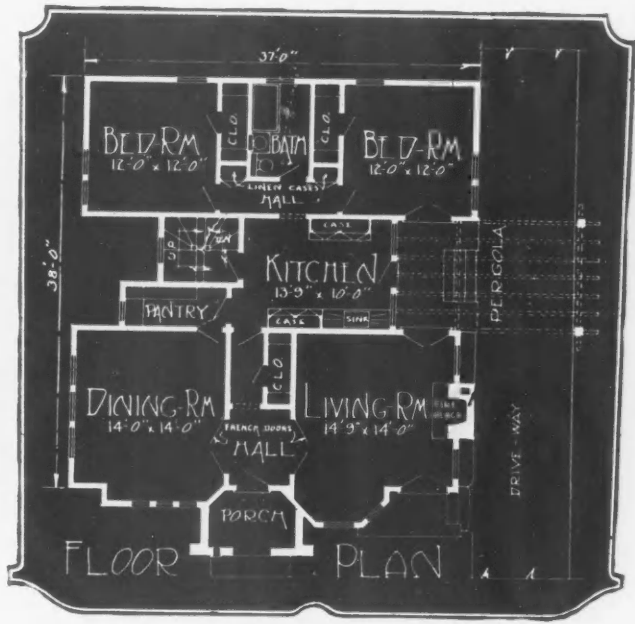


SUBSTANTIAL BRICK BUNGALOW. A type of house which represents a structural development greatly favored by the prospective homeowner is one which permits the later addition of a second floor with the same area and room capacity as the first floor. Such a one is this brick residence. Observe that a stairway is allowed for between the right bedroom and the breakfast nook, and with proper attention to foundations a later raising of the roof and

inclusion of more rooms is an easy possibility. This bungalow, exclusive of an attic bedroom, has five rooms—a living room, a dining room, a kitchen and two bedrooms. The breakfast nook saves many extra steps in the morning, and during the summer when light meals are preferable. Its exterior—dark-toned brick with cut stone trimmings—is attractive, and it is the type of substantial residence which should, as the saying is, "wear well."

WIN **BLUE RIBBON HOMES** **WIN**

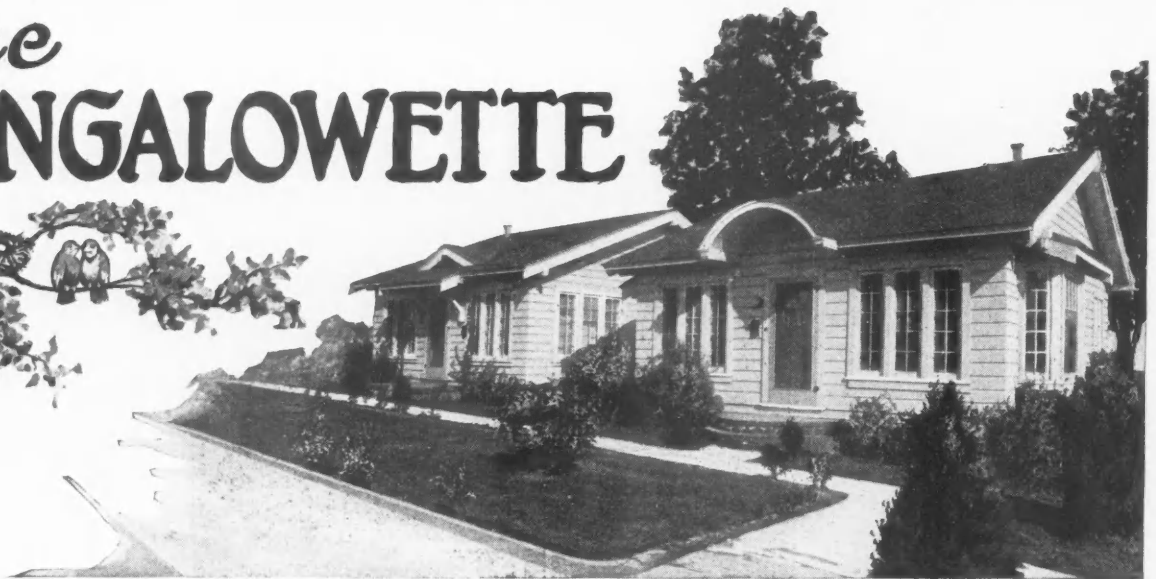
PRACTICAL & ARTISTIC



AN ATTRACTIVE ENGLISH-STYLE RESIDENCE. You have perhaps noticed that a peculiarity of houses designed after the English cottage type is that there is no provision for porches. In this case awnings supply that deficiency somewhat, and a terrace with pergola which you see at the right. There are, of course, advantages pro and con, with respect to the porch, but in hot and continuously warm climates a cool interior is often to be preferred to an outer porch with its warmer outer air. In this house our

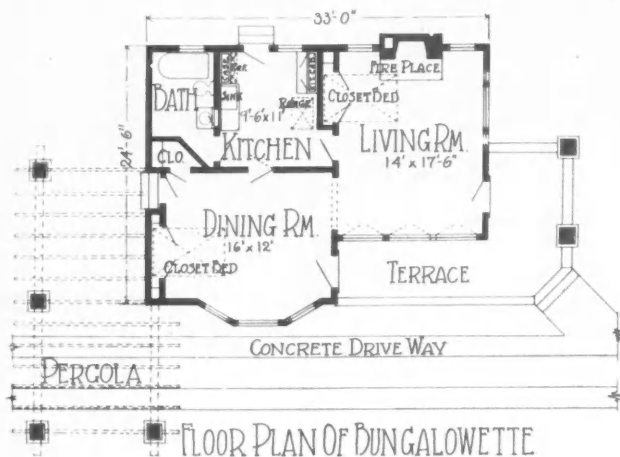
arched front recessed entrance porch leads into a hall, with the dining room on the left and the living room on the right, and the kitchen directly ahead at the end of the hall passage. Observe that the sleeping chambers are at the rear of the house, and except for a door opening through from the kitchen, are shut off completely from the day-rooms proper. This house, which is 37 feet by 38 feet, will appear to best advantage in the midst of trees and shrubbery on a fair sized lot.

The BUNGALOWETTE



The Bungalowette Rent Cure

WITH not a great outlay of money, secured on credit by the owner of a lot, can be built a Bungal-



lowette like the one illustrated. It is complete with living room, dining room, kitchen, bath—and the two bed closets turn living and dining room into bedrooms at night. With its terrace, pergola and concrete driveway, complete with furnace, modern plumbing, electric lights, gas, etc., it is a home far superior to anything of similar size which can be rented from \$35 to \$50 a month. There is a fireplace so placed as to afford good bookcase room under the windows at either side. The rooms are all of ample dimensions, and the outer dimensions of the bungalowette are 24 feet 6 inches by 33 feet

The arrangement of the pergola at the back is such as to create an impression of added breadth. The lot, while small, is well landscaped, and this adds greatly to the favorable appearance. With its overspreading eaves, fine porch, long French doors, bay window, concrete driveway and vine-covered pergola this is in every way a *real small home*.



A Bungalowette Which Has All the Effectiveness of a Larger Dwelling. The well-placed pergola at the left, rear, has the merit of making this structure seem to have more breadth. With all its many advantages this bungalowette offers a home far superior to anything which can be rented for \$35 to \$50 a month,

Some Sleeping-Porch Ideas

By ESTELLE H. RIES

GROWING interest is being manifested in the sleeping-porch, that curious modification of caveman standards. Human perversity is such that if we *had* to be exposed to the wind and the cold and the rain, we would be more than likely to rebel. But the plan has so many advantages in hardiness and the sense of well-being that comes with out-of-door sleeping that it has widely commended itself. Especially when all the dangers have been eliminated, as in our modern sleeping porches, is this reversion to an ancient practice worthy of continuance.

The sleeping porch should be open on three sides, but screened in summer with rustproof screens and provided with sliding windows for winter. If it is located on the second floor of the house it will have greater privacy and less

possible annoyance from insects and traffic.

People who like sleeping porches have found it convenient to build one over a first story veranda. This is called a double-deck arrangement and is convenient and inexpensive to construct. Such an arrangement extending at the side of the house in the form of a wing may be covered by the main roof of the house and increase its apparent size.

A sizable second story balcony may be successfully

converted into a sleeping porch. This need be nothing more than a projecting porch supported on brackets, or built on top of any flat portion of the roof. A dormer room often offers good possibilities for conversion into an outdoor sleeping arrangement, if windows be put into the sides.

As the family grows large, and the house grows small, the addition of a sleeping porch frequently relieves the overcrowding.

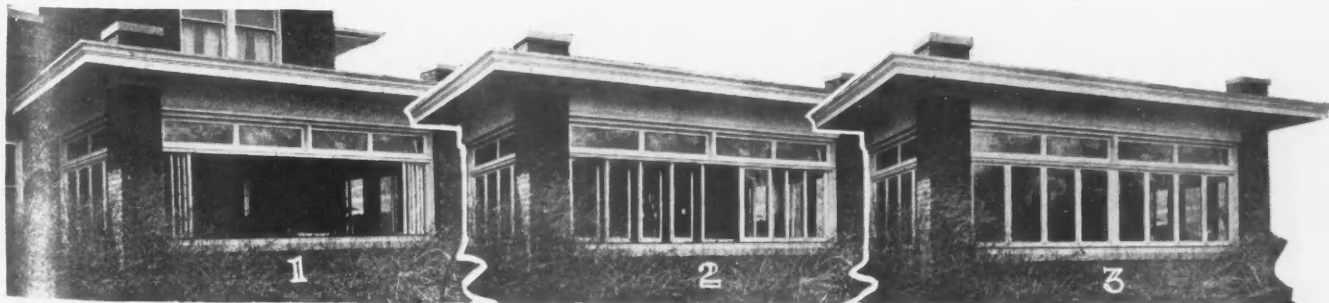
It is well to locate the sleeping porch with reference to the direction of the sun, and a southern exposure will afford the best protection. An eastern exposure will be warm and cheerful in the morning, but the bed should not face east so that the sleeper is awakened by glare.

The floor of the sleeping porch should be treated to avoid

leakage of rain below. Cement, stone, wood, tile and brick have all been successfully employed for the purpose. Linoleum and canvas are good floor coverings as they are practically waterproof and easily kept clean. The floor should slant to one edge to drain, and if directly exposed to the rain, extra wooden slats above the floor will expedite drying. The railing of a sleeping porch should be solid, and should reach two or three feet from the floor.



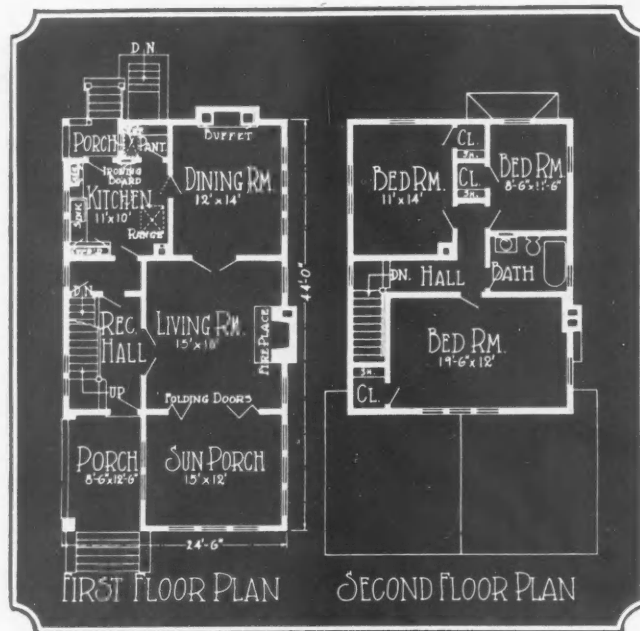
Gone Are the Days When the Broken Down Bed Was Considered Good Enough for the Sleeping Porch. The modern sleeping porch has all its inside cousin has, plus more of nature's free and healthful air.



These Are the Kind of Windows to Use to Make the Most of Sleeping Porch Possibilities. Note how they give complete closing and maximum opening. Yes, they work as quickly as your eye looks at them now. In 1 they are open; 2, half closed, and in 3 fully closed.

BLUE RIBBON HOMES

PRACTICAL
&
ARTISTIC

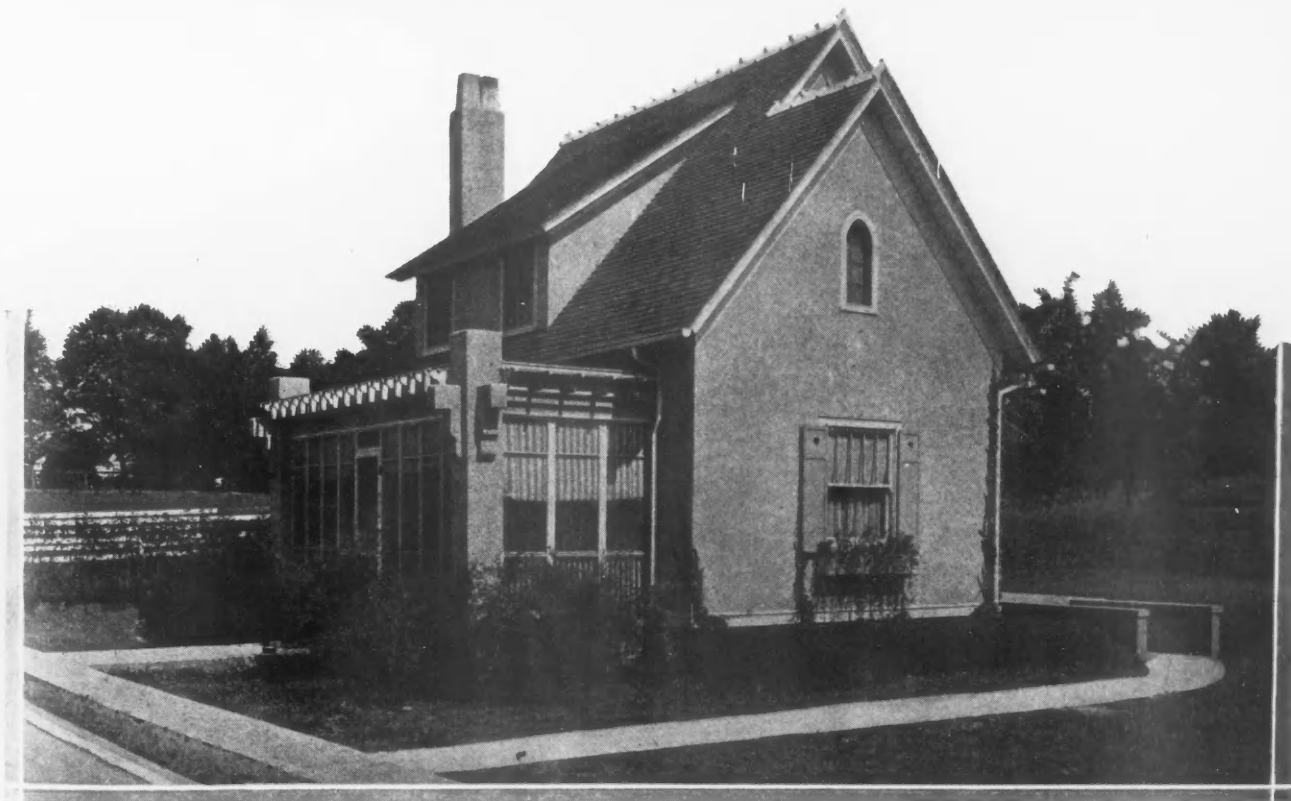
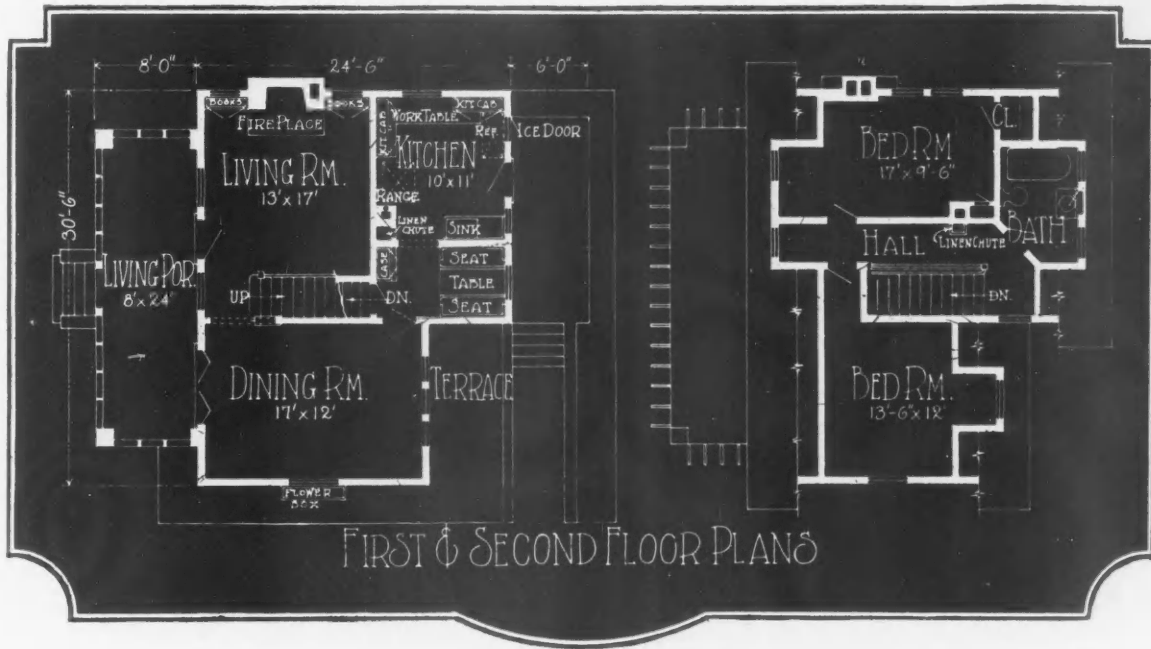


FINE, SUBSTANTIAL RESIDENCE. This is a type of home one might term typically American. There is just sufficient attention to outside decoration to give character to the stucco finish, but no more. Everything is planned to make construction outlay as reasonable as possible. There is a recessed porch entrance which gives into a reception hall with decorative possibilities. At the right we enter the

living room with its fireplace, and see a clear view through the glazed French doors into the sun porch—really an extra room. The kitchen is reached through the hall, and immediately adjoins the dining room. It has many built-in conveniences. There are three upstairs bedrooms. The over all dimensions are 24 feet 6 inches by 44 feet.

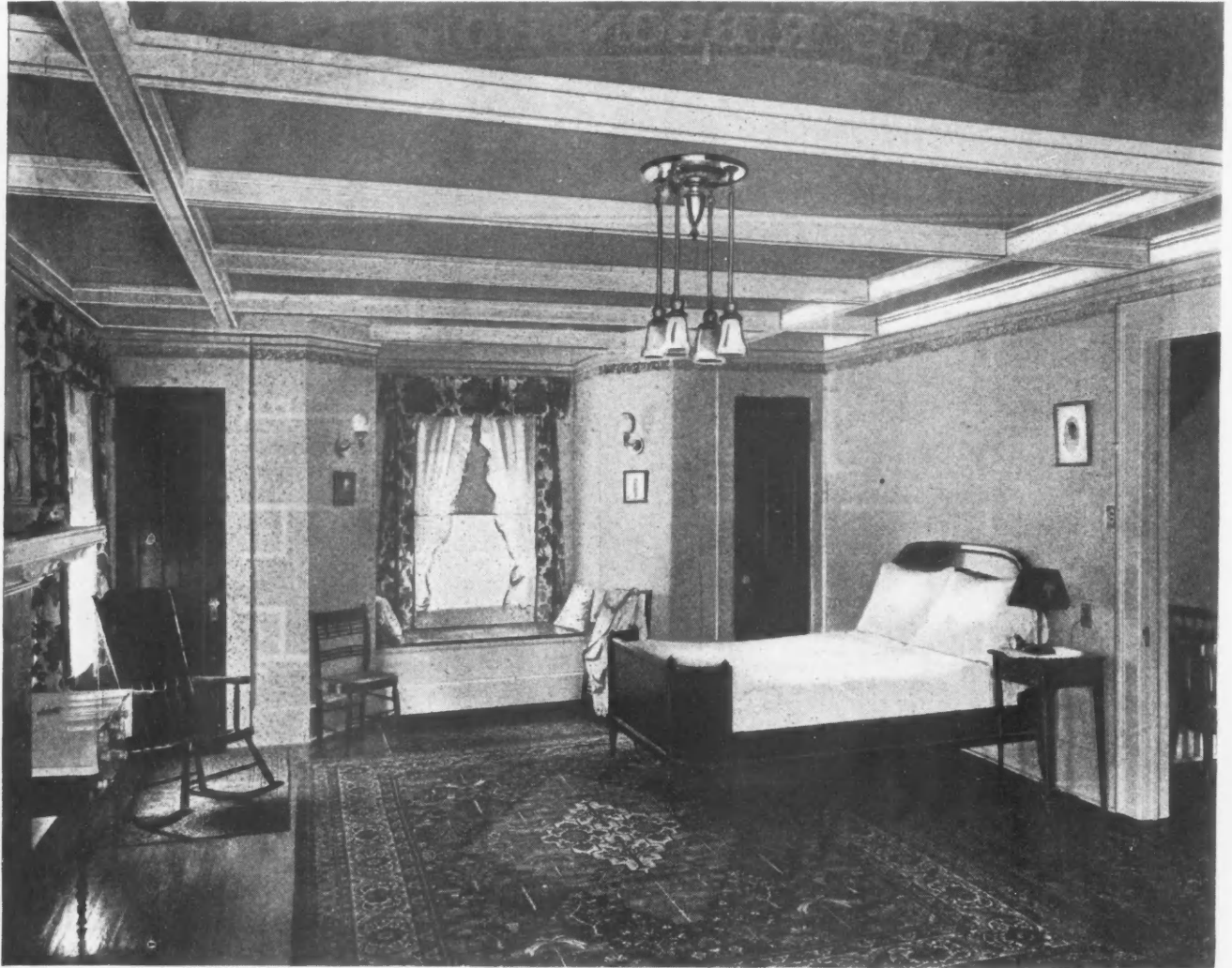
BLUE RIBBON HOMES

PRACTICAL & ARTISTIC



CAREFULLY-PLANNED, CHARACTERFUL HOME. There is some indefinable, piquant foreign influence present in the design of this house. Though it is typically American as to plan, there is that in the saucy slope of the roof and the little decorative fillip given its peak which makes one think of homes one might see in Continental Europe. This home is 30 feet 6 inches by 32 feet 6 inches, and the

front entrance leads into the center of the living porch. There are doors leading off this—glazed French style, preferably—which lead into the living room, dining room and up the staircase to the second floor. The kitchen has many built-in conveniences, including breakfast nook, and outside icing door. There are two bedrooms and a bath room upstairs.



Bedroom in the Eshelman Residence at Syracuse, N. Y. The contractor has covered the cracked and broken plaster ceiling with wallboard, with a remarkably pleasing result.

What Do You Know About Fibre Wallboard?

By IRVING P. STANLEY

THAT'S a catch question, to be sure. Ask any builder what he knows about fibre wallboard. He'll come back quick.

"Fibre wallboard? Man, I know all about that stuff. Use lots of it." And he does. But—don't stop there. Ask him just one more question.

"How many fibre wallboard jobs have you put up in fine homes?"

Then you'll get your real answer.

When he says, none or very few, as he usually will, just put this down in your hat—

He's another one of these fellows who know a lot less about fibre wallboard than he thinks he does.

Fibre wallboard came into use as a makeshift, a cheap and often temporary material. Everybody considered it first for handy repairs or remodeling.

And so rapid has been the Cinderella-like growth of this comparatively new product that most of us have failed to recognize a new wall-lining that bids fair to replace cracking plaster in many of the finest homes of the country and offers potential profits of hundreds of thousands of dollars to the builders and carpenters of the United States.

It was after reading the literature of the most progressive fibre wallboard makers and catching something of the trend of progress of this great industry that I determined to visit one of the biggest manufacturers and find for myself whether their claims could be verified.

I selected The Upson Company, at Lockport, New York, because as makers of Upson Board, Charles and Harry Upson, the heads of the Upson business, are

probably two of the best known wallboard authorities in the United States.

When I arrived in Lockport, I stated my case plainly.

"In your advertising and that of other manufacturers," I said, "you are constantly recommending fibre wallboard for the finest of interiors. Yet I find many builders apparently haven't gotten the idea at all.

"Now if builders can use fibre wallboard and get a satisfactory result on big residential jobs, it will mean a lot of money for them. But most of them don't seem to think they can do it. Why don't they?"

Harry Upson, who is the Commercial Director of The Upson Company, hardly waited for me to finish.

"I'm glad you bring that question up," he said, "because it enables me to give you the answer in a nutshell—

"Fibre wallboard ran away with the men who first made it.

"It was introduced as a repair material, a product for temporary use, summer homes, garages—for less expensive construction.

"I doubt if any one in the industry in the beginning ever thought it would amount to much more than that.

"But here's what happened. Even that first product, crude as it was, developed a tremendous sale. And, naturally, competition arose. With competition came improvements. And with improvements, which carpenters and builders were quick to appreciate, came constantly widening use.

"When my brother and I started the Upson Plant in Lockport ten years ago, we already had a vision of building a better fibre wallboard—a harder, stiffer, stronger product that could be used in the finest of new home construction. Naturally an ambition like that meant making an improved product—a product capable of just such use."

The average builder will be quick to agree with this part of Mr. Upson's analysis.

"Yes," he will tell you, "wallboard *has been* improved. Today a good wallboard is probably, just as its makers claim it to be, a better wall-lining than lath and plaster.

"BUT—I can't use wallboard on my jobs and for two reasons.

"First, because people don't like the strips that go over the panel edge, and second, because you can't paper it."

I hastened to remind Mr. Upson of this stock objection.

"The practical builder who will read this article," I said, "knows all the stock arguments for fibre wallboard. He knows it lasts longer than plaster and he knows it is easier

applied. He knows it can be put on in any kind of weather and all the other regular selling points. But he knows something else, too—he knows that most people with fine homes don't like fiber wallboard with strips nailed along the edge of the panels. And that in a word, is his big objection. He feels that people don't like wallboard jobs—or at least wallboard as most of us use it."

"Naturally they don't," answered Mr. Upson. "Why should they? You wouldn't want one of those common railroad terminal effects in your home. I wouldn't have one in mine.

"But there's exactly the point I'm driving at. The development in fibre wallboard has been so rapid and yet so gradual, that neither the home owner nor the builder really knows today what fibre wallboard will do.

"But suppose—suppose fibre wallboard is used RIGHTLY."

He reached for a file of data.

"First of all, there's no objection to a paneled wall, is there? Nearly every fine interior is *paneled*. For example, listen to what the leading interior decorators say about paneling and painting interiors.

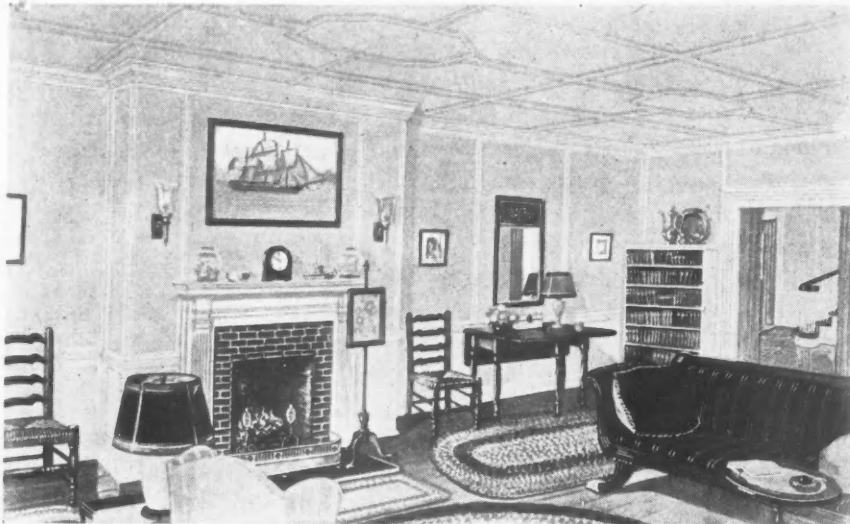
"Miss Elsie De Wolf in her book, 'The House in Good Taste,' says: 'To me the most beautiful wall is the plain and dignified wall, broken into graceful panels by use of narrow mouldings. Such a wall is as appropriate to the six-room cottage as to the twenty-room house.'

"Mrs. Ruby Goodnow, well-known decorator and writer, says: 'You can break the larger wall spaces of a house into graceful panels by applying a narrow wooden moulding direct to the surface.'

"'Walls along with the floor and ceiling,' writes Mary Harrod Northend, 'form the background for the



The Owner of the Lincklaen House, Cazenovia, New York, Found Wallboard Helped Emphasize That Elusive, Important Thing for Guests—Hospitality.



Every Item in This Room Is Easily Bought. The woodwork is a standard stock pattern. The fireplace is standard. The room was designed by Frederick L. Ackerman, architect, New York, and is furnished with Colonial furniture fully in harmony with the room.

furniture and upon them depend the good or bad effect of all that is placed in the room. Of all the treatments possible, there is none more attractive than paneling.'

"And Harold Donaldson Eberlein adds: 'A paneled wall is the exception that proves the rule that walls must be either a background or a decoration. The paneled wall fills a middle ground between a plain wall and a distinctively decorative wall. The symmetrical arrangement of panels and the relief supplied by the mouldings creates sufficient interest to satisfy the eye without further embellishment.'

"No, people don't dislike paneling or painted walls.

"Nine out of ten of the finest interiors—the interiors you admire in the best of hotels and the finest of residences—are paneled.

"What people do dislike is the terrible results secured by plain narrow lattice strips stained or painted in poorly chosen colors, with which too many wallboard jobs are finished.

"Let me show you one example of a fibre wallboard room almost any home owner would be glad to own."

And Mr. Upson reached for the photograph of the Upsonized living room shown on this page.

"Every single item in this room is easily bought," he said. "The woodwork is a standard stock pattern. The fireplace is a standard fixture. The wallboarding is designed by Frederick L. Ackerman, New York architect, and harmonizes absolutely with the colonial furniture the decorator has placed in the room.

"Now, if a carpenter or builder could erect this type of home for a home owner—*how many of them would kick?*

"Or take this hotel lobby," continued Mr. Upson, pointing to the photograph of the Lincklaen House, Cazenovia, New York.

"Can you imagine a more harmonious or inviting effect than that? The owner of that hotel started with fibre wallboard a couple of years ago and as fast as the plaster cracks in any room, he is doing them over

with fibre wallboard. The builder who handled that job finds that hotel a constant advertisement and a constant source of profitable wallboard business.

"Here's still another example—a beautiful room in the home of Mr. Eshelman of Syracuse, New York. Here the walls are of plaster, but the builder has covered cracking ceilings with wallboard—and look at the beautiful result.

"But"—and Mr. Upson smiled. "That's fibre wallboard as it should be applied and that's the type of fibre wallboard application that brings repeat business to the carpenter who does it.

"Here's the other side of it.

Here's a wallboard job applied several years ago. Look at the terrible paneling, the botched up effect. Can you blame people for not wanting a job like that?

"Yet too many fibre wallboard jobs today are put up in just such a slipshod fashion. The paneling is applied without much consideration of the type of room, of style of furniture to be used—the walls and mouldings are quickly painted—often in inappropriate colors and then we wonder why people don't like the job.

"If we are to condemn all wallboard because of some poor applications it would be equally just to condemn wood trim because occasionally wood trim shrinks. Condemning the appearance of wallboard because of instances of careless application is much like frowning on all wood paneling because some hideous effects have been secured in wood paneled rooms.

"Carpenters and builders need to learn wallboard application.

"Why, many builders and contractors are unquestionably passing up thousands of dollars profits they



Typical Example of an Ordinary Wallboard Job. Is it any wonder that people dislike wallboard when they judge it by such uninviting jobs as this one?

could make if they just had their men properly trained in applying a good fibre wallboard.

"It's such easy work, too. Here are some other good applications with details of the trim and decorative scheme. Nothing to it. Any good carpenter can do the work or any good builder can develop new ideas and new decorative stunts for himself.

"But—the tragedy of it all is that there are thousands and thousands of dollars in profits waiting for builders who discover how to finish and decorate wallboard rooms.

"For example, a friend of mine recently had an architect design a beautiful summer home for him in Canada—and the architect specified wallboard and drew detailed plans for applying it.

"The builder who took the job was astonished.

"'Wallboard?' he said, 'I never saw a wallboard job like this.' But he went ahead and did it and now that the house is finished he is figuring on dozens of other new places where he can put in fine wallboard installations. He was passing up a big profit opportunity and didn't know it."

"But, do you think the builders are really to blame?" I asked. "How about the manufacturer? Has he done his full share in educating us about the possibilities of wallboard jobs?"

"He certainly has not," admitted Mr. Upson. "But then, he's not entirely to blame for that either. As a matter of fact, the supply of good wallboard has seldom equalled the demand and if all builders had fully realized its possibilities every manufacturer in the country would have been swamped. Why, just our share of the demand has built up our big plant here. Think what would have happened if we had always had the fine home outlet we have been entering lately. And—more and more we're awakening to our problem of educating the builder.

"Right now, for example, The Upson Company is getting out a series of blue prints showing beautiful wall-board installations that can be effected with standard wood mouldings and trim. With these blue prints in front of him, any competent carpenter in the United States can build a wallboard room that will be a delight and revelation to the home owner.

"The blue prints alone should be one of the biggest educational features ever developed on the wallboard situation.

"You mark my words," and Mr. Upson paused impressively—"within five years there will be hundreds of building firms who will be installing just as wonderful fibre wallboard applications as plastering contractors today install on plastered jobs. There will be paneled fibre wallboard jobs with the paneling as beautiful and impressively right as the paneling in the Waldorf Astoria, New York, or the Hotel Commodore, New York, or the paneling in nearly any fine home or public building that architects and decorators have designed.

"The vogue of the paneled wall has never really waned. It is just as appropriate today, just as beauti-

ful and appealing, as it was in old English days. And the sooner builders and carpenters realize this fact—the sooner they discover that with fibre wallboard *they can build* a beautifully paneled interior, the sooner fibre wallboard will come into its own in the finest homes—and—the sooner carpenters will reap the hundreds of thousands of dollars of fibre wallboard profits that await the men who take the initiative."

* * *

And that which I submit, whether you agree or not, opens a possibility worth every practical man's careful consideration.

What do you know about fibre wallboard?

Are you using it rightly or—are you missing fibre wall-board profits that you ought to have—that some one in your town some day is going to get?

✦

Home in Never-Never Land?

IT might have been lifted bodily from a fairy story book. If you look closely you might see the gnomes, and perhaps at midnight a witch rides her broomstick from the tipsy gable and a phantom hand lifts the sword Excalibur from the depths of the magic pool. On the contrary, Harold G. Oliver, Los Angeles artist, built it for a studio-home, and he tells us it plays second fiddle to no Blue Ribbon Home when it comes to sound construction, comfort, and weather and fire-resistant qualities. Just a home suffering from an antique-complex, that's all, and if you think it looks inviting and hospitable and all that, remember he has a drawbridge and can keep you outside of office hours.



A Los Angeles Artist, Harold G. Oliver, Built This Quaint Conceit. It is a studio-home, and not a ramshackle at all. Try to duplicate it and see.

Revising Building Codes (Part 3)

U. S. Government Recommends Minimum Requirements for Small Dwelling Construction with View Towards Simplifying Building Codes

Editor's Note: This is the third of a series of abstracts American Builder is making from the report of the Building Code Committee of the Department of Commerce, and is done to give wider publicity to the Committee's Recommended Minimum Requirements for Small Dwelling Construction. The others will follow in succeeding issues.

Frame Construction ARTICLE V

Section 18. Definition.

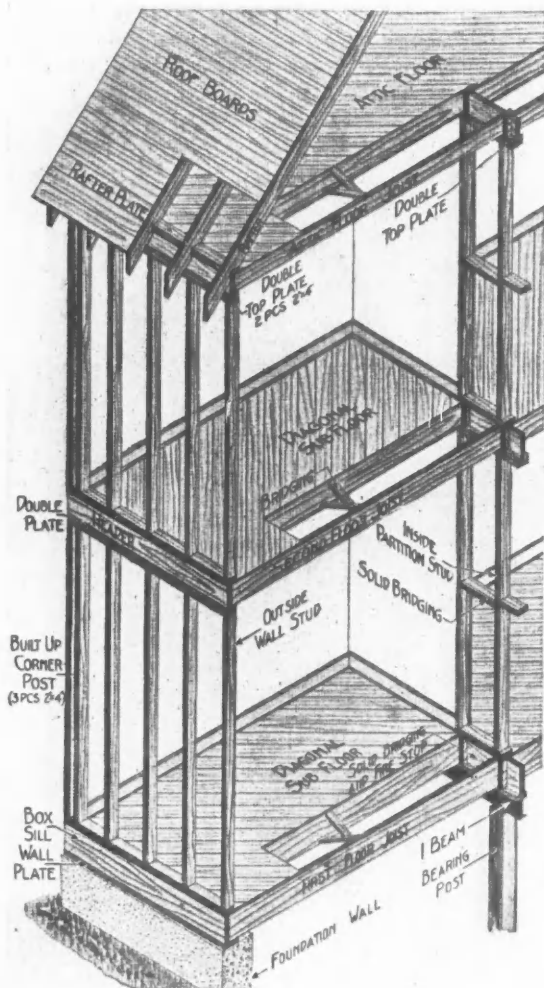
In frame construction all structural parts are of wood or are dependent upon a wood frame for support. This includes buildings with facings other than wood. The minimum sizes specified in these requirements, when not specifically mentioned as otherwise, shall be understood as referring to the nominal sizes of such timbers.

Note. The term "nominal size" as applied to timber or lumber means the ordinary commercial size by which timber is known and sold in the market. The actual dimensions

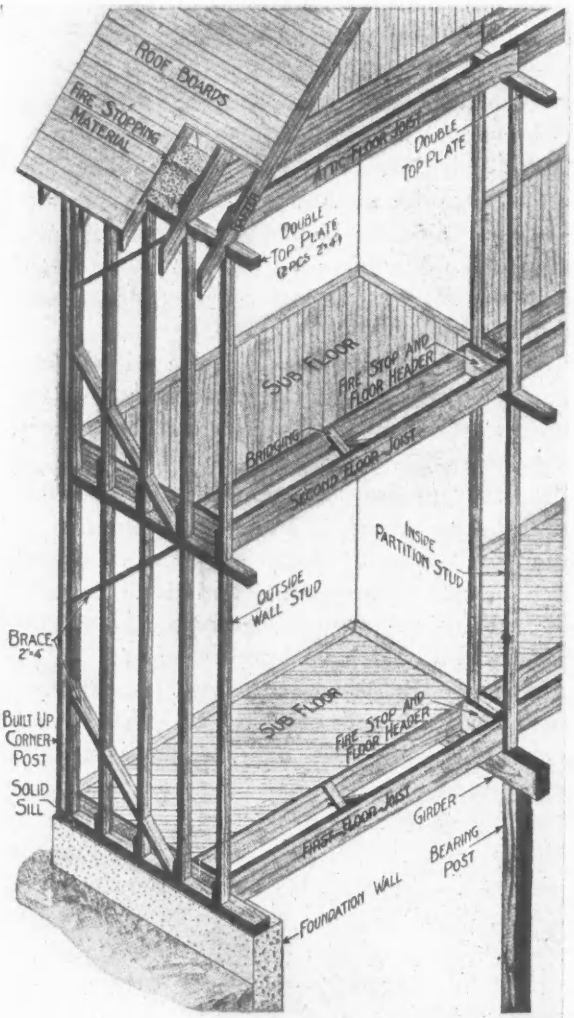
of seasoned and surfaced lumber are, by reason of this seasoning and surfacing, made one-eighth to one-half inch less than the nominal.

Section 19. Exterior Walls.

1. Wood studding shall not be less than 2 by 4



The Above Illustration Shows Details of the Platform-Frame Type of Construction, on Which Each Story Is Built as a Separate Unit. Note settlement is equalized by making the height of horizontal timbers the same in exterior walls and interior partitions.



Approved Details of Modern Braced-Frame Construction.

inches and spaced not to exceed 16 inches on centers.

2. Where exterior walls or parts thereof more than one story high are sheathed, the boards shall not be less than three-fourths inch actual thickness. Sheathing boards shall be laid tight and properly nailed to each stud with not less than two eight penny nails. Where the sheathing is omitted or is not laid diagonally, all corners shall be diagonally braced and such other measures taken to secure rigidity as may be necessary.

3. Wood sheathing may be omitted when other types of construction are used that are proven of adequate strength and stability by tests conducted by recognized authorities.

4. Ledger or ribbon boards used to support joists

shall not be less than 1 by 4 inches, shall be cut into the studs, and securely nailed with not less than two tenpenny nails to each stud.

Section 20. Masonry Veneer on Frame Construction.

1. Masonry veneer applied to the walls of frame structures shall rest directly upon the masonry foundation of the structure and shall not be less than 3 3/4 inches in thickness.

2. Flashing shall be installed where necessary to prevent moisture from penetrating behind the wall.

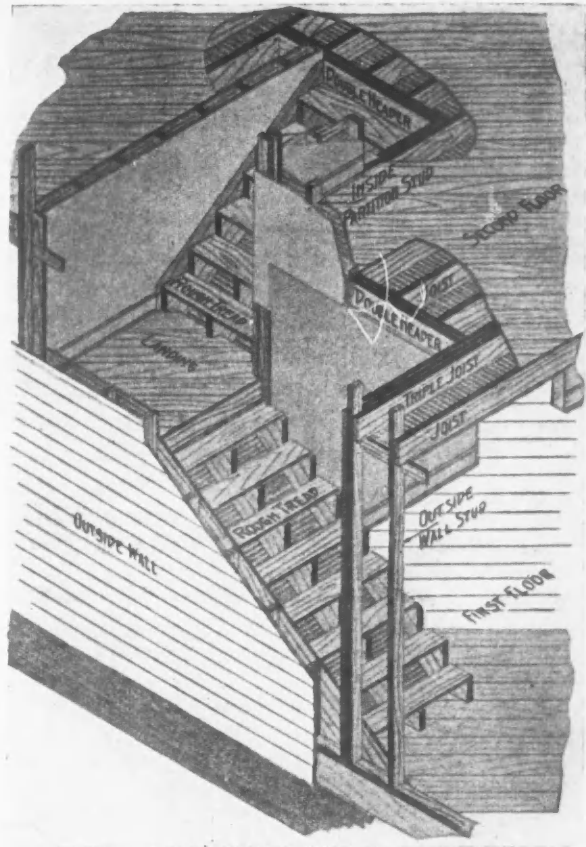
3. The masonry veneer shall be securely attached to the frame structure at intervals of not more than 16 inches vertically and 24 inches horizontally.

4. A sheathing shall be securely attached to the framework of the structure back of the masonry veneer.

Section 21. Stucco on Frame Construction.

1. Flashing or other expedients adequate to prevent the penetration of moisture behind the stucco surface shall be used where necessary.

Note. It is essential that penetration of moisture behind stucco surfaces be prevented. Poorly drained stucco surfaces should be avoided; copings, cornices, exterior trim and the frames of all openings should be carefully flashed or otherwise designed to carry water away from the stucco. Roof drainage should be built to prevent leakage and carried well away from the stucco surface.



Desirable Features of Framing for Stairways Are Illustrated Above. Note that strength lost by cutting studs and joists is regained by reinforcing the remaining timbers.

Wooden sheathing laid horizontally is less apt to result in stucco cracks than when laid diagonally. Ledger boards and diagonal corner braces let into the studs are advisable, and where sheathing is omitted bridging of the studs midway of each story is recommended. Such bridging should be kept back at least one-half inch from the outer face of the studs. Experience shows that stucco cracks are less likely to occur when the wall studs are continuous from foundation to roof, as the insertion of horizontal timbers at the floor lines gives more opportunity for vertical shrinkage and consequent stresses in the enveloping stucco surface.

Substantial building paper between furring and sheathing improves the heat and moisture insulating properties of the wall. Insulating material such as building paper may also be used effectively between back-plastered construction and the inner plastered wall.

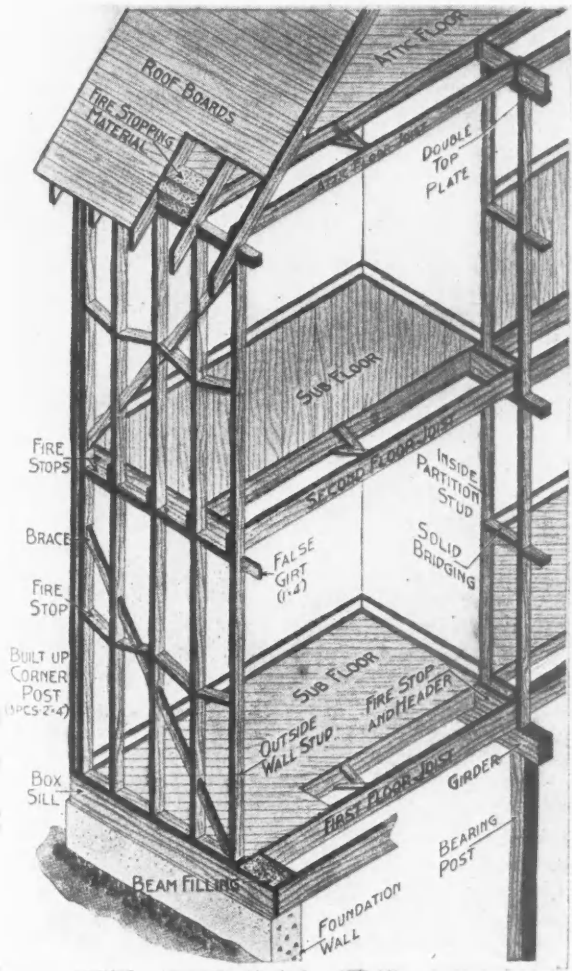
2. Back plastering shall be required where sheathing is omitted.

Note. Carefully conducted tests appear to have demonstrated that an exterior cement stucco wall upon metal lath attached to wooden studs and properly back-plastered is more rigid than a similar stucco backed with wooden sheathing. The back-plastering also serves fully to incase the metal lath, thus protecting it from corrosion, and reducing the fire hazard.

3. Where wooden sheathing is used it shall be of boards not less than 1 by 6 inches, and securely nailed to the studding.

Note. See Note to paragraph 1.

4. Metal lath used for stucco base shall be expanded metal lath weighing not less than 3.4 pounds per square yard, or wire lath woven or welded and not lighter than No. 19 gauge.



Approved Details of Balloon Frame Construction.

Note. Metal furring and metal or wire lath should be galvanized or painted and securely stapled to the sheathing or to the wooden frame. Metal lath should preferably be laid horizontally, the joints being butted and securely tied or laced with wire. Lapped vertical joints should occur over supports and should be well stapled to avoid lines of weakness. Only metal lath which has been galvanized should be used with magnesite stucco.

Wood lath is not recommended for cement stucco, but is satisfactory for use with lime or magnesite stuccos.

5. Where back-plastered construction is used the plaster shall be of sufficient thickness to extend back at least one-fourth inch between the studs.

6. Cement and lime used for stucco shall conform to the standard specifications of the American Society for Testing Materials.

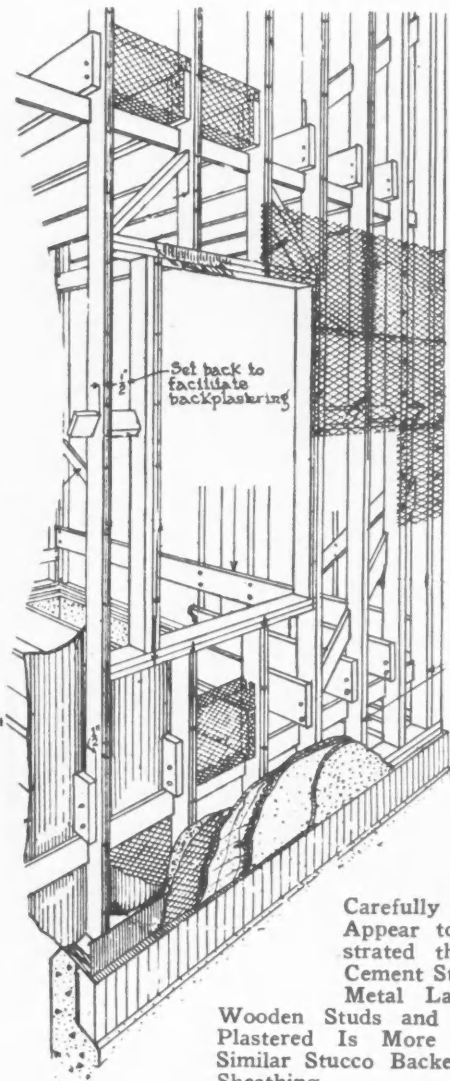
Note. Copies of specifications may be obtained by addressing the Society, 1315 Spruce Street, Philadelphia, Pa.

Surfaces to be stuccoed should be moist, but not wet enough to yield moisture to the coat applied.

Stucco should be machine mixed where possible, and careful attention given to obtaining uniform proportions and thorough mixing.

Neither portland cement nor lime stucco should be applied when the temperature is below 40 deg. F.

Three-coat work is desirable. No coat should be richer in cement than 1 to 3, and lime should not be added in greater

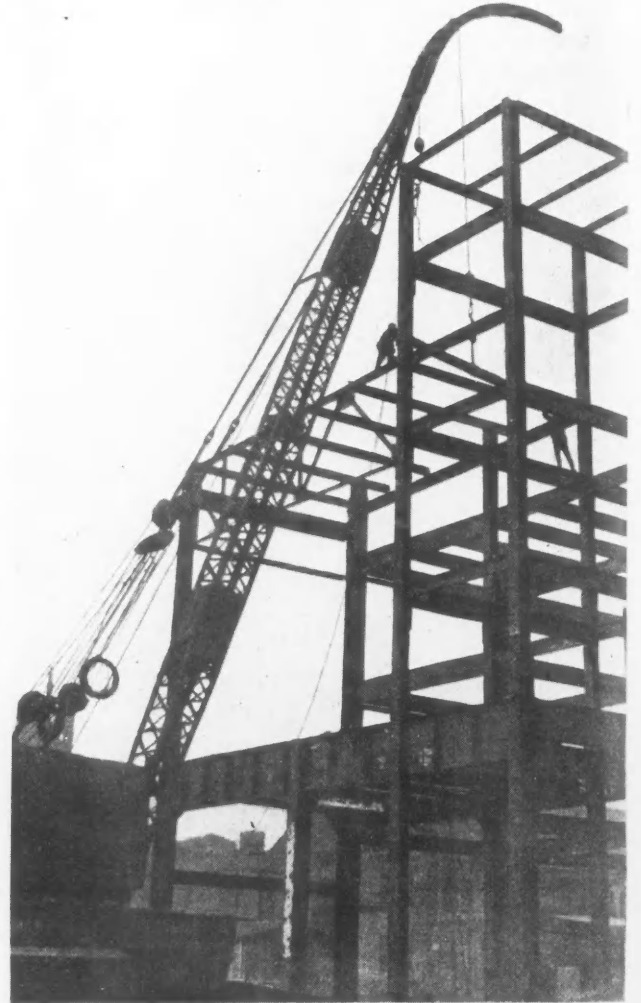


Carefully Conducted Tests Appear to Have Demonstrated that an Exterior Cement Stucco Wall Upon Metal Lath Attached to Wooden Studs and Properly Back-Plastered Is More Rigid than a Similar Stucco Backed with Wooden Sheathing.

proportion than one-fifth volume of cement. Plastering should be carried on continuously in one general direction without allowing the plaster to dry at the edge. The second coat should follow the first within 24 hours, and in back-plastered construction the backing coat should be applied directly following completion of the brown coat. All necessary precautions should be taken to prevent the plaster from drying out before attaining its set.

Curved Extension Increases Crane Efficiency

WHEN a curved extension was added to the boom of the large crane shown in the photograph, the usefulness of the equipment was doubly increased. The boom can be raised



Remarkable Reach of Crane Equipment When Curved Extension Was Added to Boom of Crane.

to a more nearly vertical position, thus increasing its effective working height, and the "reach" of the boom is increased at any given height.

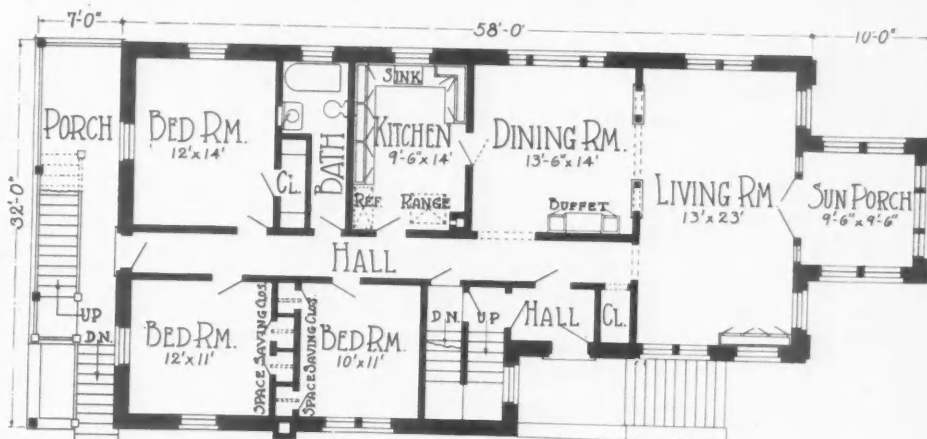
The photograph shows the remarkable reach of the equipment with the boom approaching the vertical while handling material five stories above its own base. GLEN McWILLIAMS.

DO you seek to give your customer the benefit of little savings here and there by using your knowledge of materials and ways of utilizing them? Do you know that if you save a young couple only \$50.00 by a timely suggestion for the home they are building you have made them your sworn friends and boosters for a lifetime?

HOW many women that your wife knows are living in homes that have interiors laid out in the boxed-up, inconvenient style of years ago? Couldn't you tear off an unsightly lean-to pantry and give a woman, instead, a built-in step-saver and a restful kitchen porch? Or build a fireplace in her living room, or built-in china closets of period style for her dining room, or playrooms or bedrooms by literally "raising the roof" of the attic?

Modern Two-Apartment Building

THE Two-Apartment Building Is No Longer a City Development. More and more it is coming to be accepted as a type of residence eminently fitted to any locality—town or city. Well-built and its grounds attractively landscaped it attracts a desirable, profitable class of tenant. The addition of garages at the back of the lot practically assures the landlord that, regardless of untoward conditions, he will always have a substantial type of tenant.



TYPICAL FLOOR PLAN



This Two-Apartment Is Designed for a Forty Foot Lot, and the Floor Plan Is Identical for Both Floors. The side entrance is a feature many appreciate, since it saves apartment room at the front of the structure.

Staining Interior Woodwork

By KENNETH DICK

THE practice of applying stain to wood so far as the interior trim of a house is concerned has a three-fold purpose: to bring out the natural grain and figure of beautiful woods, to tone down the jar of strongly figured woods, and to secure a harmonious color relation between the woodwork and the other factors in a room's decorative scheme, walls, floors, furnishings, etc.

So great is the variety of effect possible with stains that though the choice of woods is more limited, it is surprising that so little individuality has found its way into the woodwork treatment of the average home. Now, as for some years past, standing trim in color and finish has studiously followed furniture styles and conservatism in this field, except among small groups who by reason of wealth or inclination are not afraid to do some experimenting, has become a tradition.

When Mission furniture came in, woodwork promptly followed suit, introducing dull browns and greenish blacks; golden oak furniture brought out woodwork to match in a glossy varnish finish; red mahogany and the discovery that birch trim offered an excellent imitation soon had to compete with a vogue for enameled furniture, resulting in a compromise with which we are all familiar. Today Italian Renaissance and other antique reproductions are dominating the furniture field so that running true

to form we find walnut and brown mahogany woodwork carrying out the color and dull finish in trim.

As a logical result the woods employed have narrowed down to birch, which takes a brown mahogany stain beautifully, and gum which may be stained a walnut so skillfully as to defy any but an expert to tell it from the genuine wood. The two are interchangeable as well—very attractive walnut effects are possible on birch and mahogany on gum, but the wise painter will exercise the greatest care in the choice of a stain.

Take birch for instance. It has a natural reddish cast which is made brilliant by the use of a red aniline stain—perhaps too brilliant. For a deeper red shade, on the order of an old Colonial four-poster bed, stain containing a percentage of black must be employed. A brown mahogany oil stain, which will be flat brown on pine for instance, will become a mellow reddish brown on birch. Similarly with walnut—a stain which gives the correct shade on gum will have to be deeper and stronger to give as rich an effect on birch by reason of the reddish cast aforementioned which must be suppressed.

Gum when stained a walnut or mahogany color is a thing of genuine beauty.

Oak is also an open-grained wood and although by reason of its expense not so widely employed as formerly, offers an infinite variety of treatment.



Stains Enhance the Beauty of Interiors, of Floors, of Staircases. This living room, visible from the hall, is panelled in oak and stained antique finish. Fumed, weathered, early English, Flanders, mission, silver gray, frosted, smoked, gray-green, Italian, Jacobean or Hungarian stains are others which lend character to an oak interior.



How to Make Soft Woods Beautiful as Hardwood

It is generally admitted that wood finished in its natural shade cannot be worked as successfully into color schemes of decoration as stained wood. It is also true that color brings out the grain and enhances the natural beauty of most woods. For these reasons we manufacture a line of wood color known as Johnson's Wood Dye.

Johnson's Wood Dye is for the artistic coloring of wood. With it inexpensive soft woods such as pine, cypress, fir, etc., may be finished so they are as beautiful as hardwood. Johnson's Wood Dye is very easy to apply—it goes on easily and quickly without a lap or a streak.

Johnson's Wood Dye is a dye in every sense of the word. It penetrates so deeply that the natural color is not disclosed if the wood becomes scratched or marred—it brings out the beauty of the grain without raising it in the slightest—it dries in four hours and does not rub off or smudge.

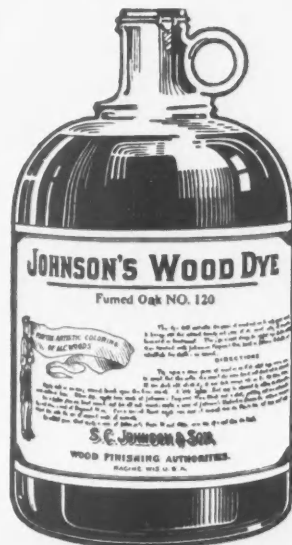
Johnson's Wood Dye is made in 15 shades, all of which may be easily lightened, darkened or intermixed—full directions on every label.

JOHNSON'S WOOD DYE

FREE—Book on Wood Finishing

It's the best book ever published on Artistic Wood Finishing—the work of famous experts—illustrated in color. This book is written for the practical man—it gives covering capacities, includes color charts, etc. We will gladly send it free and postpaid.

Use Coupon at Right



S. C. JOHNSON & SON
Dept. A. B. 6, Racine, Wis.
"The Wood Finishing Authorities."

Please send me free and postpaid your Book on Wood Finishing.

I usually buy varnishes from.....

My Name.....

My Address.....

City and State.....

Aside from the conventional light, golden and antique, it may be stained in the following agreeable effects: Fumed, Weathered, Early English, Flanders, Mission, Silver Gray, Frosted, Smoked, Gray-Green, Italian, Jacobean or Hungarian. Some of these are desirable only in a living room, some are suitable for dining and sleeping rooms as well, others are best confined to enclosed porches, odd rooms and sun parlors. Much will depend on the style of house, whether city or country, brick or frame, Queen Anne or chalet, etc.

All of the effects above described, beginning with Fumed, are customarily finished with wax and without filler. The exceptions are Silver Gray and Hungarian, the former stained gray and the latter light brown, both filled with a white filler, creating an agreeable form of contrasting harmony. Frosted and Italian Oak call for a colored wax which by partially filling the open pores gives an interesting liveliness to the whole.

We now come to the woods possessing a larger and more obtrusive figure such as pine, cypress, fir, hemlock, poplar, etc. With these soft woods the stain serves the purpose of subduing the figure rather than of bringing it out; moreover, they have individual peculiarities of composition and taken as a whole require the greatest care in staining in order through inadvertance not to produce too garish an effect.

Hard pine (yellow, southern, etc.) contains alternate hard and soft spots on which the stain takes naturally and blackish respectively. Cypress and fir take stains very well, but like pine are best stained in dark effects which even up

the figure and give a less glaring effect. Shades of golden, light and dark brown are recommended rather than light gray, red mahogany or natural. Ash and elm are hardwoods resembling oak in figure, require a filler and may be stained in any of the effects suitable for that wood. Redwood has a natural color of its own and is seldom stained.

Having covered in a brief way the choice of woods and of stain colors best adapted to them, it may be advisable to say a word about the composition of the stains themselves, classified by solubility. Spirit and acid stains are anilines prepared from powders and made ready for use with alcohol and water respectively.

Oil stains, customarily prefixed "Penetrating" because they dye the fibres rather than color the surface like the old pigment stains, possess both aniline and mineral bases.

Spirit stains are brilliant, penetrate deeply, dry almost instantaneously and do not raise the grain, but are extremely fugitive to light, that is, they fade very rapidly on exposure. For this reason they are used very little in construction work except in the black which is very useful for obtaining a Smoked Oak or Ebony effect. Acid stains also penetrate well, dry fairly quickly, are very brilliant and are the fastest to light of any type of stain.

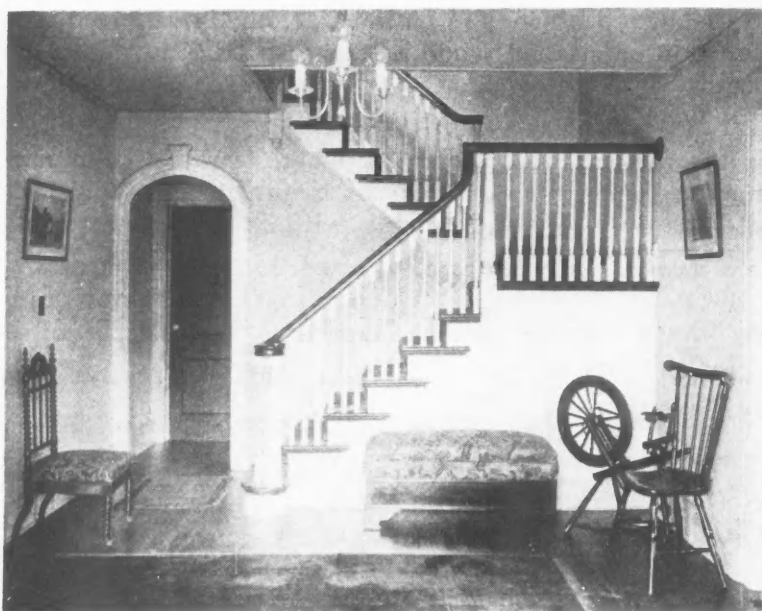
Unfortunately they have the effect of raising the wood grain and for this reason are not extensively used on interior trim in view of the prohibitive labor expense incident to sanding down the fibres. Nevertheless, on certain work and for certain effects there is no alternative to their use. If a window casing, door or any woodwork is to be stained a red mahogany, and is in an exposed position as to sunlight, nothing but an acid stain should be used if permanence of color is a requisite.

Similarly for Silver Gray and Hungarian Oak an acid article is the only stain which will give a really clear toned, clean cut effect. An oil stain may be and sometimes is substituted to save the sanding expense but the result is nowhere near as agreeable. The same is true of gum which is to be stained in imitation of Circassian Walnut; the stain must be very clear and carry a minimum of color, specifications which do not fit any but a water stain.

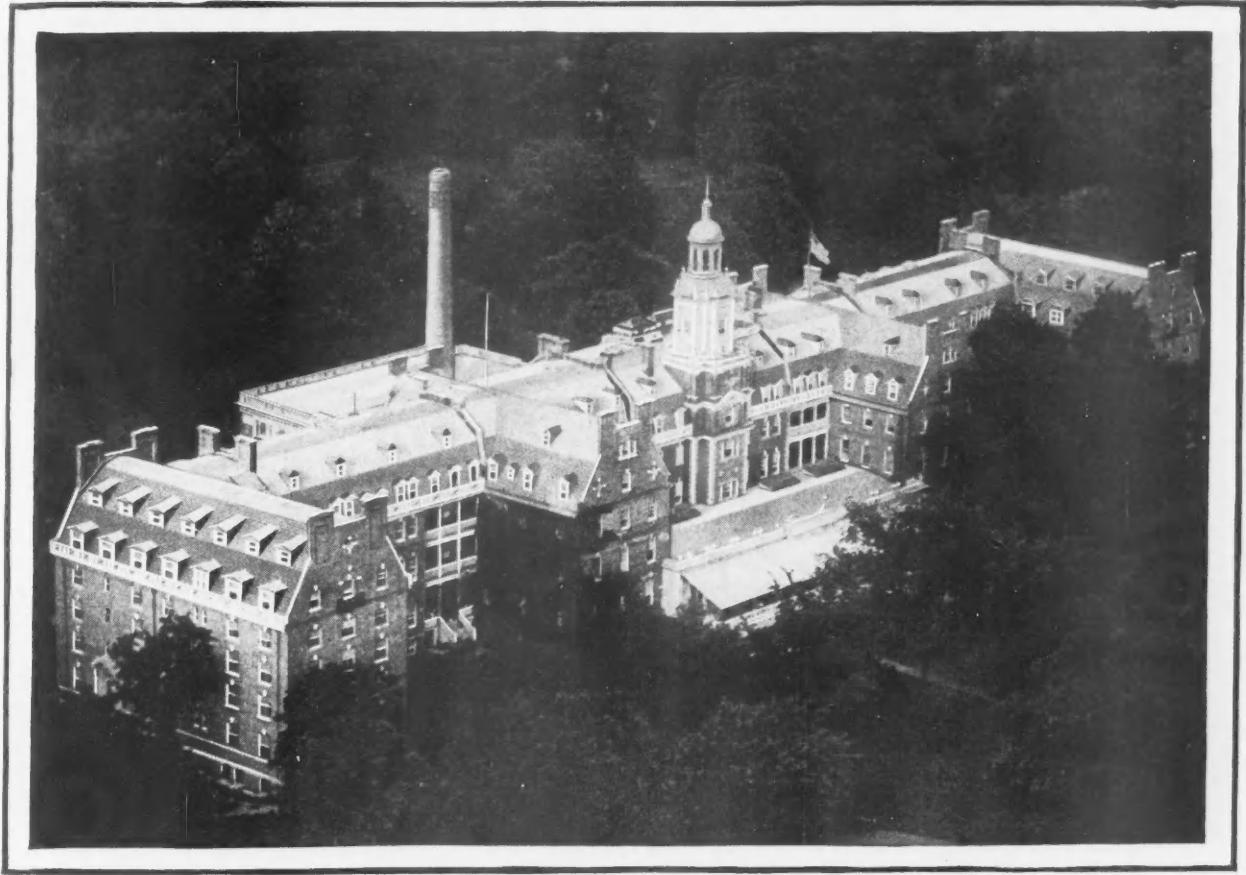
Penetrating oil

stains while less brilliant in result than acid or spirit stains, even when made up of anilines, are in an all around way the most satisfactory for building purposes. They do not raise the grain, are unfading, and dye the fibres deeply.

As previously pointed out, the same stain, whether spirit, acid or oil, will take differently on as many different woods. If the writer were a builder, architect or contractor, he would arrange with the manufacturer whose stains he uses to secure a set of panels composed of all the different woods he has occasion to specify or use for interior trim, stained and finished in every variety of effect likely to catch the eye of and please his clients.



Spirit Stains Are Brilliant, and May Be Used Where Light Is Not Too Bright to Fade—as with the Mahogany Staircase Trim and Floors of This Colonial Hall.



Garden City Hotel, Garden City, L. I., Re-roofed with Johns-Manville Asbestos Shingles.

Get the big jobs too—

Re-roof with Johns-Manville Asbestos Shingles right over the old roof

YOU can land big orders for re-roofing with Johns-Manville Asbestos Shingles right over the old shingles—along with the steady, consistent business that you get from dwellings day in and day out.

A job like the Garden City Hotel, shown above, would make a pretty good showing on your books, and there are a lot of such jobs all over the country just waiting for some one to go in and get them.

Suburban and Summer Hotels, Churches, and other large shingled buildings are all good prospects.

The beauty, permanence and fire safety of Johns-Manville Asbestos Shingles are powerful arguments in getting this business. Hotels, Churches and other buildings of this type must have

attractive roofs. Naturally, it is extremely important that they be as fire-safe as possible.

And as the owners are always anxious to have the job finished once and for all, quickly and without unnecessary annoyance, you have a proposition that will immediately appeal to them.

You can "re-roof all such buildings for the last time" with Johns-Manville Asbestos Shingles—right over the old roof—a quick, clean and easy job; no trouble from rainstorms in the middle of the job—no dirt, dust or delay.

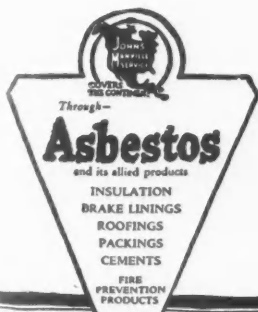
JOHNS-MANVILLE Inc.

Madison Avenue at 41st Street, New York City

Branches in 56 Large Cities

For Canada:

CANADIAN JOHNS-MANVILLE CO., Ltd., Toronto



JOHNS-MANVILLE Asbestos Shingles

Quaint House of Clinker Brick

By J. STUART MARLOWE

THE romantic spirit of the old world builder is injected into this house of clinker brick. The rapidly developing devotion to building as an art of self-expression is found here in its most eloquent form. This builder has harked back past the conventional modes, to reproduce a home of quaint old world charm combined with better modern building methods. And it is just this joining of the very old and the very new that has produced a truly picturesque and fascinating architectural motif.

In building this charming brick home the builder has adhered to no set rule of line or construction, but has drawn out his lines to suit his idea of the cozy, old world home, in romantic disregard for order. But good construction has in nowise been subordinated. This may be observed in the sturdy set of the walls, and the final blending of the lines to an artistic triumph.

Note how the jagged blocks of red sandstone have been combined with brick. Note the irregular slate that has been utilized in the corners of the eaves; the vari-colored slate in the roof; the quaint old doors and windows. In the commercial rush of late too many

brick buildings have been only unromantic piles of baked clay. But in an awakened realization of the possibilities of brick, the builder of America is creating old world poems of brick inspired by new world visions of beauty.

The building was designed by Donn Barber, architect, of New York, and erected for George W. Hale at "Boscobel," the estate of Shonnard, at Oyster Bay, N. Y.

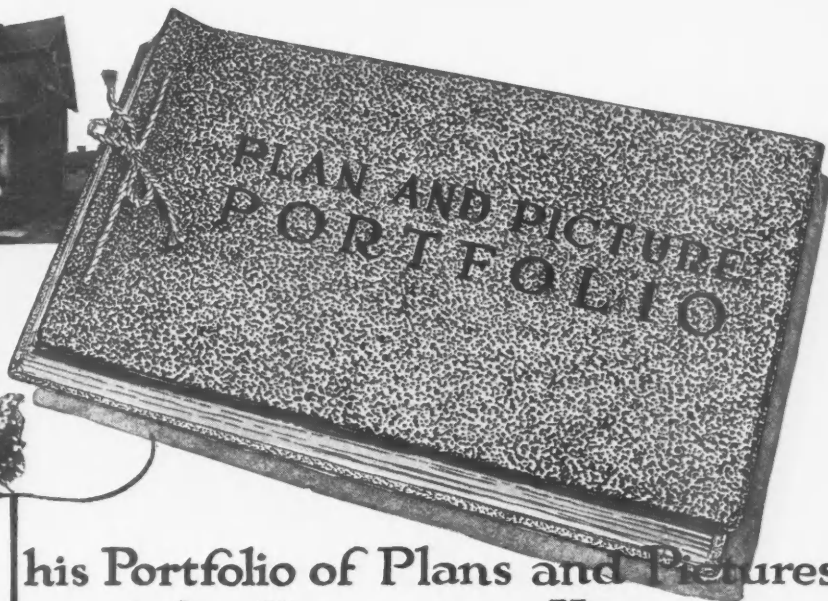


The Thrift Habit

THE thrift habit is never better acquired than by going into debt to acquire a credit. Bonds, investments, are acquired that way. But a home is more tangible than a bond and investment. A man who sits in the strong box of a safety deposit vault, fondling his financial paper, can easily seem a miser in our eyes. A man sitting in his home, built by the indirect effort of his hands, playing with his children, watching his helpmeet fondly as she busies herself with those little pleasures and duties which make a house a home—he commends himself to our admiration. He is one of those who make the world go 'round.



Note How the Jagged Blocks of Red Sandstone Are Combined with the Oddly Laid Brick of This Residence. The irregular slate roof and evergreen plantings and casement windows complete the illusion of quaintness. Donn Barber, of New York, was the Architect. Owner, George W. Hale, Esq., Oyster Bay, N. Y.



**This Portfolio of Plans and Pictures
of Six Distinctive Homes
Worth \$300—Yours for \$60!**

Show prospective home owners plans such as these, with pictures of the finished jobs, and you're sure to get their interest. From there it's only a short step to closing the contract.

Here's a sales closer worth many times its cost. You couldn't produce these designs and plans for \$300. They're yours for only \$60—six sets of working drawings (original blue prints), six sets of specifications, original photos of each home, and six copies of "Your Next Home," all in the portfolio.

10¢

Photographs and floor plans of 60 unusual brick homes—selected from thousands for beauty and interior arrangement. Every one has been actually built and lived in. A house for every taste and purse.

Brick 25¢

Valuable tables of material and labor costs. Illustrations and data on modern, money-saving uses of common brick—including the Ideal Hollow Wall. Thousands of these books are in use by architects, builders and dealers.

Cash In on Demand

Brick has always been preferred for beauty, permanence and final economy. And now the obstacle of first cost has been cleared away. Good Old Common Brick has smashed the fallacy that brick is expensive. Demand is increasing as the economy and beauty of Common Brick are becoming so widely known.

Cash in on this demand—the coupon will start things coming your way.

The Common Brick Industry of America
2131 Cleveland Discount Building, Cleveland, Ohio

Enclosed find \$10 for portfolio of plans for six distinctive homes, balance to be paid when plans are received. Ship C. O. D. to

Name _____

Address _____

The Common Brick Industry of America
2131 Cleveland Discount Building, Cleveland, Ohio.

The Ideal Brick Hollow Wall
Made of standard brick—cuts the cost one-third

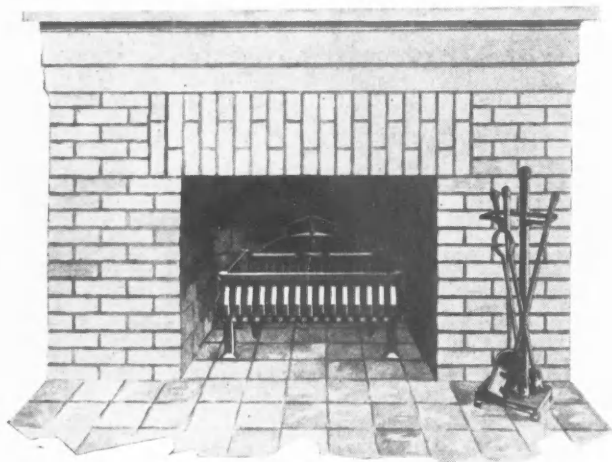


EDITOR'S NOTE: *The AMERICAN BUILDER does not accept payment in any form for what appears in our reading pages. In order to avoid any appearance of doing so, we omit the name of the maker or seller of any article we describe. This information is, however, kept on file and will be mailed to anyone interested; address AMERICAN BUILDER Information Exchange, 1827 Prairie Ave., Chicago.*

Grate Baskets for the Fireplace

THE fireplace is a definite fixture in the modern apartment or home, and besides being a decorative adjunct is a utilitarian feature which serves to give genuine heating efficiency. This is particularly true since the more general realization of the advantage of grate baskets, which hold the coal or any other fuel in a position which accelerates the distribution of heat but gives economical consumption.

One manufacturer is producing such a grate reasonably, due to quantity production, confining himself to two designs which enable him to keep his costs at a minimum. Yet, for



A Good Grate Basket Holds Fuel in a Position Which Accelerates Distribution of Heat and Gives Economical Consumption.

all practical purposes, the prospective user of these grates finds his wants well met with either of them. One of the designs, the one with an ornamental back and rear casters, is illustrated. The other is made without this high back or the rear casters. Either fits in any style of fireplace. They are made of a superior quality of iron, in heavy casting, and have an improved dump grate.



New System of Reinforced Concrete Construction

A FIRM of consulting engineers have recently developed and patented a molding device for making hollow reinforced concrete walls with one or more air spaces for insulation. The wall consists of precast reinforced concrete studs,

usually spaced 16 in. apart and made either solid or split. Horizontal reinforced concrete beams at each floor level, cast monolithic with the studs both above and below, extend around the structure and, with the studs, form a complete structural frame. Stucco or plaster is applied to the roughened precast concrete plates. Walls of any thickness and studs of any size or spacing may be made; consequently the system conforms to good engineering practice and design, and is adaptable for any building construction.

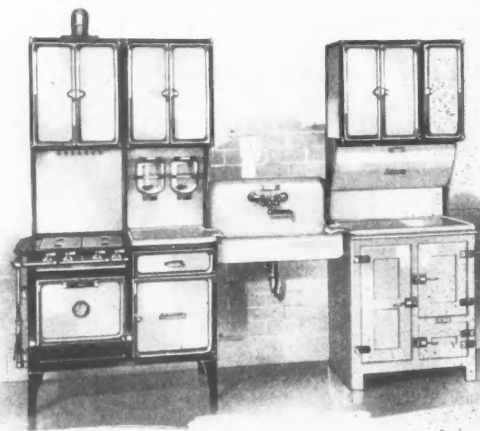


Saving Steps in the Kitchen

AT the Livingston School, Montgomery, Ala., pedometer tests showed that in the badly-arranged kitchen a housewife is forced to do a daily Marathon of two extra miles. The pedometer test covered the stove-to-sink-to-pantry route from the morning bacon and eggs to the dessert for the evening dinner.

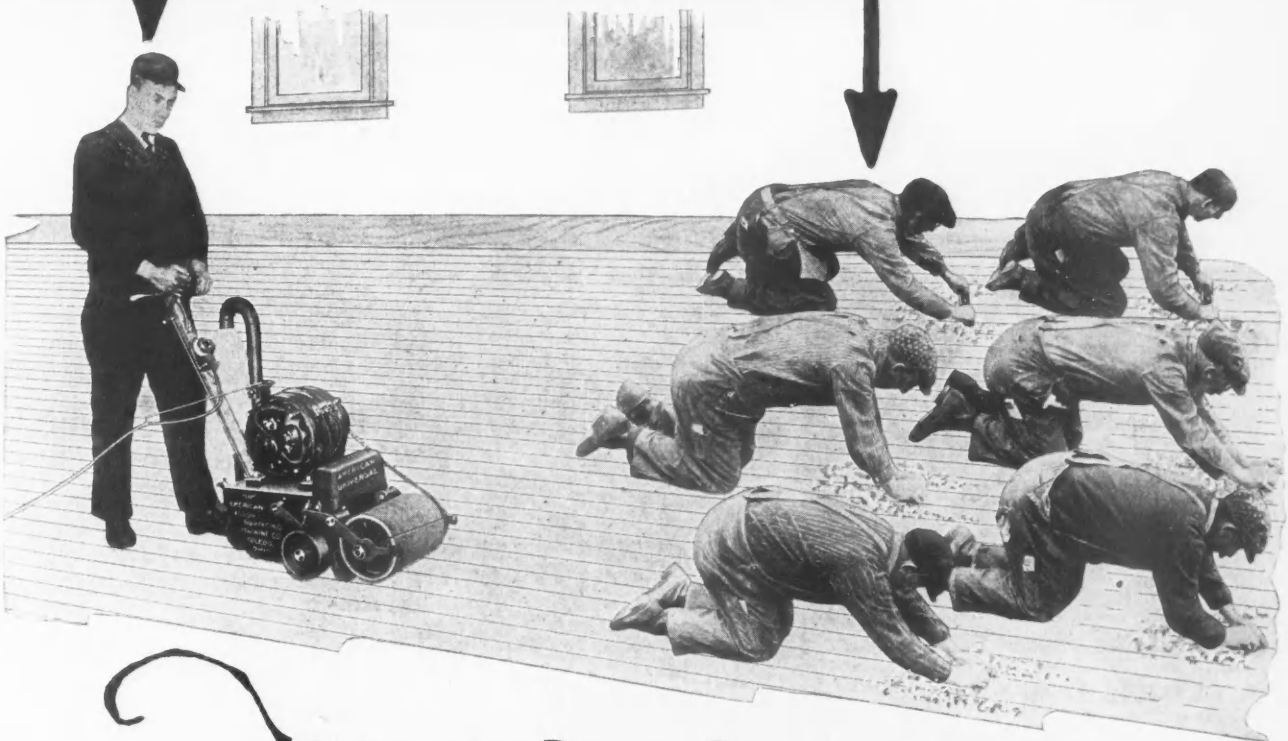
In view of all this one manufacturer called domestic science experts into consultation, and finally has perfected an improved kitchen-stove-cabinet-sink-china closet unit that enables Friend Housewife to make an apple pie in just eight steps, or a dinner in eighty.

His unit is constructed of porcelain,—all except its backing wall. At the left sits the gas range of blue porcelain, with flat four-burner top, and oven and broiler underneath. Adjoining, with only an asbestos filled, porcelain covered partition between, is a white closet for pots and pans. A drawer for the kitchen cutlery is above this, and a ribbed porcelain drain board covers the top, one end of which is connected with the gas range and the other with the sink. Between the cutlery drawer and this top a mixing board is slipped in, so that all one needs to do is pull it out, lay it on top of the drain board, and the mixing operation, plus sugar



An Arrangement Like This—Range, Sink, Cabinet—Improves a Kitchen or Kitchenette, and Saves Miles in the Course of a week. A truly twentieth century achievement.

SIX MEN OR ONE ?



Which Pay Roll would You rather Pay ?

The "American Universal" floor surfacing machine does the work of six men scraping floors by hand. In other words, where it costs you \$48.00 for hand scraping, the "American Universal" will do the same amount of work for you at a cost of only \$8.00—an actual saving of just exactly \$40.00.

Are YOU paying the \$48.00 or the \$8.00? There is a whole lot of difference. Why not add the \$40.00 to your profits?

The "American Universal" is simplicity itself both in mechanical construction and actual operation. No experience is required in order to turn out an A-1 job at a rapid rate of speed.

FREE FIVE DAY TRAIL OFFER

We will welcome the opportunity to ship you an "American Universal" to try it out for yourself five days **FREE OF CHARGE**.

Clip the coupon today and mail it to us. We'll gladly send you full particulars and free catalogue by return mail.

**AMERICAN FLOOR SURFACING
MACHINE CO.**

515 South St. Clair Street TOLEDO, OHIO

HERE'S THE COUPON

Send at once without obligation on my part full particulars and free catalogue. Also explain your five-day trial offer.

Name.....

Street Address.....

City.....State.....

and flour, is ready, without another step. The sink has a swing faucet, and its porcelain drainboard ends against the porcelain white refrigerator. Porcelain cupboards, set at a convenient height, run the entire length, in four sections of two doors each. There is a compartment for salt, pepper and other seasoning, and a hole at the back of the range leads into a blind flue that carries off the odors and smoke of cooking. As efficient as a well planned factory, a man would say; but a woman—well, just show her and see.

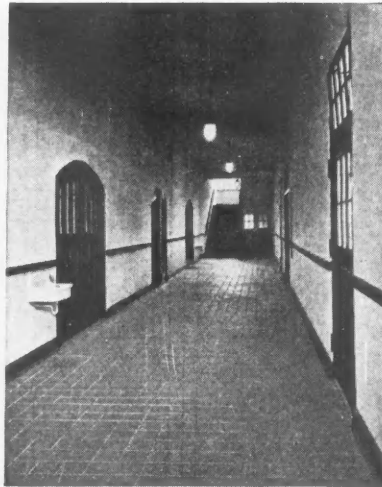
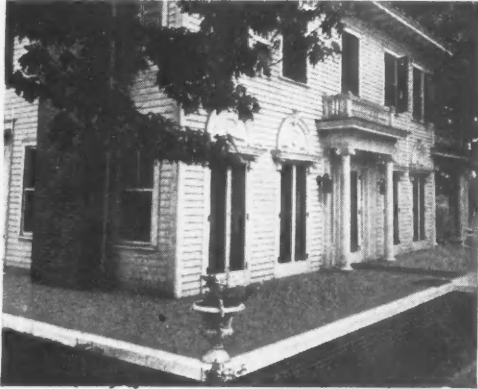


A New Colored Concrete Hardener

A NEW principle is employed by the inventors and manufacturers of a compound for coloring, hardening and waterproofing concrete floors. Marketed as a paste with about the consistency of white lead, when put into use it is dissolved in the gauging water, where it dyes every particle of sand and cement of the floor topping a deep rich color.

Its coloring, waterproofing and hardening functions are not limited merely to the surface of the floor, but act uniformly and evenly throughout the entire topping layer. There is no

Combinations of Colors May Be Laid to Fit Any Method of Treatment or Any Decorative Scheme. These illustrations show a colored tile effect.



thin coat of color or no shell-like veneer of hardened surface to be broken or worn through by a few months of heavy traffic. The new compound hardens and colors the upper $\frac{1}{2}$ to $\frac{3}{4}$ inches of the floor.

The resulting color is deep, rich and unfading. A uniform shade across the entire surface of the floor is insured by the even dissolution of the compound in the gauging water. A smooth finish with a lasting luster is produced. Six attractive colors are now available: Tile Red, Tobacco Brown, Nile Green, Battleship Gray, Buff and White. Combinations of these colors may be laid in a variety of designs to fit any decorative scheme desired. When the floor is troweled it is ordinarily cut into squares varying from 6 to 18 inches.

Colored cement tile employing this new compound are made in regular sizes 6 by 6 inches, 6 by 9 inches, and 9 by 9 inches and are laid like quarry tile.

The cost is very little more than that of the ordinary concrete floor and the installation is simple.

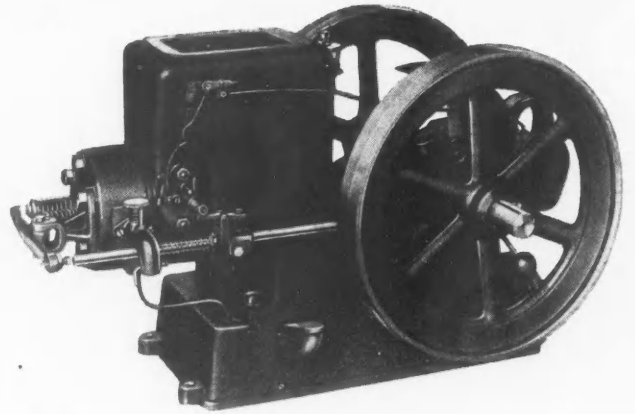


Strong and Sturdy Two and One-Half Horse-Power Gasoline Engine

A NEW $2\frac{1}{2}$ H. P. model gasoline engine is proving very popular in the construction field.

This new size embodies many new improvements and refinements which add to durability and efficiency and to the operator's convenience.

The new filler pipe to fuel tank as shown in the photograph has caused much favorable comment among operators,



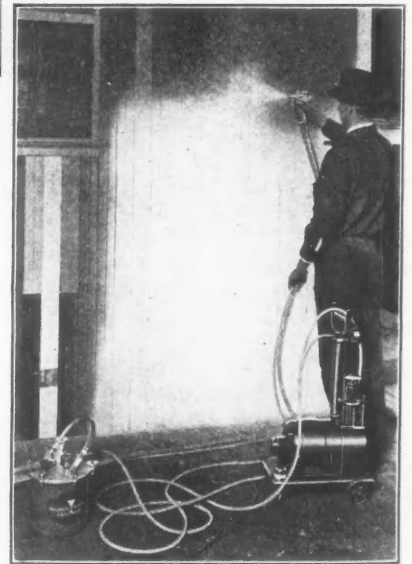
A Two-and-One-Half H.P. Gasoline Engine, with Handily Placed Fuel Tank, Standard Equipment and Magneto Ignition; Small But with Wide Range of Usefulness.

due to the ease and convenience of filling the fuel tank. The double throw switch, assuring uninterrupted service, is now standard equipment on all sizes with magneto ignition; and the new magneto mounting in addition to being convenient, is high and dry—away from oil and grease. The wide, heavy flywheels, the heavy crankshaft and bearings give unusual strength and rigidity to the engine.



Portable Spray Painting Equipment

ILLUSTRATED is a light weight, portable outfit of the pressure type. It can be transported to the job by

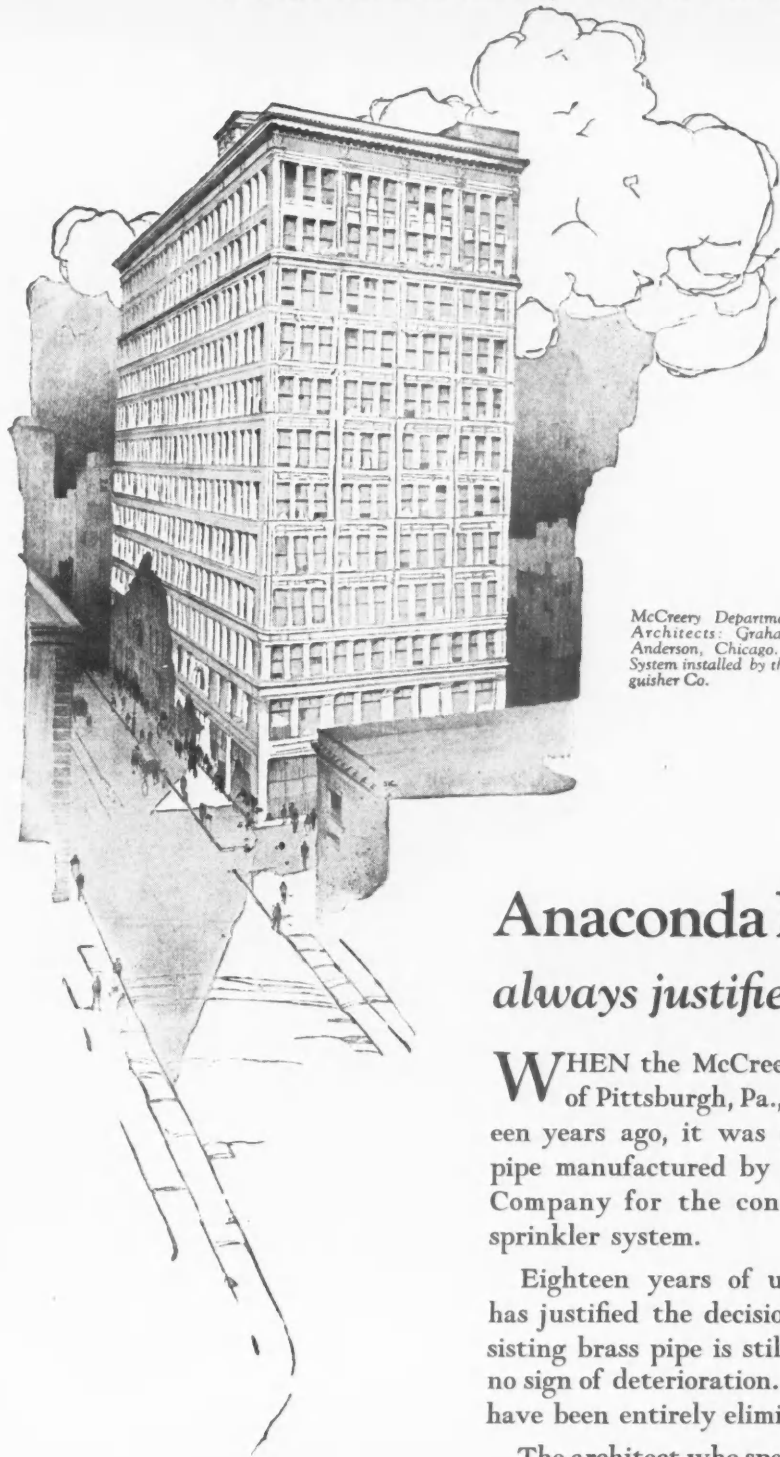


Applying Mill White with the New, Portable, Light-Weight, Electrically Operated Sprayer.

automobile or other conveyance, and can be easily handled by one man, operating simply by connection with the ordinary electric light socket.

On this account it commends itself for the painting of the interiors of hotels, office buildings, hospitals, apartments, stores and the smaller industrial buildings; the exterior of residences and similar structures; and for use in automobile and paint shops on job work. One of its most important applications is in connection with interior decorating of the finer sort, for the paintings of blinds and screens, bronzing radiators, etc.

The speed of operation varies naturally with the character of the work done. As a rule, it is three to four times faster than brush work on flat surfaces of reasonable size, while on radiators and other irregular and well-nigh inaccessible greater speeds are obtained. The finished coatings are free from brush marks, laps, runs and sags.



McCreey Department Store, Pittsburgh. Architects: Graham, White, Pabst and Anderson, Chicago. Fire Extinguisher System installed by the General Fire Extinguisher Co.

Anaconda Brass Pipe *always justifies its selection*

WHEN the McCreey Department Store of Pittsburgh, Pa., was built over eighteen years ago, it was decided to use brass pipe manufactured by The American Brass Company for the concealed work of the sprinkler system.

Eighteen years of uninterrupted service has justified the decision. The corrosion-resisting brass pipe is still in place and reveals no sign of deterioration. Maintenance charges have been entirely eliminated.

The architect who specifies Anaconda Guaranteed Brass Pipe protects his client against plumbing maintenance charges—an important consideration in planning present-day buildings.

Write for bulletin "Brass Pipe for Water Service." It gives valuable information on plumbing and comparative costs.



Brass Pipe with this trademark stamped in the metal is guaranteed by The American Brass Company

THE AMERICAN BRASS COMPANY

General Offices: Waterbury, Conn.

Offices and Agencies in the principal cities

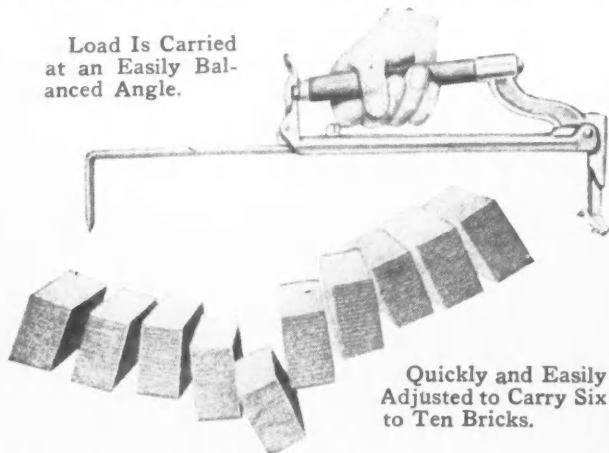
In Canada: ANACONDA AMERICAN BRASS LIMITED, New Toronto, Ontario

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Workmen Like This Carrier

A NEW brick carrier is being placed on the market. It is far different from the old type of carrier that requires two hands to operate, and that carries the load at a very un-

Load Is Carried at an Easily Balanced Angle.



Quickly and Easily Adjusted to Carry Six to Ten Bricks.

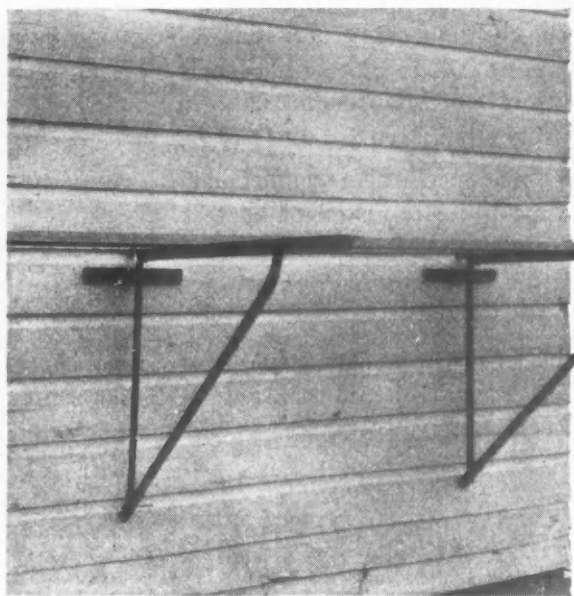
comfortable angle, straining the shoulder. It gives always an evenly balanced load, and is quickly and easily adjusted to carry from six to ten bricks. It is operated with one hand, and the load is automatically released by pressing down on the handle. Workmen like it because it makes work easier; employers like it because their men as a rule do more work. The good grip for the hand which it has, and which makes it easy to lift the load, usually speeds up brick unloading by several loads a day.



The Day of the Iron Scaffold Bracket

A GOOD method of lessening construction costs is through the use of dependable iron scaffold brackets that can be used over and over again. The all-wood type of scaffold is too wasteful. Then, too, the greater percentage of construction accidents are due to faulty scaffolding, and careless scaffolding construction can only be avoided by utilizing a safe scaffolding unit which can be put up on any kind of building by anybody. Such a unit is offered by the iron scaffold bracket.

The type illustrated is well made of angle iron and will stand hard usage, and render service on many jobs year in



The Greater Percentage of Scaffold Accidents Are Due to Faulty Scaffolding. An iron scaffold bracket is safer and cuts waste.

and year out. It can be put up or taken down instantly. No nails are required, and each iron bracket has a safe carrying capacity of 1,400 pounds. When through with, it folds up compactly for the storage yard or the truck that is to carry it to the next job.



Metal Weatherstripping the New House

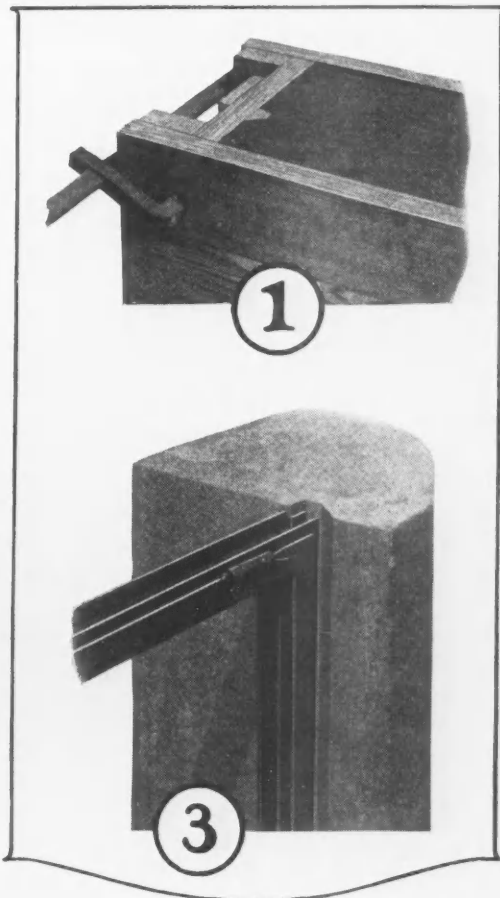
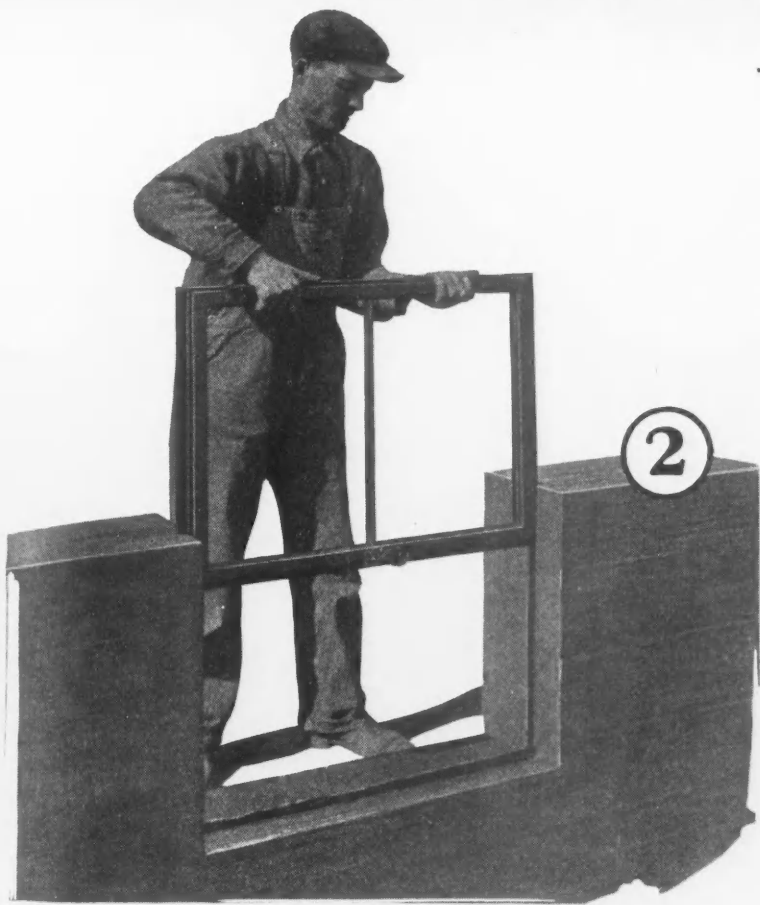
IT is, fortunately, becoming more and more the common practice to consider adequate weatherstripping of door and window openings as structural with the building of a



An Interlocking Weatherstrip Which Is Easily Applied, Is a Dust-Guarder, Heat-Conservor and Anti-Window Rattler from the Moment It Is Installed.

house. Installed this way, it easily proves the most profitable investment.

We illustrate one make of interlocking metal weatherstripping that invites attention on its merits; which is easily applied, and which begins to function as a dust-guarder, heat-conservor and anti-window rattler from the moment it is installed. Yet there is no binding of the windows; they slide up and down most easily in dry or wet weather, and there is an entire absence of anything like a draft when they are closed. Even a west wind stops short before windows thus protected. Housewives would be the ones to appreciate this fact the most. A housewife wishes to keep her home comfortable; show her how she can do so without



The Fin Simplifies Installation In Poured Concrete Basement Walls

Build up your wall forms as usual—and when you come to the window jamb—nail a strip of wood, as shown in Figure 1. When the form is torn down, it leaves a slot 2 inches wide, across the top, 1 1/8 inches deep and 1 1/4 inches wide, at the bottom, into which the sash slides easily.

To install the Fenestra unit, slip in the sash, keeping the fin against the straight side of the slot, as shown in Figure 2. Then grout up from the inside. A trowelful of mortar, spread on the sill, fills the channel at the sill of the sash when it is slipped in. This method of installation makes the sash practically an integral part of the wall, as can be seen from Figure 3.

Fenestra Basement Windows can be installed in walls of brick, tile or concrete block as easily as in formed concrete.

Because Fenestra Basement Windows come complete, with lock, and priming coat applied, and with sash and jamb already hinged together, they can be installed with one-third the labor required for wood windows. They save time, expense and confusion on the job.

Fenestra Basement Windows have as many advantages for the owner as for the builder. They admit 80% more light than wood windows of the same size; they never warp nor stick; they are fire resistant; they last as long as the building.

DETROIT STEEL PRODUCTS COMPANY, 2502 East Grand Boulevard, Detroit, Mich.

Fenestra

BASEMENT WINDOWS

Fenestra
 The name of the ORIGINAL steel WindowWall.
 The symbol of superior QUALITY in material, patented design, workmanship and service.

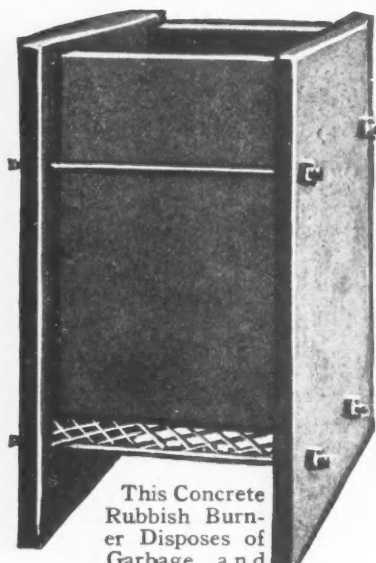
necessity of unsightly storm sash, and she is, as the saying goes, thoroughly "sold" on it. When she wants ventilation she knows she can have it by opening the window; forced ventilation is not inflicted on her.

Anyone who has lain awake on a windy night, sleep destroyed with rattling sash, needs no further argument as to the advisability of weathstripping. The wise one is the one who forestalls such a state of affairs by installing interlocking metal weatherstripping at the time the house is built.



Rubbish Burner of Concrete

THE ordinary method of rubbish disposal works a hardship upon the housewife, anxious to keep things clean, and is apt to become a nuisance to neighbors. Who likes to have their yard and porch littered with the soot and charred fragments of rubbish and newspapers burned in the alley?



This Concrete Rubbish Burner Disposes of Garbage and Rubbish—the Latter Furnishing the Fuel.

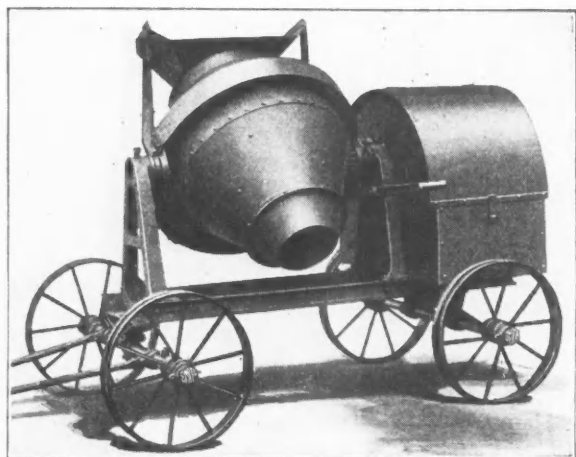
There is obtainable now an incinerator built of a light-weight concrete—a material particularly well adapted to be exposed to a hot fire, rain and snow alternately. It consists of four slabs, rodded and bolted together, and a top and bottom netting. Its natural grayish color fits unobtrusively into the yard or garden scheme, and it outlasts other methods of getting rid of excess papers and rubbish.

✦

Brings Out a Half-Bag Tilting Mixer

NOW and again, some invention or development is brought out which, because of its importance, causes an unusual amount of comment.

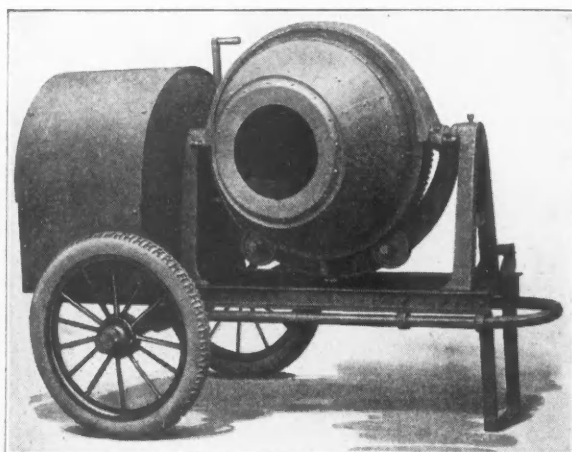
This little half-bag mixer is built along exactly the same lines as larger tilting mixers. The double-cone drum, the central gear ring and roller track, the independent tilting frame—these are all the same as on mixers of larger size. The double-cone drum has fast, continuous production and speedy discharge, like emptying water from a bucket. The tilting lever



Half-Bag Tilting Mixer with Feed Chute. Discharge side—tilting lever locks in discharge position. Drum returns automatically when lever is released.

operates easily and locks in the discharge position. The drum returns to the mixing position automatically as soon as the lever is released. No time or effort is wasted.

The new mixer has a mixed batch capacity of 3¼ cubic



Half-Bag Tilting Mixer—Two-Wheel Model, Charging Side. The pressed steel wheels are fitted with clincher rims for Ford 30 by 3½ pneumatic tires.

feet or a full half-bag batch of 1-3-6 mix with materials containing the usual 40 per cent voids. It meets a real demand for a small size mixer of design and merit.

These tilting mixers are built in two models. Model 1 is equipped with two pressed steel wheels fitted with clincher rims for Ford 30 by 3½ pneumatic tires. Model 2 has four steel wheels, 24 inches in diameter and 3-inch grooved treads.

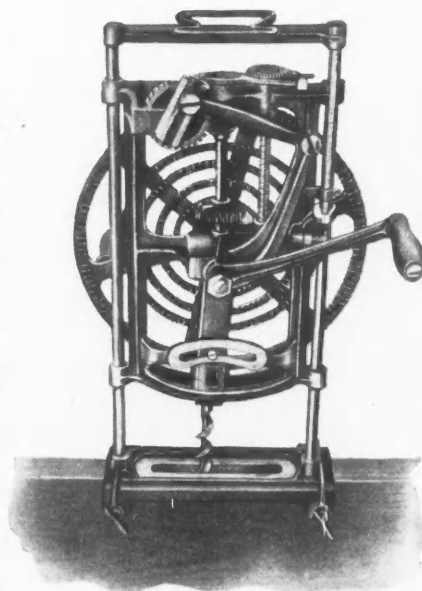
The two-wheeled model, with its light weight (only 1,100 pounds) and pneumatic-tired wheels is the last word in portability. With a hauling stub that is so arranged that it can be drawn out for readily attaching the mixer to an automobile, truck or wagon, this little mixer can be towed quickly from one job to another. While the mixer is being moved, the front supporting leg is folded up out of the way.



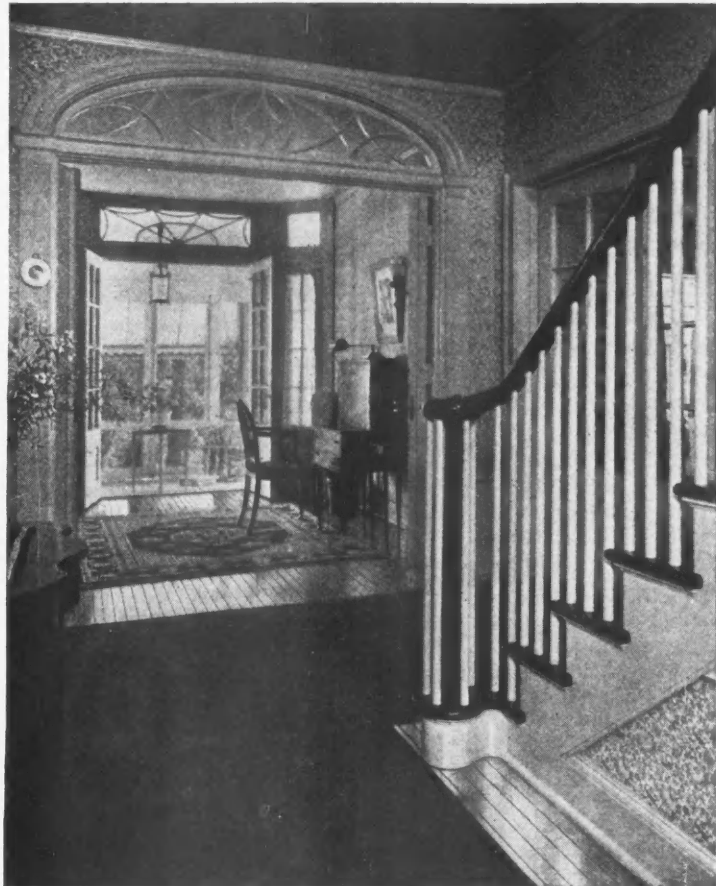
Perfection in Mortising

HERE is an automatic, hand-operated, adjustable and easy running machine that cuts a perfect mortise with

straight sides, as good as the most expert machine can do it and in much less time. It can be used for mortising door locks, sashes, sash pulleys, screen doors, folding doors, cabinet work, etc., without damage or risk to the material. It is adjustable from a perfect round hole to a 6-inch slot, and one nice thing about it is that it will work in hard, soft or knotty wood, with or against the grain, and through dowel pins or panel ends with ease. Bits ranging from ¼ to 1¼-inch can be used.



An Automatic, Hand-Operated Machine Which Mortises Perfectly for Door Locks, Sash Pulleys, Screen Doors, Folding Doors, Cabinet Work, etc.



Do you think of *Color* when you think of Floors?

The modern home owner wants more than a mere hardwood floor—he wants a hardwood floor that will harmonize with the color scheme of his walls or woodwork—his drapes or furniture.

“Color Harmony in Floors” is the possibility opened to you by the use of Maple, Beech or Birch, in residential construction. Maple, waxed or varnished, will give the golden color of sunlight; Beech or Birch will take and retain any color stain.

And yet, beauty is only one merit of these floorings. Each has a tough-fibred, tight-grained surface which is polished by the friction that pulverizes stone. For service or beauty, floor with Maple, Beech or Birch in any home, apartment, school, church, store, factory or public institution which you build.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1053 Stock Exchange Building, Chicago

Send for this book of interest to architects, contractors, builders, owners. “Color Harmony in Floors” will reveal new decorative possibilities to you. Write us and receive a copy with our compliments.

Guaranteed Floorings

The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture, and ad-

here to manufacturing and grading rules which economically conserve every particle of these remarkable woods. This trademark is for your protection. Look for it on the flooring you use.

MFMA

Floor with Maple Beech or Birch

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

One carpenter recently cut 140 mortises in a day with it, yet it does not require a skilled mechanic to operate it. Men whose hobby is home cabinet work,—making furniture as relaxation after the end of a busy day,—would find this simplifying their mortising and tenoning difficulties greatly.

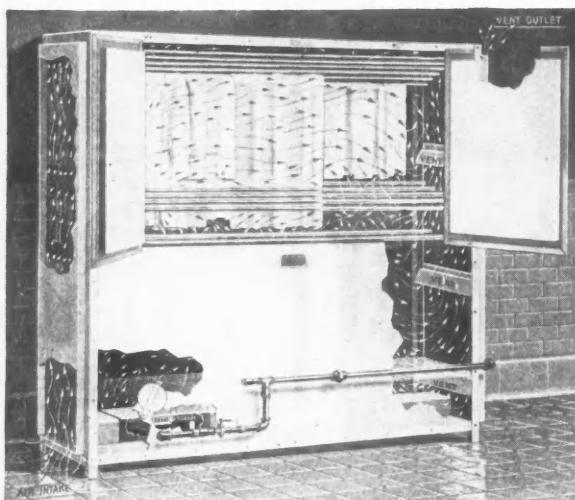
The mortiser is automatically thrown out of gear when the desired depth is reached, and is adjustable from a round hole to any size mortise up to six inches. It is well made and though it carries a one year guarantee it will, with reasonable care and occasional oiling, last a lifetime. It usually pays for itself in a few days.



The Day of the Clothes Dryer

CLOTHES DRYERS are coming into ever wider and wider use, the waste heat from the laundry stove being utilized to heat the cabinet and dry the clothes.

The housewife needs no introduction to the merits of a clothes dryer. She knows the sinking feeling of the heart that comes on a washday morning when she sees the sky overcast and the ironing delayed a day or two longer than necessary. With a clothes dryer the clothes are dried as they are washed, the laundress getting one batch of clothes ready, hanging them in the dryer, while letting the washing machine operate towards getting an additional hanging of clothes ready. The result is that when the washing is through



The Housewife Needs No Introduction to the Merits of the Clothes-Dryer, Especially When It Is As Economical, Simple and Dependable as This.

the clothes are ready for ironing. Aside from the extra cleanliness due to not having to expose the clothes to the unavoidable dust and soot of the outer air in the yard the advantage in being able to refrain from being exposed to extremes in temperatures is an important consideration. Colds usually follow in the wake of the yard-hung clothes on washday; not so when the housewife or laundress can stay indoors and arrange her work.

Of course ventilation of a clothes drier is all-important. The only economical way is to take the air at the top of the drying cabinet, and have the moisture removed at or near the base. This is the method utilized in the dryer illustrated. It removes all dangers of discoloration, and produces the same results as pure sunshine drying.



Brightening up of Terrazzo and Hardwood Floors is Now Part of Annual Spring Cleaning

MORE and more the floors are coming in for their share of attention with the advent of spring house-cleaning, in home, office, up-to-date factory, public buildings, institu-

tions and elsewhere. A scraped hardwood floor looks so bright and attractive one gets the impression of extreme

cleanliness and of having moved into an absolutely new building. A re-surfacing and re-polishing of terrazzo floors creates the same impression of radiant cleanliness.

The machines illustrated is a rapid grinding floor machine with two planetary discs which rubs one hundred feet or more of terrazzo floors per hour.

The sub-plates re-

volve with the discs, assuring even wear on all the emery stones.

Another machine eliminates the necessity of hand-scraping hardwood floors. Electrically operated, and with an automatic vacuum cleaner that picks up all dust, its work is meeting with favor with housewives generally, and making small fortunes for the resourceful floor-surfacing man who recognizes the productive field for this class of work.



The Carpenter's Daily Helper

ANY carpenter knows he cannot afford to guess at the length and pitch of rafters, or the cutting of stairway stringers, or the laying out of a silo or a circular bay. Figuring out any angle is an easy problem for the mathematically-inclined, and there are easily-remembered formulas which help the man looking for a further short-cut. But the wise carpenter, and the prosperous one is the one who works accurately and fast because he lets a mechanical helper do all that computing and at the same time uses that mechanical helper as a tool on his work as he goes along.

A practical carpenter has perfected such a tool. It consists of three simple steel parts which are set by thumb screws to hold solidly in any desired position. These parts are stamped with divisions—the quarter-segment in degrees, and the other two parts in feet subdivided to 12ths and 24ths of an inch.

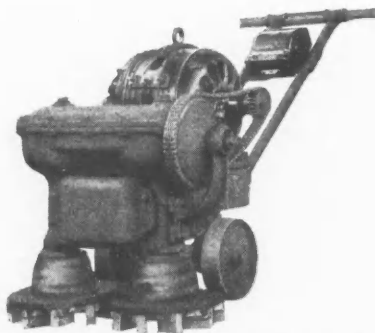
By a rapid mechanical adjustment which is easily made this tool gives quickly the correct combination for any angle. The user reads lengths, pitches, etc., directly from the tool and marks the required cuts right in the wood.

The tool is simply and compactly made of high-grade, finely finished steel and will not spring, loosen, collapse when set, or get out of order. It is folded by simply loosening the thumb screw.

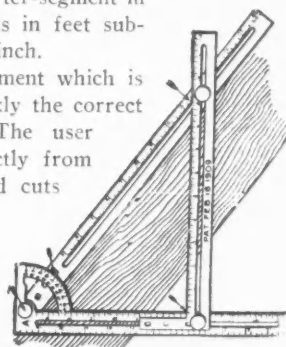
Though it takes up surprisingly little room and is quite inexpensive, the carpenter will find it a real daily helper and one of the biggest time and work savers in his whole tool chest.



MACHINING small parts in multiple thicknesses, widths or lengths, according to their peculiar shape and size, and afterward sawing them apart with smooth-cutting saws, is a prevailing practice by which many woodworking factories are increasing production and lowering costs.



This Machine Has Two Planetary Discs Which Make for Safe, Perfect Resurfacing, and Offers a Profitable Source of Income to the Professional Floor Resurfacer.



By a Rapid Mechanical Adjustment Easily Made, This Tool Gives Easy Readings for Lengths, Pitches, Angles, etc., for Roof Framing and Other Work.



Kellastone Interior Super-Plaster is a real fulfilment of a world wide demand for a stronger, tougher and more durable plastering material. It's an oxy-chloride cement product — prepared ready for use by a process that definitely controls the physical properties and chemical actions of the basic materials. To build for permanence, beauty, individuality in interior walls, is to buy or specify KELLASTONE INTERIOR SUPER-PLASTER. Ask your local dealer or write direct to us for full information which we will gladly furnish.

KELLASTONE
IMPERISHABLE STUCCO

STUCCO ~ SUPER-PLASTER ~ FLOORING

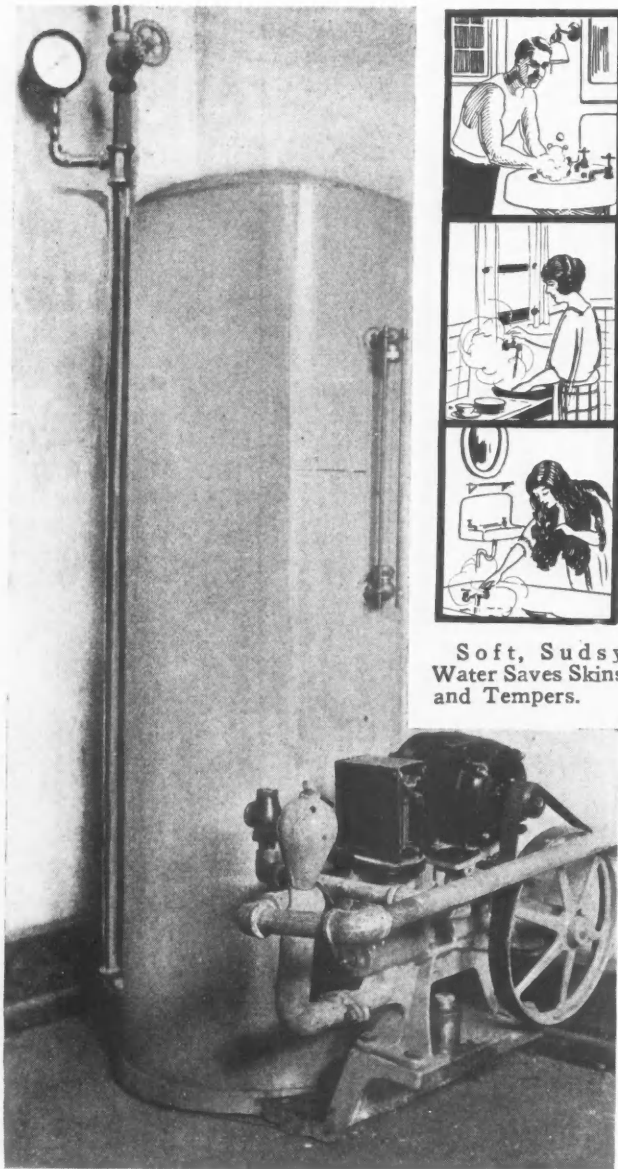
National Kellastone Company ~ Chicago ~ New York

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

How Every Home May Enjoy Soft Water

THOUGH hard water is healthful for drinking, especially because of its bone-building content for children, for household use—bathing and washing—it has many disadvantages.

It roughens, chaps and splits the skin. It requires twice



Soft, Sudsy Water Saves Skins and Tempers.

A Complete, Reasonably Priced, Easily Installed Automatic Electric Soft Water Pumping System that Does Away with Priming and Blessing that Cistern Pump.

the amount of soap compared with rain water. It leaves white clothes gray and murky, because the dirt does not free itself from the clothing readily when washed in hard water and the soap itself cannot be satisfactorily rinsed from the clothes. Dishes washed in hard water are difficult to dry and are covered with a film of grease. The skin frequently "itches" after a hard water bath.

Therefore, where water is hard, rain water, being soft, is collected and used for washing and bathing, being stored in cisterns for that purpose.

Before the advent of the automatic electric household water system, it was necessary to pump cistern water by hand or have unsightly overhead roof tanks. But now the water pressure system, which is in effect a private water works, supplies soft water from the cistern and puts it under good pressure for use in kitchen, bath and laundry.

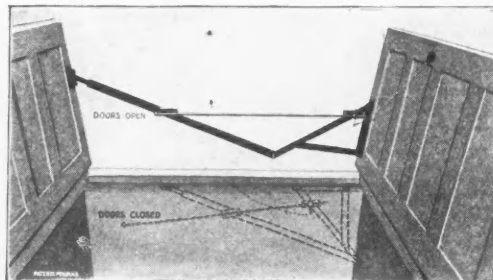
The complete system, as illustrated, comes ready to install and retails at a very reasonable figure. It is entirely automatic and requires no attention. One doctor in Florida who uses this system, supplies seven other homes with water. Furthermore, he states that bacteria cannot live in running water under pressure.

All "Better Homes" in hard water districts are being equipped with private soft water systems.



Keeping Garage Doors Under Control

THIS is a standard garage door control adjustable to swinging garage doors of the usual widths of 46 to 50 inches each. It requires no fine adjustment, being merely bolted to the doors. It has no connection with the building, and is designed to protect the motorist against accidents in driving in and out of his garage. It reduces clearance less than four inches, leaving usually an ample clearance of about a foot over the top of cars.



Looking-Up View. The control opens one door a few inches before the other moves, so inside locking bolt can be released. Non-slamming, noiseless, durable.

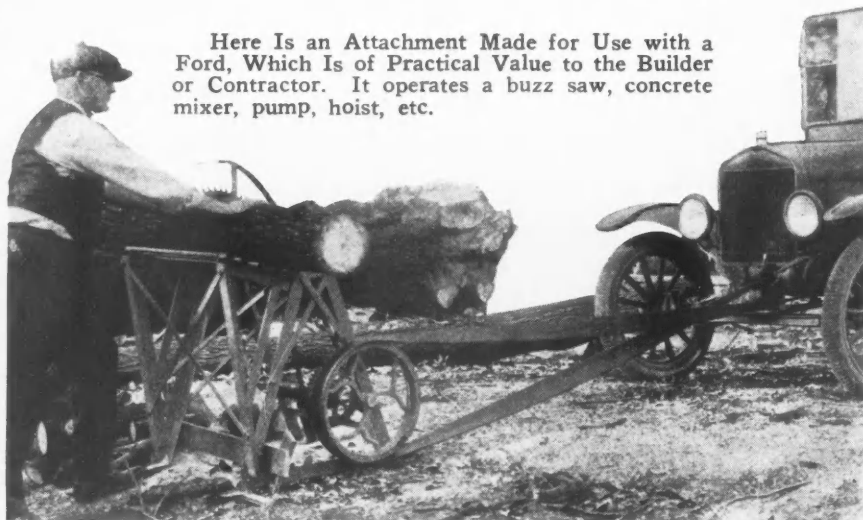


Handy Portable Power From the "Ford"

ALMOST every builder and contractor appreciates the usefulness of a power pulley that would admit of instant attachment to machines, with but a belt to slip on. Here is shown a power-producing pulley, attachable to Ford cars—whether it is with or without starter makes no difference—and which runs light machinery equipment economically and perfectly. All that is required is the driving of the Ford close to the machine it is desired to operate, slip on the belt, and begin work.

The device is constructed of the best material procurable and is accurately machined throughout. It operates directly

Here Is an Attachment Made for Use with a Ford, Which Is of Practical Value to the Builder or Contractor. It operates a buzz saw, concrete mixer, pump, hoist, etc.





Mule-Hide Roofing and Shingles
just naturally wear longer

THE LEHON COMPANY
MANUFACTURERS
44th to 45th St. on Oakley Ave.
CHICAGO, ILLINOIS

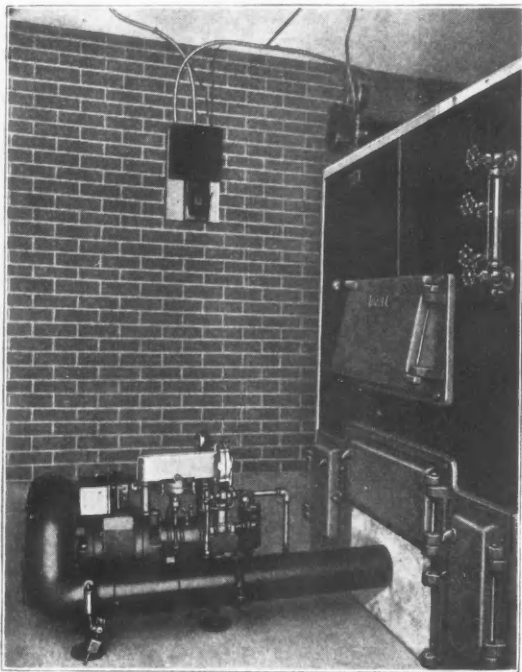
“Not a Kick in a Million Feet”

off the crank shaft, thus eliminating the use of the transmission, differential and gear wheels, reducing wear and friction to a minimum. It has demonstrated its practical value to the builder and contractor in providing the required power for operating a buzz saw, concrete mixer, pump, sawing form lumber, house lumber, hoisting, etc. An automatic accelerator, which may be installed in conjunction with the power pulley, keeps the equipment running at an even rate under all conditions, due to its governing features, decreasing or increasing the power automatically as needed, with a consequent saving of gasoline.



Oil in Home Heating

THE absence of coal and ashes from the usual house basement would be so very noticeable and agreeable that few householders, few housekeepers, would care to see them return. Who has not undergone the inconvenience of washing down the



Spick and Span as That Wonderful Place, a Dutch Kitchen, Is This Basement with Oil Burning Mechanism Installed. Clean, dependable, economical, and no ashes!

basement two or more times a year, after the periodical delivery of coal?

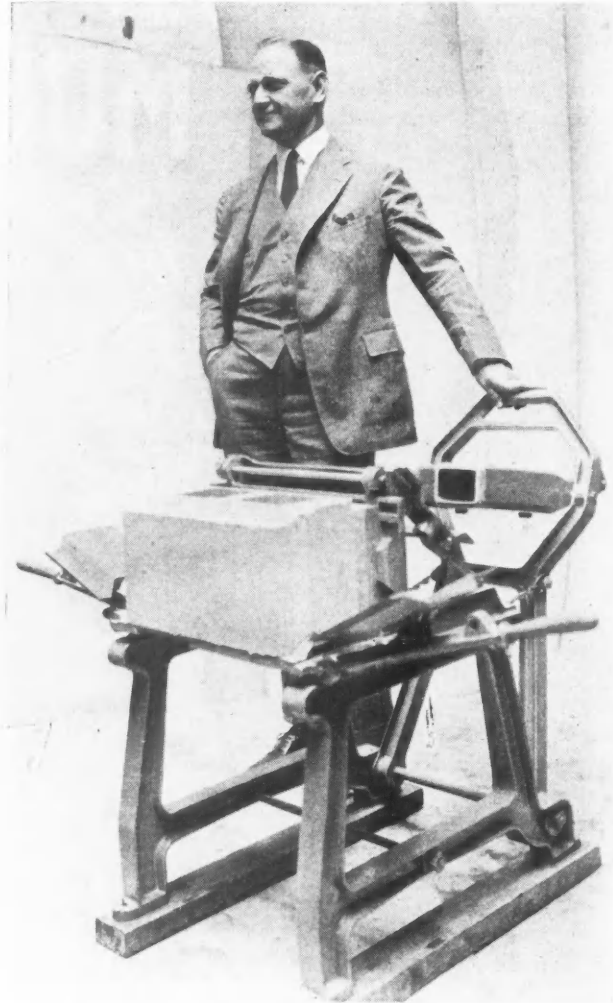
Boiler tests, wherein the fuel used was oil, seem to show that besides making for genuine basement and house cleanliness, the burning of fuel oil shows an unusually high thermal efficiency as compared with coal. This is due to the larger heating surface exposed to the direct radiant heat of the oil burner; the effective manner in which the principle of counter flow of gas and water is employed, resulting in the exceptionally low temperature of the escaping gases; and the rapid circulation which is obtained on account of the small amount of water contained in the boiler.

The oil burning mechanism, of course, needs to be reliable and dependable, and a grade of oil used which will make for free combustion. The type of oil burner illustrated—one which enjoys a wide popularity with home-owners who favor oil—insures a comfortable, automatic, clean heating surface, and is mechanically so handled that its sound is well muffled and hardly noticeable in the basement, to say nothing of upstairs. The use of a storage tank for the oil is naturally necessary, and it is placed within the basement proper or outside, underground, as required by the local building ordinances which may be operative in certain localities.

Lays Easily, Interlocks, Finds Own Level, Does This Concrete Block

A NEW machine which will make interlocking concrete block by a semi-wet process has recently been placed on the market. This block appeals particularly to builders and contractors, because it is easily laid and practically finds its own level. It is so made that every block interlocks with the next laid block at the bottom, top and at each end.

The accompanying illustration shows the machine and the type of block produced. The machine differs from others because it produces an interlocking block, face down, with a semi-wet mixture. As the cost of the equipment is comparatively low, it is claimed by the manufacturers that large output at a low



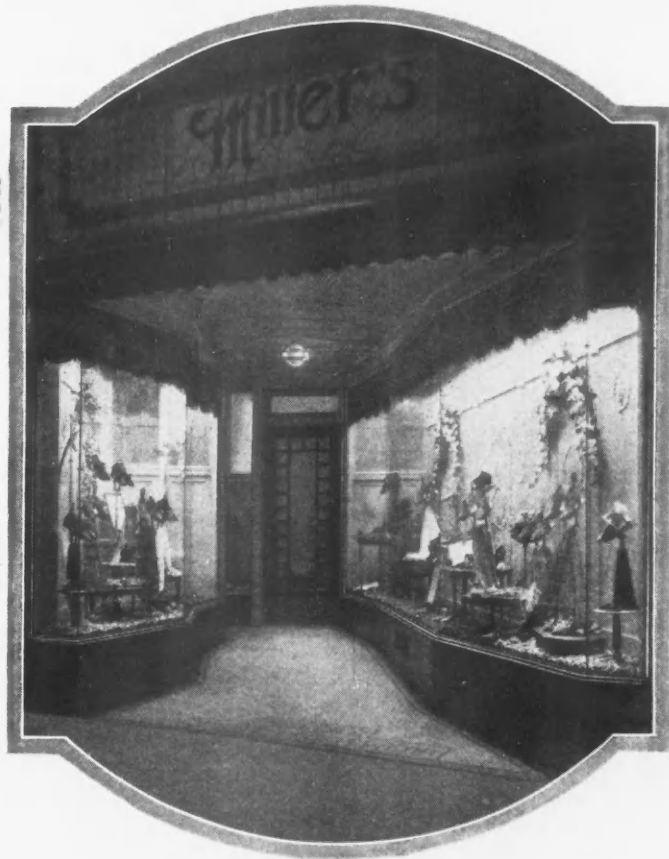
New Machine Makes Interlocking Concrete Block That Lock in with Next Block at Bottom, Top or each End. Cost is low, with big variety and output.

operating cost can be easily secured. The block produced is guaranteed to be accurate and can be made with either rock, plain, panel or other faces. Straight, jamb, half, corner and all other types of block necessary can be made on the same machine, each type having the interlocking feature.



Sanitation Expert Joins Groeniger Manufacturing Company

THOMAS J. CLAFFY, formerly Acting Chief Bureau of Sanitation, Department of Health, Chicago, Ill., is now with the Groeniger Manufacturing Company, Columbus, Ohio, and will be its representative, with offices at 138 North La Salle Street, Chicago, Ill.



What Is The Actual Profit On Your Store Front Jobs

ONE of our Brasco contractors states that he has made more money in the last six months with Brasco Copper Store Front materials than he ever made in twelve months before with any of the several other types of construction previously tried.

Here are the reasons for the bigger profits Brasco gives: (1) Brasco can be installed by ordinary workmen—you save skilled labor costs. (2) Brasco construction is simple—complete details and plans furnished enable you to set up jobs quicker. (3) Brasco construction endures—

no other sash gives you the selling advantage of Brasco Kalemein sash with the patented creosoted wood core that lasts indefinitely. (4) Brasco setting is **safe**—your glass breakage losses are practically nil. (5) Brasco assures beautiful finished jobs—jobs that advertise **you** and bring you a steady stream of new business.

The Brasco catalog, Brasco details, designs and your **personal** check-up on Brasco installation costs will open your eyes, too!

Mail the coupon for bigger store front profits!

Brasco
COPPER STORE FRONTS

BRASCO MANUFACTURING CO.
5029 S. Wabash Ave., Chicago, Ill.

BRASCO MFG. CO
5029 S. Wabash Ave.
Chicago, Ill.

Gentlemen:

Brasco Profits Interest Me!

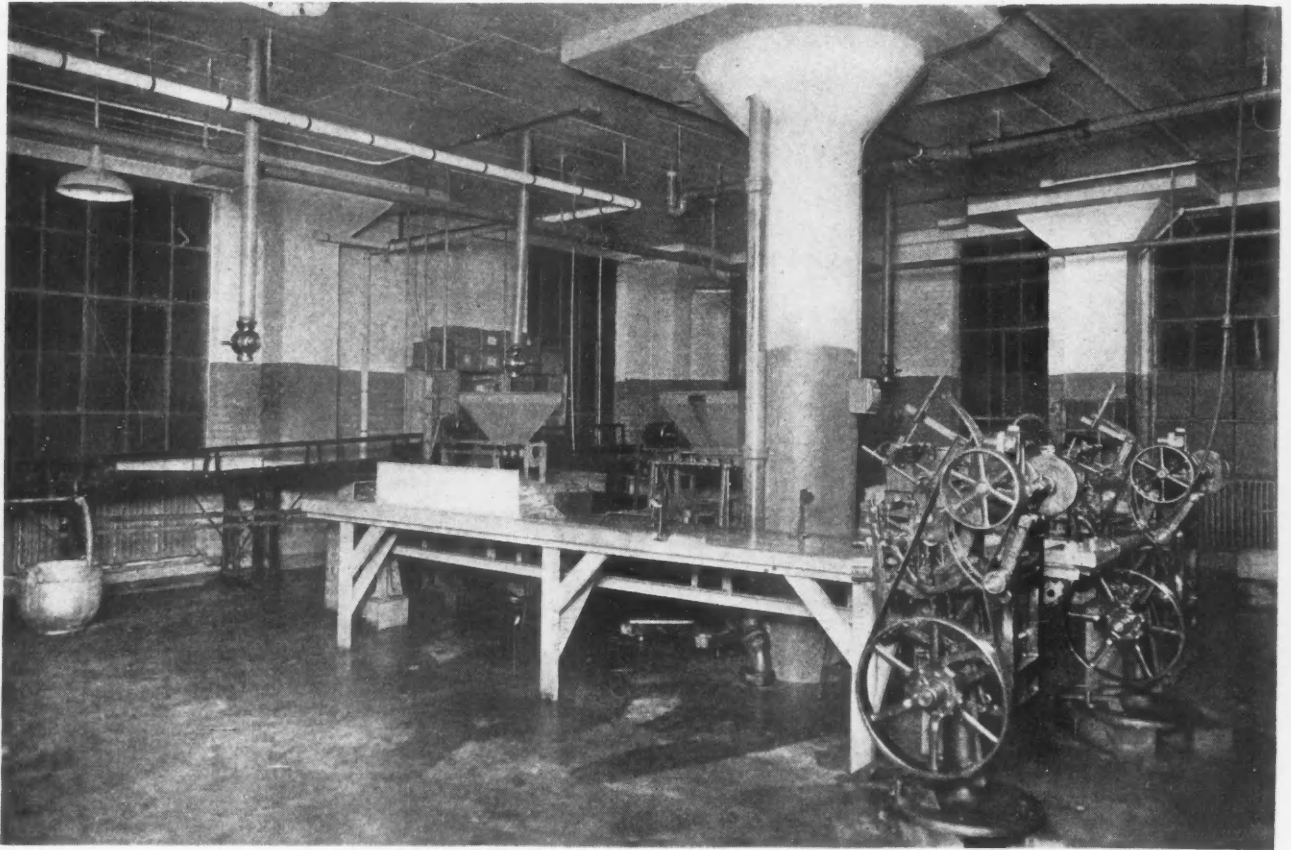
Send me your catalog and tell me how I can make more money installing Brasco Copper Store Fronts.

Name.....

Street and No.....

City.....State.....

(AB 6-23)



This Modern Food Products Plant Had Its Concrete Walls Sprayed with the New Sizing Before Walls Were "Cured," and Were Painted Next Day. This eliminated paint disintegration, peeling or saponification.

New Method of Sizing Concrete or Plaster to be Painted

ONE of our chemical industries has developed a new method of sizing concrete, mortar or plaster surfaces to be painted which is proving of great interest to architects, painters and builders throughout the country.

The new method of sizing consists of chemically treating concrete, mortar or plaster surfaces in such a way that the alkali is neutralized and changed into a non-injurious crystalline formation. This method not only protects the paint film against softening, peeling or disintegration due to alkali conditions but it also hardens and unifies the suction of the surfaces to be painted.

This new sizing treatment may be applied to the concrete plaster or masonry without allowing time for the surfaces to thoroughly cure. Thus the owner may have his building decorated before occupying the premises.

A very interesting installation of both the new and the old method of sizing is shown in painting done in the thoroughly modern food products plant of A. E. Wright, manufacturer of "Wright's Salad Dressings" at 1215 Diversey Parkway, Chicago, Ill.

The concrete ceilings and plastered walls in the office of this building were treated with the old sizing method and painted. The alkali of the walls "burned" through the sizing and reacted with the oils of the paint causing a disintegration of the paint film to such an extent that it is necessary that these surfaces be properly treated and repainted. The concrete ceilings, plastered partitions and brick walls of the factory proper including the factory side of the plaster partitions of the offices were treated with this modern method of chemical sizing such surfaces. These surfaces were then painted on the following day and the paint film shows no signs of disintegration, peeling or saponification.



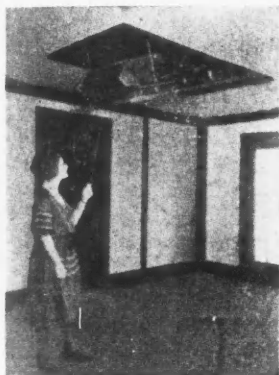
What Old Sizing Method Did to Walls: Alkali of Walls "Burned" Through, Ruining Paint.



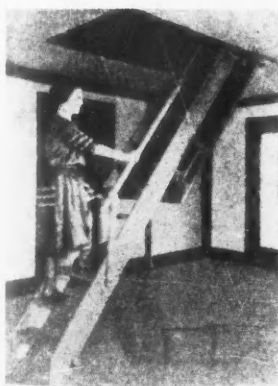
The Old Way
The Costly Way
The Losing Way

The New Way
The Saving Way
The Money Making Way

Let **BESSLER**
Tell You How to
Add **\$1,000.00** More
To Your Home
By Spending
Less Than
\$100.00



Panel only part Visible from Below when Folded



Strong as a Stationary Stairway



COUPON

BESSLER MOVABLE STAIRWAY CO.
Akron, Ohio

Please send me without obligation complete information about the Bessler Movable Stairway, and how it adds \$1,000.00 to a home.

Name

Street

Town

Architect

Contractor

Owner

State



Says we to YOU

[You being a Lumber Supply Dealer or Millworker]

SAYS we to you: "How many times have you better builders wanted the genuine aromatic red cedar and couldn't get it? No need any more for this disappointment, to you or your customers, because you can obtain at any time, and in any quantity of 5,000 feet or more, this genuine aromatic red cedar in the form of Kilmoth. Its real aromatic quality is an absolute destroyer of moths, and is being demanded by people building new dwellings and by those who wish Kilmoth placed right over the plastered closet of old construction. Endorsed by leading architects and builders.

"Now is the time for you to give utmost consideration to the sale of this product. For full information concerning our new Distribution Plan, fill in the coupon below."

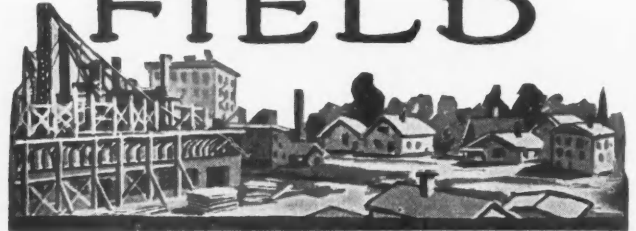
KILMOTH
Products Corp. 50 Union Square, New York
 Please send me your Distribution Plan.

.....

Check opposite your business Builder or Contractor
 Sash door, Mill and Supply Lumber and Supply.

**KILMOTH is AROMATIC
 RED CEDAR**

NEWS of the FIELD



April Construction Increased 7 Per Cent Over March

THE rate of increase in building operations showed signs of slackening in April, according to F. W. Dodge Corporation. The increase over March in 36 eastern states was only 7 per cent, whereas April normally shows an increase of 15 to 20 per cent over March. In view of the enormous volume of operations started since the first of this year, this slowing down of the seasonal rate of increase is a wholesome sign.

Total contracts awarded during April in 36 eastern states amounted to \$399,243,000. In 27 of these states, the record shows an increase of 1 per cent over April of last year. Construction started from January 1 to May 1 shows an increase of 15 per cent over the corresponding period of 1922. On April 1, the record showed an increase of 23 per cent over the corresponding period of last year.

The April record in detail included the following items: \$175,129,000, or 44 per cent, for residential buildings; \$67,228,000, or 17 per cent, for public works and utilities; \$53,826,000, or 13 per cent, for business buildings; \$39,803,000, or 10 per cent, for educational buildings; and \$33,335,000, or 8 per cent, for industrial buildings.



Kilmoth Cedar Lining for Clothes Closets in Strong Demand Says General Manager Krieger

MANUFACTURING a superior grade of aromatic red cedar which has been found to be an effective moth destroyer, the Kilmoth Products Corporation finds that its product has met an instinctive need of the housewife. It is rapidly becoming a preferred lining material for clothes closets in residences and apartments generally. The increasing number of such desired installations coming to the attention of AMERICAN BUILDER's plan and engineering department prompted a call upon the Kilmoth Products Corporation at their New York office.

"Naturally we are glad of the appreciation of the house-building public," said C. J. Krieger, general manager, when interviewed. "We felt that red cedar wood of fine quality, with its warm pinkish color and pleasantly aromatic and moth-destroying qualities would, if made available at low cost, meet with favor among housewives generally. We simplified the design and structural detail of the panelling we proposed to furnish, making it suitable for both new construction and homes already built. Now we find that it is adding a vital selling value to those houses, besides increasing the selling and renting possibilities of homes and apartments now going up. We have increased our facilities to keep step with the increased demand, and are now marketing Kilmoth red cedar lining panels on a scale which, when incorporated in new construction, compare very favorably with the cost of ordinary, non-moth destroying lath and plaster or other material."

Trouble Savers on the Job

Saving time and trouble on the job means producing results and profits with the consumption of the least amount of material.

There is no economy in wood scaffolding. Neither is it safe.

Workmen feel free of worry when working on TROUBLE SAVER Scaffolding. They know there is no possibility of an accident.

The employer knows there will be no damage suits to pay.

THE STEEL SCAFFOLDING COMPANY
EVANSVILLE, INDIANA

Write for our illustrated catalogue, giving sizes, prices, weights and other information.

Trouble Saver scaffolding is guaranteed to give satisfaction, or money returned.



WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Mahogany Association Elects Officers

THE new officers of the Mahogany Association, Inc., for the year 1923, elected at the annual meeting in New York, April 10, are as follows:

President—Col. C. C. Mengel, The Mengal Co., Louisville, Ky.

First Vice President—Reuben Arkush, Willard, Hawes & Co., New York.

Second Vice President—H. E. Dougherty, Hoosier Veneer Co., Indianapolis.

Third Vice President—Ingeman Olsen, Gulf Lumber & Trading Corporation, New Orleans.

Fourth Vice President—C. E. Ingalls, Ingalls-Ransome Co., Nashville, Tenn.

Treasurer—F. C. Leary, Ichabod T. Williams & Sons, New York.

Assistant Treasurer—J. C. Wickliffe, Ichabod T. Williams & Sons, New York.

Mr. F. C. Schmitz was re-elected secretary of the Association.

The Association's executives were able to report material progress during the year, both as to membership, which had increased from 21 to 32, as well as in the matter of educational advertising, the results of which have been most gratifying.

Southern Pine Association Book, "Modern Homes," Used in Part for European Distribution

GEORGES Benoit-Levy, director of the French Society of Garden Cities, has selected forty of the fifty attractive designs and floor plans of cottages and bungalows shown in the Southern Pine Association book, "Modern Homes,"

for inclusion in a book. The title of this will be "Maisons de Campagne sans etage et Bungalows" (Country Houses without Upper Story, and Bungalows).

Will Invoice Universal Cement by Sack Hereafter

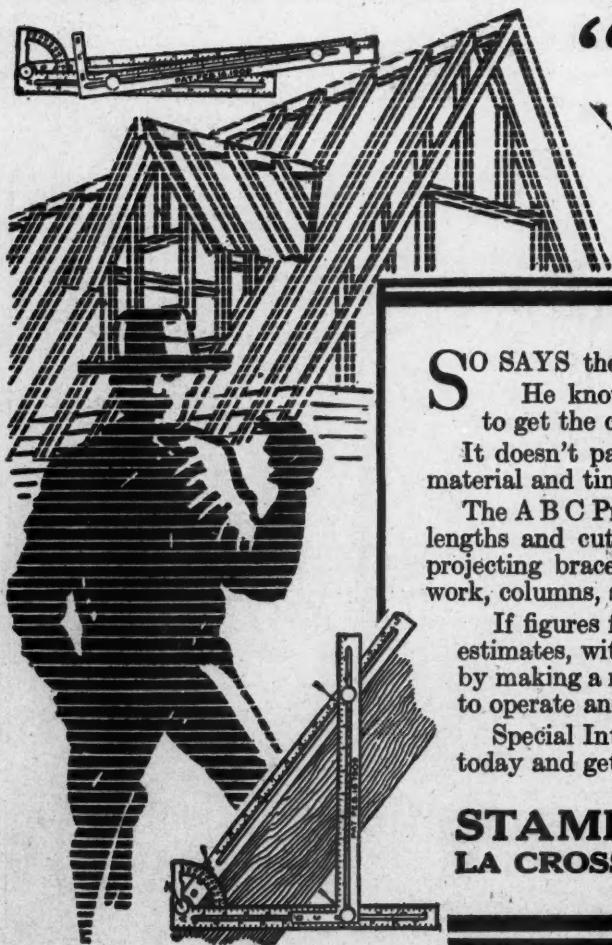
BEGINNING June 1, 1923, Universal cement will be sold and invoiced by the sack instead of by the barrel.

This change is made only after sending an inquiry to thousands of cement buyers, including dealers, contractors, architects and engineers, large industrial concerns and others. The replies were overwhelmingly in favor of the change.

Grading Committee of Southern Pine Association Makes Important Recommendations

DEFINITE decision respecting the attitude of the Southern Pine Association upon various phases of the program for national standardization of the lumber industry, was reached by the Grading Committee of that organization at a meeting held at the Grunewald Hotel in New Orleans. The committee also adopted several amendments to its grading rules.

The committee recommended adoption of the proposed basic names, or nomenclature for finish, boards and dimension, but went definitely on record against any change in the Southern Pine Association grades or grade terms for timbers. Members of the committee were unanimous in the opinion that the defects in various woods are peculiar to each species and that it would be impossible to devise uniform grades that would accurately apply to all timbers produced from the various woods.



*"I wouldn't
be without it"*

SO SAYS the progressive builder, of the A B C Protractor Square. He knows how intricate a mathematical process it actually is to get the correct pitch and bevel for rafters.

It doesn't pay to guess—more than one saw cut is waste of both material and time.

The A B C Protractor Square is especially valuable in figuring proper lengths and cuts for common, hip, jack, valley and cripple rafters—projecting braces for hay tracks, stairway stringers, circular or tank work, columns, silos, etc.

If figures for length, pitch and bevel are furnished with plans or estimates, with the Protractor Square you can readily check them, by making a model of what is to be built. You will find it very easy to operate and a time and material saver in many ways.

Special Introductory Price, \$2.50, cash with order. Order yours today and get prompt delivery. Satisfaction guaranteed.

STAMPING & TOOL COMPANY
LA CROSSE WISCONSIN

ASBESTONE EVERLASTING STUCCO

How Many Pounds of Stucco Plaster Do You Get to a Ton?

The average buyer receives 2000 lbs., but when you order 1 ton of ASBESTONE Everlasting Stucco you receive delivery of 2375 lbs. of material, twenty 100 lb. sacks ASBESTONE Everlasting Stucco plaster plus 375 lbs. flake magnesium chloride.

Full weight combined with a quality product

ASBESTONE Everlasting Stucco is unsurpassed in covering power, unequalled in tensile strength, resiliency and elasticity.

The Stucco par excellence for exterior or interior plaster work. Hundreds of artistic Stone Dash finishes to select from.

FIREPROOF WEATHERPROOF DURABLE

Stocked by leading Building Supply Dealers everywhere. If no dealer in your district, write us direct for full particulars, samples and prices.

FRANKLYN R. MULLER, Inc.

Stucco and Composition Floor Manufacturers
Established 1906
608 Madison St WAUKEGAN, ILL.



Winners in Hospital Contest Announced

BUTLER & Rodman of New York City received the first prize in the international competition recently conducted by *The Modern Hospital* magazine for the plans of a small general hospital. Three awards of \$500, \$300 and \$200 and two honorable mentions were made.

Second and third places in the contest were won by John Roth of Atascadero, Cal., and Ernst Hoedtke of Cambridge, Mass. Selection was made from fifty-one sets of plans submitted by hospital architects of the United States, Canada and England, judgment being on the basis of economy in construction and operation, integrity of design, health values and flexibility.

Cervin & Horn, hospital architects of Rock Island, Ill., were given first honorable mention in the competition, the other honorable mention going to Lemuel Cross Dillenbach of the school of architecture, University of Illinois.

The jury of award, composed of Dr. S. S. Coldwater of New York, Asa S. Bacon of Chicago, Clarence H. Johnston of St. Paul, William Buck Stratton of Detroit, and Miss Adelaide M. Lewis of Kewanee, Ill., met in Chicago in March to study the plans.

Announcement of the winning architects will be made in the April issue of *The Modern Hospital*, and in the succeeding number will appear the prize plans with the interpretations of the judges. Subsequent publication, with critical comments, will be made of fifteen or twenty other of the more interesting designs for their educational value.



Signs of the Times

SHIPMENTS of trucks by the General Motor Truck Company of Pontiac, Mich., were 184 per cent greater

during the first quarter of 1923 than during the same period of last year, while orders received during the first quarter were 156 per cent greater.



South Philadelphia Opens Plastering School

PLASTERING is now being taught in the South Philadelphia High School on Saturdays from 8 to 12 M. The students are indentured apprentices, already working at the trade, and the plastering course is the outcome of co-operation between the Master Plasters Company, the Operative Plasters' Protective Association, the Philadelphia Building Congress and the Board of Education. The course covers the use of tools, mixing of materials, scratching or first coat work, second coat work, straightening up walls, white coating, finishing plain walls, simple ornamental work, laying out and running work in place, advanced ornamental work, making coatings, etc. Related work is also given in the course, such as drawing, plan reading, mathematics, estimating, business practice, specifications, lectures on materials, history of the trade, general building construction, civics, English and hygiene.



Idaho in Vanguard on Forest Protection

FOREST Protection Week in Idaho saw the following agencies contributing toward emphasizing its message: the School of Forestry, University of Idaho; the North Idaho Forestry Association; United States Forest Service; Office of White Pine Blister Rust Control; State Department of Public Instruction; State Land Department; South Idaho Timber Protective Association. We would like to see every state fall in line with Idaho with proper appreciation of reforestation needs, and intelligent care and conservation of forests.

Speeding Up Your Painting and Profits

Painting with DeVilbiss spray-painting equipment will speed-up the work without extra effort and bring correspondingly bigger profits to you.

Spray painters will do more jobs for you in your present working time by spending less time on each job. Your men will like to operate the DeVilbiss spray gun because the work is cleaner and will not wear them out: this has a favorable bearing on amount of work done and profits for you.

DeVilbiss Spray-painting System

gives you all that is practical, complete and reliable in spray-painting equipment. The DeVilbiss spray gun operates on as low air pressure as good spraying permits; its fluid and spray adjustment is accurate and instantaneous; it paints 4 to 5 times faster than is possible with hand brush. DeVilbiss painting insures a more thorough and uniform coating with any kind of paint, on any inside and outside surface.

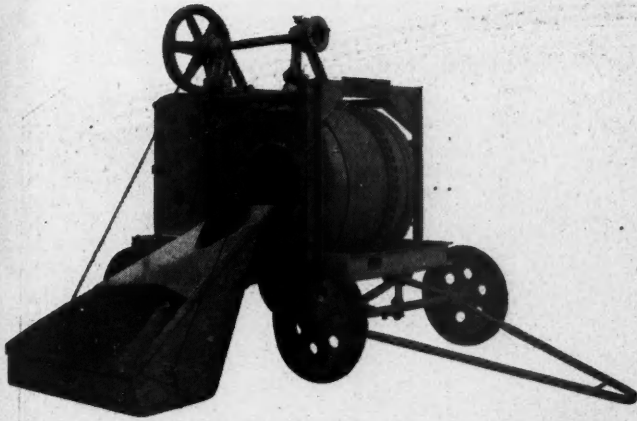


Further interesting facts about the DeVilbiss Spray-painting System, that will point the way to more painting and profits for you, will be gladly sent. Get the facts.

The DeVilbiss Mfg. Co.

238 Phillips Ave.

Toledo, Ohio



“They Set a New Standard in Mixer Design”

That is what a successful building contractor said of the new Rex Mixers 234 and 237 after going over them point by point. More than a hundred specialized minds contributed the construction ideas incorporated in these epoch-making machines.

Here are some of the things that make the new Rex Mixer a profitable machine for you to own:

1. Shortest and most compact mixer of its type.
2. Lighter in weight, but stronger than ever before.
3. Special design for buckets and blades for faster handling of all consistencies.
4. Automobile type clutches — first time on small mixer.
5. A high countershaft with self-aligning adjustable bearings.
6. Drum rollers with impregnated wood bushings.
7. Rex Chain drives with chain take-ups.
8. Certified malleable in place of cast iron.

Be sure to call on your nearest Rex distributor to see for yourself the greater profit earning capacity of these half and one bag machines. Also write for the descriptive folder.

CHAIN BELT COMPANY, MILWAUKEE
BRANCH OFFICES AND REPRESENTATIVES IN PRINCIPAL CITIES IN THE UNITED STATES AND ABROAD

REX MIXERS

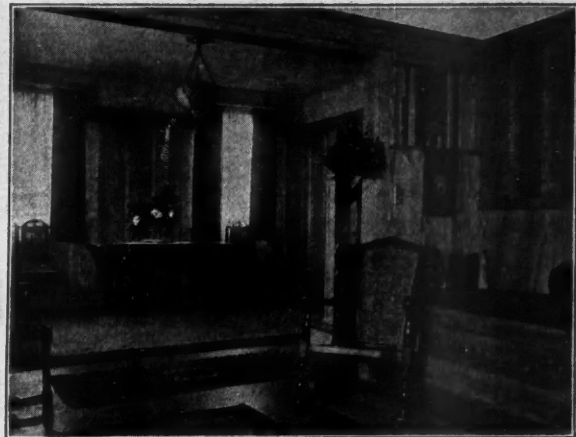
REX CHAIN, REX SPROCKETS
REX CONVEYORS, REX TRAVELING WATER SCREENS

AD·EL·ITE

Penetrating Oil Stains

bring out the figure and grain of your selected interior trim and doors in their full beauty. To medium grade unselected lumber they bring an attractive tone and color ordinarily impossible to achieve.

We are one of the oldest established manufacturers in the country of aniline stains, wood filler and varnish and have been catering to the most discriminating contractors, builders and architects for years.



A FREE SET OF PANELS

As a part of our service we offer a full set of panels showing various current shades of

Oak
Walnut
Red Mahogany
Brown Mahogany
on Birch, Gum, Cypress, Pine, etc.

We make these up for our clients—you have only to describe your wants.

Use the Coupon below

ADAMS & ELTING CO.

1833 Seward Street

NEW YORK

CHICAGO

TORONTO

Please send us information and literature on the following:

- | | |
|--|---|
| <input type="checkbox"/> Ad-el-ite Stains | <input type="checkbox"/> Ad-el-ite Varnishes |
| <input type="checkbox"/> Naples Velvet Flat Wall Finish | <input type="checkbox"/> Hygienic Kalsomine |
| <input type="checkbox"/> Ripolin—The Original Holland Enamel Paint | <input type="checkbox"/> Ad-el-ite Creosote Shingle Stain |

In writing, please specify whether builder, architect, contractor or dealer.



Practical Property Protection

for Country Estates, Suburban Homes, Schools, Institutions, Parks, Public and Private Grounds—

CYCLONE FENCE readily lends itself to every fencing requirement. It is easily and quickly installed. Its flexibility makes it the ideal enclosure where fence must be erected on uneven ground such as ravines, steep hills, etc.; also where fence line follows an irregular course around trees, shrubs and other obstructions.

Moreover, Cyclone Fence is beautiful; unobtrusive. Harmonizes with beauty of grounds enclosed; does not obstruct air, sunlight or vision.

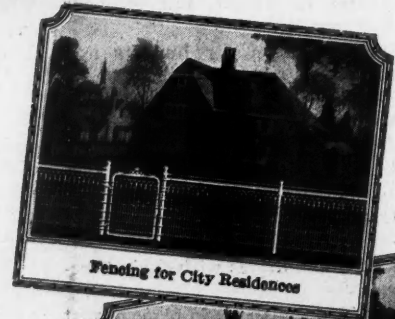
Built in a variety of attractive patterns in various heights. Durable. Affords permanent property protection.

Builders, contractors and architects are invited to write Dept. 33 for specifications, blue prints showing details of construction and catalogs. No obligation.

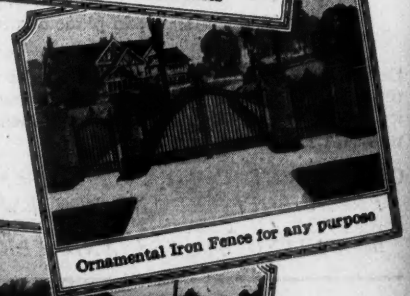
CYCLONE FENCE COMPANY

Factories and Offices:

Waukegan, Ill., Cleveland, Ohio, Newark, N. J.,
 Fort Worth, Texas, Oakland, Calif., (Standard Fence Co.),
 Portland, Ore., (Northwest Fence and Wire Works)



Fencing for City Residences



Ornamental Iron Fence for any purpose



Tennis Court Enclosures and Backstops



The "Red Tag" The Mark of Quality

CYCLONE FENCE

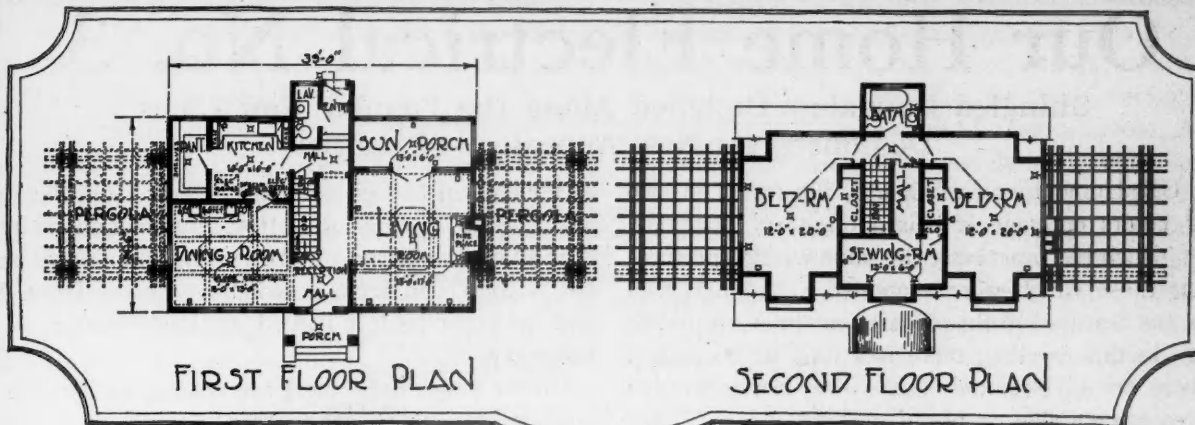
PROPERTY PROTECTION PAYS

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

WHITE MAGIC

The Electrical Section of the
AMERICAN BUILDER MAGAZINE, CHICAGO

JUNE 1923



A DUTCH COLONIAL ELECTRICAL HOME. All styles and all sizes of dwellings lend themselves perfectly to the use of modern electrical appliances. Ample wiring and plenty of convenience outlets built in when the

job is planned and built assure the fullest satisfaction. This is a very delightful six-room home, size 24 feet 6 inches by 39 feet. The layout of rooms as shown in the floor plans above is most efficient.

ELECTRIFY ALL BUILDINGS

A Department of Up-to-date Information
for all who Plan and Build

Our Home Electrical No. 3

Shingled Bungalow Designed Along the Popular New Lines
Demonstrates New Appeal of Electricity

OUR Home Electrical No. 3, illustrated in two colors on page 159, is a one-story bungalow which has practically the same wiring specifications as those which were adaptable to the first two houses (as featured in this department in April and in May). In this dwelling there is a total of 86 outlets and there are 11 circuits. The wiring is run to give the greatest possible results from the uses of electricity in all its forms. The outlets are placed with reference to their ultimate use. They are sufficient in number, and care has been taken not to indicate any more than are necessary.

As one approaches the house he is greeted by an illuminated number. This bespeaks a welcome for him and is a decided improvement over the old style

of number on houses situated far back from the street or in sections where the street illumination makes it difficult to locate the number. The illuminated number is controlled from a switch inside the front door and need not be left lighted at times when it is not necessary.

On the porch itself there are two lights, flanking the door, and these, too, are operated from a switch within. This enables the householder to flood the porch with light before opening the door at night, and in addition provides a means of turning off the light without going outside the house.

As one goes into the house, the living room is entered first, direct from the porch, and a switch is provided just inside the door for controlling the center luminaire, enabling one to illuminate the room upon entering and eliminating the necessity of groping in darkness to find the light. For control of the side brackets, five in number, a switch has been provided at the entrance to the bedroom, just off the living room, and immediately beside this switch there is one for controlling the center luminaire, in addition to the one at the front door. By installing these two switches it is possible to control the ceiling luminaire without going across the room to the front door. The liberal use of duplex wall outlets in the living room makes possible the adequate use of electrical appliances and portable lamps, which go so far toward improving the decoration of a room.

Two switches are provided in the main bedroom for control of the luminaire and the wall brackets,



Milady's Dressing Room in the Milwaukee, Wis., Model Home Was a Bower of Electrical Loveliness.

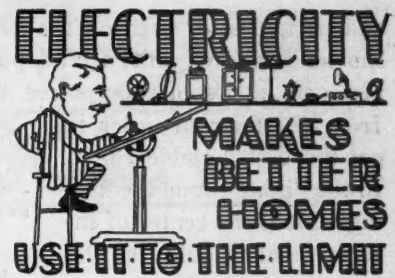
respectively, and ample provisions are provided for the use of electrical appliances peculiar to the bedroom by the installation of three duplex convenience outlets at locations which are most advantageous. In all rooms save the dining room, it should be understood, it is difficult for the electrical contractor to prepare a wiring diagram until he knows the exact layout of the furniture in each room. Some may put a bed in a given spot and he has indicated on the plans that he has figured the bed to go at an entirely different location, and again, the furniture may be moved at intervals. In these plans, therefore, the location of the outlets is so arranged that with almost any combination of furniture placing they will be available.

In the hall between the two bedrooms, and immediately in front of the bathroom door, there has been placed a light which is controlled by a switch located near the entrance to the living room. This luminaire will afford ample illumination to the bathroom and cellar stairs until the lights in these two places have been turned on. The bathroom in this house has not been provided with a ceiling luminaire, two brackets on either side of the mirror being thought ample. They are controlled by a wall switch just inside the door. The cellar illumination is controlled by a switch at the head of the stairs, giving any one descending ample illumination.

In the rear bedroom, two wall switches placed side by side operate the ceiling luminaire and side-wall brackets, four of which have been indicated. Three convenience outlets, two of which are of the duplex variety, provide ample means for use of electrical appliances. A ceiling luminaire has been provided for kitchen as the main unit of illumination, and this is controlled both from switches located at the dining room door and the door leading from the small hall. The light on the rear porch is operated from the kitchen, from a point just inside the rear door, and the pantry light, a ceiling unit, is also controlled by a switch placed near the door. Four outlets, one of the duplex type, have been placed in the kitchen for the handy use of electrical kitchen appliances. In addition, a heavy-duty outlet has been indicated for use with an

electric range. The plans indicated a ventilating fan to be installed over the rear door. This feature of the modern home was discussed in last month's *AMERICAN BUILDER*, and should be in every kitchen. The receptacle in the pantry is designed for use with an electric refrigerator, which is another boon to successful house-keeping and should be urged by the electrical man and the building contractor.

The central dining room fixture is controlled both from the entrance to the kitchen and from the living room door, and three duplex outlets have been indicated for use with electrical appliances of various kinds. A floor outlet has been provided to call the kitchen by means of a buzzer, and a heavy-duty receptacle is also put in to make handy the use of several table appliances simultaneously. This will especially be appreciated since it eliminates the necessity of attaching the wires to the luminaire, which is now considered bad practice.



WE, of the electrical industry, are very gratified to have the privilege through this department of talking to the men who plan and build the homes of America. We have a message of great importance to all. Follow it carefully, and you will make your homes and other buildings more modern, more attractive, more salable and more livable.

Electrify all buildings. Plan from the beginning on adequate wiring, adequate outlets and a proper investment in lighting equipment. Look ahead and see the ever-growing use future occupants will want to make of electrical appliances and labor-saving electrical conveniences of all kinds. You will find this a policy and a line of approach that will instantly appeal to your clients and prospective clients.

Make full use of the Electrical Section of the *AMERICAN BUILDER*, feeling free to call upon us of the electrical industry for information or suggestions. We are organized to help.

E. W. Lloyd

General Chairman, Joint Committee for Business Development of the Electrical Industry.

EDITOR'S NOTE: The Joint Committee for Business Development comprises representatives of contractors, dealers, jobbers, manufacturers and central station organizations including:

1. Association of Electragists, International, New York City.
2. Canadian Electrical Association, Montreal.
3. Electrical Manufacturers' Council (Associated Manufacturers of Electrical Supplies, Electrical Manufacturers' Club and Electric Power Club), New York City.
4. Electrical Supply Jobbers' Association, Chicago.
5. Lighting Fixture Dealers' Society of America, Cleveland.
6. Illuminating Glassware Guild, New York.
7. National Council Lighting Fixture Manufacturers, Cleveland.
8. National Electric Light Association, New York.
9. The Society for Electrical Development, New York.

The Joint Committee for Business Development is organized with an Executive Committee and a Headquarters Staff, office 29 West Thirty-ninth street, New York, H. A. Lane, Director.

Lighting the Home

This house has been adequately wired and provisions have been made for satisfactory illumination. Too much stress cannot be laid on the importance of selecting appropriate luminaires for each room and for specific purposes. As was mentioned in a previous article, there are two salient points to be considered in selection of the units. They are the quantity as well as the quality of the light required, and the varied decorative values obtainable by artistic lighting arrangements. The market affords many excellent types of units, but the size and type of the house must be reckoned with when selecting fixtures; what would be effective in a cottage or small suburban house would be out of place in a town house or on a palatial country estate.

While this house has been provided with a central ceiling luminaire in each of the rooms, many home owners prefer to eliminate this source of illumination and rely entirely on the wall brackets

and portables, or even on the latter exclusively. The shower and bowl units are adaptable to use in the living room, and should be placed not less than 75 inches from the floor in order to get the best possible effect. In the dining room, the dining table is the center of interest and should be the most intensely illuminated. The faces of those seated around the table, and the walls and ceiling are to be illuminated to a lesser degree, and the fixture should be hung with this in mind. Among the fixtures suitable for the dining room are the dome, the low-hung shaded shower, the shaded candelabra and the bowl shower.

What Wiring is Within the Walls?

The present and future usefulness of any building depends upon the number of its electric outlets —

The dome should be of such shape and hung in such a manner as to eliminate the light source from the eyes of the diners, and when glassware is toned in a warm color, the daylight lamp may be used with good results and the dome still appear of a warm tint. The daylight lamp is an excellent one to use for such a purpose since it enhances the whiteness of the linen on the table, the brilliance of the silverware, etc. The low-hung shaded shower likewise should be hung and equipped with suitable shades so as to remove the light source being in direct view of those at the table. The candelabra is probably the least effective in meeting the requirements of dining room lighting, but when equipped with proper shades an improved distribution of light is secured and at the same time the shading of the light sources is accomplished effectively. The bowl shower should be equipped with shades and hung at the same height as the shower, about 36 inches from the table top.

Very effective units made especially for use in the kitchen are now on the market. A center luminaire using an enclosing globe, preferably of the "squat" or "mushroom" type of diffusing glass, placed close to the ceiling, together with a light over the sink will furnish ideal illumination to a kitchen of this size. Particular attention should be drawn to the light over the sink. Much of the work in preparation of meals



The Screened Porch Offers Its Electrical Opportunities, with Outlets for Tea Wagon Service, Floor Lamp, Fan, etc.

and cleaning up after them is done at this spot, and if the only source of light is the center ceiling unit, the person standing in front of the sink casts a shadow over her work and is considerably handicapped thereby. The use of a pull-chain unit eliminates this and is extremely useful.

In the bedrooms a center luminaire should be depended upon only for general lighting of moderate intensity, except in very small rooms. A tinted bowl with an appropriate design is a desirable unit for this purpose. In the closets of this house pendant pull-chain units have been specified. They are best for all-around use and permit of the closet door being left open for airing, cleaning and other purposes without having the light burning.



Locating the Switches

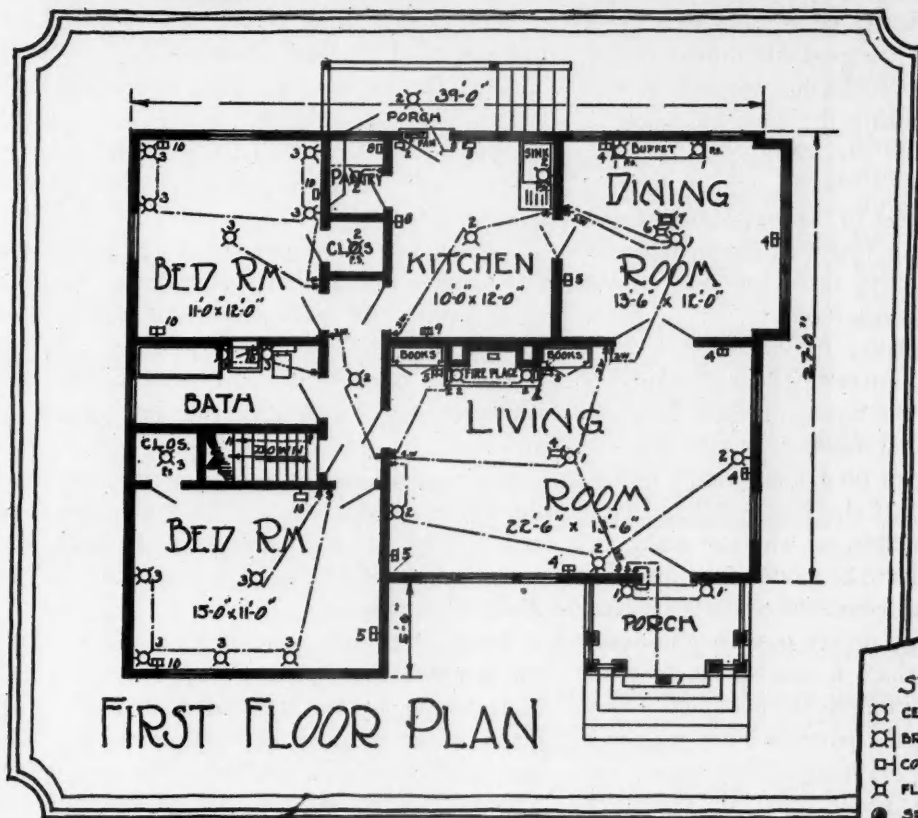
THE owner of the modern home will appreciate having his electric switches located at spots most convenient for their use and operating lights on different floors and rooms, thereby saving much needless running about on the part of the occupants of the house.

Those who have anything to do with building a home, be they architects, builders or owners, should see to it that, in the first place, the switches to be installed are located at convenient spots. One of the chief faults in their installation is locating a switch controlling the lights in a room behind the door leading to it. The person who indicates that a switch is to be placed near the door in order to enable one entering the room to flood it with light before entering, is right as far as that goes, but he should further indicate that it be placed near the side where the door opens rather than on the other side. In this way the person opening the door has but to reach out and snap on the light. If the switch is located at the opposite side it is necessary to open the door completely, then walk around behind it, or thrust the arm in, before it is possible to turn on the lights.

The step-saving qualities of switches are mainly in their ability to control lights in distant parts of the house from where the switch is located. A person going upstairs at night, for instance, should be able to provide illumination for himself on the floor above before ascending. This is simple with a "step-saver" switch. But further than that, he likes to go up while the lower floor is lighted, and does not wish to go downstairs again to turn off the light. He can save himself this extra trip again by the installation of such a switch, and this will enable him to turn off the light downstairs after he has gone up. The cellar light is one which is especially suited to such control, as any one who has stumbled over an ash barrel in a dark cellar will testify.

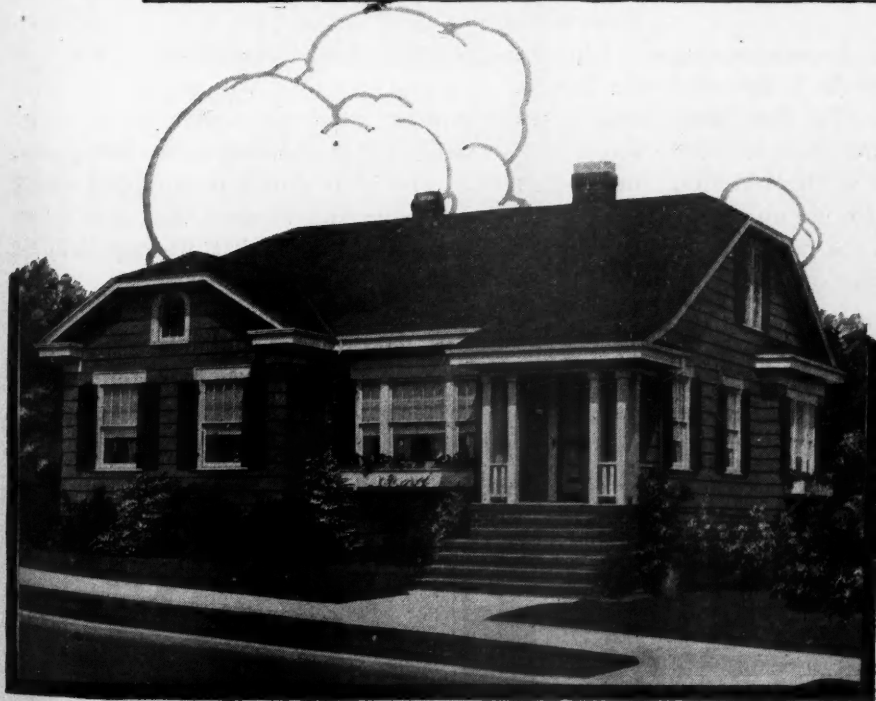
There are many other places where these switches should be installed, determined by the character and layout of the building, and their use will go a long way toward reducing the labor of housekeeping.

BLUE RIBBON HOMES ELECTRICAL



FIRST FLOOR PLAN

SYMBOLS	
⊠	CEILING OUTLET
⊞	BRACKET OUTLET
⊞	CONVENIENCE OUTLET
⊞	FLOOR RECEPTACLE
●	SPECIAL OUTLET
-S-	SWITCH



OUR HOME ELECTRICAL NO. 3 is a 5-room bungalow in the modern style. It retains the swing and breadth of the original western type bungalows yet adds the white trim and the Colonial window shutters which are

so typical of the present vogue. This little home is, of course, completely equipped electrically. The accompanying article explains how and why; and the floor plan above shows the great convenience of this home.

Convenience Outlets and Portable Luminaires

Good Lights Follow Where Wiring Is Well Installed

THE modern home thoroughly equipped with convenience outlets affords its owners means for taking advantage of the portable luminaire that are denied those who are compelled to use the old-fashioned method of attaching the cord to ceiling or wall units. True, the man who resorts to the latter method of using portables is able to employ them to some extent, but he is limited by the height of the ceiling or wall unit in his arrangement of the portable unless he has an unusually long cord, and that is even more unsightly than the shorter one.

The potential home builder, the architect and the building-contractor are all interested in the comfort of the ultimate occupant of the home, or they should be and one of the most essential means to bring about that enjoyment is the handling of these convenience outlets. It is taken for granted that the home will be wired for electricity if it is available, so why not make full use of the countless benefits to be gained from it? The way to do that is to install convenience outlets, plenty of them. Their availability makes possible the use of the portable luminaire, which means so much in the proper illumination and, therefore, complete enjoyment of the home. And the portable finds its use in practically every room in the house, living room, bedrooms, dining room, den, music room, on the porch, etc.

In the living room, much comfort and decorative value is to be obtained from the use of the bridge type for reading, card playing, sewing, etc. The floor portable and the table portable, too, are indispensable. The bedrooms find use of portables at the bedsides, for attaching to the head of the bed, for use on a table when a subdued light is desired. In the dining room they find their place on the buffet, the serving table, on the floor.

Care should be taken in the selection of these luminaires, and their color and size should be considered carefully before a final decision is made. The size, shape and character of the room in which the lamp is

to be used are determining factors in their selection.

Type A floods the room with light and serves the purpose of the usual floor styles. It is especially adapted for use in the living room, sun parlor, den, etc., of the modern home. It should be equipped with a 100, 150 or 200-watt all-frosted lamp in the reflector, and the lower socket should carry 25 to 50-watt diffusing lamps.

Type B is a floor portable for general use and provides ample illumination for reading, sewing, working at a desk, at the piano, etc., and can be used in the living room, den, sun parlor, hallway, bedroom, etc. Either 25 or 40-watt all-frosted lamps, or 50-watt diffusing lamps will give the best results with this style.

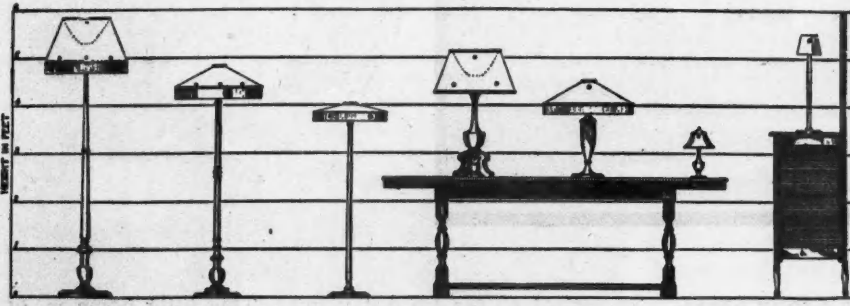
For reading, card playing, sewing, etc., the Type C luminaire, drawn near the chair or table, is eminently satisfactory. It can be used in the living room, bedroom, sun parlor, etc., and should be equipped with 25 to 50-watt lamps.

Type D portables contain two components of light, the downward component to give light as an ordinary table lamp, and the upward component designed for general illumination. It is adapted to the living room, sun parlor, den, etc., and should be used with a 100 or 150-watt all-frosted lamp in the reflector, and 25 to 50-watt lamps in the lower sockets.

Type E is the table unit in general use in many of our homes. It give ample illumination for reading or sewing, and furnishes much decorative value to the room. It is used in the hall, living room, sun parlor, den, porch, etc. This style should be equipped with a 50-watt diffusing lamp, and if more than one socket is supplied, lamps about half that wattage will be found ample.

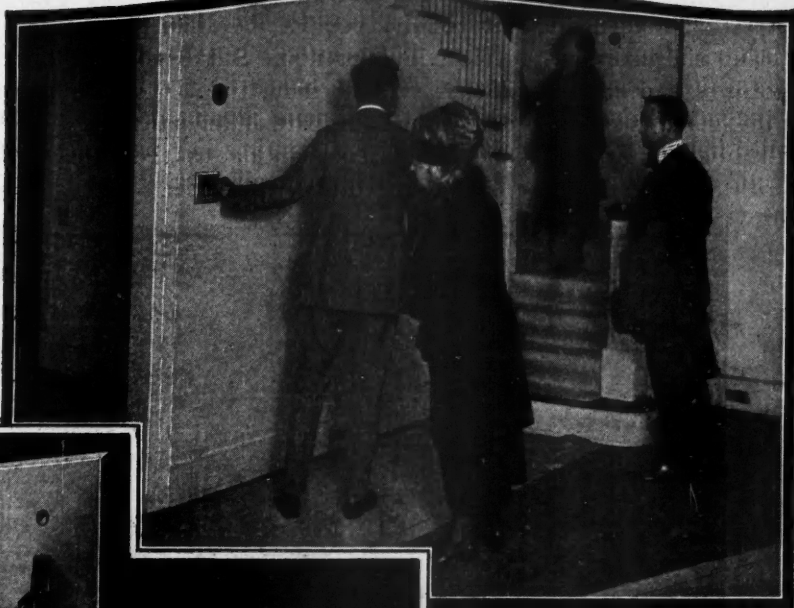
For the dressing table, the unit must be of the proper height to light the face when a person is seated at the table, and Type F has been found satisfactory for the purpose. It may also be used for decorative purposes in the living room, bedroom, music room, sun parlor, etc. Either a 25 or 50-watt diffusing lamp should be used with this type.

Type G is a dresser portable and should be high enough to light the face of a person standing in front of it. This type is also adaptable to use in the dining room, living room, hall, etc. It should be equipped with a 25 to 50-watt diffusing lamp.



The Asterisks Show the Position and Number of Light Sources Suitable for Each—the Scale on the Left Indicates Their Approximate Height.

When they stop and ask



"How is the stairway lighted?"—you show them how you have provided switches—both downstairs and up—for flooding the steps with light and for turning the lights off as soon as you are up or down.

Builders get better returns by putting in Electrical sales makers

Mrs. Prospective Buyer measures the value of the house largely by saved steps—saved time—saved labor.

She wants to see how much work Electricity will do for her.

And so, while she goes from room to room, the wiring devices—their number—their location—their character—become sales makers for you.

She is delighted with the convenience of G-E Twin Convenience Outlets, G-E Tumbler Switches and G-E Three and Four Way Switches. As she examines these modern devices, one after another, her desire for the house increases.

The knowing builder takes account of her interest in complete and dependable electrical equipment when specifying his materials, and gets a good return for the small additional cost.

G-E Reliable Wiring Devices, nationally known as the standard of excellence, are the home buyer's assurance of dependable electrical service.

Merchandise Department
General Electric Company
Bridgeport, Connecticut

G-E Two-Gang Tumbler Switches at every doorway give complete control of light from one room to another. G-E Twin Convenience Outlet gives simultaneous use of two devices.

All dependable and experienced contractors using General Electric Reliable Wiring Devices are prepared to cooperate with you in making your houses "complete electrical homes."

National distribution of the booklet "The Home of a Hundred Comforts" has focused the attention of hundreds of thousands of home builders and buyers on complete wiring and quality wiring devices. Send for your copy of this booklet today.

Address Section AB-8



Wiring Devices

61-225

A GENERAL ELECTRIC PRODUCT

Illumination and Production

Proper Industrial Lighting Proves Exceptional Investment

THE manager of an industrial plant should give careful consideration to correct and adequate artificial illumination in his plant, and investigation will show him that it is one form of expenditure that brings the greatest returns for the money invested. With a properly designed and installed lighting system, it will be found that, contrasted with a poor system, better health conditions of the employees will result, the labor turnover will be lessened, better workmanship will follow, there will be fewer accidents and the spoilage incidental to the operation will be lessened. Increased production is what the plant manager is after, and these factors assist in attaining that end.

Correct illumination protects the eyesight of the workers and relieves the continued strain necessary to discern detail. The rapid fatigue which results from this is eliminated and the bodily efficiency is not impaired. Good lighting has an effect, too, on the spirits of the operators, which will reflect in their work.

Labor turnover, the bugbear of modern industry, will not be such a factor in the plant which is well lighted. The worker is attracted to a shop that is well lighted, and cases are known where mills have been

able to get the very pick of the hands in the surrounding country because they had given care to the subject of illumination. Surveys have shown that about 25 per cent of industrial accidents might have been avoided if adequate illumination had been provided, and insufficient lighting has been held by juries as being contributory negligence.



These Lights, Hung Close to the Ceiling, Furnish Ample Illumination for Close Work on the Tables in This Merchant Tailoring Establishment.

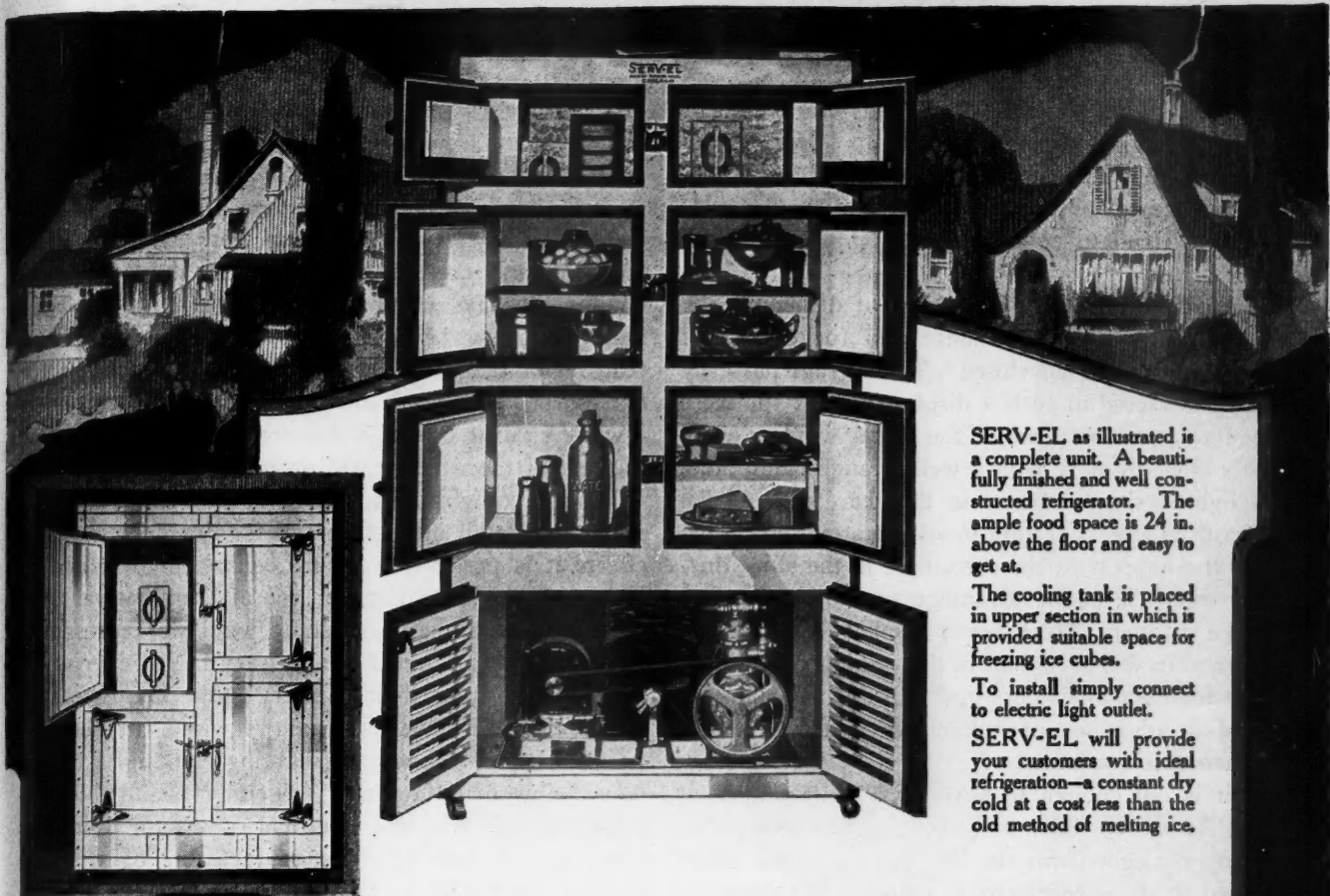


The Handling of Delicate Silk Threads Requires Excellent Illumination, and the Lighting Installation in This Allentown (Pa.) Mill Makes Possible the Most Exacting Work.

Spoilage and "seconds" make up another bugbear of the modern manufacturer, and it is recognized that proper illumination has a very marked effect on their increase. The mechanic can more easily read his micrometer and blueprints, and when working to thousandths of an inch, the reading of the micrometer correctly may mean the difference between a "first" and a "second."

AMERICAN BUILDER'S
Blue Ribbon Home
Electrical No. 4
will be shown in
the July Magazine

Don't Miss It



SERV-EL as illustrated is a complete unit. A beautifully finished and well constructed refrigerator. The ample food space is 24 in. above the floor and easy to get at.

The cooling tank is placed in upper section in which is provided suitable space for freezing ice cubes.

To install simply connect to electric light outlet.

SERV-EL will provide your customers with ideal refrigeration—a constant dry cold at a cost less than the old method of melting ice.

A Fine Home but not Modern—unless Your Equipment includes

SERV-EL Electric Refrigerator

Makes the homes you design and build more convenient, desirable and satisfactory to your clients.

Ranks with the heating and plumbing equipment in service rendered to the home owner and tenant.

Can frequently be installed without expense through savings under ordinary construction costs.



Simple and Dependable Construction

Slow speed, two cylinder compressor, ¼ hp. motor and complete machine all mounted on same base.

Harmless and Non-corrosive Refrigerant

Methyl chloride, the refrigerant used, is free from any corrosive action on metal, and is absolutely safe to use in the home.

Positive Temperature Regulation

A pressure control switch governs the operation of the machine, maintaining a uniform temperature in the refrigerator. No ther-

mostat or electric wiring required in the refrigerator.

Air Cooled

A fan forces air over condenser so no water connections are required.

Easy to Install

No wiring required to the refrigerator. No water connection because SERV-EL is air cooled.

Economical to Operate

Will require approximately 2 kwh. a day to operate.

The cost is within the reach of the average home owner.

NATIONAL ELECTRIC PRODUCTS CORPORATION
CHICAGO, ILL.

Any standard refrigerator can be equipped with SERV-EL. The mechanism may be placed in the basement or any convenient location.



Well Lighted Display Pays Big

A STORE in Newark, N. J., carrying a line of women's apparel has hit upon a novel plan of installing a show window in the rear of the store, and immediately above this are two smaller windows which tend to enhance the effect of the larger window below.

The windows serve both as means of displaying the goods to customers in the store and for display at night after the store has closed. The average passerby would be attracted to such a display, even if she were inclined to pass the place if the usual window were the only one. A store with a well-arranged and effectively lighted show window in the rear, such as the one pictured here, is certain to attract attention. Further, in the interest of the customers in the store during the day it is of an advantage to show the wares in such a manner. Much better displays can be made of material in this way than in the ordinary showcase, and the feminine customers in this particular shop are afforded the advantage of making their selections under most favorable conditions.

But it is not enough to have such an arrangement built in the store. Care must be given to seeing that it is properly lighted for the best display of the goods contained in it. The electrical industry has made an intensive study of show-window lighting and has produced equipment for this purpose that has made the art of show-window lighting an important one. The care that is given to this particular branch of merchandising approaches that given to the theatrical stage.

There are several ways of lighting show windows, and they are all most effective. Color lighting has come into vogue as a means of attracting customers. It was found by many merchants after long experiments that windows lighted in colors attracted more attention and created more business than the same window displays using merely white lighting. Spot lights are now being used to accentuate particular features of the goods on display and are excellent for that purpose. Even if the window is bathed in color, a white spot or one of a different color from that of the rest of the window will do much to attract notice.

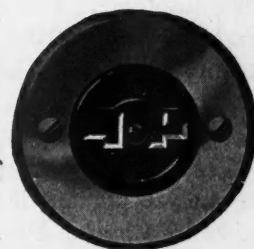
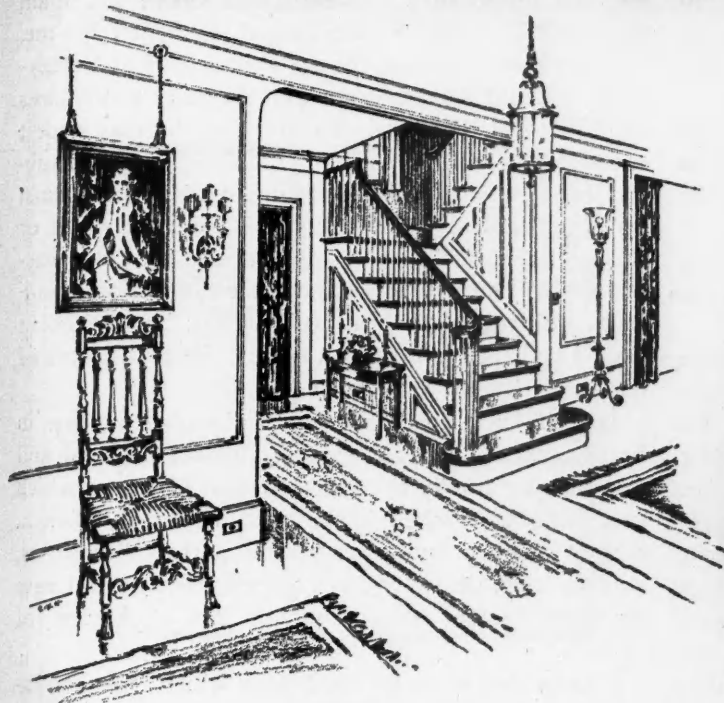
When footlights are used they eliminate shadows and bring detail into sharp relief. For color lighting effects it is possible to secure equipment designed to be used with that particular type of illumination.

On busy thoroughfares show windows represent a large investment, and it is necessary to get every possible return from them. Every store in process of erection should have its windows wired for the best possible use of the window-lighting equipment that is now being manufactured. Architects and builders should consult with the electrical contractor doing the work or with one of the manufacturers of window-lighting equipment as to what is the best installation for a particular store. It is much easier, cheaper and more satisfactory all around if the wiring for effective show-window lighting is installed while the building is being built, and it is a detail that may easily be forgotten.

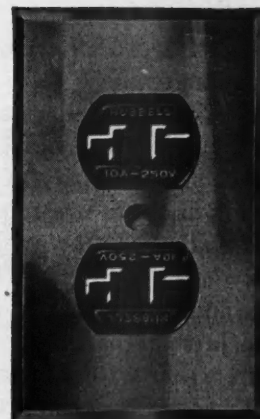


An Effective Show Window in a Newark (N. J.) Women's Apparel Store. Note how the ample illumination brings out the detail of the goods displayed.

HUBBELL



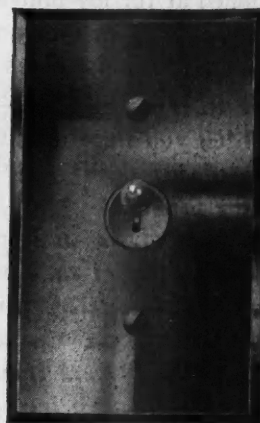
Single Convenience Outlet with Round Plate, assembled; 6282-2 1/4"; 6283-3 1/4"



Duplex Convenience Outlet No. 6257 porcelain, No. 5880 composition, with Plate No. 6258.



Single Convenience Outlet No. 5547 porcelain, No. 5850 composition, with Plate No. 5548.



Service Type Toggle Switch No. 8141 with Plate No. 8401.

Hubbell Convenience Outlets Live Up to *Your* Reputation

Hubbell Electrical Wiring Devices indicate the quality of the material and workmanship which has been put into a house.

Hubbell Convenience Outlets stand every inspection. Their bevelled double Te Slots take all standard plug caps, and concealed double contact springs insure firm electrical connection. Shallow bodies one-inch deep for thin wall sections; large, easily wired terminals—they present a complete line that will live up to your reputation.

Let us furnish you with circulars, illustrating and describing our electrical wiring devices.

HARVEY HUBBELL INC.
ELECTRICAL SPECIALTIES
BRIDGEPORT CONN. U.S.A.



ELECTRICAL SPECIALTIES

WHEN WRITING ADVERTISERS PLEASE MENTION THE AMERICAN BUILDER

Everywoman's Message to Architects

By LILIAN CASSELS

I WANT a home. Everywoman wants a home. So for generations men have poured at my feet—at the feet of all women—millions of designs for those homes.

Some of these designs are good; most of them, I like to think. A few of them are superlatively good; these are products not only of brain, but of heart. When a man's energies are intermingled with love of what he is doing, then the product is going to be something rarely beautiful; because he will try with all his power to fulfill the purpose that inspired the work.

So in some blueprints women find expressed more of the wishes of their heart than in others. The earnest hope of the architect who drew those plans that they shall give in their eventuality not merely shelter, but happiness, has been incorporated into them. His love for a perfect product has helped him to understanding and sympathy. He has either the vision to see or the thoughtfulness to analyze human desires. He knows that no beauty exists in a house, however ornamental or costly it be, unless it fulfills desires and gives to those who live in it such permanent comfort that their affections shall grow like vines around its bricks and timbers, binding these into a structure within a structure—a home.

I want to help you men who plan and build homes toward this kind of understanding of the wishes you incorporate into your plans. I have been somewhat backward about this in the past, because I felt that my knowledge of building matters was not technical, and that I might be laughed at for my blunders. But I am beginning to understand better now; I know the plans are drawn only to bring me happiness. So I will tell you something of my daily life, of my desires, and of a few of my problems.

I want above all things to hold down my job. I am a member of a firm, "incorporated for co-operation." That the partners of that incorporation were joined together primarily by such intangible bonds as those of love does not seem sufficient reason for me to assume that love is all that I need to pay into the firm.

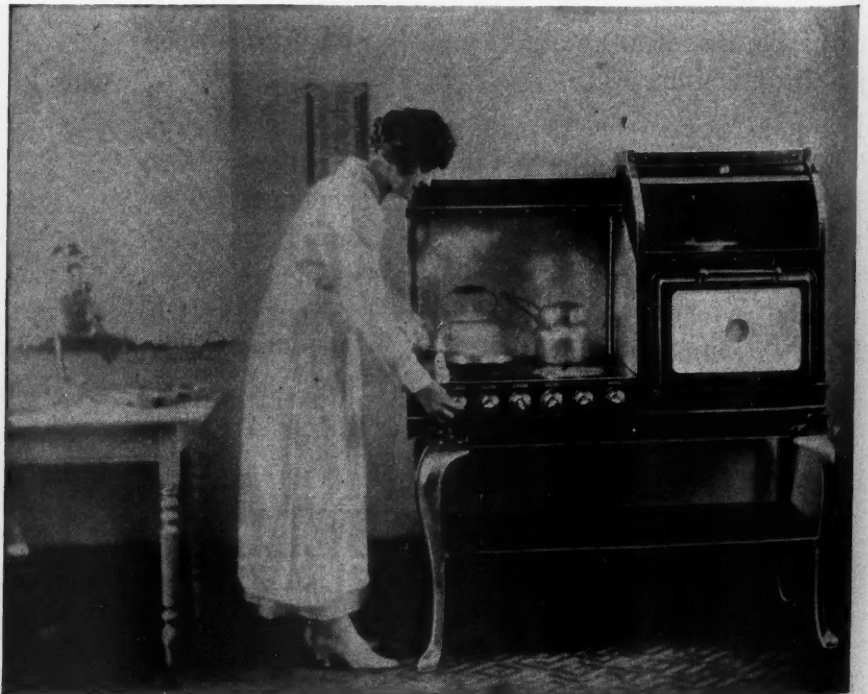
I expect from my husband that he shall give not only love, but the

material results of his love-inspired labor; and I am sure he has a right to expect equal payment from me. I expect him to provide for me successfully and cheerfully; without bothering me with the petty annoyances incident to his business. I understand he may expect equal consideration from me. I am not willing to subject his affection to the strain it must bear, if against my fretfulness about the petty problems of my half of the job he must throw into the balance the full measure of his chivalry in an incessant tilt against windmills. Chivalry is a beautiful quality; but I think it should be kept for my cloak against the real storms of life, not frittered away uselessly.

I want, then, to fill my job of keeping a home in beauty and comfort. I want to give my husband and my growing family the gracious ease of living which can come only when home management is efficient. I want them to find in that home perfect cleanliness, perfect food, perfectly-cared-for clothing, perfect ease to enjoy mutual association and the association of friends.

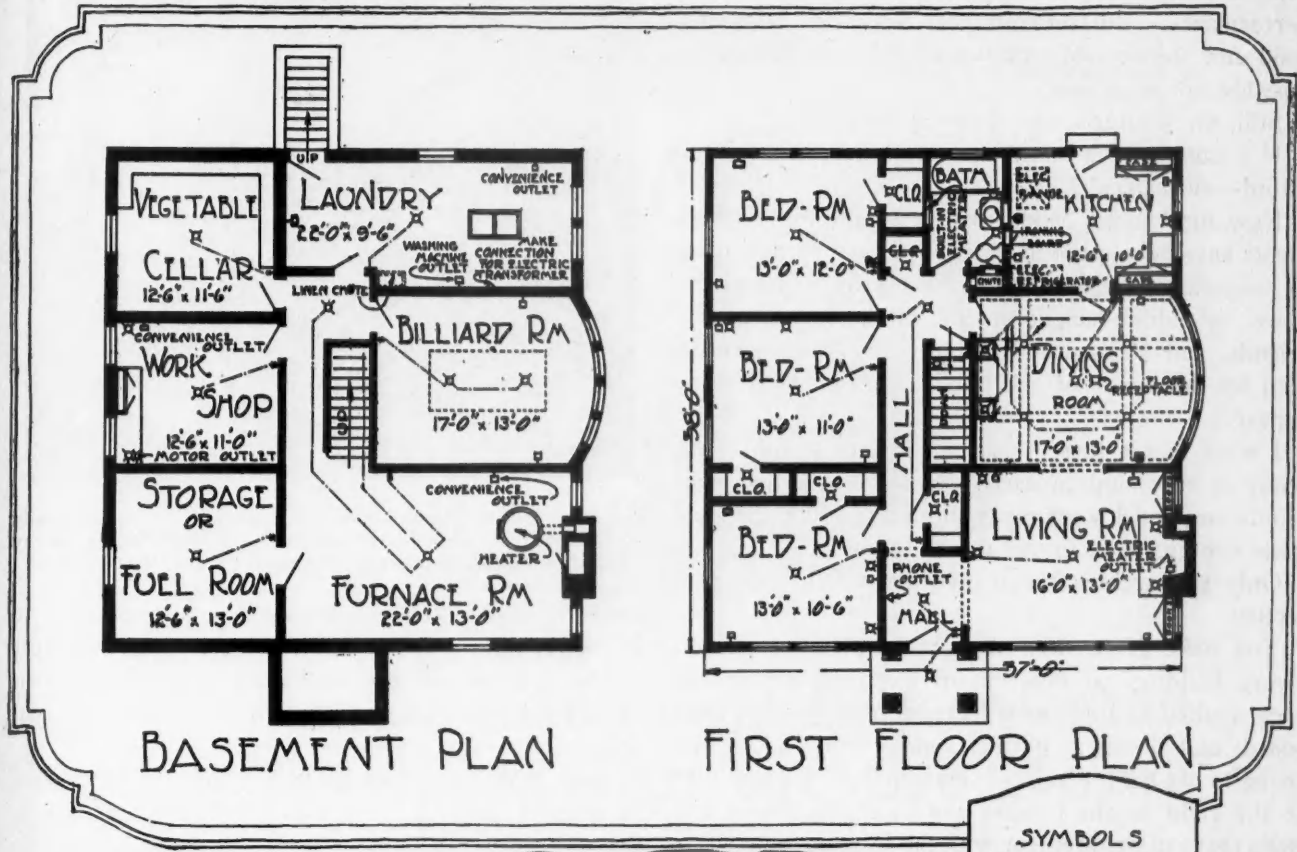
I know that to do the hard labor which must accompany these results, in the exacting fastidiousness of today's fashion of living, there is required more time, more brawn, and more nerve-energy than any one woman can possess.

My husband does not carry on his part of the con-



I Want Them to Find in the Home Perfect Cleanliness, Perfect Food, Perfectly-Cared-for Clothing, Perfect Ease to Enjoy Mutual Association and the Association of Friends.

BLUE RIBBON HOMES ELECTRICAL



COLONIAL BUNGALOW OF 6 ROOMS and a wonderful basement, all electrically equipped. Just picture the joy and satisfaction of planning, building and occupying

a true home efficient such as this! Every housekeeping and home enjoying need has been anticipated by our architect and his electrical industry helpers.

tract by his own efforts alone. If he is in business, he is surrounded not only with personal service, but with the service of the most perfect mechanical devices. If he works in another man's business, he is but one of an intricate system of human and mechanical energies, functioning in co-ordinating harmony.

It would require many servants in my home to make my job comparable with my husband's job in ease of performance. But servants cost too much in wages, food and shelter. We cannot afford more than one; possibly not even one.

Still, my job faces me. It must be done.

If I cannot have servants, I must have what I can afford—mechanical help.

Now mechanical hands that will meet my requirements have been made in dozens. I have studied them in magazine articles written for me by women who know, in public demonstrations, in the homes of my friends, and in thousands of advertisements guaranteed by the honor of the publications in which they appear.

I want to use these servants. I want to find them ready to my hand in each household task that confronts me; and I want ready to my hand also the electrical energy ready to run them.

Only you architects can give me this in real perfection.

You have given deep thought to planning homes. Every building art but that of electrical wiring has been applied to my convenience of movement. Cupboards and closets in perfect appointment; doors that swing to my lightest touch; sinks and shelves and tubs at the right height to save my strength; floors and walls that can be cared for with the least possible waste of time or energy; windows cunningly placed to give me air and daylight; built-in furniture to facilitate order and ease.

But you have not given me those electric wires and connections without which, in order to keep my home as comfortable as I want it to be, I must drown my soul in seas of soapsuds and potblack. You have not always given me even the abundance of electric lights which I need to provide perfect illumination for my work, for ease in reading and entertaining, or for beauty. I have seen in pictures and in shop windows lights and lamps of myriad designs and splendid efficiency. But I do not find these in my home.

Performing my housekeeping job, as I have told you, is the most immediately important desire of my heart. But you must not assume from this that my horizon is bound around by the string upon which hangs housekeeping duties.

Life is swift and alluring. Voices call to me from all sides. Hands beckon to me; ambitions and desires crowd my consciousness. There are thousands upon thousands of books I must read. There are exquisite strains of music I must hear. There are lovely pictures and inspiring marbles and tapestries I must see. I am tiptoe with eagerness to see, to feel, to



I want to Use These Servants. I want to find them ready to my hand in each household task. I want ready to my hand the electrical energy required to run them.

listen, to know. There are so many things I want to do. "Why do you not listen to me?" cries one dear desire. "When will you read my lines?" says another. "What are you going to do about me?" asks yet another.

I see a world of beauty outside my door. I want to climb a mountain and view the scene that lies on the other side. I want to see a buttercup growing in a field; to swim a swift stream, to listen to the song of a seashell, to read the riddle of the stars. I must do these things; and I must help my husband and my children to do them, if I am to create a happy life for us all.

You can help me, you architects and all others who plan homes, if you will. You must learn how many of these desires you yourself can fulfill.

Upon you depends the kind of homes women are given. We are all thoughtless in the beginning; women and men alike. We trust you. We believe you will give us the best we can buy for our money. We do not think, until we have put the test of daily living upon the homes you design, that we ourselves might have helped you to plan them for greater convenience and ease. Then it is almost too late.

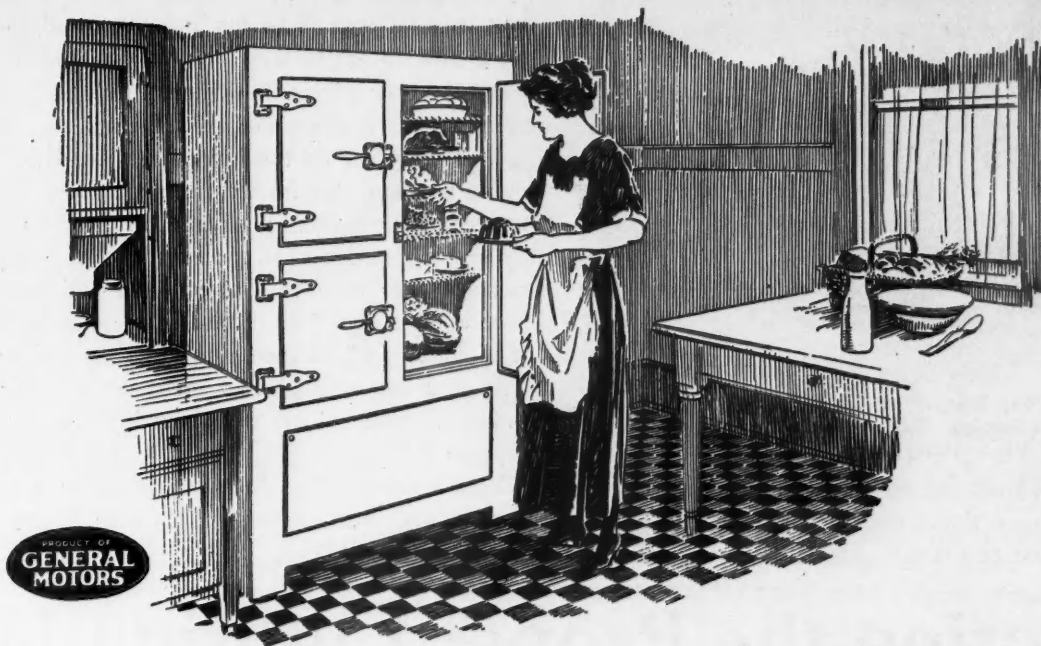
So it is up to you to know what we want, even before we know it ourselves.

It is for you to recognize and understand these desires and ambitions of women, and to interpret them in the plans you draw for the nation's homes.

As you draw the designs, so will the homes be built. It will not be much trouble for you to learn of the astonishing ease and convenience I can be given in conducting my home by a generous supply of elec-

Frigidaire

The Electrical Refrigerator for Modern Homes



A Practical, Economical, Better Method of Refrigeration for the Home

Frigidaire is an electrically operated refrigerator, creating its own cooling power. It affords a method of refrigeration for the average home far more convenient, far more healthful, far better in every way. It provides what all scientists agree are the proper essentials for home refrigeration—first, a constant and uniformly low temperature; second, a *dry* atmosphere; third, thorough cleanliness—conditions impossible to obtain with melting ice.

This constantly cool, *dry* air keeps food in perfect condition for a long time, thus saving a great deal of wastage. Frigidaire banishes for all time the muss and nuisance of ice—it freezes an abundance of pure ice cubes for cool drinks and provides a means for making delicious frozen desserts.

You can get a Frigidaire now at moderate cost for a small first payment and on easy terms.

The Frigidaire Mechanism may also be installed in any good ice-box

DELCO-LIGHT COMPANY

Subsidiary of General Motors Corporation

DAYTON, OHIO

Also manufacturers of Delco-Light Home Electric Lighting Plants, Pumps and Washing Machines. All products made for 32 or 110 volt Direct or Alternating Current Service.



It Is Nice That Electricity Has Made It Possible to Bring My Own Sewing When I Go Calling in the Houses of Friends and Visit Nicely, Too.

tric wires, leading to abundant connections for the splendid machines that have been invented to help me live. It will not be much trouble for you to insist that

these wires and connections be made an integral part of the homes you visualize in the blueprints you create—the wishing-papers!

If I in my ignorance do not ask for these in the beginning, what does it matter? As soon as I begin living in the house, I will find them and will put them to work. It is inevitable. If you give them to me with my home, they can be paid for as the home is paid for; they in their service to me and my family will make the payments appreciably lighter and easier to meet.

But if I do not have them then, I may go on for years trying to do without the help I could so easily have had. I may lose all the joyous zest for living and for loving husband and family and people and culture and nature, in the treadmill of hard work. I may forget my sense of proportion, grow ragged of nerves, keyed to tears over trifles. I may begin whining over the ceaselessness and the exhaustiveness and the monotony of my job—and, in the hysteria of dissatisfaction and fatigue, I may even throw up that job, making shipwreck of that which was launched with such high hopes!

You architects can help me to make a success of my life, and to make most of my wishes come true.

Will you do it?

Selecting the Proper Lighting Unit

IN picking out the luminaires for the home, care should be taken to see that the light-source (lamp filament) is not exposed to the eye, but is shaded or diffused by some means. Among the light rays passing from the lamp to the eye, those horizontal or nearly horizontal are the most annoying and injurious to the eye, and it is important that they should be eliminated.

The accompanying photographs give a good idea of

the effects obtained from the use of unshaded light and that which is softly shaded. In Fig. 1 can be seen the glare in the ceiling and wall luminaires when the lamps are unshaded and are permitted to throw out their light without restraint. These are good units for the living room, and to secure the best results a shade of some kind should be employed. In the case of the bridge lamp, too, the unshaded light will be found trying. Even if the glare is not direct in the



Fig. 1. Unshaded Lamps Compared with Those Properly Shaded for Living Room.

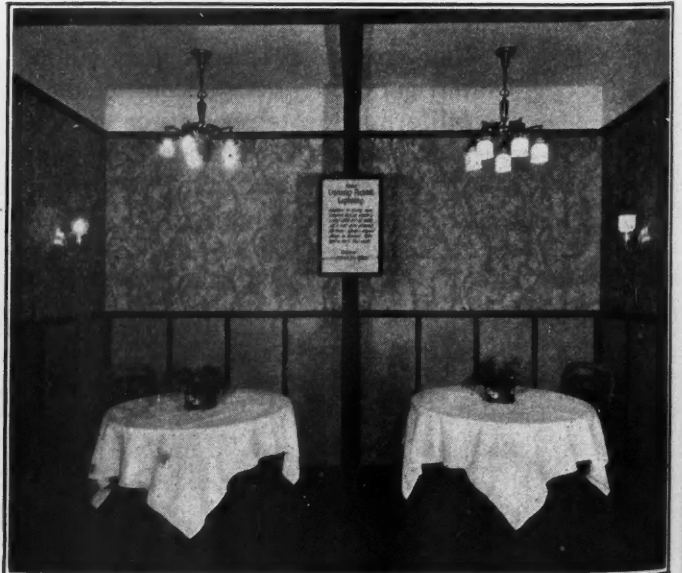
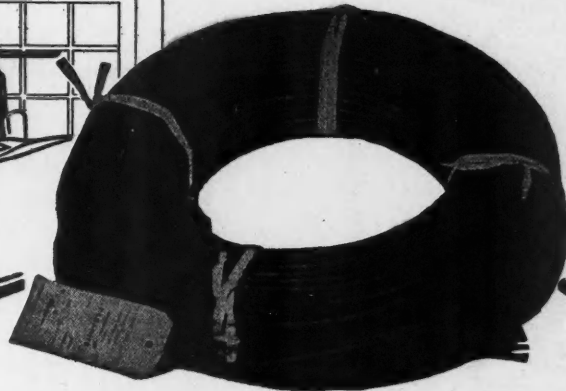


Fig. 2. A Dining Room Contrast—Unshaded to Left—Shaded at Right.



If it's

PARANITE

it's Right

Suppose the fan stopped, or the percolator refused to work. A party would be spoiled. Discomfort would follow.

But suppose the trouble lay, not in the appliances or in the cord, but way back in the wires behind the walls! Real trouble would follow—a hurried call for an electrician, borings into the walls to fish for wires, a mess to clean up and a considerable item of expense—with the danger of fire as a menace in the meantime.

To most home owners the wire used in equipping a home for electrical service is an unimportant detail. But by architects and contractors who know, nothing except wire meeting the Fire Underwriters' requirements will be recommended.

For thirty-two years PARANITE rubber-covered wire has been known as a better than standard product. When PARANITE is specified no chances are taken on the wire part of the job.

Dreadnaught Portable Cord, also rubber-covered, is "more than the code requires."

Indiana Rubber & Insulated Wire Co.
JONESBORO, INDIANA

Chicago Office:
210 So. Des Plaines St.

New York Office:
The Thomas & Betts Co.
63 Vesey Street



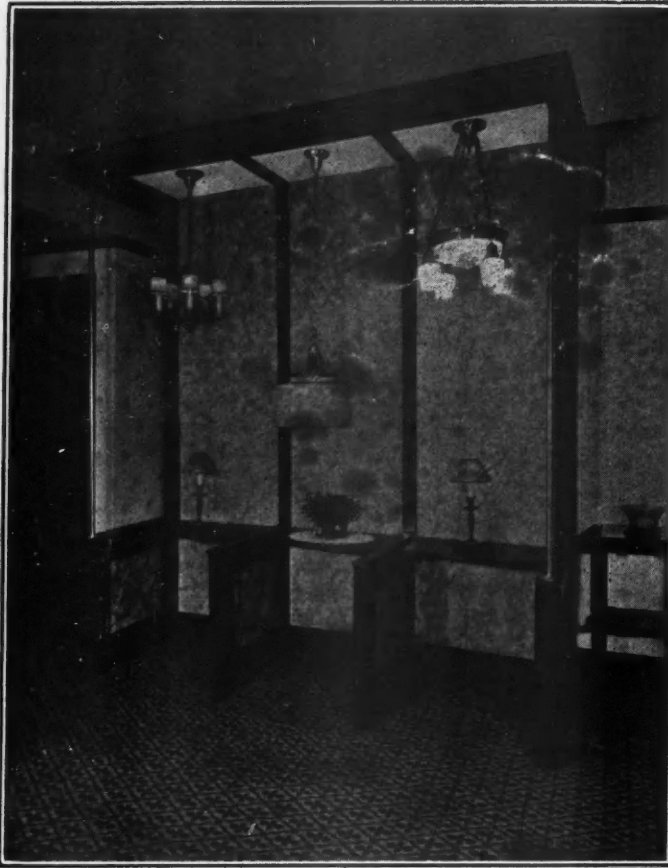


Fig. 3. Exhibit of Three Types of Dining Room Ceiling Luminaires.

eyes, if allowed to strike unrestrained a book or paper, and then reflected back to the eye, it will be found annoying and injurious.

The dining room units pictured in Fig. 2 afford another excellent means of showing the difference between unshaded light and controlled light. If the unshaded light shown on the left were used, it would be trying on the eyes of those around the table. It is true that a luminaire at such a height

would eliminate the horizontal ray, but the effect would be annoying at any rate.

Fig. 3 shows three different dining room units approved for central illumination, and the light-source in each instance has been shielded in such a way that the light is diffused and broken. Notice that the dome unit is hung at a lower level than the others. This is because such a luminaire should be so arranged that the light is directed to fall on the outer edge of the table. It is a more concentrated form of light than either of the others and should be hung so as not to shine in the faces of the diners.

Fig. 4 shows five types of ceiling luminaires adapted to the bedroom and special units for the proper lighting of the dressing table. Notice that the light source in each case has been shielded. It

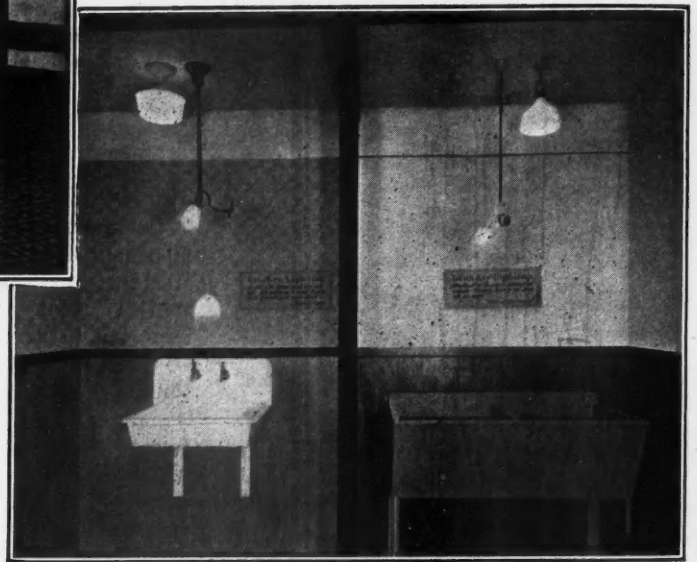


Fig. 5. Kitchen Lighting Deserves More Care and Attention. Here we have a demonstration of the "old way" and the new.

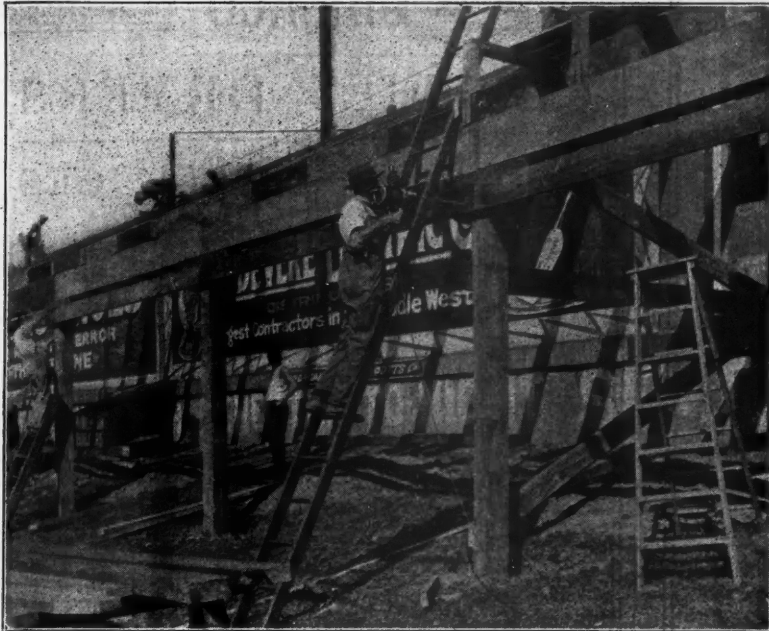


Fig. 4. Exhibit of Five Good Bedroom Types of Ceiling Luminaires.

would be almost impossible to do any dressing if it were necessary to use the mirror with the unshaded direct ray in the eye.

The kitchen lighting equipment is too often neglected when compared with the care taken of that of the other rooms. The old-fashioned pendant unit with the unshaded lamp, or even with the shaded one, has been superseded by a ceiling unit with the lamp enclosed in diffusing glass. Some of these units are hung lower than others, but in each case the direct light source is obscured by glass. The same is true of the unit over the sink. That, too, employs glass to break up the light and diffuse it in such a way as to enable the person working at the sink to get the proper illumination. In this case the direct horizontal ray would be found trying if it were not broken up by the glass globe.

Those who plan homes will note these scientific facts and take advantage of them.



STANDARD PORTABLE ELECTRIC DRILL ON CONSTRUCTION WORK

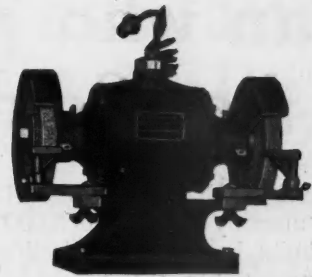
We manufacture Hand Drills, Bench Drills and a Complete Line of Electric Drills in all sizes

Send today for catalog and data

Drills are universal operating on both AC and DC.

Standardize with Standard Portable Tools

Unit Construction
High Power
Ball Bearing
Fully Guaranteed



BENCH GRINDER
Portable — For Sharpening Tools and Various Work

THE STANDARD ELECTRIC TOOL CO.

CINCINNATI, OHIO

No Home is Really Modern Without an Electric Dishwasher



The wife in the average American Home washes 12 acres of dishes each year. No woman should be asked to spend one-tenth of her time with her hands in a dish pan.

The Shank Electric Dishwasher actually washes dishes. This we guarantee. The housewife finds it her most helpful appliance. Owners and Architects should plan for its installation. Progressive builders find the Shank Dishwasher an aid to sales.

The Shank Dishwasher is readily connected. It is standard code plumbing—can be made a unit with the sink if desired.

Shank Dishwashers are priced from \$90 to \$140, determined by the dishwashing requirements of the family.

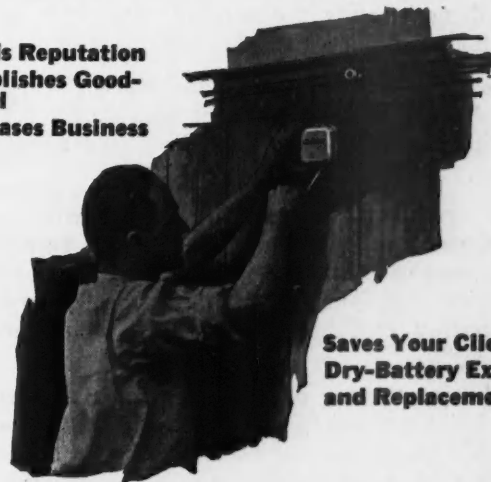
For detailed information write to

CYRUS SHANK CO. MFGRS.

625 Jackson Blvd. - - - Chicago

A Touch of Completeness

Builds Reputation
Establishes Good-Will
Increases Business



Saves Your Clients Dry-Battery Expense and Replacement

Install Air-Way Bell Ringers

Constant Electric Current for Bells, Buzzers, Door-Openers, Annunciators, Etc.

Eliminate one of the greatest annoyances home-owners have to put up with bells and buzzers going dead—by installing an AIR-WAY BELL RINGING TRANSFORMER in every wired home you build. Suggest its installation in old home jobs—where wired for electricity. Your thoughtfulness for your customer's convenience is a certain source of greater profits. It's a little touch of completeness that adds to the value of homes and increases salability. The AIR-WAY BELL RINGER guarantees a life time of service. It is as easily installed as connecting a set of dry-batteries—and the first low cost is the only cost.

Get particulars of the AIR-WAY BELL RINGER from your Electrical Dealer. He is in a position to cooperate with you to your advantage.

AIR-WAY ELECTRIC APPLIANCE COMPANY
TOLEDO, OHIO

The Man who *Plans* the Building is the Man who must be "Sold"

THE AMERICAN BUILDER, reaching monthly more than 60,000 men who plan and build homes, is establishing this special department for the Electrical Industry, in which the educational and sales work on adequate wiring and adequate outlets can be done.

The slogan, ELECTRIFY ALL BUILDINGS, which appears at the top of both editorial and advertising pages in this section of the magazine, is the keynote of this campaign.

Prominent men in the Electrical Industry are working in close co-operation with the editors and publishers of THE AMERICAN BUILDER to prepare electrical features along a very comprehensive plan.

Each month there will be illustrated articles demonstrating the uses of electricity in the modern homes.

Twelve complete floor plans will be illustrated, showing wiring layout and outlets for lighting fixtures and various electrical conveniences.

Decorative possibilities of lighting will be developed, and the use which the future occupants of the home will want to make of electrical appliances will be carefully and thoroughly explained to the men who plan and build.

The importance of providing, at the time the buildings are planned, for all of these modern electrical appointments will be effectively sold to the building public through this work.

The representative manufacturers in the electrical industry are urged to co-operate.

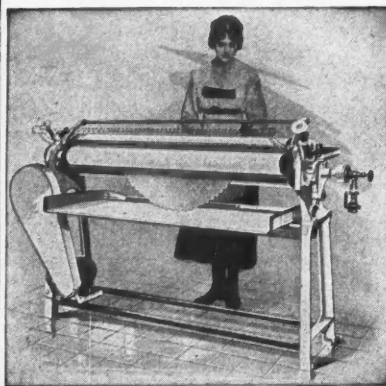
Write us your ideas and desires.

AMERICAN BUILDER

1827 Prairie Ave., Chicago
261 Broadway, New York

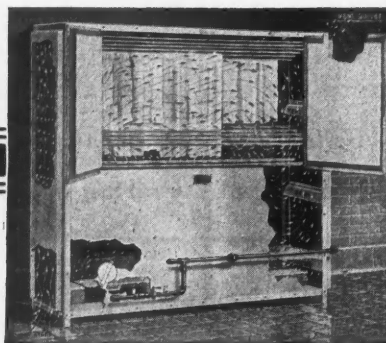
CHICAGO

CLOTHES DRYERS AND LAUNDRY APPLIANCES



ADAPTED
FOR USE IN

Residences,
Apartment
Buildings,
Schools,
Clubs, Hotels,
Colleges,
Gymnasiums,
Hospitals,
Sanitariums,
and
Institutions
of all kinds.



GUARANTEED

to be absolutely as represented and fulfill all claims made. Our policy is to furnish the best, most efficient and economically operated appliances that can be produced and offer them to the public at the lowest price which such appliances can possibly be sold for by any manufacturer.



Architects, Builders and Prospective Users

Plan on CHICAGO Laundry Appliances. Our Engineering Department is at your service without obligation or expense to you. Send us your problems and we will gladly offer suggestions as to appliances that will suit your particular needs. If you will submit a rough sketch of room in which you contemplate locating appliances we will return to you a blue print showing just how appliances should be located. We have a complete line of laundry appliances that meet the most exacting requirements of Architect, Builder or Prospective Owner. When planning the laundry, investigate our Dryers, Electric Washers and Safety Wringers, ironing machines, ironing boards and other appliances. We guarantee absolute satisfaction on every product. *Write us or come in and see us.*

CHICAGO DRYER CO.

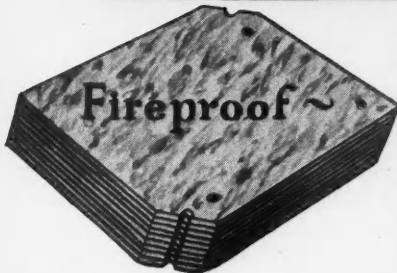
2210-2218 North Crawford Ave.

CHICAGO, ILL.

AMBLER ASBESTOS SHINGLES



Permanent
as the
Everlasting
Hills,



THERE ARE PROFITS FOR THE BUILDER

In Reroofing With

Ambler Asbestos Shingles

Live Sales-Agents Wanted in Communities Where We Are Not Represented

Asbestos Shingle, Slate & Sheathing Company

Department A, Ambler, Penna.

Branch Offices: Baltimore, Boston, Buffalo, Chicago, Cincinnati, Detroit, Cleveland, Minneapolis, New York, Omaha, Philadelphia, Pittsburgh, Washington, Wilkes-Barre; Toronto, Canada.
Southwestern Distributor: R. V. Aycock Co., Kansas City, St. Louis, Tulsa, Houston.
Western Distributor: J. A. Drummond, San Francisco, Los Angeles, Fresno.
Other distributors throughout the country

The VENDOR SLATE CO

SLATES, DARK and TEXTUREFUL
from the PENNSYLVANIA REGION

DARK in body, as all roof material should be, Pennsylvania Slate is offered through our Department of Architectural Slate in a wholly new architectural series. Included are many shades of grey and blue grey, either uniform or mottled; some of fixed color, others with warm weatherings, with textures from old Welsh equivalents to the roughest of English period work.

With more than sixty quarries under Vendor operation and an architectural direction of professional quality, this material well merits its immediate and widening architectural acceptance.

Architects using slate for the first time, or not with full satisfaction, will be pleased with our plan for taking over entire responsibility for the roofing. This plan, architectural catalogue of slate, etc., on receipt of letterhead.

MAIN OFFICE AND DEPARTMENT OF ARCHITECTURAL SLATE, EASTON, PA.
SALES BRANCHES IN VARIOUS CITIES.



• Largest Shippers of Roofing Slate in the World •

• VENDOR SLATE CO. Inc. •

• EASTON-PENNSYLVANIA •



BOOKS, BOOKLETS and CATALOGS RECEIVED



THE literature and publications listed below are now being distributed and the concerns mentioned will be glad to send copies to any of our readers who will write and ask for them.

"Natco Homes and Garages" is a very attractive book at hand from the National Fire-Proofing Company, Pittsburgh, Pa., and devoted to illustrating and describing the merits of Natco Hollow Tile for home and garage construction. It emphasizes that with this structural material a home can be built embodying all the home-owner's ideals at a reasonable cost, and that the finished walls resist fire, save fuel, are permanent and do not require repairs and replacements. These advantages, also, naturally commend Natco hollow tile for garage construction, and many fine types of garages are shown in addition to the many pages showing modern homes.

"National Garage Hardware" is the subject of the handsome catalogue issued by the National Manufacturing Company, Sterling, Ill. Since one of the most important details of a garage are the doors, the manufacturers of National garage hardware have set out to show how these may be

hung to the best advantage. Double and triple door sliding and swinging doors are shown, with floor plans, and manner of using National garage hardware. Any architect or builder, or prospective garage owner, will find this book full of interesting and profitable information.

"The James Way" came in to the reviewer's desk from the James Manufacturing Company, Fort Atkinson, Wis. This book is designed to show how to equip a practical, up-to-date dairy barn, and to say that it fulfills its purpose and is a credit to the progressive house which issues it is nothing but simple truth. Any architect or builder interested in this type of construction will be well repaid by sending for a copy, and it would be a revelation to the dairy farmer. The illustrations and descriptive matter are beyond criticism.

"Ad-el-ite Aniline Stains" is a very informing little booklet issued by the Adams & Elting Co., Chicago, Ill., and Toronto, Ont. It describes and illustrates their penetrating oil wood stains, which are transparent and do not settle. The company is recognized as manufacturing a very high quality product and the subject matter of the book will appeal to the great majority of furniture and kindred line manufacturers, architects, builders, contractors and master painters who have used these excellent stains for years.

"Architectural Uses for Wood" is the master title for nine pamphlets issued by the Southern Pine Association, New Orleans, La. Each pamphlet contains one chapter devoted to these architectural uses, as follows: Chapter I, "The Homey Quality of Wood"; Chapter II, "Wood, the Great Civilizer"; Chapter III, "Skilled Woodworkers Always Available"; Chapter IV, "Strength, Safety, Permanency in Wood"; Chapter V, "Advantages of Hollow Wall Wood Construction"; Chapter VI, "The Utility and Beauty of Wood"; Chapter VII, "The Economy of Wood Construction"; Chapter VIII, "The Colonial Home of Wood"; Chapter IX, "Wood for the Interior of the Home."



Why Builders Like the Mailo Box

Because it is the cheapest yet most important and necessary built-in feature that is used in modern home building today.

Builders everywhere say that every time they install a Mailo Box into a new home that the modern built-in mail box receives more favorable comment and approval than any of other built-in features that they use.

Wise builders will take the tip and put in a Mailo Box into every home they build, as it will make the home complete and modern, besides making more friends and customers for themselves.

Will Your Home Have This
OR
Will It Have This

Every housewife is an enthusiastic booster for the Mailo Box, because it is a permanent built into the wall feature which delivers the mail, including magazines and newspapers, inside the house without going outdoors in bad or stormy weather.

Write us for full particulars and illustrated booklet.

Priced from \$6.50 to \$15.00

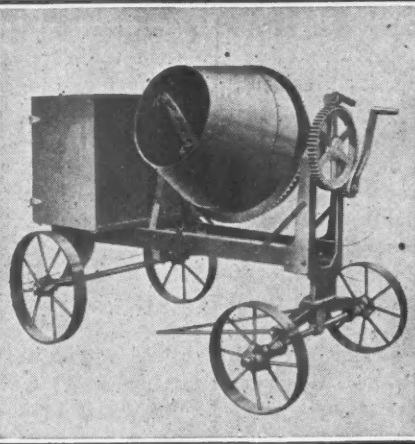
PENN-GREG MANUFACTURING CO.

803 University Avenue

ST. PAUL, MINNESOTA



STEWART CONCRETE MIXERS



BUILT
ON THE
SQUARE

SOLD
ON THE
SQUARE

WRITE!

NEW
1923
MODELS

For Your Copy of the
New 1923 Stewart
Concrete Mixer Catalog.

NEW
1923
PRICES

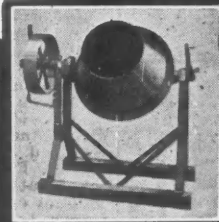
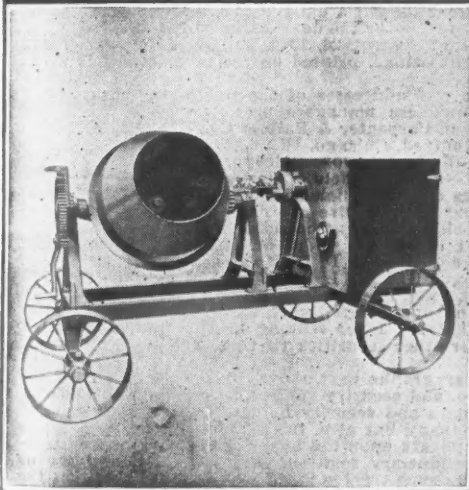
It's Ready

STEWART MANUFACTURING CO.

157 Rath Street

:::

WATERLOO, IOWA



BOGALUSA

Trade-Mark Reg. U. S. Pat. Office

Extra Dense Longleaf Pine

Manufactured, graded and shipped on a scale and in a manner befitting the world's largest sawmill. Capacity 1,000,000 feet daily.

BOGALUSA'S HISTORY-MAKING REFORESTATION OPERATIONS ASSURE A PERPETUAL SUPPLY TO OUR TRADE

GREAT SOUTHERN LUMBER COMPANY
1600 FOURTH AVENUE BOGALUSA, I.A.

Fox Floor Scraper No. 1

Sold on its Merits.
Shipped on Approval.
The most perfect tool of its
kind in use.

Made and Sold by

Fox Supply Co.
Brooklyn, Wis.



"Homer Pipeless Furnace, Dealers Catalog No. 110A" has been received from the Homer Furnace Company, Coldwater, Mich. Since Mr. S. D. Strong, its president, built the original pipeless furnace twelve years ago, the principles of modern heating which he developed have been adopted by furnace manufacturers all over the world. The catalog contains general specifications, suggestive floor plans for installation in the larger public and other buildings, and a fund of useful information. Any architect or builder will find this catalog of great help in planning for the successful heating of the buildings they design and erect.

"Kewanee-Hart Corn Crib and Granary Plans," issued by the Kewanee Implement Company, Kewanee, Ill., contains in portfolio shape blue prints, lumber specifications and construction hints. These are well and understandingly presented, and invite attention on their own merits aside from their connection with the installation of "Kewanee-Hart" elevator equipment.

"Ex-Wo Expanded Wood Lath" is described and illustrated in a folder issued by the manufacturers, the Expanded Wood Lath Corporation, Conway Building, Chicago. The tests to which the material was put by a firm of well known testing engineers are described in full from the standpoint of wall construction and application of the loads. Specifications covering the use of this new and efficient material are likewise given for the guidance of the architect and builder.

"Electric Toy Making," by T. O'Connor Sloane, published by the Norman W. Henley Publishing Company, 2 West 45th Street, New York, N. Y.; \$1.50, net.

This is the twenty-first revised and enlarged edition. Much new material has been added. The work treats of the making at home of electrical toys, electrical apparatus,

motors, dynamos and instruments in general, and is designed to bring within the reach of young and old the manufacture of genuinely useful and interesting electrical appliances. The book has 250 pages, is fully illustrated and bound in cloth.

"The Smith Excavator and Loader" is the title of a catalog which pictures, describes and suggests the uses of this portable, gasoline driven, drag line excavator, manufactured by the T. L. Smith Company, Milwaukee, Wisc. In these days when pick and shovel men are hard to get and keep, and not as speedy as one would like, excavating and loading must be mechanical if the contractor and builder is to get a profit off his job. This catalog shows a way to make sure of that profit.

"National Lumber Problems and Prospects" is the title of a report read before the National Lumber Manufacturers Association by Wilson Compton, its Secretary and Manager, during the Annual Meeting held at New Orleans on March 21st and 22nd of the current year. It is a brief survey of all conditions affecting the lumber industry, makes many valuable suggestions, and in general strikes a very optimistic, encouraging note. It may be had from the National Lumber Manufacturers Association, International Building, Washington, D. C.



STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of AMERICAN BUILDER, published monthly at Chicago, Ill., for April, 1923.

State of Illinois } ss.
County of Cook }

Before me, a notary public in and for the state and county aforesaid, personally appeared E. L. Hatfield, who, having been duly sworn according to law, deposes and says that he is the business manager of the AMERICAN BUILDER and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), 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, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher—American Carpenter & Builder Co., Chicago, Ill.

Editor—Wm. A. Radford, Chicago, Ill.

Managing Editor—B. L. Johnson, Chicago, Ill.

Business Manager—E. L. Hatfield, Chicago, Ill.

2. That the owners are (give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock): Wm. A. Radford, Chicago, Ill.; H. M. Radford, Chicago, Ill.; R. D. Radford, Chicago, Ill.; Wm. A. Radford, Jr., Chicago, Ill.; E. L. Hatfield, Chicago, Ill.; G. W. Ashby, Berwyn, Ill.

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 (if there are none, so state): None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is. (This information is required from daily publications only.)

E. L. HATFIELD.

Sworn to and subscribed before me this 30th day of March, 1923.

ANDREW JOHN NAUMANS.

(My commission expires October 23, 1925.)



**CALL FOR
MR. BUILDER
MR. CONTRACTOR
MR. CARPENTER**

You are wanted in the weatherstrip field now. We want good men. Men who are not afraid to work to build up a successful business. The time has come when we must have men that are wide awake to the possibilities of an Allmetal Agency.

Everywhere the cry for more weatherstrips is being heard.

The time has come. The business is there. Allmetal offers the best profits to you.

Our 24 hour service makes it possible for you to do business on a limited capital. Our 100% material makes selling a "snap".

Get this coupon in the mail today. Don't overlook a chance to keep busy every day in the year and make money.

ALLMETAL WEATHERSTRIP CO.

231 W. Illinois St. CHICAGO

SIGN AND MAIL THIS COUPON NOW

ALLMETAL WEATHERSTRIP CO.
231 W. Illinois Street
Chicago, Ill.

Gentlemen: Without obligation tell me of your plan.

Name.....
Address.....
City.....

MCCRAY

REFRIGERATORS for all Purposes
Send for Catalogue
McCRAY REFRIGERATOR CO., 2260 Lake St., Kendallville, Ind.

9 Points OF EXCELLENCE

IN THE NEW

No. 7-S Lansing Mixer

1. The Lansing drum heads are made of a special mixture of semi-steel, connected by a central shell of heavy boiler plate steel.
2. The drum tracks are machined to a perfect circle and a smooth, polished surface. The drum runs smoothly and is entirely free from binding or unnatural wear.
3. The steel blades and buckets are bolted on, making replacements easy. They are raised slightly to allow the free passage of water under them when flushing the drum.
4. Around both drum openings a bell shaped splash plate and inside flange are provided to prevent spilling of concrete.
5. All sides, ends and cross braces are of heavy steel frame strongly reinforced.

6. The wrenching, twisting strains of a loaded drum require careful design and construction and this condition has been fully met in the Lansing Mixer.

7. The skip is large and wide and elevates to an exceedingly steep pitch. Unloads quickly without pounding.

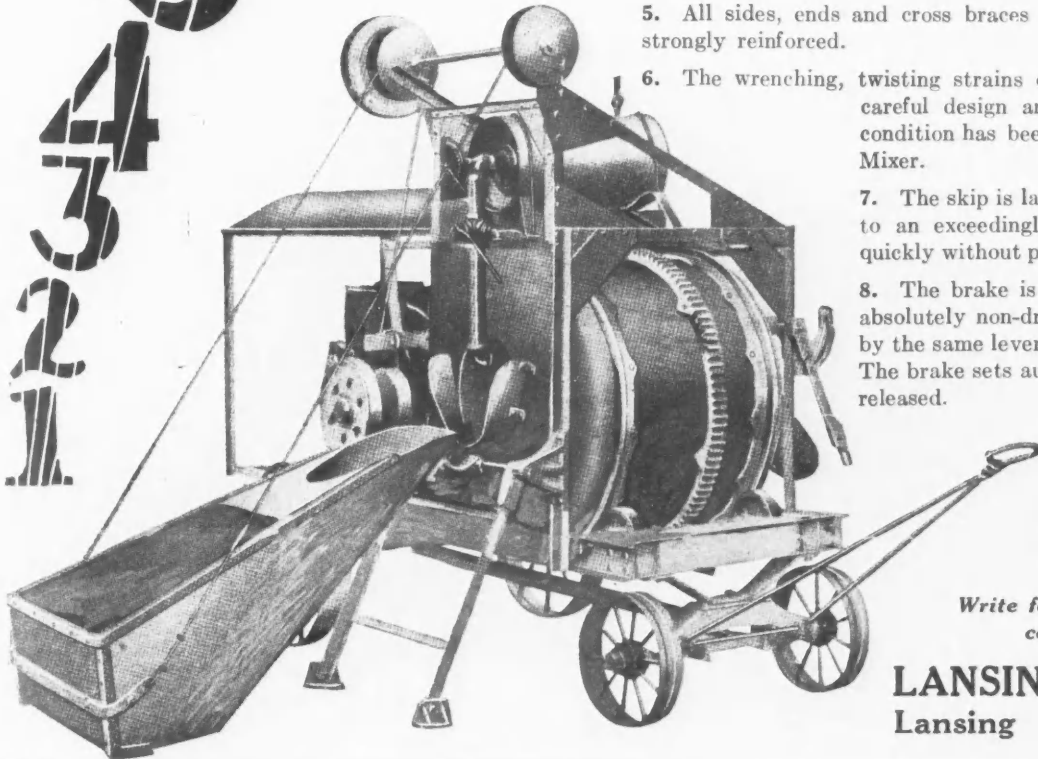
8. The brake is positive in action and is absolutely non-dragging. It is controlled by the same lever that controls the clutch. The brake sets automatically when lever is released.

9. All levers are arranged within easy reach of operator.

The 7-S has a capacity of seven cubic feet of Wet Mix.

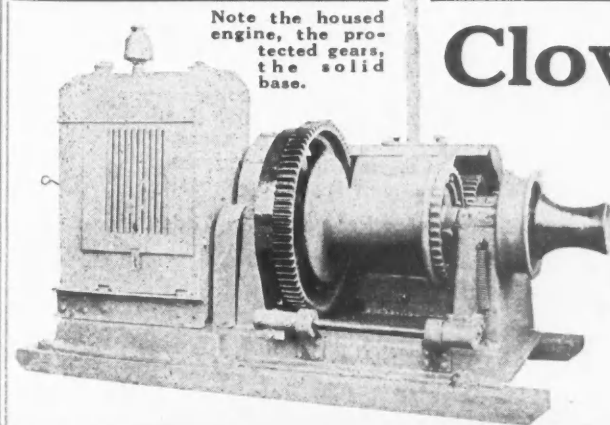
Write for a catalog of our complete line

LANSING COMPANY
Lansing Michigan



1
2
3
4
5
6
7
8

Note the housed engine, the protected gears, the solid base.



Clover Leaf Hoists

WE specialize in high grade Gasoline and Electric Hoists. For the past 12 years our Hoists have proven their worth on thousands of important jobs.

Illustration shows our Single Drum Reversible Hoist with 8 H. P. gasoline engine. This Hoist is equipped with elevator sheave and winch head besides the main hoisting drum. Write for circulars and prices.

Clover Leaf Machine Co.
South Bend, Ind., U. S. A.

"Dow Spiral Slide Fire Escapes" are described and illustrated in a folder, with incidental matter, at hand from the manufacturers, The Dow Company, Louisville, Ky. Typical installations of this unusually effective fire escape are shown, and testimonials from a wide range of users cited to show its extreme efficiency for school, hospital, factory, office building and institution use.

"Kirsch Rod and Window Draping Book," published by the Kirsch Manufacturing Co., Sturgis, Mich., contains authentic, artistic and thoroughly practical information on Kirsch Flat Curtain Rods, besides giving suggestions calculated to make the most of the window as a decorative unit in the home. It is well illustrated and represents the most advanced thought on this subject.

"The Twenty-First Annual Meeting of the National Lumber Manufacturers Association" is the report issued by the Association covering its convention at New Orleans, March 21 and 22 of the current year. It may be had from the National Lumber Manufacturers Association, 904 International Building, Washington, D. C.

"Electrical Construction Supplies, Catalog No. 568" is at hand from the Fletcher Manufacturing Company, Second and Canal Streets, Dayton, O. This is the oldest manufacturing firm in its line in the United States, and its goods have always given the best of satisfaction. Electrical contractors and architects and builders generally will wish to have this catalog, superseding as it does all previous editions.

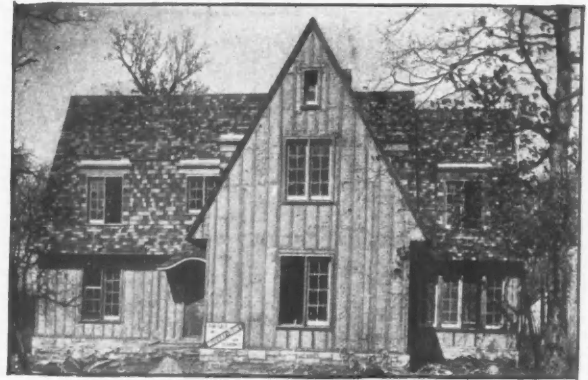
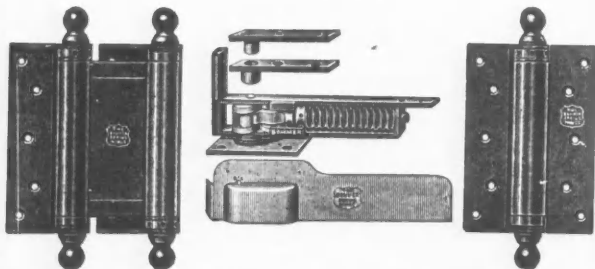
"Blaski Ideal Skylights" are described and illustrated in the latest catalog at hand from the Blaski Manufacturing Company, 4825 South Rockwell Street, Chicago, Ill. The manufacturers point out that the installation of specially designed machinery, tools and dies, and quantity production based upon modern manufacturing principles enable the marketing of Ideal skylights at reasonably low prices.

A melancholy chap was he
Until an "Ad" he chanced to see
which said!
"BOMMER SPRING HINGES" are the best

And now he is a happy man
with every comfort blessed—
It pays to take that "Ad's" advice—
be wise
"BOMMER SPRING HINGES ARE THE BEST"



BOMMER SPRING HINGE CO., Brooklyn, N. Y.
ESTABLISHED 1876



House near Chicago, showing its "underclothing" of Cabot's Quilt, with furring strips over the Quilt, on which the outside finish is laid. Roof also insulated. Leon E. Stanhope, Architect, Chicago

Underwear for Houses

Underclothing makes people warm because it prevents the heat of their bodies from escaping. You can make your houses warm in the same way.

Cabot's Insulating Quilt

prevents the house heat from escaping. It insulates the whole house and saves the heat from the heater—that costly heat. It keeps the house warm on the smallest amount of coal; saves one-quarter to one-half of the coal bill. Makes the house comfortable for all time. Preserves health and saves doctor's bills. Makes the house cooler in summer. Quilt is not a mere felt or paper, but a scientific insulator that makes the house like a thermos bottle.

Sample of Quilt with full details, and references to dozens of users sent FREE on application

SAMUEL CABOT, Inc., Mfg. Chemists
BOSTON, MASS.

342 Madison Ave., New York 24 W. Kinzie St., Chicago
Cabot's Creosote Stains, Conservo Wood Preservative, Stucco and Brick Stains, Damp-Proofing

Think! Of the Future

Are you working for yourself or the other fellow? Think of the future! Start building up a business of your own.

Sager Metal Weatherstrips are favorably recommended by thousands of home owners. This makes our Agency Proposition unusually attractive.

We need an Agent in your locality. No capital is necessary. Sager National Advertising furnishes you with prospects.

Sager Agents are making from \$3,000 to \$5,000 a year. Here is your opportunity.

ACT NOW—Mail the Coupon Today

Sager Metal Weatherstrip Co.

162 W. Austin Ave.
Chicago

Sager Metal Weatherstrip Co.
Send Agents Offer.
Name
Address