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The American Home



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This Southern House of Colonial Inspiration

For less than \$20,000. See page 426

Plank Floors

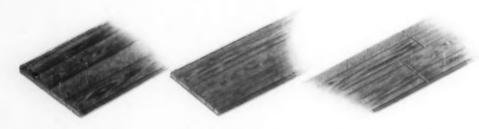


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As in the illustration above random widths full length suggest the rougher treat ment of early plank floors

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E.L. Bruce Co.

A corner of a business office; Bruce *CELLized oak planks for walls and ceiling; *CELLized maple and walnut blocks for the floor

BRUCE PLANKS may be obtained "Cellized ("chemically treated to reduce the tendencyto change in size) or untreated; beveled or square edged. Three grades: Mansion, Fireside, and Tavern; three sizes: 4,6, and 8-in, widths.



The American Home

The gracefully arched branches of the tall tree form a frame for this comfortable, well-proportioned English cottage, the residence of Mrs. Julian Elfenbein, at Larchmont, New York. The house was designed by C. C. Merritt



Harold Haliday Costain

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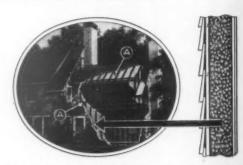
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Above, the home of Mr. Loring Marshall, Wellesley, Mass., which has been insulated by local J-M Contractors, the Home Insulation Company of Boston. At left, we show bow, working from outside, without damaging your house, whether it be frame, stucco or brick veneer, the J-M Home Insulation Contractor fills the outer walls.



Here the artist has cut away (A) part of the house, and at the right is a cross section of a wall which shows how J-M Home Insulation looks, and how it fills every inch of empty wall space. The material is a clean, rock wood which will not absorb moisture, hum, or settle. Rats and mice can neither eat it nor live in it. Only with thick insulation can you obtain the economies and comfort you have a right to demand when you buy insulation.

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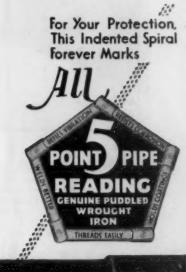


TIME-THAT TOUGH OLD TESTER

Here is Time, that Tough Old Tester of everything in this world. To his aid, Time calls all the destructive forces of the universe. Years come and go, storms and sunshine, heat and cold make their accustomed rounds, while Time, the Tough Old Tester, broods over the world, trying, testing, destroying.

Yet Time, the Tough Old Tester, does have his troubles. Against one material devised by man, Time and his serving-men falter. That material is genuine <u>Puddled</u> Wrought Iron—the metal of which Reading 5-Point Pipe is made.

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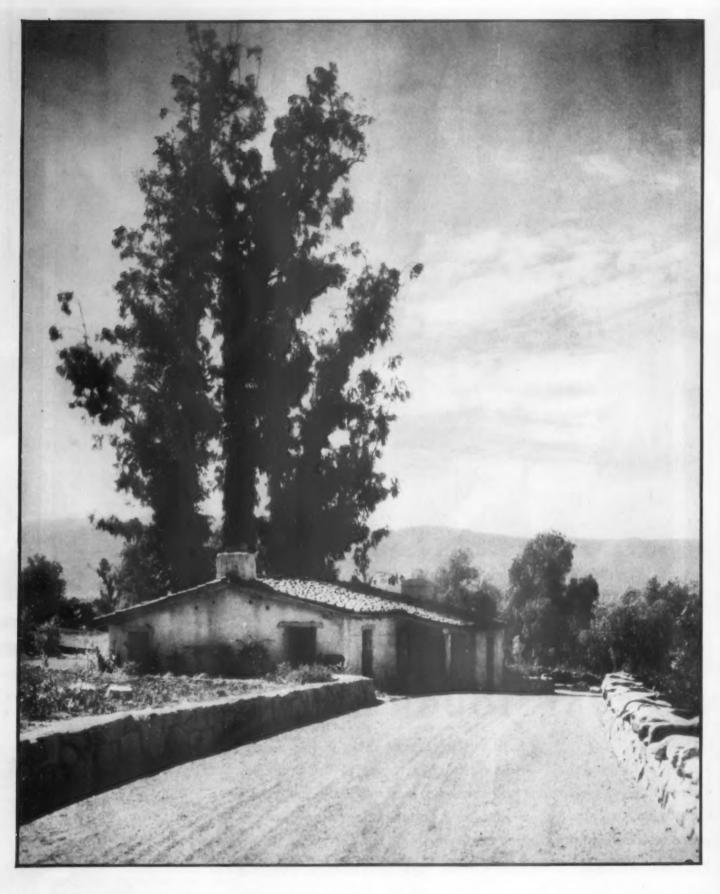




READING PROMUSHT IRON E



science and Invention Have Never Found a Satisfactory Substitute for Genuine Puddled Wrought Iron



Nestting beneath the tall Eucalyptus and Peppertrees in the Ojai Valley, this little house with its roof of warm red tiles has an air of coziness and friendliness typical of the great state of California, in which it is situated. Palmer Sabin was the architect. Photograph by Padilla

Four decorators solve a problem and decorate a living room

ITH the tremendous increase in the number of smaller houses being built as well as the decrease in the sizes of rooms in city apartment houses, the adage that "good taste flaunts no dollar sign" becomes truly pertinent and important. More and more people are coming to realize that it is possible to achieve individuality in a room without the need for a big bank roll. Good

taste is chiefly a matter of care and study, backed by experience. Years of study, years of experience, and a knowledge of current prices give the decorator the necessary qualifications for making the best of what is on hand for

furnishing and decorating a home.

The fact that most of the outstanding homes of America have been furnished with the aid of decorators has given rise to the idea in many minds that the services of such specialists are so high in cost that they are prohibitive for the average home owner. This is unfortunate and far from true. While of course the larger the house is, and the larger the budget to spend on it is, the greater is the financial return for the decorator. But this does not necessarily imply greater satisfaction. A small house often presents more interesting problems than a large one and the successful overcoming of these problems is a real joy to the decorator. Then, too, if the budget is strictly limited, the problem of getting the best for the money becomes an absorbing one.

Margery Sill Wickware Ethel A. Reeve, Inc. Arden Studios Isabel Peirce

Sketches by Jack Manley Rose

Description by Margaret Harmon

In solving these vexatious questions the home owner, who lacks the experience, is very apt to find herself in a hopeless quandary and her home far from satisfactory; whereas a consultation with a decorator would have eliminated, not only the fuss and bother but the unfortunate results. In most instances to dispense with the services of a decorator will prove to be a case of "penny wise and pound foolish."

When one is ill one calls in a doctor; if one becomes involved with the law one relies upon a lawyer. Both of these are specialists. So are the architect and the decorator. Their services are equally as necessary when one is building or decorating as, at times, are those of the physician and the lawyer. To illustrate one point more graphically—on the following four pages are designs for a living room. This room—13 by 24 feet—has been furnished by four leading decorators of America. The cost of furnishing these rooms, including draperies, rugs, lamps, and wallpaper, where it is used, has been kept under a thousand dollars. Yet, thanks to the decorators, the rooms possess to an enormous degree that rare, elusive, and subtle factor which we call charm.

A careful study of the problems involved in these four rooms will amply repay the readers, for the problems are simple, everyday ones that occur constantly when one sets out to either decorate or renovate the interior of one's home. We therefore recommend a perusal of the pages that follow.



Margery Sill Wickware, former president of the Decorators' Club, and an active worker in all that pertains to beautifying the home



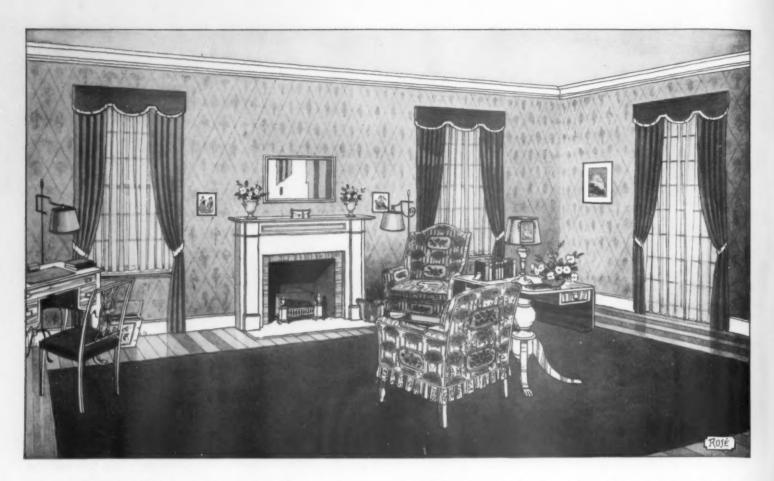
Isabel Peirce, a well-known New York decorator, has met with outstanding success in creating charm in the home through decoration



Mrs. James C. Rogerson is the president of the Decorators' Club, Inc., as well as senior member of the Arden Studios



Ethel A. Reeve, head of Ethel A. Reeve, Inc., a leading decorator whose work always displays rare charm and originality

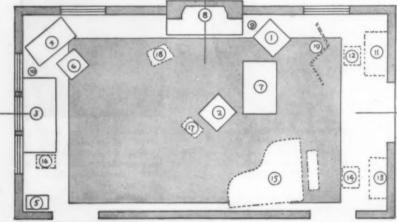


While sufficiently complete for all practical purposes, there are unobtrusive gaps in the furnishing of this room which the second year will undoubtedly fill in

A room with a future

Decorated by
MARGERY SILL WICKWARE

Key for plan: 1 and 2, chairs; 3, Lawson sofa; 4, lowboy desk; 5, drop-leaf table; 6, side chair; 7, Duncan Phyfe table; 8, mirror; 9 and 10, lamps; 11 and 12, child's table and chair; 15, drop-leaf table; 14, chair; 15, piano; 16 and 17, tables; 18, chair; 19, screen



HIS room has been furnished with an eye to the future. It is intended for the young couple who start from "scratch," with no undesirable wedding gifts to handicap and no priceless heirlooms to aid.

A Directoire wallpaper in soft tones of ivory and graybeige with a delicate floral tracery centered in each diamond lattice covers the walls. The rug is rich dark brown in color, of good quality, and fitted with a lining.

The three windows at the front of the room have been treated as a unit. Tangerine-colored glazed chintz, bound in green, and made with a deeply scalloped valance is used for the draperies. Ecru net makes the glass curtains.

Over the mantel is a rectangular mirror framed in mahogany. To the right of the fireplace are two comfortable chairs with a table between them. The same glazed chintz is used on a three-cushion Lawson sofa which stands underneath the triple window. This chintz repeats the tangerine of the curtains in its stripes and in the flowers of its large medallions, but tempers it with touches of delicate green and with soft gray-beige like the wallpaper.

The table standing between the chairs is of Duncan Phyfe origin, executed in mahogany. At the front end of the room is a graceful lowboy desk with cabriole legs. The chair used with it has a seat upholstered in dark green velvet.

Adjacent to the desk, standing beneath the wide windows, is the chintz-covered couch. On the same wall, near the corner of the room is another useful table, a copy of a drop-leaf model now in the Metropolitan Museum of Art. Two standing lamps and one table lamp, all in pewter finish with paper-parchment shades, complete the budgeted furnishings for the first year.

The dotted lines on the floor plan indicate additions which may be made later. When it is time to renew the paper, panelling may be added in dado height. Built-in bookcases would be a distinct asset.

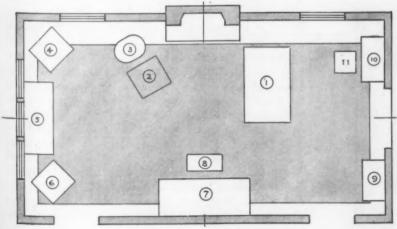


The masterful handling of richly colored chintz in contrast to the plain-rug of eggshell color is responsible for much of the success of this room

A homelike room

Decorated by
THE ARDEN STUDIOS

Key for plan: 1, settee; 2, square-backed chair; 3, oval spoon-foot table; 4, wing chair; 5, Duncan Phyfe table; 6, round-backed chair; 7, Lawson sofa; 8, traytop smoking table; 9, swing-top pedestal table; 10, lowboy; 11, rush-seated chair



HIS homelike room owes much of its dignity and charm to its richness of coloring. The walls have been covered with a cream-tinted stippled paper and the woodwork is painted slightly darker in tone. A plain rug of eggplant color, which is a popular shade at present, has been selected. Figured chintz draperies hang to the floor, while the windows themselves are uncurtained.

The settee to the right of the fireplace is covered in the same chintz. This fabric has a black background and a grape and flower pattern of strong, deep tints in which mulberry, blue, and brown appear. The blue note in the chintz is picked up again by the square-backed overstuffed chair covered in a tiny checkerboard tapestry weave which also has a hint of mulberry in its composition. An oval-topped spoon-foot table of mahogany stands next to this chair.

Continuing around the room from the left side of the fireplace, the next piece of furniture we encounter is a comfortable wing chair, covered in plum velvet and placed where it receives the light from windows on both walls. Underneath the triple windows is a mahogany Duncan Phyfe table with

two drop leaves. Balancing the wing chair, the next corner is occupied by a small round-backed chair, upholstered in chintz like the settee.

Directly opposite the fireplace, in the middle of the long wall between the two doors, is a Lawson sofa, covered in the blue tapestry fabric. By this arrangement of furniture, the hearth has been made the living center of the room as the couch can easily be included in a conversational grouping. In front of the sofa is an interesting little piece of furniture in the form of a tray-top mahogany smoking table built on Chippendale lines.

At the rear end of the room, to the right of the door that opens on the porch is a swing-top pedestal table of mahogany which folds in half and is placed console-fashion. On the other side of the porch door is a lowboy which is used as a desk.

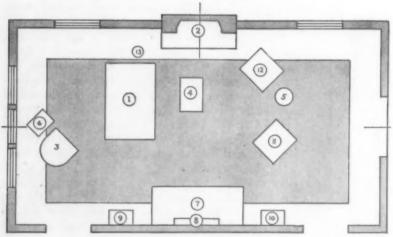


Decorated essentially as part of a country house, this room displays all the gracious hospitality and informality one would expect in a home of this type

An informal room

Decorated by ETHEL A. REEVE, INC.

Key for plan: 1, Lawson sofa; 2, French mirror; 3, round chair; 4, coffee table; 5, table and lamp; 6, three-tiered provincial table; 7, sawbuck table; 8, hanging plate rack; 9 and 10, ladder-back side chairs; 11, chair; 12, chair; 13, floor lamp



N INFORMAL provincial spirit animates this gay and delightful room. The natural ground of the wallpaper is dotted with widely spaced floral motifs which mingle rose, yellow, green, and gray in equal parts. The same shade of smoky gray has been applied to the woodwork, and yellow paint is rubbed into the mouldings.

The homespun quality of the Seminole rug in two shades of mulberry is in keeping with the simplicity of the furnishings. The curtains of bright yellow percale, made with straight shirred valances, are trimmed with an odd little ball fringe of the same color, relieved by spottings of deep rose and green. There are no glass curtains as this room has been decorated essentially as part of a country house.

The unusual mirror above the mantel is French in character, as are the two chairs before the fireplace. The one with the upholstered seat and arms is covered in rose-colored coventry cloth, piped with a deeper color. The other chair has a seat cushion covered in Radnor cloth of a tawny shade.

A two-seated Lawson couch at right angles to the hearth faces the two chairs and is upholstered in cotton velvet of a

rich prune color, welted with rose coventry cloth. A dainty little coffee table with grooved legs and a hexagonal top stands in front of the couch. Between the two chairs is a small round table with a scalloped edge which also functions as a floor lamp.

Opposite the fireplace, a sawbuck table six feet long is placed, flanked at each end by a ladder-back side-chair. The provincial note is emphasized by a hanging plate rack of Norman origin on the wall above the long table. On the table is a pair of interesting metal lamps. Before the triple window in the front wall of the room stands a quaint, round overstuffed chair, covered in rose-colored coventry cloth and finished with a deep gathered ruffle. Close at hand is a small three-tiered provincial table. The floor lamp at the left of the fire place is a copy of an old candlestand in wrought iron.

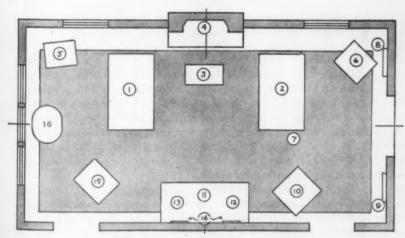


The discriminating use of bright chintz for draperies and chairs, striped coventry cloth covered settees, and plain green rug, make this room comfortable for any season

An all-year room

Decorated by ISABEL PEIRCE

Key for plan: 1, sofa; 2, sofa; 3, coffee table; 4, mirror; 5, chair; 6, round-backed chair; 7, floor lamp; 8 and 9, bookshelves; 10, wing chair; 11, sawbuck table; 12 and 13, lamps; 14, prints; 15, French provincial chair; 16, butterfly table



REEN and henna, shading to orange, are the dominant color tones in this interesting year-round room. The walls and woodwork are tinted a delicate shade of gray-green which provides a soft background for the bright chintz draperies and chair-covering. On the floor is a rug of green cowhair, pleasantly rough-textured.

The windows are curtained in cream organdie, and the draperies are made with valances and tie-backs and hang to the floor. The semi-glazed chintz shows a Jacobean flower pattern in henna and green, accented with blue and mauve, on a neutral ground. The binding is henna glazed chintz.

On either side of the fireplace, facing each other, are two small sofas, upholstered in green striped coventry cloth. Between them stands a low rectangular coffee table of maple finish. A maple mirror, Colonial in type, hangs over the mantel.

On the opposite long wall, across from the fireplace, between the two doors is an old pine sawbuck table, flanked by a pair of wrought-iron table lamps which have parchment shades, decorated with sporting prints. To the right of the table is a comfortable wing chair. At the other end of the table there is a French provincial chair.

> Beneath the triple window at the front end of the room is a butterfly table of maple and birch with flat stretchers and balanced turnings. This holds a pewter chimney lamp with a parchment shade.

> Near the window at the left of the fireplace is an overstuffed chair with open arms, covered in gay orange leatherette, which closely resembles real hide. In the corner between the other window and the porch door is a round-backed chair upholstered in the Jacobean chintz. Two bright spots of color are a pair of red lacquer hanging bookshelves. On the wall above the sawbuck table are four framed prints of the "Cries of Paris," hung in pairs at each end of the table. In addition to the three small lamps in the room, there is also a floor lamp with a pleated shade of henna-colored book-cloth.

Insure your comfort by insulation

Some arguments in favor of an increasingly common method of building construction

HARRY D. THORN

PEACE of mind, comfort, and convenience have come to mean a great deal to the American home owner. The person who buys or builds a home weighs the advantages of the materials of which it is constructed. Although cost may be an important consideration, it is considered in relation to what comfort, convenience, or saving that investment will provide. Fuel savings as a result of efficient insulation are an important consideration.

In the early days, walls in houses were considerably thicker than they are to-day. And yet, thick though they were, much air penetrated them. In fact, so much air filtered through the cracks in the masonry or wood walls that occupants found no need for opening windows to obtain the necessary amount of fresh air. It is interesting to compare that older type of construction with its infiltrations of cold air and draughts with present day construction where such infiltration is reduced to a minimum through insulation. This matter of controlled ventilation is an important factor in keeping living conditions healthful. Uniform temperature within the home is essential in promoting health through comfortable living conditions. This is as true in California or the far south, as it is in the colder climates of the north. The problem of years ago, that rooms on the north side of a house or the side exposed to prevailing winter winds were harder to heat, may be solved to-day by insulation. Insulation is not only effective in exterior walls, but in interior walls as well. With insulated interior walls, the cold from bedrooms at night need not penetrate the downstairs living rooms or adjacent rooms and, as a result, you can step from a cold bedroom into a warm bathroom without the necessity of getting up early to stir the furnace.

ANOTHER place for insulation sometimes overlooked is in basement walls. Insulation here will stop infiltration of cold air through the cracks which frequently develop in masonry. These cracks develop, not always from cheap or haphazard construction, as is generally supposed, but from uneven settling of the foundation or the ground which supports the foundation. This infiltration of cold air through basement masonry walls is quite likely to chill the pipes that carry steam or hot water to the upstairs rooms of your house unless the pipes themselves are insulated. This reduces the efficiency of your furnace, because the heat generated does not get to the radiators throughout the house as it should, and a great deal more steam or hot water must be produced to raise the temperature of radiators to a point where they can warm your rooms.

In reducing the amount of work that the furnace and heating equipment must do to keep your house at a comfortable temperature, you can naturally expect greater efficiency from whatever equipment you use. Therefore, in a properly insulated house, a smaller amount of radiation may be sufficient. With a smaller amount of radiation, that is, smaller radiators throughout your home, it is natural to assume that a smaller furnace will keep the heat in them at the proper point. This results in a definite saving at the time your heating equipment is bought and

installed. Your architect or a heating engineer, however, should first be consulted, inasmuch as the tendency is to under-equip, rather than over-equip, the home with a sufficient amount of furnace capacity and radiation.

Authorities are in accord when they say that it is possible to save 15 to 40 per cent of fuel through proper insulation. This is borne out by experiments of the United States Bureau of Standards, the Dominion Fuel Bureau of Canada, and unbiased commercial engineering laboratories. However, it is well to consider that you cannot obtain the maximum of fuel saving by using a minimum of insulation.

FIRST, fuel saving depends on a number of contingencies rather than on insulation alone. Two identical houses, side by side, either insulated or uninsulated, heated with furnaces cared for by two different people may show a wide variation in the amount of fuel required to keep both homes at temperatures desired by the occupants. One furnace operator may be experienced and know how to get the maximum efficiency from his furnace without forcing it.

Another saving in maintenance cost is in the shortening of the required heating season. In other words, it will not be necessary to start operating your furnace as early in the fall if your house is insulated, nor will it be necessary to continue operating the furnace so late in the spring. A good insulating material will keep out dampness, just as it will keep the warmth confined within the walls of your home in those early fall and spring months.

While there are no savings in fuel and operating costs during the summer months, adequate insulation will be of value in protecting you from the heat of the sun's rays. Upstairs bedrooms are considerably cooler if the house is insulated. The supposition that an attic acts as an air space which will amply protect bedrooms against the sun's heat is gradually being passed into the discard.

Remember, too, that insulation used in the walls of your home not only insulates against the passage of heat, but also against the passage of sound. Noises from street traffic or other causes are minimized because they do not readily penetrate the walls of an insulated home. An insulating material, used in the interior walls of your house helps to keep noises in playrooms, kitchens, bathrooms, or any other room, from disturbing occupants of adjacent rooms.

There are many different insulating materials available, all of which can be grouped into two main classifications: Those of a rigid type, which in addition to their insulating efficiency afford a structural value when used as sheathing for your outside walls under brick, stone, shingles, stucco or siding, or when used as lath on the inside walls and ceilings of your house. There are also those flexible, semi-flexible, and "fill" types of insulating materials which have very definite advantages.

The best way to determine the insulating material suited to your own particular requirements is to consider carefully the important points stressed by the well-known insulating manufacturers and discuss the matter fully with your architect.



H. Victor Keppler

SWEDISH ART FOR THE AMERICAN HOME

Sweden has long been the home of skilled artisans and craftsmen and in the modern movement to beautify the home the Swedes have taken a leading part. These examples of Swedish craftsmanship in pewter, pottery, and glass, typical of the work on display at the great International Exhibition now being held in Stockholm, are not only lovely but very reasonable in price and can be obtained in America. (The pewter is from Lord & Taylor, while the glass and pottery are from J. H. Vernon Inc., and Stern Bros.)

Scandlin

A radio may find a welcome home in the nursery when, like the one shown above, it is so small that it fits neatly into the play shelves. Its bright cherry-red cabinet matches the window curtains of crisp organdie, and contrasts pleasantly with the woodwork of green. Maple furniture from R. H. Macy c? Co.; the textured, inlaid linoleum from Armstrong Cork Co.



In the man's room above, the radio is installed in the drawer of the good-looking table desk, thus taking up a minimum of room. The floor here is covered with terra cotta colored linoleum, outlined in black tiles, and the walls panelled with a new wallboard which simulates oak perfectly, even to a carved cornice band

The small radio cabinet in this living room fills a double purpose—it may be used conveniently as a coffee table, while its lines and proportions have such simple dignity that it makes an attractive piece of incidental furniture. The dancing flames in the open grate and the clock on the mantel shelf are electrical

RADIO'S PLACE IN THE HOME

Four rooms in which the radio is
an integral part of the
decoration



A radio in pale jade green blends happily with the fresh color scheme in this Colonial room where the floor is covered with a linolèum in natural taupe color, and the wallpaper has an all-over design of interlaced green ribbons. The maple table, armchair, and footstool are from Erskine Danforth Corp.; the linoleum from Armstrong Cork Co.



For the perfect picnic

DOROTHY STACEY BROWN

S SOON as warmer sunlight and longer days announce the coming of summer, thousands of families begin to make plans for that perennial institution, the picnic. Attics are rummaged for last year's baskets, can openers and toasting forks brought out, and in a few efficient households the picnic kit is produced with all the necessary pots and plates and cutlery which were carefully stowed away at the end of the preceding picnic season.

Of course, there are many kinds of picnics. There is the one that consists of a package of sandwiches in one pocket and a vacuum bottle of coffee in the other. A more formal variety sallies out with a motor car as willing beast of burden for fitted cases and baskets. And, not to be forgotten, is the thoroughly organized picnic which is almost a small camping trip and goes to the woods, beach, or a rocky island to build a fire, basing its actions all on Robinson Crusoe.

No matter in what class one's picnic comes, half the fun of it may be lost if proper equipment is lacking. And, as in most homes all the types of picnics mentioned above and endless variations of these are likely to take place in the course of one summer, the careful organizer will do well to investigate her stock of necessary articles at the beginning of the season and be prepared for any emergency. Fortunately, the picnic is one form of amusement or entertainment which need not be costly, so there is no reason why out-of-doors feasts should lack a full supply of fittings.

The first item to be considered is the one about which every outing of importance centers—the picnic basket itself. For a motor picnic one of the most useful accessories is the suitcase which looks like an ordinary piece of luggage and travels on the running board as such. Its covering is of fabrikoid and the lid fits snugly to keep out all dust. Other cases are of wicker, making them somewhat lighter to carry, and these guard against dust by means of a white enamelled cloth lining which may be cleaned by simply wiping the surface with a damp cloth.

The fittings of the cases vary. The prices vary, too, according to quality and capacity of the case. One typical example in strong, reinforced fabrikoid contains a set for four, including enamel plates and cups, a metal sandwich box, pepper and salt shakers, and the necessary cutlery. There are also compartments for packages of food. This case is priced at \$9.75.

For those who prefer to equip their own kit, there are several types of basket. One useful and easily carried example is in shape much like a large fruit basket with a solid wood handle. It is made of light, strong wood and has a cover hinged in the middle, opening at both ends and fastening with strong metal hooks. There are five sizes, priced from \$1.59 up. Another oblong basket of split bamboo has hinged top and frog fastenings. It may be easily and compactly packed to hold the materials for a whole picnic and it comes in three sizes, priced from \$1.74 up.

Half the success of any picnic to-day depends on a proper proportion of vacuum bottles and jars so that coffee will arrive steaming and fragrant, and salads (Continued on page 436)



Modern vacuum equipment includes a cowhide case, nickel food jars in a variety of sizes, and colored vacuum bottles

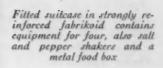
Left: a vacuum jar for a large quantity of food or ice cream. The smartly patterned paper napkins come in red, orange, green or blue



These four aluminum cups with detachable handles nest in a very compact manner, thus requiring very little storage space. (All photographs courtesy of Stern Bros.)



The half pint vacuum bottle emphasizes the small size of the folding chair with seat of gaily striped canvas





Photographs by Richard Averill Smith

HILE The American Home is mainly interested in the building, decorating, and planting of individual houses it has never ignored the number of American homes now being made in the apartment buildings and hotels of our cities. To illustrate how effectively decorative schemes may be worked out in a limited space, whether it be a college room, an apartment, or one or two rooms in an individual house, The American Home undertook the decoration of two apartments in one of the most attractive apartment buildings in New York. The Beaux Arts Apartments were designed by a group of New York architects who are among the leaders in the modern field. The two buildings, which are a splendid expression of the new architectural style, were designed by the associated firms of Raymond M. Hood, Godley & Fouilhoux and Kenneth M. Murchison.

In these apartments I sought to demonstrate how the best features of the modern style—the fabrics, the glassware, china, and some of the furniture—could be combined with traditional furniture and accessories to make a room smart, interesting, and, above all, livable. I have several times before in The American Home expressed my admiration for the splendid materials and furniture produced by modern manufacturers in the decorative and designing fields. I wish to repeat here my belief that a decorator or architect is immeasurably aided in his work by the quality of the products that are at his disposal.

In describing the decoration of The American Home apartments let us begin with the twoThe living room of the two-room apartment expresses hospitality and cheer as well as comfort. The dignified reproductions of beautiful antique pieces and colorful hooked rugs combined with the fabrics of modern designs and textures present a harmonious ensemble

Combining the old and the new

PIERRE DUTEL



The room above before it was furnished. What a marked contrast! The walls and ceiling are apple green and the wood trim a bright blue, antiqued. The floors have been covered with cork blocks, then waxed and highly polished



The one-room house is decorated in beige, tobacco-brown, black, and vermilion. This bold color scheme and the furnishings of modernistic influence make the room admirably suited to a studio or bachelor's dwelling. A serving pantry is in a small room at the end directly opposite the fireplace

room apartment, which was designed to be the home of a young couple. The living room is long with one large window facing south, and two, west. There is a good-sized fireplace on the inside wall. As a living room should express hospitality and cheer, as well as comfort, a color scheme that was brilliant and distinctive was chosen. The walls and ceiling are apple

green, a lovely color, frank and gay. The woodwork and trim are a bright blue which complements the green, and contrasts with it. It has been "antiqued" by having a coat of the green rubbed lightly over it, and immediately removed, with just enough trace left to soften and refine the color.

The floors of the whole house have been covered with cork blocks in a tiled effect, waxed and polished, making a solid and interesting color note in the decorations. This is a rather unusual floor treatment, but an eminently practical one.

The windows are hung with a delightful fabric next to the glass. It is a sheer rayon taffeta which is the tone of champagne and introduces sparkle and light into the room on



Careful and judicious selection of modern furnishings and fabrics with a definite plan and purpose in mind transformed this barren looking room into the comfortable home above

even a dark day. When the morning sun pours through it the whole room is filled with radiance, and the charm of the color scheme is undeniable. The over-draperies are of rayon shiki cloth, woven in alternating green, blue, and tan stripes with a soft, slightly rough finish. The breadths have been hemstitched together horizontally so the material effectively emphasises the horizontal lines of the room. The curtains are very full, and caught back by tie-backs of the same fabric in an interesting manner which is not only decorative, but has the virtue of excluding very little light and air.

On the floor are gay reproductions of hooked rugs in floral patterns whose cheery informality does much to add to the homelike aspect.

The furniture in this apartment is all mahogany, being



On the terrace adjoining the pent house one may relax and cool off after a warm day, watching the fantastic shadows of the towering sky scrapers creep around until the great summer moon rises over the East River and enhances the colors in the furnishings with almost stagelike effect

simple and dignified reproductions of beautiful antique pieces. Against one wall, between the windows, is a luxurious Lawson sofa, upholstered in a heavy rayon damask fabric in a modern design carried out in two tones of green. One wing chair beside the hearth is covered with the same striped fabric as the long draperies, and another wing chair is upholstered in a gay blue chintz with bright flowers on it.

This chintz is used also for the seats of the straight chairs. A charming mahogany secretary which is a copy of a fine Colonial model stands at the left hand side of the room and provides not only writing space but shelves for books and four drawers below where linens may be kept.

The long table silhouetted against the luminous southern window is of mahogany in the Duncan Phyfe manner, so it may be appropriately used either as a living room table or for an informal meal. A light, collapsible coffee tray-table serves as a side table, which may be moved about easily or folded away when not in use, and a charming mahogany tripod table, low enough to hold magazines, ash trays, and a small pewter coffee set, is by the wing chair to the left of the fireplace.

The accessories are unique and unusual and it is interesting to me to

think they were all found in the New York department stores or among the small shops which are such a paradise for shoppers. Over the mantel is a handsome convex mirror, in a round gold frame, surmounted by the spread eagle which was always a favorite with Early American designers. This mirror reflects the whole room in fascinating miniature, and seems to enhance the depth and brilliancy of the colors.

Under it is a model of a coach and four horses, a perfect reproduction on a small scale of a famous old English passenger coach, complete from its galloping steeds to the tiny decorations on its doors. These little coaches are taking the place of the ubiquitous ship model, and dec-

orators delight in them. On either side of the coach is a quaint tôle "cache pot" in pale yellow, decorated in brown and gold, and holding trailing ivy. The use of growing plants adds much to the charm of home, and pots of ivy, golden genista, and pale yellow calla lilies add their colorful grace to our living room.

In the fireplace opening is a black iron grate, copied

from an English model and finished with graceful little brass urns, while near it on the hearth stands a sturdy brass coal (Continued on page 440)

A complete list of the manufacturers and stores that cooperated with us in furnishing these apartments will be found at the end of this article



The bedroom in the two-room apartment is delightfully feminine. The color scheme is a delicate harmony of peach and a very light tone of robin's egg blue with a faint suggestion of green



Wall coverings and fabrics for the nursery background





Meritas wall covering, truly rural in design, is 50" wide. (Standard Textile Co.)

Upper center: Tony Sarg chintz with black background, 36" wide. (Lord & Taylor)



Animals, balloons, and clowns decorate the colorful circus chintz below. (Lord & Taylor)



For the very modern child is the Salubra pattern below (Frederick Blank & Company)









"Alice in Wonderland" wallpaper designed by Tony Sarg. (Thos. Strahan Co.)

At the left is a most amusing alphabet wallpaper. (M. H. Birge & Company)







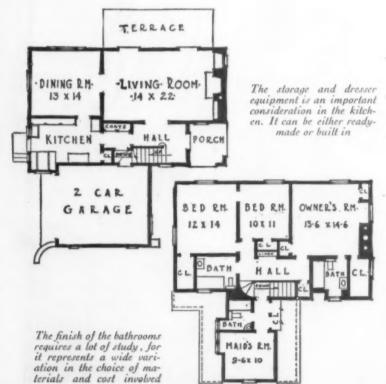
The costs of building a house

JULIUS GREGORY, A. I. A.

and costs of building a house of moderate size, the object has been to put before the reader a picture of the various problems that are encountered in the building of a house. The specifications for the house which we took as our model, and which contractors' estimates showed would cost \$17,000 to build in stucco in the New York area, were given in the first article. Subsequent articles showed how this base price would vary with the use of other materials than those mentioned in the specifications. We come now to a feature of house building which is of paramount interest, as every element has to do more or less with actual living in the house. We refer to the interior finish of the house.

The first step in planning the interior finish is to decide just what style we wish to use. This will depend, of course, rather on the design of the exterior and on incidental and individual requirements. If a home builder has furniture, the room or rooms in which this furniture is to be used should be planned to receive it. It is necessary for the client to work very closely with the architect in this matter of interior finish, because it is the architect's duty to put into pleasing form ideas that originate with his client.

A charming interior effect is not a matter of money; it is, above everything else, a matter of good taste. Beautiful





The house that can be built in any one of four ways
—in wood, stucco, brick or stone, designed by Mr.
Julius Gregory as the model for this series of articles

effects can be worked out with a minimum expenditure, and the most hideous effects can be found in a house which represents a considerable investment.

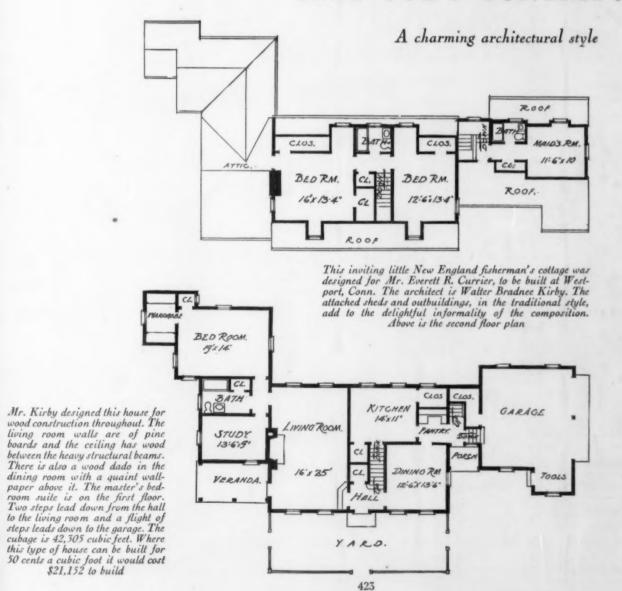
One of the most important elements of the interior finish is the matter of the background; that is, the wall surfaces. The first thing you must decide is how the walls are to be treated. Let us consider first of all plastered walls. These require, of course, a structural base that will be sufficient to support the plaster without cracking. In our model house we specified metal lath, but there are several other possible bases for plaster. Wood lath is perhaps the best known, and if this material were used a saving of \$164 over the base price of \$17,000 would be effected, but wood lath is not as satisfactory as metal lath. Insulating board would save \$82.00, and plaster board \$123. These figures are based on the assumption that three coats of plaster are applied to each of the above named bases. However, in some cases two-coat work is used, especially when the walls are to be of the smooth sand finished type. Furthermore, when a special decorative finishing plaster is to be used, it may be applied either over the first coat or directly over the insulating board or wallboard used as a base. I should like to emphasize the fact here that money spent for three-coat plaster work is a good investment. It may not be apparent in the first year, but after that the returns will begin to come in in the form of lessened maintenance costs.

FTER we have decided on the structural base for the A plaster, we must pick out the finish that will harmonize best with our general decorative scheme. Of course, if the walls are to be papered the plaster will have to be smooth. Otherwise, the plaster finish can be rough, or what is commonly known as antique. This term covers a multitude of sins, and care should be taken that the plaster contractor is not allowed to use some of the weird effects so often seen. The wall should be the background and should not be considered as a decoration. The costs of these finishes are approximately the same, exclusive of the cost of papering or painting. The selection of the finishes for the different rooms must be decided upon by the owner in collaboration with the architect or decorator. Certain rooms will need wallpaper, certain others paint, paneling or some other treatment. It is advisable, of course, to avoid any clash in the finishes of two adjoining rooms. Papering and painting must be as well done as the structural base if they are to endure and continue to be attractive. It does not pay to omit one or two coats of paint or buy cheap wallpaper.

The next important consideration is the woodwork to be used for doors, trim, etc. If the woodwork is to be stained, oak is the best and most expensive wood, (Continued on page 438)



CAPE COD'S CONTRIBUTION

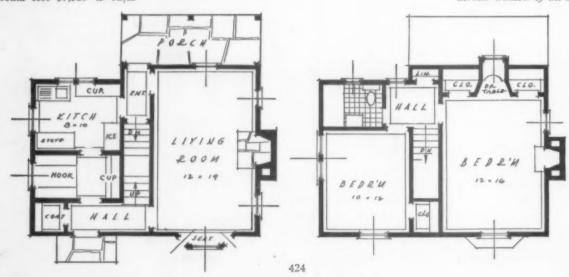




There is a new interest now in the socalled Greek Revival style of architecture which brought an end to the flourishing Colonial style about a hundred years ago. This house, designed by Theodore Whitehead Davis for THE AMERICAN HOME, shows how admirably this style can be adapted to the very small house. The cubical contents is only 14,050 cubic feet and at 50 cents a cubic foot the house would cost \$7,025 to build

Popular for a century, it can be built to-day for \$7,000

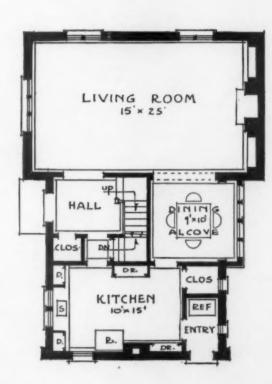
Mr. Davis suggests that the chimney be of brick painted white with a black top and the roof be of brown stained shingles. The front walls might be of small shingles stained silver-gray and the side walls of large shingles similarly stained. He has designed the windows for the front of the second floor so that standard metal casements can be used. A dressing table can be built in at the dormer window of the master's bedroom

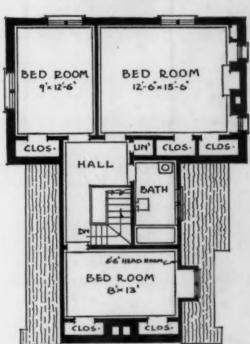




A HOUSE FOR A NARROW LOT

Of charming English design





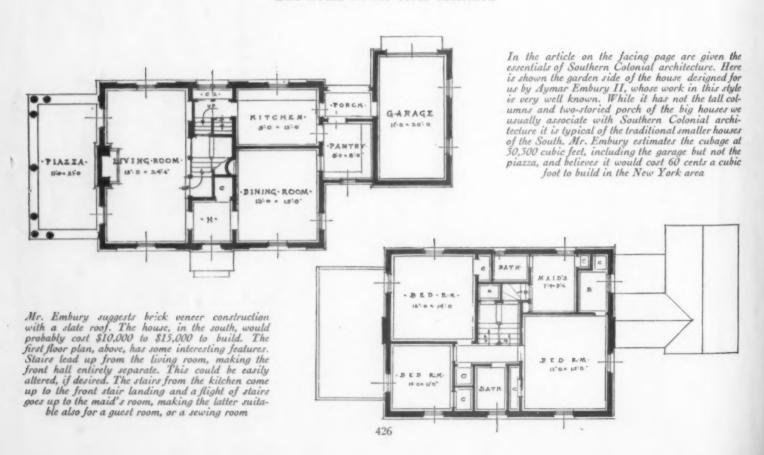
One of the most popular features of modern houses, whatever their size, is a large living room, and this house, designed for us by Jonas Pendlebury, has a cleverly planned living room that is large enough to serve as a combined living room-dining room. There is also a dining alcove with a large bay window. The cubical contents of the house is 24,700 cubic

feet which at 55 cents a cubic foot would make the house cost \$13,585 to build. The architect suggests that stucco, stone-colored, be used for the walls and shingle tiles for the roof. Half-timbering has been added at one side to give interest. The first floor plans, at left, and the second floor plans, above, show a skilful arrangement of rooms



TRUE COLONIAL FROM THE SOUTH

The house on the cover described



Precedents for the American home

The fourth in our series describes the Southern Colonial house

LURELLE VAN ARSDALE GUILD



The above reproduction of a Hepplewhite armchair is flaw-less in its beauty and simplicity of design. (Virginia Craftsman)



A mahogany sewing table, with a pedestal base, and tambour front was a favorite piece of furniture with southern ladies



A lovely Sheraton console table of mahogany has satinwood marquetry in its borders and an exquisite urn inlay in the front. (Charak Furniture Company)

Romanticists have always pictured southern architecture in terms of tall white columns and pediments, neglecting in the meanwhile the more common and equally interesting, if not so imposing, cottage style. Aside from the large plantation mansions this smaller house was more common than that which we freely call Southern Colonial and it is equally typical of the south. In the matter of room arrangement it was more than often a smaller interpretation of the larger house, losing none of the latter's delightful charm. Following the Elizabethan fashion, end chimneys were used on these houses as they were on the plantation homes of greater size. Dormer windows increased the area of the second floor rooms and gave a note of intimacy to the smallness of the house. Porches are also characteristic of this style of house.

The hospitable, luxury loving southerner, living a carefree life on his large plantation, had ample means and time to make his home a show place. And we know that he prided himself on the beauty of his home, its surroundings, and its furnishings as a part of his cheerful hospitality. Much of the furniture that went into these homes was purely English in tradition for in the south as in no other section were these types preserved. This was due to the fact that the wealthier planters visited the mother country often and sent their sons to English schools, so keeping inherent the feeling of Englishmen. Too, the south was exporting great quantities of cotton to the English mills and bringing back in return products of English manufacture, often including upholstering fabrics and furniture.

This being true, it is not at all surprising that the Georgian style when introduced into England was immediately taken up in this country and especially in the south. The scale of the southern home was more suited to the furniture that had been designed for the great Georgian mansions of England; the wealth of the planters permitted better copies, when actual imported pieces were not used; and the grace, sophistication, and elegance of the furniture itself fitted into the life of the southern colonies.

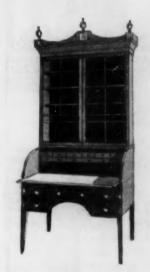
Perhaps no single piece of furniture is so typical and fine as the sideboard with its finished cabinetry as well as its sophistication of line. It was supported by tall, narrow legs, either four or six in number. The body proper of the piece was usually very long with ample storage and drawer space. This body was often serpentine in shape or built around a center arched opening. The panelled doors and drawers were characteristically inlaid in round, oval, or rectangular form.

Tables appear in countless varieties—tripod, tiptop, pier, card, and dining. On these tables we find the same ornamentation that distinguishes the other forms. The dining tables were made in three or more sections which could be used in two parts, end to end or all together as the case demanded. At full length they were often as long as eighteen feet. The tops were made of carefully selected and matched mahogany and were sometimes ornamented with bands of contrasting inlay while a narrow apron added a pleasing line.

Small pedestal tables have a center shaft with cabriole legs while the bird-cage style has a secondary platform ap-



The side chairs in mahogany were almost flawless in their proportions. The seats were wide to support the fluffy crinolines



This tall secretary with rolling tambour top and cabinet shelves behind panes was of English origin. It served many purposes



A graceful card table of mahogany, inlaid with satinwood, and with fluted legs, usually stood in the front hall and established the keynote of the furnishings



The sideboard had to be capacious as well as handsome to carry out the traditions of hospitality which governed all southern households



A pie-crust tip-top mahogany table which revolves is the height of perfection in cabinet making. It has lavish carving on the legs and base



Charming fire-screens, romantic as well as useful, stood before the fireplaces in many of the luxurious houses of the south

pearing at the top of the shaft with four small uprights to support the weight of the top. Card tables were very ornate with inlay and often carved aprons and cabriole legs. They boasted an extra leaf that lay flat on the permanent top or could rest against the wall in console fashion when the table was not needed.

Sofas were large in size but withal graceful due to the gently curved back and arms and the rounded fronts of the seats. The legs were either straight and fluted or short cabrioles, while the upholstery in damask or tapestry gave an added air of richness.

One could go on indefinitely describing the endless variety of chairs that were common to this period. They ranged from the true Georgian style fashioned after Chippendale, Sheraton, and Hepplewhite to purely mongrel types that combined all of the above features or parts of them with various unique innovations as well as touches of earlier styles. Even in the better pieces the variety was so limitless as to render description tedious. Suffice to say that we find the well known Hepplewhite shield backs, Chippendale ribbon, and carved splat backs, and the more geometric forms which show the influence of Sheraton.

A secretary desks in two parts with broken arch cresting and a noteworthy lack of carving. A sufficient architectural quality appears in these desks to make them truly imposing and stately and also most expressive of the period. In many of these secretaries the desk equipment appears in a drawer with a drop front rather than in a typical slant top style. This gives the name of "butler's desk" to the piece.

Many mirrors in many forms reflected the gay scenes which they graced. They ran in style from the cut-out Chippendale type surmounted with a gilded eagle to the rococo girandole with convex glass flanked on either side with candle brackets garnished with prisms. Among the other types it is worthy to note the purely architectural mirror which was built into its setting, often over a mantel or even above a door in a high room. Sometimes the frames of these mirrors were painted as was the surrounding woodwork, but at other times gilded in pleasing contrast.

Chests of drawers were chiefly noteworthy for their exquisitely matched woods and contrasting inlay. In form they were similar to preceding styles aside from the innovation of the cabriole leg on more ornate pieces.

The refinement of all this furniture, the grace of its carving, and its sophistication, together with the background with which it was used almost determine the silver, china, and glass. In the silver of the time we are impressed with the relation of its design to the general furniture type.

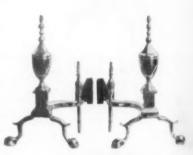
In glass the giant hurricane globes to ward off drafts from candle flames, the gayly colored lamps with pendants tinkling merrily in the slightest breeze, to the great crystal chandeliers that bedecked with a thousand sparkling lights the drawing rooms, all are significant of the period.



A lowboy of mahogany, of beautiful proportions, and magnificently carved with shells on knees and front panel, reproduces perfectly the proportions and charm of an old piece. (Old Colony Furniture Company)



Convex mirrors in beautiful gilt frames, topped with the ever popular eagle and finished with scrolls, are perfectly reproduced nowadays, and can hardly be told from antique models. (Biggs Antique Co.)



Perfect reproductions of steepletop andirons of shining brass which added their note of cheer to southern parlors. (S. M. Howes Company)



Duncan Physe sofas of this type (at left) with decorations of festoons were common in the great plantation houses of the south

This modern reproduction of a large, dignified sofa carries out all the fine traditions of the earlier cabinetmakers. (Biggs Antique Co.)



Exit the iceman

Modern methods reduce refrigeration problems

L. RAY BALDERSTON

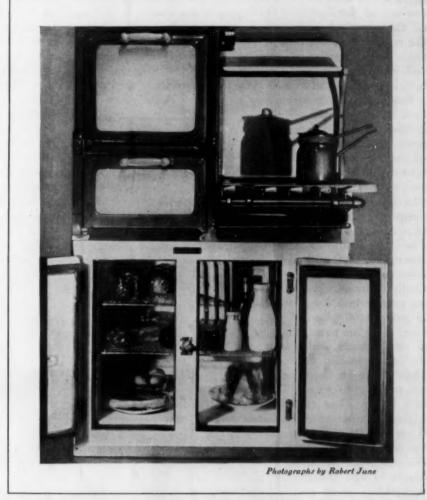
of the gifts of science whenever she is able. She is aware that through science her household tasks have been lightened and more time has been given her for recreation. She has been made free. Could women ever have achieved "emancipation" if they had been kept at the drudgery of household tasks as their mothers were? Science has given them leisure to think of affairs beyond their own four walls, and the means of more fully enjoying their leisure.

Of course, science has been immeasurably aided by modern production methods and by the advertising profession, which has been developed to present the achievements of science and manufacture. The trinity of science, manufacture, and publicity has made it possible for

women to enjoy what are, rightly speaking, luxuries. House-wives do not require mechanical refrigeration. Ice boxes, if well built and wisely tended, will keep foods sufficiently long. But science has stepped into the history of refrigeration, which goes back, you may be surprised to hear, 4,000 years before the birth of Christ, and has developed a product which will do automatically what an ice box will do only if carefully tended and properly used.

Another generation would have considered mechanical refrigeration a luxury. It is so considered now in almost every other part of the world except America. But other nations have not our manufacturing methods, nor our advertising methods, nor our emancipated womanhood—which demands, and gets. And one other very important factor which we have not mentioned is our financial structure which makes it possible to secure luxuries and necessities at the easiest possible terms.

It is probably safe to say that the majority of housewives



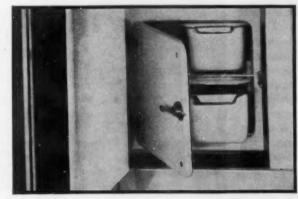
Combining the gas range and refrigerator is a practical thing to do when the latter is mechanical. This not only simplifies the arrangement of equipment where space is at a premium, but is a real step saver for the housewife

would like to have mechanical refrigerators. They are neat, they are efficient, they save worry. At the same time, of course, they are less expensive to operate than an ice box. It is true that they represent a considerable investment, on whatever terms they are bought, and it is this obstacle which the manufacturers are attempting to surmount with quantity production and consequent lowered costs.

Since there is a lot of curiosity, and misinformation, about mechanical refrigerators, we shall try in ABC fashion to explain the way they work, and will try to show the points to look for.

First of all, remember that the purpose of refrigeration is to extract heat. It does not put cold in, it takes heat out.

We perspire when it is hot because that is Nature's way of cooling our bodies. As the perspiration evaporates, it withdraws the heat. Similarly, when ice melts it absorbs heat from surrounding objects. Cold is the absence of heat. All artificial refrigeration is based on two immutable physical laws: 1. When a liquid changes to a vapor it absorbs heat. 2. When a vapor is liquefied again it gives off the same heat which it has absorbed. The process of refrigeration is merely a repetition of these physical activities. A liquid such as ammonia passes through a tube into a reservoir surrounding the box of ice cubes in the interior of the refrigerator. There it evaporates and



Some refrigerators are provided with especially designed containers for keeping vegetables in their original fresh, crisp condition

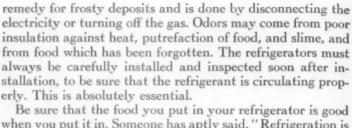
extracts the heat from its surroundings. As the vapor rises (we are all familiar with the fumes of ammonia), it carries off the absorbed heat through another tube. Once outside the refrigerator, the vapor cools and is turned into a liquid again. As it liquefies it gives up the heat it has absorbed, and it then returns to the reservoir in the refrigerator to turn into vapor and absorb more heat, repeating the cycle.

Practically all refrigerators, large or small, work in this way. The differences come in the manner in which the vapor is reconverted into a liquid. There are two general types: those that liquefy the vapor by compression, and those that reconvert it chemically. The latter is known as the absorption method and its adherents say that it practically eliminates the moving parts which may wear or get out of order. However, there are more makes of refrigerators which use the compression method. These have an electrically

driven pump to squeeze the vapor into a liquid. Most of the electric refrigerators operate in this way, and the manufacturers of them say that the compression method works with the maximum of efficiency. An example of the absorptive type is a refrigerator using gas to assist the conversion from vapor to liquid. This has no motor. Another point of difference is in the liquid used as a refrigerant. The most common ones are sulphur dioxide, methyl chloride, ethyl chloride, carbon dioxide, and ammonia. The latter is not often used in domestic refrigerators as it is combustible if mixed with oxygen. Furthermore, it will corrode copper and copper alloys if water

is present. The ideal refrigerant is one which is non-poisonous, non-inflammable, and non-corrosive. Of course, it must have a low boiling point, since this hastens evaporation. It sounds strange to speak of a liquid boiling below the freezing point of water, but it is a fact that the ammonia used for refrigeration purposes boils at 28° Fahrenheit below zero, and sulphur dioxide boils at 14° F. above zero. All refrigerants must have a boiling point under 50° F. above zero, since this is the temperature at which your refrigerator should be kept.

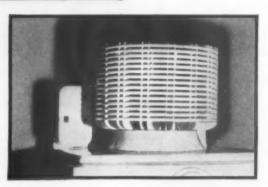
The coolest part of the refrigerator should be not under 40° F., and the warmest part should not be over 52° F. Every standard refrigerator registers within a degree or so of each extreme. The qualities to look for in a good refrigerator are: low temperature, correct humidity, and a proper circulation of air. Correct humidity—moisture and temperature balance—is of great importance. Where ice refrigeration is likely to be too humid, mechanical refrigeration faces the problem of too much dryness, for the coils or expansion tanks may bring the temperature down below freezing. For those refrigerators where moist air compartments for the storage of vegetables is not possible, closed containers or parchment paper give practical results. Defrosting is the



Be sure that the food you put in your refrigerator is good when you put it in. Someone has aptly said, "Refrigeration is not a purifying agent"—neither is it a sterilizing medium. No manufacturer can be expected to make a storage box to resist bacterial action completely, and the housewife must realize that food that is to be kept prime must be of first quality when bought, and must not be kept too long. And do not make the refrigerator a pantry for foods that do not need low temperatures. Such storage wastes space, breaks the circulation of air, and is inefficient.

The old ice box was wasteful of ice because of poor drainage, which allowed the air to become humid, and because of

An all porcelain lined refrigerator with visible and direct cold control. A small box with a large food capacity



The coil mounted on one type of mechanical refrigerator. The refrigerant is cooled by the air surrounding the coil, thus changing it from a vapor to a liquid



For chilling drinking water a reservoir is provided in this refrigerator and equipped with a small spigot for convenience

poor ventilation or circulation, which let odors remain. To-day by contrast. the inside of every refrigerator is a beautifully constructed food storage container, so insulated with either layers of cork, or insulating board, with seamless or rounded corners, and so non-absorbing of odors or moisture as to give the housewife perfect control over dirt, rust, and storage of food. All handles of doors are rustproof and every clasp should respond quickly to the busy worker. Any housewife who has a refrigerator of this kind, should be a proud possessor and should reap the economic benefit of using food which is assuredly of good quality.

The divisions in refrigerators make for practical orderliness of arrangement, but there really is a more important reason. Foods needing colder temperature to reduce the chances of spoiling, like milk, butter or broths, should be placed just under the refrigerating unit where it is the coldest. Poultry, uncooked meats, and salad dressings are best in the adjoining compartment with a temperature average of 47° F. Cooked meats or berries can be placed further away from the refrigerant, while cooked vegetables, eggs, and fats require less cold. Fruits and vegetables are well placed in the section

where the thermometer would register about 50° or 52° F. Foods that are cut, like half melons, can be protected from drying and the odors can be kept in by using waxed paper which forms an excellent cover.

The new refrigerators are, of course, scientifically designed to operate at the greatest efficiency. For instance, most of the new models use only one door where the refrigerator is not too large. The reason for this is that tests have shown many-doored refrigerators to be (Continued on page 436)



A well equipped cabana showing cot with water-proof pillows, make-up table and box, chair, Bengalese rug, hassock of raffia, and Basque striped towel. Photographs (Courtesy of Stern Bros.)

Comfort on the sands

MARJORIE LAWRENCE

A beach chair that rests almost flat on the sand is made of a waterproof modernistic fabric with black background and frame painted black



URING the last few years, beach life has reached the proportions of a cult and beach accessories are an essential part of a day spent in its entirety within sight and sound of the waves. In the times when one undressed in a stuffy bathhouse for a quick plunge in the water and sat primly on the sand for a few minutes before a brief shower and a return to the raiment of civilization, beach mattresses, bridge tables, lounging chairs, cabanas, make-up boxes, cots, rugs, rocking chairs, and other delightful appendages of "sun-worship" were unknown. Beach umbrellas were the pioneers. Reading and sewing in their grateful shade became possible, and the numbers of hours at the beach were consequently lengthened.

A summer holiday in your own house with long days

spent lolling by the sea is a real health giving delight. If you are going in for seaside life in a serious way, the gaily striped cabana or tent is (Continued on page 436)

Low table and seats such as these take very little storage space in a tent and may be carried easily in a motor car

Indulge in Orchids

Gems of flowerland anyone can grow

EDITH H. MYERS



There is a great fascination in growing on young seedlings to flowering age, wondering all the while what the bloom will be like

ROM a five cent packet of Radish seeds to five hundred Orchid plants seems rather a long step, but it took us only six years to achieve! We still enjoy our scarlet radishes, of course; but you should hear us rave about our Orchids!

The average person is a bit timid about attempting this fascinating culture. Somehow, Orchid growing is popularly considered to be a mysterious and difficult process. Perhaps the purchase price of a plant, together with the fear that one may not know how to care for it has been the principal deterrent. As for the monetary expenditure, that rests with each individual; he can spend seven dollars and fifty cents for a species Cattleya—the lavender type commonly sold for corsages—or he can spend many hundreds for a rare hybrid. That is a matter for bank accounts and budgets. But the method of care, which is identical regardless of the amount of the purchase price,

is a subject of more general interest and appeal.

About five years ago, my husband built for me, during spare hours, a

diminutive greenhouse, ten by

Dendrobium is one of the easy to grow Orchids, yet responds to good cultivation. Colors are rosy-lavender or yellow twelve feet. A pipe-line run off our house hot-water heating system served to heat it; and we found it required no more coal than that of two good-sized radiators which were not necessary in the house. So, you see, the heating of the green-house cost nothing at all and was not the slightest care. The first winter I amused myself growing the usual flowers—Snapdragons, Calendula, Carnations, etc., and every-thing throve quite happily. We had been flirting for weeks with the idea of trying just one Orchid plant. Suppose we did spend seven dollars and fifty cents for a plant—why, a cut bloom would cost nearly that much; so it wouldn't be such an extravagant idea, after all. And then, one November day, I received an impressive box and within it found not one but three Orchid plants with their flower sheaths showing. I was simply thrilled speechless; for, enthusiastic as I am about growing all flowers, I would dis-

card them all for a few Orchids. No other flower is so full of elusive charm, so sensuously alluring. Its color range is that of the rainbow; it possesses an infinite variety of shapes, nearly (Continued on page 452)

Perhaps the easiest of all to handle are some of the enormous family of Lady-slipper Orchids (Cypripedium)





Carry on for summer

I. GEORGE QUINT

TULY and Independence Day reaches the half-way marker on the Garden Highway, the midsummer climax in the romance of beauty. To some it is a period of leisure, an occasion for letting activity slide. But for the seasoned gardener, the true follower of Nature's wonderland, it is a signal to "carry on."

The real gardener at this time mops his brow, hitches up his belt, and digs in for the second half of the outdoor season. There is a multitude of things to do. There are Dahlias, Gladiolus, and Chrysanthemums to be staked; there are Perennials to be planted; there is much weeding to be taken care of; there is hoeing, thinning, watering, pruning, spraying, and summer mulching to be done; and there is the Octo-

ber vegetable dinner to be thought of and planted. The patriotic devotee of hoe and rake admires his red Salvia, his white Alyssum, and his blue Cornflowers in a novel arrangement of Old Glory, and decides to make next year's Independence Day display an array of Perennials. A bed of red Sweet William, white Phlox, and blue Delphinium in his neighbor's yard gives him an idea for a patriotic design in his own garden for next summer. In his coldframe he will sow seeds of Delphinium belladonna, grandiflora or Queen Wilhelmina, all of which are sky blue in color. He will sow seeds, too, of red Dianthus barbatus (Sweet William), a perennial which is best treated as a biennial. And in the fall he will plant Phlox paniculata Mrs. Jenkins, an excellent white variety. Phlox, of course, is best planted in the fall, and from plant divisions rather than from seed.

When large enough he will transplant his Perennials, giving them their place in the garden in an appropriate design, so that next summer the red, white, and blue will blend in a colorful harmony and burst into their best colors just before Independence Day.

A square bed is extremely attractive, with two or three rows of the Delphinium to form the sides of the square.



Summer bloom—Phlox, Sweet William, and Delphinium in the garden of Mrs. W. R. Blackmore, Columbia, Mo. All easily grown plants that anyone can have

Then two or three rows of the white Phlox for the middle, and the Sweet William as a mass in the inside of the square. If you prefer, you may set these plants in rows, forming ribbons. Whatever your plan, now is the time to sow seeds of Perennials, for bloom next year.

Gardening pays dividends as you go along, and it pays its greatest rewards to the gardener who carries on. The distance runner who starts his race with a spurt and then lets up may have the satisfaction of leading the pack for a lap or two, but he never wins the race. The gardener who starts his work with a spurt and then when midsummer arrives begins to relax may have a fine garden for a month or two but when his plants have stopped blossoming his more industrious neighbor earns his meed.

Plants that have grown tall need some support. Stakes should be attended to, and the earth (Continued on page 452)

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Water thrown into the air through finely adjusted nozzles falls as a gentle mist and is partially warmed. Underground systems have a great advantage in that they will serve for years once installed



April showers all the year

Devices for uniform distribution of water

ADOLPH KRUHM

Left: The automatic oscillating type fits well into a garden, as passage may be had between the waves. Below: A fixed elevated pipe line with a battery of nozzles will ensure the welfare of shrubbery or flower border



den activities during the summer are cultivation and watering. And of the two, watering is frequently the one less understood and done mostly the wrong way. To the vast majority, watering means attaching the hose to a faucet, pointing the nozzle in the garden's direction and "let 'er go!" But it takes the skill of a craftsman indeed to control the nozzle with a thumb, so as to water correctly the different plants the garden holds. So let us take a few minutes to consider watering fundamentals.

How does watering affect the plants? What is the effect of watering on the soil? It is one thing to turn on a lawn sprinkler; it is quite another thing to start watering a garden containing scores or occasionally hundreds of different types of plant life. Recognizing the fact that (Continued on page 464)

We submit the local record of H. B. Smith

Boilers as the best guarantee we can

give you of their efficiency and economy

In every respect, heating is a subject that deserves your most careful investigation. The heating plant is one of the largest items in the cost of building. The cost of fuel, even under ideal conditions is one of the largest annual expenses. The importance of heating in its relation to comfort and happiness can hardly be exaggerated.

What we tell you about H. B. Smith Boilers is true. But the purchase of a boiler is too important to you for us to expect you to take what we say and swallow it whole. Your best bet is to investigate. Ask your Architect, your Engineer, your Heating Contractor what they think of H. B. Smith Boilers. Ask owners, too. We are not afraid of our record in your locality. In many localities our record covers a period of over half a century.



Some Questions To Ask—Ask which will do more to give you low cost heating—to make a saving *once* on the original cost of your boiler, or to make a saving *every* year on your cost of fuel.

Ask whether having plenty of Fire Surface is or is not the chief factor in determining a boiler's efficiency, from the viewpoint of comfort as well as economy.

Ask whether the kind of fuel you burn—oil, gas, coal or coke—has any effect on the efficiency of an H. B. Smith Boiler. On any other boiler.

If your home is small-to-medium in size, ask whether in their opinion one of the New Smith "16" Boilers is capable of giving the same comfort and economy that the larger H.B. Smith Boilers (called Mills "24", "34" and "44") have been giving in large homes and mansions for the past fifty years.

Ask owners whether an H. B. Smith Boiler will warm the house quickly on cold mornings. Whether they have any difficulty in making the house comfortably warm in extra cold weather. And if they burn coal, whether they are all the time chasing down cellar to tend the fire.

Ask anything else you want.

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We will gladly send you free of charge, and with no obligation to you, one copy each of our three booklets, all published in the past few years, titled, "Guaranteed Heating Satisfaction at Minimum Cost", "Does it Pay to Install an Oil Burner", and "The New Smith '16'". Use Coupon below. The H. B. Smith Company, Westfield, Mass.

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lug in selvedge of screen wire which prevents sagging. A"non-sagging' feature found only in Rolscreens—Fully Guaranteed.

Fifteen Patented Features of Rol-

screens are essential to practical rolling window screens.

Comfort on the sands

Continued from page 431

a wise purchase. It is strongly made with braces that are fitted to your own particular site, and would be adequate to sleep in at night, as well as to use for the daytime siesta when the sun's rays become too bright for comfort. In the shady shelter of your cabana, you can breathe the invigorating salt air that sweeps in through the doorway while you sleep, read, write, sew, or play cards.

For your hours of rest, there is a comfortable and attractive cot-bed that folds up into a three-foot length. It is made of orange duck stretched tautly on a wooden frame which is

painted green to match the piping. This costs only \$4.50, and may also be had in the reverse color combination.

A bright woven rug or two in the fashionable plaid and striped patterns of the Basque mode, laid on the sandy floor of your tent will add to your comfort.

Even without a cabana, there are cores of delightful beach adjuncts that bring comfort and charm to the bungalow by the sea, or that may even be transported easily each day by automobile to add pleasure to your hours on the sand.

For the perfect picnic

Continued from page 417

crisp as when they came from the refrigerator. If you wish to have your vacuum bottles looking their smartest this year they must be colored and there are gay shades of blue, rose, and green from which to choose. In this finish a one-quart size costs \$2.64. Among the new features are the large food jars useful for liquids, ice cream, or packages of meat and any other foods that must be kept cool. Being somewhat heavy to carry, they are equipped with strong handles. A container of this type costs \$12.00 for the half-gallon size and may be bought in the new bright colors at somewhat higher prices. Smaller food jars in

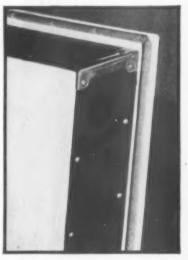
nickle finish are of much lighter construction, some of them small enough to be carried in a pocket, and are priced from \$2.75 up. The ordinary vacuum bottle with convenient cup top is, perhaps, the most necessary article of all; prices are from \$2.25 up in nickel finish and from \$1.25 up with the ordinary dark fabrikoid cover.

As ordinary vacuum bottles are subject to breakage, it is comforting to know that there is now an unbreakable food jar and bottle which once bought means permanence in your vacuum equipment. If it is desired to carry vacuum bottles separately, there are smart cases of leather for them.

Exit the iceman

Continued from page 430

inefficient. Every refrigerator now seems to have some device or arrangement intended to catch the housewife's eye. It may be a quick freezing compartment, a vegetable compart-ment, a water cooler or a cold storage box. These are all good and practical, but the real thing to buy is a refriger-ator that will keep foods constantly at the same temperature, that will not be expensive to operate and that can be readily serviced, although the latter seems hardly necessary with refrigerators as perfected as they are to-day.



The efficiency of a refrigerator depends to a great extent upon adequate insu-lation in the walls and doors

Illustrated Rolscreen Booklet mailed upon request.

If you are replacing your window screens, building or remodeling your home, you will be interested in the Rolscreen

ROLSCREEN COMPANY

Pella, Iowa

390 Main Street



Line y Buildin a cool,

ing sun

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Right: another type of mechanical re-frigerator showing the ice water storage tank and tap at bottom



Celotex Lath protects the beauty of these attractive walls from streaky lath marks and unsightly plaster cracks.

Handsome plastered walls and ceilings

... permanently protected by Lath that also shuts out dampness and excessive summer heat



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Line your attic with Celotex Standard Building Board and change waste space into a cool, pleasant playroom, a maid's room, or an extra bedroom. Celotex shuts scorching sun's rays out of your home. If your attic is too small for a room, just nail Celotex to the attic floor, and the whole house will be more comfortable.

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INSULATING CANE BOARD

The costs of building a house Continued from page 422



A will drawn in 1759, leaves to the 70 year old wife, provided she does not marry again, "full furniture, including settee and tea table ... and if I should chance to dye when I have cattle a-fatting, my wife shall have them for

A Difficult Choice, Then or Now

IISTORY does not tell whether the eld-erly heroine of our quotation chose the path d'amour or the way of more assured comfort. But there can be no doubt that she hesitated long before giving up the beloved furniture that had meant so much to her comfort and her hospitality.

Illustrated above is a settee and tea table prevalent in those early days. Note how readily they further the suggestion of cool, restful repose, as they invite to tea in the breeze-swept corner of the low-ceiled

These gracious pieces are but two of the several hundred which Stickley has copied from authentic originals, preserved from the treasure house of the Early American period. Many lovely homes, exemplifying many periods of decoration, use Stickley Early American reproductions as occasional pieces, for their quaintly charming touch.

Visitors are always welcome to visit the work shops at Fayetteville, N.Y. Illustrated booklet F on Stickley pieces will be gladly sent on request.



but if the woodwork is to be painted, pine, whitewood or birch may be used. This difference is due to the fact that the coarse grain of oak does not lend itself to a smooth finish when painted. In our specifications we included oak trim to detail (designed by the architect), but if the trim were of white pine to detail, the saving would be \$50.00 under the base price of \$17,000, and if whitewood to detail, the saving would be \$95.00. It is now possible to buy attractive stock woodwork, and if this were used in our house the following savings would result: oak, \$50.00; white pine, \$115.00; whitewood, \$200.00.

The doors naturally should be of the same wood as the trim, except that whitewood is seldom used for doors. In our house, stock oak doors were specified, but if stock pine doors were used the saving would be \$80.00. The garage doors specified are the roll-up type. However, if one should choose the swinging type, the saving would be \$70.00.

Nearly everyone has a desire for wood paneling, either in the form of a paneled room or a wood wainscot to achieve some desired effect. However, paneling should be well done to be attractive. One should figure on \$1.50 to \$2.00 a square foot for this work.

Floors, like walls, are important features of the decorative background. Furthermore, they are subjected to constant wear and must be serviceable as well as attractive. The first consideration has to do with the general style of the interior decoration; that is, whether the floors are to be carpeted or covered with a composition flooring, whether they are to be wide boards or whether they are to be the more formal and more usual strip type of flooring. When this point has been decided, we must look for the type of floor that will wear best. It is generally conceded that the harder woods make the most satisfactory floors, and of these oak is the most common. While there are several grades of oak defined by the lumber association, in the average house the difference in cost is so slight between the poorest and the best grades that it is false economy to specify any but the best. In some houses, however, where it is desired to have wide board floors, pine is specified. This is, of course, softer than oak, but gives a Colonial effect.

When considering plank floors, one must remember that there are two kinds of planks, those that are solid and those that are built up, or laminated. Both give the same effect when first laid, but the solid plank is more apt to swell and warp. Furthermore, the difference in cost between these types of flooring is considerable. In our model house, if the solid planks were used in the living room, dining room, and hall, the increased cost would be \$212, whereas if the builtup planks were used the increased cost would be \$575. The service portions of a house are usually floored with a comb grain pine.

The type of windows is also an important consideration. They may be double hung, wood casement or steel casement, and the glazing may be either plain or leaded glass. In our first article we showed that either double hung windows or wood case ments were considerably less expensive than steel casements. However, weatherstripping adds to the cost of the first two types and neither of them is as durable as metal casements.

The selection of windows up the question of screens. If double hung windows are used, the screens may be either on the outside or inside of the windows; if on the inside, they may be either of the roll-up type, sliding type or hinged type. The latter should be avoided on account of the curtains. If used on the outside, they are usually the top hung type.

If casement windows are used, the screens must be on the inside and may be of the hinged, sliding or roll. up types, or the recently developed

stationary screens.

In this house the screens as specified are of the roll-up kind which can be used with any type of window. The special stationary screens would cost about the same. All the other types of screens would be less expensive according to the quality and type, the simplest being the wooden frame, top-hung screen for double hung windows. If this kind were used there would be a saving of \$200 under our base price of \$17,000. If casement windows are used, the hinged screen with a wood frame would represent a saving of \$160; with a metal frame, \$75.00. The sliding ones will cost

nearly as much as the roll type. Most wives are keenly interested in the kitchen, and the finishing of this room is always a personal problem for them. The first consideration should be the storage and dresser equipment. It could be either ready-made or built-in. We have specified it to be built-in, but if it were bought out of stock the saving would be \$40.00.

The floor of the kitchen is a matter of choice, depending on the amount of money one wishes to spend. On this particular house, wood floors were specified. If a linoleum floor were laid, the cost would be \$45.00 more than our base price of \$17,000, a rubber floor would cost \$122 more, and a ceramic tile floor \$136.

The finish decided upon for the bathrooms is very important. Not only does it require a lot of study, but it also represents a wide variation as to price. Tile floors require deafening or concrete preparation, which is not required for rubber floors or linoleum. The latter are laid on the wood floor over canvas.

The specifications call for rubber floors and bases in the master bathrooms. If ceramic tile floors and bases were used, the extra cost would be \$53.00, and \$153 if faience tile floors and bases were used.

The walls may be either finished in a waterproof cement, waterproof paper, or tile. It is usual to run tile walls to a height of four feet six inches. The specifications call for wainscots of waterproof cement; however, if waterproof paper were used over regular plaster, the price would be approximately the same as fourcoat paint work over the waterproof cement. If matt tile wainscots, four feet six inches high were used, the extra cost would be \$220, and if faience tile were used in the same manner, the extra cost would be \$400.



Illustration shows typical mortice and tenon construction which permanently prevents the joints from separating. This is one of the many details of construction responsible for the enduring quality of Stickley Early American furniture.

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HE hostess who takes pride in her china will find keen delight in this latest pattern in Wedgwood Dinnerware. x x The compelling beauty of the design is enhanced by a treatment of bright, transparent enamel colors on a soft ivory ground. These brilliant enamels equal, if they do not surpass, the finest products of the Orientals in the heyday of Chinese Art, and give to this pattern a quality of distinction

that is instantly appreciated. x x Before purchasing, look for the trademark Wedgwood under the Portland Vase.

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Combining the old and the new

Continued from page 420

Will You Take a Hint From This Famous Club?



This is the famous Short Hills Club in New Jersey. Mr. C. C. Wendehack, the architect, planned a pleasing effect with cedar shingles above, and brick below. Then he had a problem! He had to find a finish that would look equally well on both wood and brick. Club members are critical. They always want their club house to look even better than the private homes around it. Mr. Wendehack solved the problem by using Cabot's Old Virginia White Collopakes.

Isn't there a hint here for you, when you freshen up your place this summer? We'll be glad to send, free, full information on

Cabot's Collopakes



hod with its accompanying tongs for the service of the fire. A slim mahogany firescreen stands conveniently before the grate, with a movable shield formed of a romantic eighteenth-century print in an oval ma-

hogany frame.

The lamps are an important feature of the room, each one having been carefully chosen for a particular spot, as well as considered for its color and scale. Each one not only accentuates some color note of the room, but has been placed so that it will add to the comfort and convenience of the occupants. The table lamps on the incidental mahogany tables at either end of the sofa are of pale yellow tôle, antiqued, and holding parchment shades in soft colors, while the floor lamps in other parts of the room are just as harmonious with the furnishings, and may be moved about at will as they may be needed. The whole room is inviting in its general aspect of friendliness, and strikes a happy medium between conventionality and the unique simplicity of contemporary art.

The bedroom in this two-room apartment is delightfully feminine. The color scheme is a delicate harmony of peach and a very light, subtle tone of robin's egg blue with a faint suggestion of green. The three southern windows in a row were a problem, and might be a difficult one to treat with distinction, but, hung as they are with full, ruffled draperies of creamy-peach sheer rayon taffeta, they are charming. The light tones are accentuated and given balance by the use of a pale green glazed chintz with a rich, distinctive design of white garden lilies and their dark leaves. There are "swags" of this material at the top of each window, and the small dressing table is covered and flounced with it. As the exposure is southern it is often desirable to keep the Venetian blinds down in the European manner, and the horizontal bars of light filtering through the blinds and the sheer taffeta draperies make a fascinating study in light and shade of which one

The boudoir chair is upholstered in peach rayon moiré, a fabric with a silvery sheen which blends happily with the dainty colors in the room. The quilted rayon covered comforters on the beds repeat this note of delicate peach, and are both decorative and luxurious. The modern manufacturers of bed equipment have made it possible to carry out delightful color schemes to the most complete degree. On these beds the box springs, mattresses, blankets, comforters, and bed linen are all in pastel shades of peach or green and the whole effect is one in which any housewife would

take pride.

The beds themselves are maple, four-posters, with tall fluted posts, capped with urns, copies of old models. Their tester tops are covered and flounced with sheer peach rayon taffeta like the curtains, which is so light and transparent a fabric that it does not keep out the air but merely enhances the graceful curves of the canopies. The bed covers are made of the shimmering rayon duplex satin in tones of green and again the edges are hemstitched together to make the stripes come horizontally. The covers are also made long enough to pull up over the pillows, with a generous fold underneath.

The floor is covered with leaf. brown cork tiling, and on it are laid two oval imported rugs hand-tufted in flowers in pastel shades of rose, ciel, jade, and gray. The bathroom which opens out of the bedroom is done in the same tones of peach and pale blue-green with intriguing ensembles of soft towels, bath mat, and wash cloths in sophisticated modern designs. The shower curtain is pale blue, and the toilet bottles and water glass sparkling crystal and black

The small serving pantry has many built-in conveniences, including a white enamel mechanical refrigerator and sink, as well as many shelves for the cooking equipment of jade green enamel pots and pans, and amusing crockery decorated with jolly green polka dots. The containers for groceres are in apple green pottery, and the dish towels brightly striped in pale green and yellow. An electric plate is used for informal housekeeping.

The other apartment which was decorated for the American Home is a one-room pent house intended for a studio, or a bachelor's dwelling. A spacious terrace extends outside this apartment from which its occupants may get close-up views of New York's mid-town skyscrapers, as well as a panorama of the East River, and the majestic Queensboro Bridge.

The color scheme for this apartment is beige, tobacco-brown, black, and a glowing vermilion. These notes were established by the floor covering in a tiled pattern in browns, and the material which is used for glass curtains. The latter is a ribbed rayon piqué printed with a striking de-sign by Ruth Reeves, called, "Le Petit Dejeuner" done in black, scar-let, and gold on a white background. The distinctive modern couch and low arm chairs, which are constructed of reed and aluminum have upholstering like the draperies made of beige rayon crash, that matches the painted walls in color. The valances at the tops of the draperies, and the bases of the furniture just mentioned are made of tobacco-brown rayon satin, which also appears again in the seat coverings of the French provincial side chairs, and the cushions in the chaise longue. It is astonishing to see how this traditional peasant furniture blends with the simple pieces which are strictly modern and of most sophisticated design. The rugs from Soviet Russia add a strong note of interest and novelty as they are made of bits of fur pieced together in a naïve, primitive manner which makes them admirable for a man's room. For color accents the apartment depends upon the glass curtains and the perfect color reproduction of one of Gaugiun's exotic Tahitian scenes which hangs over the mantel.

Opposite the couch is a "sky-scraper" bookcase of golden wood which repeats amusingly some of the soaring proportions of the buildings seen from the windows on either si of it. Its oddly divided shelves hold gayly bound modern volumes, and a pottery jar (Continued on page 42)

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Electrical unit patented and manufactured by the Louisville Electric Manufacturing Co., Inc., Louisville, Kentucky. Of course, the very best Ice Cream is made at home, for there, only, can we catch the tart sweetness of fresh berries; the luscious fruit of nearby orchards; the rich wholesomeness of pure fresh cream.

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NAME ADDRESS



Combining the old and the new

Continued from page 440

in which is a plant so spiky and perpendicular in its growth that it seems Nature, too, has her moments of playing with modern design. Anyway, the plant is perfectly adapted to the decoration of this particular bookcase!

At the end of the room opposite the fireplace a French provincial dresser is set out with cream pottery dishes decorated with gay flowers in red and yellow with jade green leaves, and odd pieces of pewter, so that a jolly little meal may be easily spread either in the big room, or under the wide umbrella on the terrace. The limited space of the serving pantry here has been so ingeniously planned that there is room for a mechanical refrigerator, sink, cupboards, and shelves. These hold colorful cooking equipment of scarlet enamel, as well as a matching pottery set for kitchen

The bathroom is vivid in red with black trim, and has a baseboard of black tiles. The mirror is also framed in black, and the bottles and brushes are gorgeous in scarlet, black, and gold. The shower curtain is gold, and the little room is as vivid as a man could desire. There is no bedroom in this apartment, but the modern disappearing beds to be found behind the panels at the left of the entrance door are fully as luxurious as any detached beds and may be manipulated at a touch.

The spacious terrace outside the ent house is one of the most delightful features of this apartment.

The floor is covered with red tiles, while the terrace is enclosed with a fencing made of slender wooden saplings which give a delightful suggestion of a real garden. Cedar trees vies, and blooming plants are banked along the walls in pots and boxes.

Porch furniture has never been more interesting than it is this year, and we have used some delightful models in metal, in reed with metal. and in reed alone. The chaise longues are upholstered in the marvellous new fabric which may be left out in sun or shade for months and will emerge just as fresh and colorful as when it was first put on.

A large round table supports brilliantly striped sun-umbrella which is set into the table through the middle of an iron flower pot that is part of the equipment. This may be filled with ivy or small plants, thus adding a decorative touch. There is a set of round bridge table and four cane-seated chairs in tubular metal with delightfully original odd pieces in the shape of chairs and small incidental tables in iron, some with a gorgeous red finish which is unique and interesting.

COÖPERATING WITH US

The two apartments were loaned us s exhibition by the courtesy of The Beaux Arts Apartments.

Pent House and Terrace

Paint nouse and I errace
Paint on walls of living room, serving pantry, and bathroom, Du Pont
Paint and Varnish Division; glass
curtains and portière of Du Pont rayon
piqué, designed by Ruth Reeves,
supplied by F. Schumacher & Co.;
over-draperies and fabric on chairs and
couch of Du Pont rayon crash, Andrew
McLean; valances and cushions, Du
Pont rayon satin, F. Schumacher &

Co.; French provincial furniture, Danby Furniture Company; reed and aluminum furniture, Ypsilanti Furni-ture Company; labor of making draperies, portière, glass curtains, etc., workroom of Frederick Loeser & Co.; workroom of Frederick Loeser & Co.; modern skyscraper bookcase, two Swedish chairs, antique French provincial bureau, Frederick Loeser & Co.; flowers and plants, M. Goldfarb, Inc.; closk, Electric Clock Shop; towel ensembles in bathroom and dish towels, clook, Electric Clock Shop; towel ensembles in bathroom and dish towels, Cannon Mills, Inc.; shower curtain in bathroom and shelf edging, Barton's Bias Company; china, kilchen enamel utensils, glass, dinette, quicksilver lamp and shade, Gimbel Bros., Inc.; reproductions of modern paintings, John Becker Galleries; fireset and andirons, Edwin Jackson, Inc.; brushes, tailet set, and cigarette box, Du Pont Viscaloid; floor lamps, Kanné & Bessant; Russian fur rugs, pottery horses, modern pottery jars, Stern Bros.; Atwater-Kent radio in modern case, designed by Gilbert Rohde; Desk accessories, M. Straus, Importer; sun umbrella and table, Lord & Taylor; lubular metal table and four chairs, reed furniture, Y psilanti Furniture Company; Permatex fabric on terrace furniture, H. B. Lehman-Connor Company, Inc.; fencing, Dubois Fence and Garden Company, Inc.; china, glass, and peasant linen luncheon set, Gimbel Bros., Inc.; refreshment set, Stern Bros.; iron furniture, The Firm of Beed, Inc. ture, The Firm of Beed, Inc.

Two-Room Apartment

Paint on walls of living room, bed-room, bathroom, and serving pantry, Du Pont Paint and Varnish Division; Du Pont Paint and Varnish Division; mahogany furniture in living room, maple furniture in bedroom, lamp in bedroom, pewter coffee set, Charak Furniture Company; armchair and four straight chairs, upholstered in chintz from H. B. Lehman-Connor Company, Inc., Charak Furniture Company; couch and wing chair, upholstered in Du Pont rayon fabrics, Slead & Miller Company; model coach, pole screen, two hooked rugs, folding coffee table, Stern Bros.; labor of making glass curtains, draperies, bed of making glass curtains, draperies, bed canopies, dressing table, and bedroom of making glass curtains, draperies, bed canopies, dressing table, and bedroom over-draperies, workroom of Frederick Loeser & Co.; flowers and plants M. Goldfarb, Inc.; grate, scuttle, and tongs, Edwin Jackson, Inc.; lamps and pair of tôle vases, Kanné & Bessant; reproductions of modern paintings, John Becker Galleries; Colonial convex mirror, Harris Interior Arts Inc.; radio case, Radio Master Corporation; desk accessories, Mittedorfer Straus, Importer; china, glass, and kitchen enamel utensils, Gimbel Bros. Inc.; Pom Tongs, Mrs. Pom; towel ensembles and dish towels, Cannon Mills, Inc.; bed springs and mattresses, Simmons Beautyrest, Hale Bedding Stores, Inc.; Pequot sheets, and pillow case ensembles, blankets, Gimbel Bros. Inc.; Godey prints, Frederick Loeser & Co.; Comforters, Palmer Brothers; Viscaloid toilet set, brushes, etc., Du Pont Viscaloid Company; sterling silver flatware, salts and peopers. Sterling Silversmiths' Guild; pany; sterling silver flatware, salts and peppers, Sterling Silversmiths' Guild; table linen, Irish and Scottish Damask table linen, Irish and Scottish Dumunt Linen Guild; shower curtains, Bar-ton's Bias Company; books, Double-day, Doran es Company; draperies in living room, sheer rayon taffeta from F. living room, sheer rayon taffeta from P. Schumacher & Company; over-draperies Du Pont rayon shiki, Lord & Taylor; draperies and bed canopies in bedroom, sheer rayon taffeta. F. Schumacher & Company; chintz over-draperies and material on dressing table, H. B. Lehman-Connor; bedspread, duplex rayon satin, Richard E. Thibaut, Inc.; covering of boudow chair, Du Pont peach rayon moiré, F. Schumacher & Company; chair, Charak Furniture Company.

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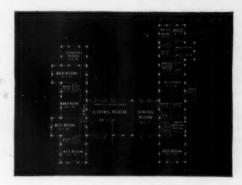
YOUR SUMMER HOME IS READY—ALL IT NEEDS IS PUTTING UP

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a vacation home because you dread the confusion, delay and unexpected expenses of building, choose a Hodgson House. You can have it erected with local help—or, if you prefer, we will send a Hodgson construction foreman to supervise the whole job.

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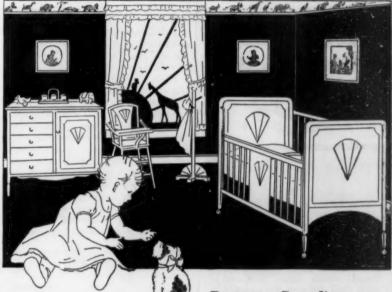


beautiful pastel shades;
full, rich tones;
without GLARE or any stain desired

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"I never fuss about washing dishes .



IT'S SO EASY WITH THE EBCO Built-in Dishpan

A commodious, round com-A commodous, round compartment 15½ inches in diameter by 8½ inches deep—self draining—built into the sink—permanent. No unwieldy dish pan to scour and store. And on the side a rectangler compart. one side, a rectangular compartone side, a rectangular compartment with special wire drain basket for racking and sterilizing dishes—on the other, a large drainboard. The "EBCO" has all the advantages of an ordinary sink plus the exclusive "EBCO" utility features.

EBCO" DISHWASHING SINK





The "EBCO" is obtainable in the 60-inch length with drain-board and 42-inch without drain-board — both sizes furnished with wall hangers or pedestal legs and with right or left side washing compartment. A flat rim type for tiled-in kitchens or rim type for thed-in kitchens or kitchen cabinets with two compartments is furnished in 39½- and 30-inch lengths—other dimensions in proportion. Ask your plumber to show you the "EBCO", or write us for special literature.

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Street																

Indulge in Orchids

Continued from page 432

all of which are of intricate and involved form. And then, many Orchid blooms have a most fascinating and delightful fragrance. Where else can be found such charming beauty of color, form, and odor?

The important instructions as we gathered from books, etc., greatly condensed, were: to keep the plants fairly dry and the atmosphere rather moist, as in their familiar home. There, daytime temperatures vary from 75° to 90°, and at night frequently drop to between 50° to 60°. This large range of temperature is easily maintained in the greenhouse by the most inexpert of firemen.

That was the procedure followed; and, after a few weeks, we were re-warded by seeing a dark shadow slowly creeping up inside of the threeinch flower sheath. It soon pushed through, and we could really watch it grow into a two-foot slender spike, having three flower buds on the terminal. The following week these suddenly burst open—each a white flower, five inches across, with a delicate lavender lip—the lovely La-elia anceps alba. These flowers were still fresh (they last three weeks on the plant) when the second plant began to bloom. Two plump buds were on the plant one night in January, and the next morning I was greeted with a pair of lavender flowers with deep purple lips-Cattleya trianae. Let me mention here that this species is the Orchid most frequently seen. Its soft color has created the adjective "orchid" to describe a delightful rosy lilac shade.

In April my third plant blomed

-Cattleya mossiae-a pair of large-petalled, pale lavender blooms with an entrancing gold spot in the throat of the lip. This flower is the Orchid usu-ally displayed at Easter time.

Since there are about 15,000 species and varieties and I had but three, I felt a bit cramped in experience. I simply had to have some Cypripediums, commonly known as the Lady-Slipper. These flowers come in end-less variety of color combinations of green, bronze, yellow, rose, usually with green predominating. Many are oddly marked with blotches and stripes. Their most meritorious feature is that the flower remains in a state of glossy, lacquered perfection for over a month when kept on the

plant and can be used as a decorative house plant during that time. Cypripediums are unlike many other Orchids in being terrestrial; and they must be kept quite damp as they would be in their home in the earth of the jungles.

Another attractive and quite easily grown Orchid is the Oncidium, a native of Mexico and tropical America. This is a spray form; small golden flowers, sometimes flecked brown, are gracefully disposed on long, slender stems. They give the illusion of a cloud of little butterflies; in fact, one species, O. papilio, mimics a butterfly to astonishing perfection. I simply couldn't do without a few Oncidium sphacelatum for spring blooming, and O. vari-cosum for fall. And, then, I felt I must not slight the Dendrobiums, which have clusters of dainty two-inch flowers in an endless variety of colorings.

Thus ended the first year. I proudly surveyed my "collection," over fifty plants, all in splendid health, with plenty of succulent roots wandering over the surface of the peat and bringing the moisture of the air to the bulbs. It seems incredible that the only thing an Orchid plant lives on is moisture; there is no nutriment in the peat in which it is anchored, and no food or fertilizer need ever be given; although expert culturists do sometimes give artificial food in solution.

Although I hadn't an inch of pace to spare, my desire for other plants was not so limited. I pored over catalogues, visited collections, and hoped for a miracle in the form of a large house, chuck full of lots of kinds of Orchids. And in a few short months, behold! the miracle vas accomplished. I heard of a fine little collection which was for sale. Merely need to build a larger house! A simple solution, when one is more than willing to be convinced! Acthan willing to be convinced: Accordingly, in two months' time, a 32 x 15 ft. house was standing on the site of the original "toy" greenhouse, and within it are placed and hung over five hundred blooming age

The care of five hundred plants may sound like a great deal of labor for an amateur, but the hours of actual labor are very few.

Carry on for summer

Continued from page 433

stirred up. This is a period of hot weather. There must be frequent cultivation. Plants which have grown too compact must be thinned and transplanted, otherwise they will become crowded and flowers will be small. Liquid manure should be applied to Sweet peas and Dahlias. Spray materials should constantly be on hand to guard against the ever-attacking, never-resting insect pests. Tea Roses should be mulched with grass clippings to keep moisture in the ground, and the entire garden should be given a thorough watering. A light watering is better than nothing, but a thorough soaking will work wonders with the garden in dry weather. The watering must be thorough to get the moisture to the roots.

Pansies should be cut down close to the crowns, and Rose bushes that have stopped flowering should be pruned back about six inches. If this is done and the weather is favorable, you may get the jump on your neighbor by having a second period of bloom before frost. In fact, there is a possibility of flowers through the early winter. Last year, by a judicious pruning in July, I was enabled to have flowers on my Rose bushes late in December. Only a few, to be sure, but there was a tremendous thrill in telling my friends on the commuting train about my Roses in blossom.

Several of the plants are growing tall and rank. They may well be pinched back to keep them to bushy form. Indeed, (Continued on page 455)

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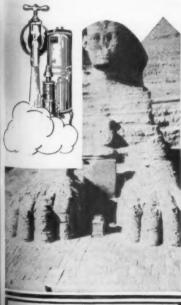
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Insect extermination in the flower garden

I. GEORGE QUINT

ASTER

Aster bug-Slug Shot, Bug Death root lice-Tobacco stems, Calcium caseinate

Leaf rust-Fungine, Flowers of sulphur

Aster yellow—A good preventative is to dig into the soil in the fall one pound salt, two pounds wood ashes and eight pounds lime for every 100 square feet of land

CARNATION

Green lice-Lime sulphur, Nico-Fume, Aphistrogen
Rust—Ammoniated copper solu-

CHRYSANTHEMUM

Leaf spot, rust-Bordeaux mixture, Fungine, Fungtrogen

Aphis-Kerosene miscible oil, Nicoteen, Nico-Fume, Wilson's O. K. Plant Spray, Derrisol

COLEUS

Mealy bug-Lime-sulphur, Nicoteen, Wilson's O.K. Plant Spray DAHLIA

Thrip-Black Leaf 40, Wilson's O.K. Plant Spray

Aster bug-Bug Death, Slug Shot Wilt, white mold-Fungine, moniated copper solution, Fungtrogen

FERN

Tip blight-Bordeaux mixture, Fungine

Mealy bug-Nicoteen, Aphistro-

White fly—Lime sulphur, Nicoteen, and Aphistrogen

FUCHSIA

Red spider, white fly-Nicoteen, Derrisol

Mealy bug-Nicoteen, Lime-sulphur, Derrisol

GERANIUM

Mealy bug, red spider,-Nicoteen, Derrisol

Mildew-Bordeaux mixture, Fungine, Fungtrogen

HOLLYHOCK

Rust-Bordeaux mixture, Ammoniated copper solution Worms-Nicoteen, Slug Shot, Wil-

son's O. K. Plant Spray, M. G. K. Evergreen

Leaf spot, blight-Bordeaux mixture, Ammoniated copper solution, Fungine, Fungtrogen MIGNONETTE

Leaf spot-Bordeaux mixture, Ammoniated copper solution, Fungine, Fungtrogen

NASTURTIUM

Aphis, plant lice—Aphistrogen, M. G. K. Evergreen, Derrisol

PANSY

Leaf spot-Bordeaux mixture, Ammoniated copper solution Worm-Nicoteen, Slug Shot, M.

G. K. Evergreen PALM

Scale-Aphine

Red spider, plant lice—Nicoteen Mealy bug—M. G. K. Evergreen PEONY

Wilt, stem rot-Bordeaux mixture, Ammoniated copper solution. Fungine, Fungtrogen

ROSE

aphis-Nicoteen, Wilson's Green O.K. Plant Spray, Aphistrogen ose bug—Lead arsenate, Nico-Rose bug—Lead arsenate, Nico-teen, Wilson's O.K. Plant Spray Mealy bug-Nicoteen, Wilson's, O. K. Plant Spray

Mildew—Fungine, Fungtrogen White leaf-hopper—Nicoteen

Scale-Aphine, Kerosene miscible

SWEET ALYSSUM

Mildew—Fungine, Flowers of sul-phur, Fungtrogen SWEET PEA

Mildew-Fungine, Fungtrogen Aphis, green lice-Kerosene miscible oil, Lime-sulphur, Nicoteen, Wilson's O.K. Plant Spray

Cutworm—Cutworm Killer, Snar-ol, M. G. K. Evergreen

VIOLET

Aphis-Nicoteen, Tobacco dust, Aphistrogen
Red spider—Flowers of sulphur,

Imp Soap Spray

VERBENA

Mildew-Fungine, Flowers of sulphur, Fungtrogen

Green fly, mealy bug-Aphine, Lime-sulphur

Carry on for summer

Continued from page 452 he who would rest in July will regret

it in August. In every garden there should be a little space devoted to vegetables,

and if the gardener has carried on in midsummer, October will bring a liberal supply of crisp, delicious, fresh vegetables. July is the month to get the October vegetable dinner planted. The following table has been tested and found true, when seeds are planted in July and the first week in August:

VARIETY	DISTANCE	DEPTH TO PLAN				
	In Run	Rows Apart				
Kale	18 inches	30 inches	1 inch			
Beets (Early)	3	15	2			
Broccoli	18	24	1			
Brussel Sprouts	18	24	1			
Bush Beans	2	24	2			
Carrot	2	15	1			
Celery (plants)	6	36	_			
Corn	36	36	2			
Cucumber	48	48	1			
Endive	12	12	1			
Lettuce	12	15	1			
Peas (smooth)	2	36	2			
Radish	2	12	1			
Spinach	3	18	1			
Squash	4	48	1			
Turnip	4	15	1			



lemory Is A Fickle Jade

Can you recall, in the heat of July, how you shivered with the cold last winter because the balky radiators wouldn't heat up?

Do you remember paying big bills for fuel, and thinking harsh thoughts about "what price freezing"?

You chaps who think ahead certainly won't want to go through all this again. Too hard on health, nerves and pocketbook!

And you won't have to, for a Cadwell No. 10 Air Valve will force a ready response from the crankiest

When steam enters the radiator and forces the cold air ahead of it to where it is stopped by a worn or clogged valve, the result is a "half-dead" radiator.

A Cadwell No. 10 stays open till every bit of cold air is out, and then shuts up tight at the first touch of steam. Anyone can install this valve without a special tool.

Prepare now for the cold winter ahead by ordering a Cadwell No. 10 for each radiator.

The cost is but \$1.00 each, postage prepaid, and you are protected by an unconditional guarantee. If your dealer can't supply you, send us his name, and order on the coupon

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HOP WINDOWS OF MAYFAIR



THE lacquered wood "glasses" come in three sizes, all gold lined. Small: plain red or black only, \$2.25 each. Medium and large, plain red or black, \$2.50 each; decorated with smart hand-done gold lacquer rooster, \$2.75 each. Tray is 12 x 20", only in plain red or black, \$7.50. Also lacquer tea sets, finger bowls, etc., all heavenly designs.

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JAPANESE lac-quer in the finest grade has just come back in popular es-teem by those Americans who insist on cans who insist on beauty and smart-ness. It is baked on; won't crack; wood won't break; not af-fected by boiling wa-ter or beverages.

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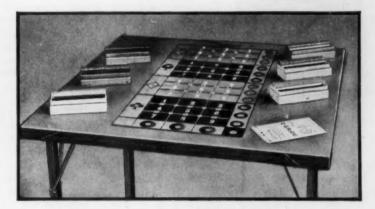
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¶ Decorative pottery of high-fired, beautiful Terra Cotta will add grace and color to your garden, sun-room and porch. Send 10c in stamps for catalog.





HERE is "Carou," a card game of roulette which can be played with two or a dozen people; no "fourth" is needed—all one needs is a Carou set and a pack of cards. The board is of heavy, flexible coated cloth and fits a standard bridge table snugly. There is a variation called Kitty Carou which fascinates children. In the grown-up game bets may be placed for colors, numbers, suits, and combinations—almost like roulette. The complete instructions and set including colored chip counters, \$5, delivered 100 miles of New York.

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Guaranteed absolutely Sun Fast—a new pair if they fadel In 28 attractive color combinations with lustrous finish; finished with French edge. All ready to hang over a pole. In 27", 36" and 54" widths; 7 and 7½ feet long; reasonably priced by the pair. See them at your department store or write us for

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Illustrated with 250 drawings \$3.50

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In and About the Garden



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THAT I am not alone in the interest (already expressed in this page) in the Musk of old time gardens correspondence from readers continues to bring abundant evidence. Nay, more than that, many friends from various parts of the country have sent specimens of what they know as Musk of one sort and another. Strangely enough, not one single case of these socalled Musk plants has been the thing that I have had in mind—the true, genuine, old-fashioned, clammy-leaved, strongly musk-scented Mimulus moschatus. It will be amusing to grow on these things and see what we really have in hand. This confusion again illustrates the inherent difficulty of popular or folklore names of plants. They so often have purely local significance of application. Repellent as the technical name must of necessity be in some cases and to some eyes and ears, the fact still remains that the technical name has an exactness about it that is helpful. What may be masquerading under this name of Musk I have no idea. For instance, one correspondent in western New York writes: 'You speak of Musk. Have you ever seen it where it was the meanest farm pest ever known? I can take you to farms and sections about four hundred miles south of here where it has overrun everything, miles of it, and not an animal will eat it. Chicken yards bare of everything green but Musk. And such rank plants. Starvation will not drive stock to eat it. Colors pink and white.'

Then again, another correspondent was kind enough to send some roots of something that is certainly not Musk. It was just leafing out when received and seems to have some resemblance to a Pyrethrum, the Painted Daisy. Time will determine its identity because the plants are growing vigorously in the

And yet another correspondent sent me some seeds. These from the South; and they are not the Musk of my mind anyhow. They were little kidney-shaped seeds, less than a sixteenth of an inch across. Time will tell too what these are. The true Musk seed is very small, roundish-almost like coarse dust particles.

I have a flat of young plants showing the characteristic clammy, sticky, hairy leaves. Even the seed trade itself does not seem quite sure as to the identity of Musk since one prominent seedhouse assured an inquirer that Musk seed was "not to be obtained in this country." It can be obtained. I have got the proof.

HOW DOES THE CAMELLIA FLOWER?

RECURRING to another topic to which reference has already been made here, there is the question as to whether Camellias normally produce their flowers in a crop or over a drawn-out period. On page 414 of the January issue the question was raised by Miss Busbee, of North Carolina, who expressed surprise that Mr. Evans, writing from California, spoke of the Camellia having the "spectacular habit of coming into flower all at once over the whole bush." Another Californian writes:

'Relative to the blooming period of Camellias, it may be of interest to make

known the following:

'Last year a double red Camellia in my garden in the hills four miles east of San Francisco Bay bloomed continuously from November into late April. The plant is small, about three feet high, and six to eight years old from slip. I have lived in Sacramento and observed plants there which must be at least forty years old and as much as eight feet high, growing in the State Capitol Grounds. They bloom in the open during several months, but the blooming period is of varying duration depending on the season. With a warm fall and rain it begins earlier than otherwise.

I have observed the same variation and almost as long a blooming period in Azalea indica growing in the open.

"Confirming Mr. Evans, I feel safe in saying that I have seen at least 500 flowers at one time on one large double pink Camellia growing on N Street in facing the Capitol Sacramento, Grounds."-George P. Longsdorf, Oakland, California.

THE blooming habit of the Camellia had a speculative interest apparently for a long time back, and I have to thank Miss Ethel Rinn of Kalamazoo, Mich., for calling attention to this very subject in Peterson's Magazine for 1862 when the Camellia which our Southern friends call Japonica was in the heyday of its glory as a house plant. The quotation follows:

'The two finest genera of plants, for parlor cultivation, are undoubtedly the camelia and azalea. They are both remarkable for the beauty of their flowers; are easily cultivated; and, taken together, will furnish a bloom for the window during the whole winter and spring. The camelias are in their perfection in the early part of the winter; the azaleas in the last part-and the latter are as desirable for the profusion and elegance of their blossoms, as the former are for the size and richness of

their flowers. These two plants, in all their varieties, would fill a large conservatory; but a few select varieties will amply adorn the drawing-room, and fully repay the care bestowed upon them. The greatest evils the camelia has to contend with in parlor culture are: first, from a dusty atmosphere; second, from sudden changes from heat to cold. The breathing pores in the leaf of the camelia are small, and are easily choked up with the dust of a grate or stove. Therefore the leaves should be well washed off with a syringe about once a week. The best plan is to wrap the pot round with a piece of coarse cloth, to prevent the soil from being displaced, then set the plants down sideways in a large tub, and give it a gentle shower-bath of lukewarm water.

"As regards the second point, the camelia will bear a great deal of cold without injury; but it quickly suffers if there is a sudden change in the temperature of the apartment. It should, therefore, have a position as much guarded against these transitions as possible. When the blooming season approaches, the room should be kept of a nearly uniform temperature, and never sink below fifty degrees Fahrenheit. The plants should be watered regularly; but no more water should be given than the roots are able to take up, which may be ascertained by the state of the top soil. If this looks wet, you may be satisfied that the roots are not in need of moisture; and therefore, omit the watering for a day or two. When the plant begins to bloom freely, it is well to water it once a week (not oftener) with guano water, made by infusing one pound of guano in ten gallons of water. This will give additional size and strength to the blossoms. After the flowers drop off, and the plant commences to grow, guano water may be used twice or even three times a week. Everything for the next year depends on the growth of the camelia at this time; for its whole growth for the ensuing twelve months is completed in about three weeks; and if you desire to have fine foliage and a fine setting of bloom-buds for the next winter, you must give your plant every advantage of light and food during these critical three weeks. The Chinese azaleas are of very easy culture. Regular watering is almost the only care they need; for being hardy, they will bloom well even in a room where 'Jack Frost' occasionally ventures to intrude. The main point in growing them is to watch them well when they are making the spring growth; for, as in the case of camelias, the state of the next year's foliage and bloom is settled at that time; do not, therefore neglect to water them regularly, and give a little liquid manure every other

day.
"It may be well to add that the best soil for the azalea is made by mixing equal quantities of decomposed manure, turf-loam, and garden soil. For the camelia, one half turf leaf and mould from the woods. (Turf-loam is got by laying up sods, from a good piece of old meadow or pasture, in a heap to heat and de-

cay.)"



"De Luxe" Hardy Perennials, easily grown from Seeds

Here are twelve of the choicest old-fashioned flowers, including some of the finest newer forms. They are new Lupins, De Luxe Hybrid Delphiniums,

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Midsummer Catalog

brings a wealth of information on the subject of what to do in the garden right now, and offers the materials with which to do it. Gladly mailed free and please mention this publication.

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Your plants flowers, shrubs

and evergreens are now most susceptible to destruction by insect pests. Spray them frequently and thoroughly with Wilson's 0. K. Plant Spray, the nationally recognized standard insecticide.



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Kill weeds the Wilson way . . . sim-Ply dilute Wilson's Weed Killer (1 Gallon to 40 gallons of water) . . . sprinkle . . . that's all. The modern way to exterminate all weeds, poison ivy, vines, etc. One good application a year is sufficient. Inexpensive . . . clean . . . odorless. 1 gallon \$2.00; 5 gallons \$8.00.

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It tells and shows in detail how to go about the making of beds and borders, with bulbs for garden and rockery. Offers the choicest only in Tulips, Crocus, Hyacinths, as well as American grown Daffodils, the product of our own Nursery on Long Island. An easily understood guide for professional and beginner alike, you owe it to yourself to own a copy. Free, of course, and please mention The American Home.



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ESTER BER BENEFOLD

Wherever there are gardens there will be insects also. Gardens must be free from insects, if the plants are to

Having taken the trouble to make a garden, don't let insects despoil it. One dollar is all it will cost to keep an

ordinary sized garden free from insects for a year or more. Larger gardens in

proportion.

Watch for Plant Lice or Aphids, which will appear early. The disagreeable Rose Bugs will arrive when the buds and flowers are formed. Japanese Beetles may eat your plants and lawn. Beetles eat Asters, Dahlias, Cucumbers and other plants. Leaf Hoppers, Red Spiders, tiny insects. Cut Worms, Cater pillars, Squash Bugs, Mexican Bean Beetles, Harlequin Cabbage Bugs, Army Worms, Box Mites, Worms, Grubs, Ants and others may be troublesome.

may be troublesome.

Insects spread plant diseases, causing additional annoyance. Away with them!

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Will not harm children, pets or operby the use of poisoned every year by the use of poisonous insecticides, through error or carelessness. No poisonous residue remains on flowers, fruits or vegetables.

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of gardeners.

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Haif-Pint makes more than 68 gals., price \$1.75; Quart makes 275 gals., price \$6.00; Callon makes 1,100 gals., finished spray, price \$20. Trial size makes 8 gals., price 35 cents. Mix only sufficient for immediate use.

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Blades of high carbon steel, case-hardened. Cuts fine or tough grass without adjustments. Has the usual DOO-KLIP features of self-sharpening and self-tensioning.

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Garden Reminders

Keep Things Growing!

In JULY the amateur gardener in the northern states often neglects his garden for golf, while the seasoned veteran rolls up his sleeves, mops his brow, says, "Phew, it's hot," and keeps working to bring his plants through.

If the weather is exceptionally hot, and there's been little rain, get out the hose or the water cart, and give the garden a thorough soaking. Gardeners in the South will find

this a month of extreme heat. The ground is dry and moisture must be conserved. The garden's three essentials are watering, hoeing, and

North

The Flower Garden. Most Annuals are planted, and some are coming up. There is still time to plant Nasturtiums, Sweet Alyssum, Babysbreath, for fall bloom.

Start Perennials for next season's blossoming. Get some Campanula and Digitalis, even if you have nothing else.

Don't let early-flowering Annuals go to seed. Keep picking them as soon as they show traces of withering.

Keep after those eternal weeds. China Asters for late window boxes may be planted now in a seed bed with some shade.

Cosmos will grow straggly unless you pinch them back. Dahlias and Chrysanthemums will be the better, too, for the same treatment.

Don't let suckers grow on Dahlia plants.

Water Sweet-peas often. If it is particularly dry this month, mulching will not hurt.

Don't put your spraying chart away yet. Keep the insecticides handy. Divide Iris plants.

Delphiniums, when through blooming, should be cut.

Climbing Roses are through flowering. Prune them.

The Vegetable Garden. You certainly will want some vegetables in October. Plant them now. Beans, Beets, Carrots, Corn, Cucumber, Endive, Kale, Kohlrabi, Lettuce, Okra, Peas, Pumpkin, Radish, Spinach, Squash, and White Turnip. Keep Beets well thinned.

Set out main crop of Celery.

If Tomatoes are growing without support, put straw under the vines to protect the ripening fruit. Remember, you want fruit, not foliage. Thin out the foliage to give the plants strength to ripen.

Set Cabbage out for late crops. Use the rake often, to keep soil well pulverized.

Want currants in August? Cover some of the bushes with burlap before the fruit ripens.

Use hellebore to get rid of currant

Dust tobacco over the earth near melons, to keep bugs away. Use bonemeal, too.

Pinch back raspberry canes to 30

Use tobacco dust around squash

Potato bugs will get you if you don't use arsenate of lead.

Bordeaux mixture in time will save tomatoes, potatoes, and cucumber from blight.

Cultivate Asparagus and Rhubarb. Last sowing of early Sweet Corn.
Plant Strawberries for next year's crop.

South

The Flower Garden. Tie up Chrysanthemums. For big blossoms and firm stems remove some of the growth. Do the same with Dahlias and Cosmos.

Too late to plant annual seeds, except Balsam, Torenia, Zinnia, Portulaca, and such heat-loving plants.

Start perennial seed bed, planting seeds when ripe, of Hollyhock, Phlox, Delphipium, Pinks, Sweet William, Iris.

In the upper South, plant Lilium candidum late this month or early in August. Dig up and divide Iris clumps. Reset them.

Cut back Poinsettias. Use the trimmed pieces as cuttings.

Take cuttings of Coleus, Acalypha,

Torenia, Begonia, etc. Cut off branches from the parent

stem and put into soil of window or porch boxes. Layer such plants as Pinks, Carna-

tions, and Clematis.

Dig Narcissus and other winter-flowering bulbs, and dry them in the shade.

The Vegetable Garden. Sow Carrots, Parsnips, Onions, Cauliflower, and Cabbage in the shade.

In the Upper South, Lettuce, Endive, and Radishes may still be

Plant Okra, Squash, and Pumpkin at once, if neglected last month. Train Tomatoes.

Make one more planting of Beans and of Corn. Sow lavishly, and dust young plants

with tobacco. Miscellaneous. Feed evergreens with

bonemeal. Weeds must be kept down and out.

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Use rock salt or kerosene to kill grass and weeds in gravel walks. Keep decayed fruit off trees.

The West Coast

Prune the deciduous shrubs, cutting back the blossom shoots. Water, cultivate, and mulch all new

trees and shrubs.

Let the Roses rest in July and August. Water very little, but cultivate and mulch the beds. Prune lightly.

In coast regions, sow seeds of biennials, Pansies, Hollyhocks, Delphiniums, Stocks, Wallflowers, An-emones, Carnations, Calceolarias. Begin planting Freesias.

Begin watering Amaryllis in groups intervals, for succession of bloom.

Remove the weeds before they go to seed. Burn them or put them on the compost pile for leaf mold. Look out for the autumn plants.

Divide and replant Iris. Keep house plants and window boxes watered and fertilized.

Replace bulbs with summer Annuals.

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Mulch,

NOW is the time to apply the Summer mulch. During the hot summer months, the Sun does as much harm as good. It will bake the soil of your garden so hard that nothing can possibly thrive. It kills. It dwarfs. It reduces bloom to the minimum. It evaporates moisture and overheats the soil.

But you can prevent all this and at the same time keep out weeds and add more beauty to your garden by using GPM Peat Moss. GPM is the best garden insulator known.

Large 20-bushel bale \$4.00 f. o. b. New York or we will have it delivered through our nearest local dealer. Literature on request.

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No garden is immune to attacks by Aphis. These tiny green, red or black insects feed upon the tender foliage or buds in your garden, and rob your flowers of their beauty and attractiveness. Be prepared to kill these insects when they appear. Have on hand a package of "Black Leaf 40," the spray depended upon by gardeners to kill Aphis, Thrip, Leaf-hopper and similar insects.

The garden package of "Black Leaf 40", costing 35c, makes 6 gallons of effective spray. Buy it from your neighborhood store handling garden supplies.

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But—don't turn them loose in an open yard where they can dash across motor lanes into the very path of danger.

Keep them behind fixed boundaries—PAGE Fence boundaries. It's a great relief to know they are "out in the open" yet "out of harm's way."

PAGE Fence is ideal for enclosing home properties. In addition to its protective qualities, it is available in pleasing styles, either Chain Link or Ornamental Wrought Iron (not steel) that will harmonize with the natural beauty of your grounds.

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Get the Antrol System from your leading seed, hardware, or drug dealer today. If he does not have it, mail the coupon below giving dealer's name. We will send you free, instructive booklet on pest control, and refer you to nearest Antrol dealer.



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Open or unsightly places in rockgarden, border, or woodland easily covered. Send for special list.

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Native Evergreen Shrubs

Mid-summer days show many open places in border and garden. In such places native plants can often be used to advantage. A selection made now and planted in early autumn will make your grounds complete for another season.

Rhododendrons Kalmias Andromeda Leucothoe Lilies and Bog Plants

are available in large quantities. To all who are interested in native plants (nursery grown) I shall be pleased to send a copy of my latest catalogue and plant guide.

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THE PFEIFFER NURSERY Winona, Minz

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The Rarest and Best Peonles From 50c to \$50.00 Each

PEONIES - 6 for \$2.00 - POSTPAID



The advantage of the concentrated oscillating unit is the convenience of moving to cover different areas

April showers all the year

Continued from page 434

most plants are 90 per cent water, the importance of the water supply is obvious. Yet at certain periods and ages, some plants can get along on a surprisingly small amount of mois-ture. Indeed watering a plant, a shrub or a tree, when it is not in need of water, may render the plant likely to become subject to diseas

One practical purpose of watering is to make available the plant food which the soil contains. The roots absorb food in liquid form only. During periods of growth plants need water more than during periods of rest. Watering during periods of rest may cause undue root and cell action detrimental to the plant's normal development. Many plants can get along with comparatively little moisture, provided you employ a system of judicious watering and cultivation. And it is obvious that some plants actually require more moisture than others, depending on the nature of their growth and the period covering their development. For the simplest explanation of this fundamental condition consider the vegetable garden.

Here is a row of Spinach. It is over 90 per cent water. It must be grown quickly to full size to be of good quality, hence the food supply must be available readily and in sufficient quantity. Now, Spinach has a taproot, with comparatively few lateral fibrous feeders. The spreading tops

see to it that every drop of water they can catch goes right down to that main artery of nourishment, the taproot. And unless Spinach gets an abundance of early spring rains, artificial watering or irrigation is advisable, although the other crops in the garden seem to be contented. What has been said of Spinach also holds good of such early crops as Radishes, Mustard, Kale, and in a lesser degree, Lettuce.

Turning now to the flowers we find a similar condition in connection with the taller growing, broad-leaved Annuals such as Salpiglossis, Chrysanthemums, Calendulas, Asters, etc., and in a lesser degree with Annuals of slender or lacinated foliage. Perennials having very fleshy leaves, as for instance Poppies and Saxifragas, wilt severely, while those with foliage of a tougher cell structure are more resistant.

Vegetables and flowers of a more fibrous structural growth, for in-stance as Beans and Corn, Centaureas, Cosmos, and Coreopsis, require a great deal less moisture than those already mentioned. Finally there are the most drought resisting types such as we find in African Marigolds among the flowers, and Tomatoes among the vegetables.

Among the shrubs an entirely dif-ferent condition exists. Their roots have to (Continued on page 466)



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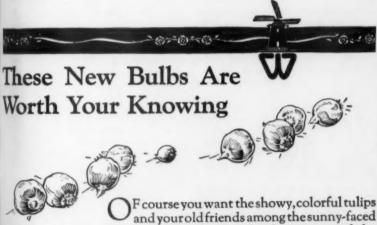
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Continued from page 464

go a long way for water which has to travel a long way inside the plant itself toward the evaporation surface (the leaves). The area of evaporation is greatly increased. All deciduous shrubs (meaning those that shed their leaves during the winter) require more moisture than their broadleaf evergreen brothers, of which Rhododendron and Laurel are, perhaps, best known. The cone-bearing and other evergreen trees (Pines, Yews, etc.) require most moisture during their periods most active growth-April or May and in August. But no plant, whether vegetable or flower, shrub or tree, likes to have the cold water emanating from a faucet, poured over a tissue heated by midsummer conditions. Here we come to part two of our story: How modern irrigation apparatus takes the water, throws it into the air, breaks it into globules or fine mist so that it descends, warmed up, like a gentle

The ideal watering or irrigating is, of course, nature's own, a gentle rain. But throughout the country, even in sections having a normal rainfall, there occur from time to time, droughts of disastrous duration. These would matter less if we lived in a country having little or no winter. But where the growing season is limited to six months, and where early and late frosts are apt to cut this down to 150 days, the margin of safety for crops requiring a long time to mature (Corn and Tomatoes, for instance) is cut down to a dangerous point. This is where the manmade machine steps in to save the day, while nature marks time between showers. Stretches of grass (lawn) are green in proportion to the youth of the growth-hence the need of abundant water as the new tissues are forming.

Before mentioning some of the more popular types of distributors (i.e. sprinklers), a word about the various nozzles might be in order. As the business end of every system or machine, it is the work of the nozzle to break up into fine particles the water stream that is otherwise delivered through the pipe and hose. In some instances the spray need not be so fine as in others. Where extensive lawns or links have to be watered, it is a matter of giving a specific area a certain amount of water within certain time limits. And this amount is under perfect control of the gardener by means of an adjustable nozzle.

All irrigation apparatus may be divided into five broad classes:

- 1. Lawn sprinklers of brass or iron, with brass nozzles.
- Revolving sprinklers watering circular or semi-circular areas. Oscillating sprinklers watering
- rectangular spaces. Stationary overhead lines either oscillating in operation or moved by turning a lever.
- Underground systems with stationary or disappearing nozzles.

For the small lawn such as surrounds the average suburban home, Class 1 offers a great variety of patterns. In shape they vary from the simple brass ring or saucer type to the more elaborate apparatus designed to water just in one or two directions.

Class 2 has the widest diversification in both principle of design and variation in action. Some have two revolving arms, others have additional jets on the sides. The revolving arms have, variously, from two to six nozzles, with the different nozzles set at different angles more or less adjustable, and throwing streams of various strengths. In effectiveness they cover circles or semi-circles from ten to as much as eighty feet diameter depending upon water pressure and adjustment. Still others have a double set of arms, one set revolving more rapidly than the other.

And then we come to Class 3, the oscillating sprinklers, in which the water pressure turns rods or semicircular pipes holding ten or more nozzles, depending upon the size of the particular piece of apparatus. These nozzles are variously spaced about two inches apart, on a straight length of pipe or closely grouped on a curved short piece, those in the center throwing the streams straight, those toward the ends set slantwise. Depending upon the water pressure available, some of these machines will cover as much as twenty feet in width by sixty feet in length. The principal advantage of this type is that it reaches the corners and there need be no overlapping in the watering operation.

Class 4 is designed principally for large estates and commerci truck gardens. One type consists of individual upright pipes, eight to ten feet apart, on top of which the nozzles are mounted. These spray in circular fashion with the circles of moisture overlapping slightly. The other, and by far more extensively used system is made up of large pipes mounted on supports about four feet or more high, with nozzles placed every few feet. In this class we also find portable lines, in units up to fifty feet in length, which are mounted on sturdy wheels and are moved easily from or to another. They are generally fed by a hose attached to the nearest faucet.

Finally there is the underground method of irrigation. Here are two broad divisions, one in which the nozzles are permanently set just above the ground and the other in which the nozzles sink automatically to the sod level when the pressure is off. Those nozzles come in great variety of design, but all are made to be selfcleaning. The installation of such a system is the job of engineers, since each place has its own special problems that cannot be solved by stock prescriptions. But the advantages are obvious: once installed such systems serve for years and the pipes are permanently out of sight.

And now to forestall the perennial question as to the time of day to do the watering. Do not water while the sun shines unless there be an emergency necessity. The rapid evaporation that occurs during sunny hours, leaves the plants—any kind—just a bit worse off than if no watering were done. The best time to water is after sundown, giving the soil of the garden a chance to absorb the moisture throughout the night.

