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Harold Holiday Cohn

Contents for July, 1930

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REGINALD T. TOWNSEND
LEONARD BARRON
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Editor
Horticultural Editor
Art Editor

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For years Johns-Manville, the final authority on industrial insulations, has sought a thoroughly effective means of home insulation. Only after exacting tests in actual service has this remarkable J-M Home Insulation been released for general use. Already its efficiency has brought the enthusiastic endorsement of home owners.

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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 Puddled Wrought Iron—the metal of which Reading 5-Point Pipe is made.

READING IRON COMPANY, Reading, Pennsylvania
Nestling beneath the tall Eucalyptus and Peppertree 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

With 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.

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.
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; 13, drop-leaf table; 14, chair; 15, piano; 16 and 17, tables; 18, chair; 19, screen*

**T**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 gray-beige 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 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, tray-top smoking table; 9, swing-top pedestal table; 10, lowboy; 11, rush-seated chair

THIS 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 checker-board 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.
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

AN 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 moldings.

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 spotings 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 fireplace is a copy of an old candlestand in wrought iron.
The discriminating use of bright chintz for draperies and chairs, striped coventry cloth covered ottomans, 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

GREEN 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.
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 as 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 uneven settling of the foundation or the ground against 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.
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.)
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 linoleum 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.

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.
For the perfect picnic

DOROTHY STACEY BROWN

As 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)
WHILE 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 two-

Photographs by Richard Averill Smith

The 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 from 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.

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.

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 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 emphasizes 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
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 decorators delight in them. On either side of the coach is a quaint tole “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.

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 (Continued on page 440)
Mother goose goes modern

Wall coverings and fabrics for the nursery background

Sketches by Lurelle Guild

Meritas wall covering, truly rural in design, is 36" wide. (Standard Textile Co.)

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

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

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

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

Animals, balloons, and clowns decorate the colorful circus chintz below. (Lord & Taylor)
The costs of building a house

JULIUS GREGORY, A. I. A.

IN THIS series of articles describing the construction 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 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.

After we have decided on the structural base for the 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

A charming architectural style

This inviting little New England fisherman's cottage was designed for Mr. Everett R. Currier, to be built at Westport, Conn. The architect is Walter Braddee Kirby. The attached sheds and outbuildings, in the traditional style, add to the delightful informality of the composition.

Above is the second floor plan.

Mr. Kirby designed this house for wood construction throughout. The living room walls are of pine boards and the ceiling has wood between the heavy structural beams. There is also a wood dado in the dining room with a quaint wall-paper above it. The master's bedroom suite is on the first floor. Two steps lead down from the hall to the living room and a flight of steps leads down to the garage. The cubicage is 42,303 cubic feet. Where this type of house can be built for 50 cents a cubic foot it would cost $21,152 to build.
There is a new interest now in the so-called 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.

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.

IN THE STYLE OF 1830

Popular for a century, it can be built to-day for $7,000
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.
Mr. Embury suggests brick veneer construction with a slate roof. The house, in the south, would probably cost $10,000 to $15,000 to build. The first floor plan, above, has some interesting features. Stairs lead up from the living room, making the front hall entirely separate. This could be easily altered, if desired. The stairs from the kitchen come up to the front stair landing and a flight of stairs goes up to the maid's room, making the latter suitable also for a guest room, or a sewing room.
Precedents for the American home
The fourth in our series describes the Southern Colonial house

LURELLE VAN ARSDALE GUILD

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 care-free 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 sideboard had to be conspicuous 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 to 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 few slant top desks appear, but more common are the 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.
Exit the iceman

Modern methods reduce refrigeration problems

L. RAY BALDERSTON

The modern housewife takes advantage 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. Housewives 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 part of the world except America. But other nations have not our manufacturing methods, nor our advertising methods, nor our emancipated womanhood—whch 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 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 evacuates and...
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 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 absorb 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 remedy for frosty deposits and is done by disconnecting the electricity or turning off the gas. Odors may come from poor insulation against heat, putrefaction of food, and slime, and from food which has been forgotten. The refrigerators must always be carefully installed and inspected soon after installation, to be sure that the refrigerant is circulating properly. This is absolutely essential.

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 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 her 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 this chance 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 the best of 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 beach chair that rests almost flat on the sand is made of a waterproof modernistic fabric with black background and frame painted black.

A well equipped cabana showing cot with waterproof 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

DURING 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)
Indulge in Orchids

Gems of flowerland anyone can grow

EDITH H. MYERS

FROM 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 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 greenhouse 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 everything thrived 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 discard 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)
Carry on for summer

I. GEORGE QUINT

July 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, hitchets 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 October 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. 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)
April showers all the year

Devices for uniform distribution of water

ADOLPH KRUMH

The two most important garden 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.

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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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Because Rolscreens are permanent—built in the windows to stay—they require no fall storing or spring re-hanging. This is a great saving of labor and expense, and no storage space for screens is needed.

Easily Rolscreens are rolled up out of sight and protected whenever the windows are closed, summer or winter. When it is desirable to open the windows during cold months Rolscreens may be lowered to protect costly draperies from smoky and soot-covered walls.

The efficiency of Rolscreen manufacturing produces the finest window screens obtainable—and the prices are surprisingly low.

All good, proven products have imitators. Insist on the genuine trade marked Rolscreens.

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 Booklet. * * * * * * * * 

ROLSCREEN COMPANY
390 Main Street
Pella, Iowa

Comfort on the sands

Continued from page 451

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 scores 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

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 compartment, a water cooler or a cold storage box. These are all good and practical, but the real thing to buy is a refrigerator 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.

Exit the iceman

Continued from page 430

Right: another type of mechanical refrigerator showing the ice water storage tank and tap at bottom
Handsome plastered walls and ceilings

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

WOMEN alert to every opportunity of increasing the charm and comfort of their homes prefer Celotex Lath as a base for plastered walls.

This modern lath protects decorated interiors. It is especially designed to eliminate lath marks and to reinforce against plaster-cracks... to give finer, smoother plastered surfaces that retain their original beauty.

At the same time it insulates against dampness, extreme heat and cold... helps to make your home more healthful and enjoyable to live in all year 'round.

And in years to come it pays for itself many times over by preventing costly leakage of furnace heat.

For remodeling your attic, porches or basement there is Celotex Standard Building Board—just the material for transforming waste spaces into delightful extra rooms. Your builder, contractor or architect will explain how quickly and economically this can be done with Celotex.

When applied to the outside of homes, as sheathing, Celotex adds structural strength... makes walls tight, sturdy and permanent.

Your request will bring our interesting new booklet, "Celotex Cane Fibre Insulation."

THE CELOTEX COMPANY
919 North Michigan Avenue, Chicago, Illinois

In Canada: Alexander Murray & Co., Ltd., Montreal

SALES DISTRIBUTORS THROUGHOUT THE WORLD

Member of the National Building Industries Bureau

Reliable dealers can supply you with Celotex Standard Building Board and Celotex Lath.
but if the woodwork is to be painted, pine, white pine 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 $85.00. It is now possible to buy attractive stock workwood, 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 panelled 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 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 built-up planks were used the increased cost would be $575. The service portion of a house are usually floored with a common pine floor.

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 casements were considerably less expensive than steel casements. However, weatherstripping adds to the cost of the first two types and a number of them is as durable as metal casements.

The selection of windows brings 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 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, roll-up types, or the recently developed stationary screens.

In this house the screens as specified are of the roll-up kind which could be used with any type of window. The special stationary screens we would use about the same. All the other types of screens would be less expensive according to the quality and type. The top-hung screen for double hung windows. If this kind were used then the saving 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 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, and if it were bought out of stock the saving would be $40.00.

The floor of the kitchen is a matter of least cost. We are working on the amount of money one wishes to spend. On this particular house, wood floors were specified. If a linoleum floor were laid the base price would be $60.00 more than our base price of $17,000, a rubber floor would cost $122 more, and a ceramic tile would cost $162 more. 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 dressing 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 $45.00, and $105 if linoleum floor and bases were used.

The walls may be either finished in a waterproof cement, or treated paper, or tile. It is usual to 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. The extra cost for paint work over the waterproof cement. If matt tile wainscots, for example, six inches high were used, the extra cost would be $420, and if linoleum tile were used in the same manner, the extra cost would be $480.
Bideford—a New Pattern in Bone China

The hostess who takes pride in her china will find keen delight in this latest pattern in Wedgwood Dinnerware. 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. Before purchasing, look for the trademark Wedgwood under the Portland Vase.

Upon request we shall be pleased to send you a copy of our illustrated booklet.

Josiah Wedgwood & Sons, Inc.

160 FIFTH AVENUE • NEW YORK
Northwest corner of 21st Street
WHOLESALE ONLY
Potteries: Etruria, Stoke-on-Trent, England

Josiah Wedgwood & Sons, Inc.
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.

Combining the old and the new

Continued from page 420

There is a suggestion of green. The three 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 "swatches" 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 never tires.

The boudoir chair is upholstered in peach rayon moire, 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 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 naive, 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 Gauguin'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 building seen from the windows on either side of it. Its oddly divided shelves hold gayly bound modern volumes, and a pottery jar (Continued on page 445).
Just Press the Button

... for the most delicious Ice Cream you ever tasted

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.

It's so easy to make your own Ice Cream, because the new Alaska Electric Freezer does all the whipping and turning. Simply pack the mixture in ice and salt, plug the cord into any socket, and in five minutes' time scoop out the smooth delicious cream.

Ice Cream made this easy way is the most delicious dessert imaginable; a long-to-be-remembered ending for formal dinners or holiday gatherings — and the Alaska Electric way makes it easier than most other desserts.

Hot weather is here — Ice Cream time! Ask your dealer to show you the Alaska Household Electric Freezer, or mail the coupon for complete descriptive matter and booklet of selected Ice Cream recipes.

ALASKA
Household Electric

The Alaska Freezer Co., Inc.

Gentlemen:- Please send your booklet of selected Ice Cream recipes and name of nearest dealer who sells the Alaska Household Electric Freezer.

NAME ______________________ ADDRESS ______________________

Made this easy
Electrical Way!

Electrical unit patented and manufactured by the Louisville Electric Manufacturing Co., Inc., Louisville, Kentucky.
in which is a plant so spiky and per-
pernicious in its growth that it seems
Nature, too, has her moments of play-
ning with modern design. Anyway, the
plant is perfectly adapted to the dec-
toration 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
out of pewter, so that a fully
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
recess, the sink, cupboards, and
shelves. These hold colorful cooking
equipment of scarlet enamel, as well
as a matching pottery set for kitchen
storage.

The bathroom is vivid in red with
black trim, and has a baseboard of
black and gold. 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
dispensable beds to be found behind
the panels at the left of the entrance
door are fully as luxurious as any de-
tailed beds and may be manipulated
at a touch.

The spacious terrace outside the
pent house is one of the most delight-
ful features of this apartment.

The floor is covered with red tiles,
while the terrace is enclosed with a
fencing made of slender wooden up-
splings which give a delightful sug-
gestion of a real garden. Cedar trees,
ivy, and the climbing plants are backed
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 red with metal,
and in red alone. The chaise longues
are upholstered in the marvelous 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 a
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 violets or small plants, then
adding a decorative touch. There is a
set of round bridge table and four
cane-seated chairs in tubular metal
adding a decorative touch. There is a
set of round bridge table and four
cane-seated chairs in tubular metal
adding a decorative touch. There is a
set of round bridge table and four
cane-seated chairs in tubular metal
adding a decorative touch. There is a
set of round bridge table and four
cane-seated chairs in tubular metal
adding a decorative touch.
YOUR SUMMER HOME IS READY—ALL IT NEEDS IS PUTTING UP

WE MEAN, LITERALLY, THAT IF TODAY YOU HAVE THE SITE FOR A SUMMER HOME, YOU NEED ONLY TO CHOOSE YOUR HODGSON FLOOR-PLAN—AND IN A SHORT TIME YOU'RE READY TO MOVE IN.

The photograph above shows one of the Hodgson Houses now in use. We built it in sections, shipped it all ready to erect. There it stands, and will stand through the years—sturdier, watertight, comfortable, wearing its individual charm with the simple dignity of a dwelling in good taste—in harmony with its background.

We build Hodgson Houses of the finest materials. Selected weather-proof cedar and Douglas fir are used in construction. Walls, floors and roof are insulated with Celotex. The sections fit tightly together, held rigid by heavy key bolts. Your house will last for years without repairs, and you can enlarge it quickly at any time without spoiling the plan. If you've postponed building 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.

Send today for our free illustrated book K. It shows a great variety of plan and arrangement, gives photographs and prices. Also shows furnishings and outdoor equipment. Write to E. F. Hodgson Co., 1108 Commonwealth Ave., Boston, Mass., or 6 East 35th Street, New York City.

HODGSON Houses

and now~

BURLINGTON VENETIAN BLINDS®
in fashionable colors!

THE selection of nursery furniture—especially the crib—is indeed a joyful and an important task. Invariably, the choice is a Gem Piece. Most good merchants show it. Gem cribs and all matching pieces are much superior—and absolutely safe. Great care is used in their design, construction and finish. Particularly, the spindles or side bars in the cribs are designed carefully and accurately. There is absolutely no chance of the small beginning with the pieces. The enamels, too, are exactly chosen to eliminate all poisonous ingredients as baby lips and hands do come in contact with surfaces. It will pay you to be particular to get Gem pieces as you need them. They cost no more, offer much less than inferior pieces. And of course, "Price" is a costly substitute for safety. Write for booklet of styles and on decoration of the nursery.

Gem Crib & Cradle Company
Gardner, Mass.
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 confused me, were to keep the Orchid as a native of Mexico and tropical America. This is a fairy form; small golden flowers, sometimes flecked with brown, develop along long, slender stems. They give the illusion of a cloud of little butterflies; in fact, one species mimics a butterfly to astonishing perfection. I simply couldn't do without a few Orchids for spring blooming, and O. variabilis for fall. And, then, I felt I must not slant the Dendrobiums, which have clusters of dainty two-inch flowers in an endless variety of colors.

Thus ended the first year. I proudly surveyed my "collection" over fifty plants, all in splendid health, with plenty of succulent growth. I was wandering over the surface of the peat and bringing the moisture of the air to the bulbs. It seems incredible that the small plant lives on its moisture; there is no nutrient 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.

Neither did I have an inch of space to spare, for my desire for other plants was not so limited. I pored over the catalogues, 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 was 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! According, 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 plants.

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

Pansies should be cut down close to the crown, and Rose bushes that have been pruned 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 winter. Last year I was delayed in 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. Indeed, (Continued on page 457)
Eternal as the Sphinx...

Copper is rightly called "the metal eternal," in that it has successfully defied the ravages of time and the elements is proven by copper relics recently unearthed in Egyptian tombs... relics that were in use 50 years ago and still show no signs of corrosion.

Build as the Ancients did... for all time. Instruct your plumbing contractor to furnish you with a RIVERSIDE Copper Hot Water Tank, which cannot corrode and give rusty water! For luxurious automatic service, there is the All-Copper "Pacco" Storage System. For the more modest home there is the manually operated RIVERSIDE Copper Tank.

The cost of a life-long copper tank is somewhat more than for steel equipment... but the saving in later repairs and replacements offsets this many times.

To inform yourself fully on the best and most economical ways to furnish you with a RIVER- Side Boiler Works, Inc.

---

Insect extermination in the flower garden

I. GEORGE QUINT

ASTER

Leaf spot, blight—Bordeaux mixture, Ammoniated copper solution, Fungine, Fungtrogen

LILY

Leaf spot, blight—Bordeaux mixture, Ammoniated copper solution, Fungine, Fungtrogen

MIGNONETTE

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

NASTURTIUM

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

PANSY

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

SWEET PEA

Aphid, leaf-hopper—Aphistogen, M. G. K. Evergreen

SPURGE

Aphid, leaf-hopper—Aphistogen, M. G. K. Evergreen

SWEET ALYSSUM

Tobacco dust, Nicoteen, Wilson's O.K. Plant Spray

VIOLET

Aphid, leaf-hopper—Aphistogen, M. G. K. Evergreen

PEONY

Aphistogen, M. G. K. Evergreen

ROSE

Aphid, leaf-hopper—Aphistogen, M. G. K. Evergreen

SWEET ALYSSUM

Aphid, leaf-hopper—Aphistogen, M. G. K. Evergreen

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:

<table>
<thead>
<tr>
<th>VARIETY</th>
<th>DISTANCE</th>
<th>FOR SEEDS</th>
<th>DEPTH TO PLANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kale</td>
<td>15 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Beets (Early)</td>
<td>18 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Broccoli</td>
<td>32 inches</td>
<td>4</td>
<td>1 inch</td>
</tr>
<tr>
<td>Bush Beans</td>
<td>16 inches</td>
<td>4</td>
<td>1 inch</td>
</tr>
<tr>
<td>Carrot</td>
<td>12 inches</td>
<td>4</td>
<td>1 inch</td>
</tr>
<tr>
<td>Celery (plants)</td>
<td>24 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Corn</td>
<td>36 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Cucumber</td>
<td>12 inches</td>
<td>4</td>
<td>1 inch</td>
</tr>
<tr>
<td>Endive</td>
<td>12 inches</td>
<td>4</td>
<td>1 inch</td>
</tr>
<tr>
<td>Lettuce</td>
<td>6 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Peas (smooth)</td>
<td>12 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Radish</td>
<td>2 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Spinach</td>
<td>2 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Squash</td>
<td>6 inches</td>
<td>2</td>
<td>1 inch</td>
</tr>
<tr>
<td>Turnip</td>
<td>12 inches</td>
<td>4</td>
<td>1 inch</td>
</tr>
</tbody>
</table>

---

Memory 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 steady response from the crankiest radiator.

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 below.

Any of the articles shown in our magazines may be bought through our Shopping Service at no charge to readers. Send order and check payable to Shirley Paine, care American Home, 244 Madison Avenue, New York.

Japanese lacquer is one of the most interesting features in a list of Colonial pewter reproductions, and made by a firm of New England craftsmen in Greater Boston. They are graceful, of chaste design; height 4", width 8". They have the dull gleam of old New England pewter. At $5 the pair they are an exceptional buy.

The lacquered wood "glaces" come in three sizes, all gold lined. Smalls: plain red or black only, $2.50 each. Medium and large, plain red or black, $3.50 each; decorated with smart hand-done gold lacquer rooster, $3.75 each. Tray is 12 x 20", only in plain red or black, $7.50. Also lacquer tea sets, finger bowls, etc., all heavenly designs.

The articles shown in our magazines may be bought through our Shopping Service at no charge to readers. Send order and check payable to Shirley Paine, care American Home, 244 Madison Avenue, New York.

Antiques and Reproductions

Unusual!

Satisfaction Guaranteed

No. MC353—The sheen of Power wrought in the simplicity of Colonial times makes this "William and Mary" tray a prize of its kind. Its quality is unique and unusual. 3-quart capacity.

Express collect $8.75

Send for Catalogue M-7

B. PALESCHUCK

Established 1897

22 Allen St., New York

Gym Apparatus

Fun and exercise for youngsters, and older boys and girls as well as for adults. Apparatus includes: swing, trampolines, flying rings, horizontal bar, climbing ropes, rope ladder, at a price range from $15 to $30 according to size, finish, etc.

Send for Summer Catalogue for complete details regarding gym apparatus as well as latest Outdoor and Indoor Games, Beach Playthings, Bots, and Entertainment Devices for the home, the family and children.

What You Buy at MAYFAIR Is Always the Best

Mayfair Playthings Store

1884

9 East 57th St.

New York City

Find out now what —

you can save

through DALE'S "Direct-to-you"

Plan ...

Fine quality fixtures of excellent workmanship can be bought at a substantial saving through Dale. Dale offers economy with distinction. Whatever the style or period you can get Dale fixtures that are handsome and appropriate. Remember the assistance of Dale's experts is available to help you in your choice. Send for photos, stating type of house. Address Dept. No. 7.

Established 1884

DALE

105 West 15th St.

New York

Lighting Fixture Company, Inc.

Handwrought Reproductions

Find out now what —

you can save

through DALE'S "Direct-to-you"

Plan ...

Fine quality fixtures of excellent workmanship can be bought at a substantial saving through Dale. Dale offers economy with distinction. Whatever the style or period you can get Dale fixtures that are handsome and appropriate. Remember the assistance of Dale's experts is available to help you in your choice. Send for photos, stating type of house. Address Dept. No. 7.

Established 1884

DALE

105 West 15th St.

New York

Lighting Fixture Company, Inc.
**NEW** summer bedspread "Special"; printed dimity, panels scalloped edge piped white; lavender, rose or green, with white monogram embroidered on linen to match organdie, appliquéd. 72 x 101", $8.50; 90 x 101", $9.50.

*EVERY* woman driving a car knows what happens to the heels of white shoes from dirt on floor boards or carpet. These black patent leather "heel-protectors" snap on in a second; fit any size. With clever verse card in gift box, 50c, postpaid east Miss.

**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.

**TEA FOR TWO!**

And indeed, what could be more perfect. This lovely Grecian pottery finger bowl set with an unusual hand-drawn design in colors of green, blue, cream and henna is simply just what you are looking for. Set of two. $1.00

The natural color steel frame is done in the Old Persian rose design; three panels, guest mirror, exquisite, lovely and completely decorative. Sizes, 10" x 10".... $6.00

Mats to match cover $2.00; $1.00 each.

NEAR EAST INDUSTRIES
151 5th Avenue New York City

Have you seen our interesting Catalogue?

---

**Bring Birds to Your Garden!**

This beautiful Bird Bath becomes a sparkling fountain when connected with your garden hose. Sturdy green enameled shaft supports 16-inch solid copper bowl in which tosses a picturesque spray of clear fresh water. 40 inches off ground. Secure from cats. Endorsed by Audubon Society. Place it anywhere in reach of garden hose. Assembled in two minutes without tools. See them at your department store or write us for color samples and named nearest dealer.

**PREVENT TARNISH!**

With silverware may be kept bright as new—even after many months of storage. Just wrap it up and store it away. Write for free sample and named nearest dealer.
In and About the Garden

T HAT 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 so-called Musk plants has been the thing that I have had in mind—the true, genuine, old-fashioned, clammy-leaved, strongly musk-scented Mirabilis 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, not a plant growing in the open 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 the Camellia indica growing in the open in Japan."

"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 Sacramento, facing the Capitol 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 she wrote: "Mrs. A. Taber, of Boston, says that she had a large constant bloom of Camellias with no care."

"The two finest genera of plants, for parlor cultivation, are Azalea and Camellia, while the former are perhaps the most easily cultivated. 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 camellias, 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."

The true Musk seed is very small, round-across. Time will tell too what these are. Some seeds. These from the South; and will determine its identity because the true Musk seed is very small, round-across. Time will tell too what these are. Some seeds. These from the South; and will determine its identity because the true Musk seed is very small, round-across.

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Do not hallucinate.
"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 Lavateras, De Luxe Hybrid Delphiniums, new Oriental Poppies, etc., etc.

Twelve Liberal Packets . . . $2.00

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.

HENRY A. DREER
1300 Spring Garden St.

Your plants flowers, shrubs and evergreens are now most susceptible to destruction by insect pests. Spray them frequently and thoroughly with Wilson’s O. K. Plant Spray, the nationally recognized standard insecticide.

Wilson's O. K. Plant Spray is sold by leading stores everywhere and the genuine may be identified by the famous Trade Mark. Write us, if your dealer cannot supply your requirements.

Kill weeds the Wilson way... simply 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 . . . odorless. 1 gallon $2.00; 5 gallons $8.00.

ZANDBERGEN BROS., "Tulipdom"
3 MILL RIVER RD.
Oyster Bay, Long Island, New York

Nurseries at Valkenberg, near Leiden, Holland
and at Babylon, Long Island, N. Y.

Will YOU be at this next Fall?

Will you be laying the foundation that will transform your garden into a picture of colorful beds and border? Few flowers rival the Tulips in gorgeous colors, few are more easily grown and cost so little. For the price of two theater seats you can create for yourself a show that will last for weeks! No difficulty to plant the bulbs which cannot help but bloom. And a particular surprise as to size of the flowers will be in store for those who plant

"Bulbs in a Class All Their Own"

Zandbergen Prize Winners

Gold Medals and Cups and Blue Ribbons galore were again captured by our customers at the leading flower shows this Spring, including the Gold Shield at International Flower Show. Our bulbs have been doing this consistently for years, this being the principal reason why our customers come back consistently year after year. Such bulbs are never abundant. To be sure of yours you should

Order at Once, Surely Not Later Than August 1st

At that time we cable last minute orders to our Nursery in Holland. There the orders are packed by experienced men, handled only once, a very important factor. If you do not have a copy of our catalog, write at once for "Greetings from Tulipdom"

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

RED ARROW
INSECT SPRAY
PYRETHRUM SOAP
Kills both chewing and sucking insects. Does not stain or burn the most delicate foliage. Spreads evenly. Never clogs nozzle of sprayer. Mixes readily in cold water. Pleasant to use.

SAFE — Non-Poisonous.

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

RED ARROW is approved by foremost insect specialists and thousands of gardeners.

One-quarter Pint will make more than 34 gallons of spray, as it dilutes with 1,100 parts of water for most insects, price $1.00. This is sufficient for a whole season's use for ordinary gardens. It is cheap insurance against destructive insects. The actual cost for finished spray is 2 to 3 cents a gallon.

RED ARROW is sold by sundriesmen and dealers in garden supplies. Deliver orders prompt and please mention ZANDBERGEN BROS., "Tulipdom".
How much is in the northern states often neglected his garden for; 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 mulching.

The Standard DOO-KLIP GRASS SHEAR has already made friends of over a half-million users.

Garden Reminders
Keep Things Growing!

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

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North

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

Start Perennials for next season's blooming. 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-pvss often. 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 forehead flowering. Prune them.

The Vegetable Garden. You certainly 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 weeds. Dust tobacco over the earth near melons, to keep bugs away. Use barley meal, too.

Pinch back raspberry canes to 30 inches.

Use tobacco dust around squash plants.

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

Bordeaux mixture in time will save tomatoes, potatoes, and cucumbers 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 Dahlia 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, Delphinium, 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.

Last call for planting vines.

Cut back Peonies. Use the trimmed pieces as cuttings.

Turn cuttings of Coleus, Alycaula, Torenia, Begonia, etc.

Cut off branches from the parent stem and put into soil of window or porch boxes.

Layer such plants as Pinks, Carnations, 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 sown.

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. 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 biennial, annual, Pansies, Hollyhocks, Delphiniums, Stocks, Wallflowers, Anemones, Carnations, Calceolaria. Begin planting Freesias.

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

Replace bulbs with summer Annuals.

No garlic: Aphis, insect: to battle your garden.

The Black Fly, an effective parasite on your grass, handles itself.

Have you planted your own tobacco?
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 GP M Peat Moss. GP M 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.

Atkins & Durbrow, Inc.
125 Burling Slip New York, N. Y.

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 35¢, makes 6 gallons of effective spray. Buy it from your neighborhood store handling garden supplies.

Antrol Laboratories, Inc.
651 Imperial St., Los Angeles Dept. 1-C.
Please send me without cost or obligation instructive brochure on pest control.

NOTE: PAGE is the only manufacturer able to furnish you with a fence of Armco Ingot Iron which is your assurance against corrosion and of increased life of the enclosure.

BRAND PEONY FARMS, Inc.
Faribault, Minn.

BOBBINK & ATKINS
Rutherford, New Jersey
Perennials in Pots to Close Open Spots
Open or unsightly places in rock-garden, border, or woodland easily covered. Send for special list.

BOBBINK & ATKINS
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
Leucothoe  Andromeda
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.

E. C. ROBBINS
Gardens of the Blue Ridge
Box 7
Ashford, North Carolina

IRIS SPECIALS

25 ASSOCIATED VARIETIES $1.35

A wonderful assortment of varieties and a selection of colors. All different. Free with every purchase of our Peonies, Iris, Phlox, etc., that have won Prizes, Medals, Cups, at various Big Flower Shows, and now for the first time these and other popular varieties are available to all at lowest prices ever made.

IRIS SPECIALS

PRIZE WINNER
IRIS, PHLOX

As flower specialists we have propagated and grown many famous varieties of Peonies, Iris, Phlox, etc., that have won Prizes, Medals, Cups, at various Big Flower Shows, and now for the first time those and other popular varieties are available to all at lowest prices ever made.

Buy Direct From Grower

You better varieties, stronger roots and bulbs, better stock and lower prices than you can get elsewhere. We know what we sell and guarantee the quality, safe arrival in finest plant guide.

FREE—New Catalog

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.

The American Home

April showers all the year

Continued from page 454

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 moisture. 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 disease.

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 they 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 tap-root, 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, Lettuces.

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

Vegetables and flowers of a more fibrous structural growth, for instance 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 different condition exists. Their roots have to (Continued on page 466)

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These New Bulbs Are Worth Your Knowing

Of course you want the showy, colorful tulips and your old friends among the sunny-faced narcissi. But why not also have some of the fine new varieties of narcissi? And those choice smaller blooming bulbs generally used in rock gardens, but just as good for other plantings?

Some are as tiny as the plucky crocuses. Then there are the wild bulbs, many of which no one else has. The same is so with some of the lilies. You can find them nowhere else. In truth, tulips and narcissi, lovely as they are, are only two of literally hundreds of other bulb desirables which we have. All of them are in our catalog. All of them are tip-toe quality. Thoroughly dependable like all Wayside. But withal reasonably priced. Send for the bulb catalog. See for yourself.

Wayside Gardens
MENTOR, OHIO
Complete Irrigation for Every Lawn and Garden

Skinner System of Irrigation in either concealed, portable or overhead types gives your vegetation all the “RAIN” it needs, whenever and wherever wanted, at the mere turn of a valve.

Over a quarter century of Pioneering and developing gives us the courage to say that with Skinner System installed in your lawn or gardens you can have the Freshness of Spring all Summer Long—and what’s most surprising it costs far less than one would imagine...

Mail the coupon today for our booklet "RAIN." It’s free for the asking.

THE SKINNER IRRIGATION CO.
219 Water St., Troy, Ohio

KINNERN SYSTEM OF IRRIGATION

RARE, CALIFORNIA-BRED
IRIS

That Will Enhance Your Garden’s BEAUTY

Your complimentary copy of our new catalog is ready—send your name today. Lists many glorious new varieties—cultivated by one of the West’s leading originators.

CARL SALBACH
655 Woodmont Ave., Berkeley, Calif.
Originator and Grower of New Varieties

RIES—PEONIES

Best Standard and Rare kinds including our Iris Introductions. Balanced Collections unequalled in quality and price. Each covers full range of gorgeous colors. Labelled with names. Prepaid.

IRIS COLLECTIONS
COLLECTION "A"—$5.00
Afterglow, Alcazar, Blue Boy, Caterina, Crimson King, Georgia, Ingeborg, Inveterate, Jester, Williamion, Mother of Pearl, Prospero, Quaker Lady, Seminole, Sketch, White Knight, LaRouw.

COLLECTION "B"—$3.50
Ambassador, Batterie, Chalice, Dream, Lord of June, Mme. Galuchet, Magni-

fica, Medusa, Queen Caterina, La Neige, Ophelia, Raisig.

CASH WITH ORDER FREE CATALOG

J. C. NICHOLLS
114 Overlook Rd. Ithaca, N. Y.

April showers all the year

Continued from page 644

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 Laurae are, perhaps, best known. The cone-bearing and other evergreen trees (Pines, Yews, etc.) require the most moisture during their periods of most active growth—April or May. But whether vegetable or flower, shrub or tree, likes to have the cold water emanating from a faucet, poured over hard ground, is a phase that reaches the corners of the world.

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 shower.

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, dry periods 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 man-made machine steps in to save the day, while nature marks time between showers.

Before mentioning some of the more popular types of distributors (i.e. sprinklers), a word about the various nozzles might be mounted on such systems.

As the business end of every system or machine, it is the work of the nozzle to break up into fine mist 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.
2. Revolving sprinklers watering circular or semi-circular areas.
3. Oscillating sprinklers watering rectangular spaces.
4. Stationary overhead lines either oscillating or revolving, or moved by turning a lever.
5. 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 throw a wide spray. But Class 2 has the widest diversification in both principle of design and variations in the nozzles, which are set at different angles more or less adjustable, and throwing streams of water in a manner of which they cover circles or semi-circles from ten to as much as eighty feet diameter. But Class 3, which are primarily for lawns and more popular types of distributors In this class we also find portable types, in units up to fifty feet in length, to be watered, it is a matter of giving nozzles sink automatically to the correct depth.

To secure choice varieties from a long-established grower at prices their broadleaf evergreen brothers, of which Rhododendron and Laurae are, perhaps, best known. The cone-bearing and other evergreen trees (Pines, Yews, etc.) require the most moisture during their periods of most active growth—April or May. But throughout the country, even in sections having a normal rainfall, there occur from time to time, dry periods 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 man-made machine steps in to save the day, while nature marks time between showers.

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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 throw a wide spray. But Class 2 has the widest diversification in both principle of design and variations in the nozzles, which are set at different angles more or less adjustable, and throwing streams of water in a manner of which they cover circles or semi-circles from ten to as much as eighty feet diameter. But throughout the country, even in sections having a normal rainfall, there occur from time to time, dry periods 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 man-made machine steps in to save the day, while nature marks time between showers.

Before mentioning some of the more popular types of distributors (i.e. sprinklers), a word about the various nozzles might be mounted on such systems.

As the business end of every system or machine, it is the work of the nozzle to break up into fine mist 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.
2. Revolving sprinklers watering circular or semi-circular areas.
3. Oscillating sprinklers watering rectangular spaces.
4. Stationary overhead lines either oscillating or revolving, or moved by turning a lever.
5. Underground systems with stationary or disappearing nozzles.

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