

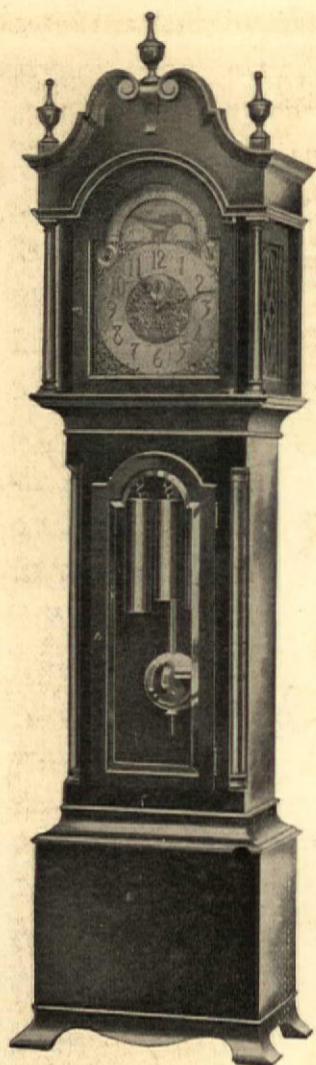


# AMERICAN HOMES AND GARDENS

APRIL, 1911  
Vol. VIII., No. 4

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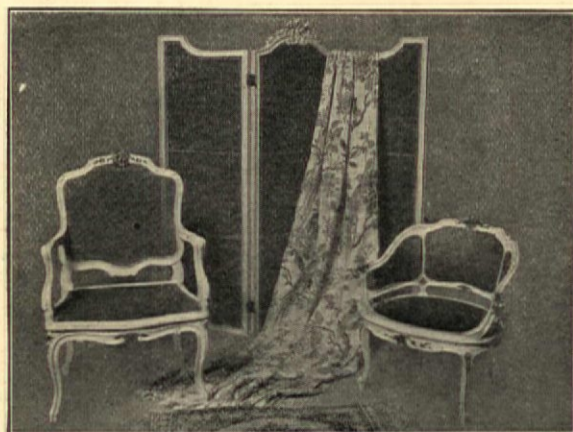
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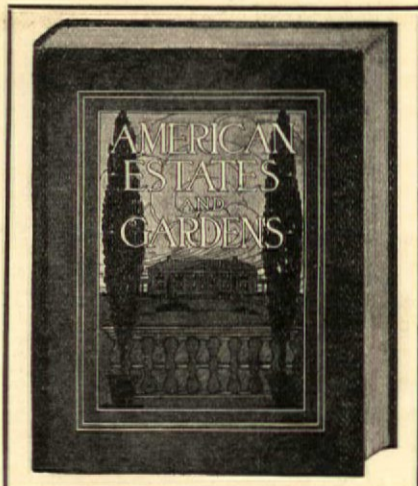
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THE USE AND CHARM OF STUCCO

By ALBERT MOYER

THE history of stuccoes does not furnish sufficient information and data to be of practical value in the manufacture of the present day Portland cement stuccoes. There are records standing 350 years B. C. of stuccoes made from vastly different materials than are of economical use at the present time, and we find that such plasters were almost invariably used in the warm climates where the action of frost would not tend to disintegrate the rather poor material which was then available.

There is every reason to believe that originally these stuccoes were intended to cover up and protect inferior building stone and sunburned straw brick. The archaeology of stucco would tend to show that from an artistic standpoint this method of decoration was a development of the wattled buildings, which were plastered with clay and different muds hardened by being baked in the heat of the sun. Therefore, in this instance, the use of clay plaster over wattled houses was to protect an inferior building material.

To-day, stucco is used for a similar purpose, and for its pleasing surfaces. It would, therefore, seem advisable to recommend a material which would best serve the purpose of protection and artistic merit. Stucco or plaster should never be used as an imitation of other building material.

To carry out these ideas we desire to recommend only Portland cement stucco for exteriors, as this is the only hydraulic material which will stand the action of the elements.

From the artistic side we would also recommend such surface finish for stucco as will cause both natural color and pleasing texture. It would be well, therefore, to expose to view the aggregates used and avoid as far as possible exposing the bonding material, Portland cement.

There is no artistic reason for allowing only the bonding material to be displayed to the eye. On very large jobs the surface can be cleaned off by means of a sand blast, and on smaller work, the outside may be cleaned by means of muriatic acid in dilute solution, 1 part commercial muriatic acid, 4 to 5 parts clear water, until each grain of sand is exposed.

Where white aggregates are used the surface may be cleaned off with a solution of sulphuric acid, 1 part acid, 4 to 5 parts clear water. The sulphuric acid leaves a white deposit and therefore should not be used excepting where the aggregates are white.

Another method is to scrub the surface while yet green, say within twenty-four hours, with a house scrubbing brush and clear water. This is more difficult than the others for the reason that if the stucco is allowed to remain too long before scrubbing, it will be too hard to remove the coat of neat cement from the outside of each particle of sand or other aggregates; and if scrubbed when it is too soft the surface may be damaged and difficult to repair.

If the character of the available aggregates will not present a pleasing surface when exposed, the following surface treatment may be used: While the last coat is still thoroughly damp, apply a Portland cement paint composed of 1 part Portland cement, 12 per cent. of the volume of the cement of well hydrated lime, pulverized form, and 1 part of the volume of the cement of fine white sand. Mix with water

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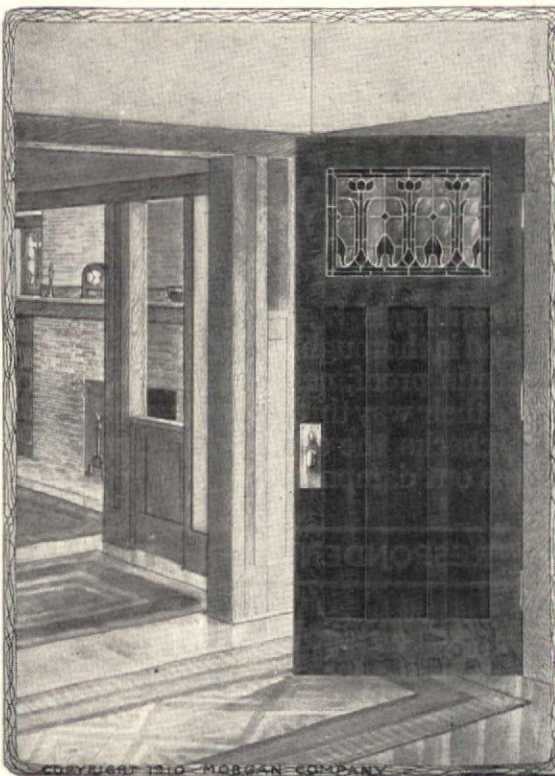
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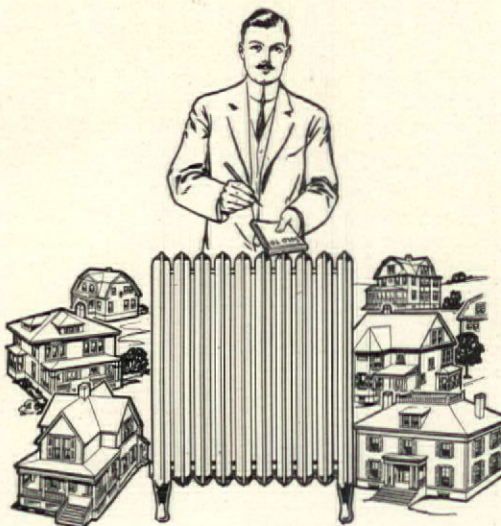
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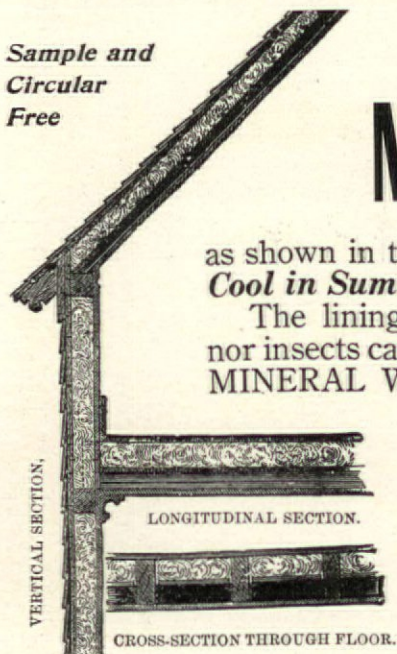
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to the consistency of cream or the ordinary cold water paint. Stir constantly and apply by using a whisk broom, throwing this paint on with some force.

Keep this finish surface damp for at least six days or longer if economy will permit. Do not allow it to dry out in any one place during the week. If necessary protect it by hanging tarpaulins and using a fine spray of water, playing on several times during the day by means of a hose. This will give a pleasing light gray color of excellent texture.

Stucco may be applied to various building materials. There is hardly any reason at the present time for stuccoing stone building, as the procedure at best is difficult and hardly to be recommended. Our building stone is usually an excellent material and therefore does not require either protection or covering to produce pleasant effects.

New brick may be covered with stucco very successfully. The joints should be first raked out half an inch. The brick must be saturated with water. It is always best to start stuccoing at the top of the wall and work down between the pilasters or corners, finishing a whole strip or whole side wall from top to bottom in one day. Thus no streaks or cracks are formed where one day's work ends and another begins. By this method the wall can be kept wet ahead of the work by means of a hose.

The second coat should be put on as soon as the first coat has stiffened sufficiently to hold in place and stand the pressure of the trowel. This second coat should be well scratched and the finished coat applied while the former one is damp. The finish coat should then be kept wet, protected from the rays of the sun and as far as possible from drying out. This can be done by hanging wet cloths over it. This rule of keeping each coat moist until the other coat is applied, and protecting after applying the finish coat, must be observed in all forms of Portland cement stucco.

If the stucco is to be applied to metal lath or wire cloth, the metal should be plastered on two sides so that it is entirely encased in mortar in order to avoid rusting. If this is impracticable, then the metal lath or wire cloth should be dipped in a paint made of equal parts of clear Portland cement and water. Immediately after dipping, the metal lath or wire cloth should be tacked onto a frame in the position it is intended to occupy. As soon as the neat Portland cement has hardened on the metal apply the first coat of stucco. Hair should be added to the mortar in the proportion of one bag of cement to one pound of hair, the mass applied on wire mesh or expanded metal.

If plaster boards are used they should be nailed on the frame work of the building, leaving at least a quarter of an inch joint between each board, this joint to be filled in with lime putty, otherwise each plaster board will cause square cracks on the outside of the stucco the size of the board.

A convenient method of waterproofing plaster boards is easily available. The boards may be painted with two coats of any of the reputable bitumen waterproof paints to which plaster adheres. Then about twenty-four hours after the bitumen paint has been applied, and within six days, apply the first coat of stucco.

For use of stucco on terra-cotta blocks, great care should be exercised in keeping them thoroughly saturated with water, for if not saturated, they will pull the water

out of the mortar and it will crack and disintegrate. Portland cement requires water until it has thoroughly hardened, which ultimate hardening usually takes from fourteen days to a month. It is not always necessary to play the hose on the wall for a month, although it would be advisable. The dews at night, the dampness in the atmosphere and the rain will furnish the necessary moisture provided the material on which the mortar has been plastered has not too great an affinity for water.

In order to prevent the porous hollow terra-cotta tile from sucking the moisture from the stucco, and also to furnish waterproofing and an additional bond other than that which would be given by the key, it is good practice to paint the surface of the dry terra-cotta blocks after their erection in the wall, with two coats of bituminous paint, equal to such compounds as Dehydratine, Minwax, R. I. W. or X-Hydro-Plastic. It is important to place the first coat of stucco over this paint after twenty-four hours and within six days.

The proportions for a good stucco should be one part Portland cement, two and one-half parts coarse clean sand. (If coarse clean sand is not available use only two parts of sand.) Add 10 to 15 per cent. of well hydrated lime, dry pulverized, of the volume of the cement.

If it is the desire of the owner or architect to use the exposed aggregate method, interesting natural colors can be obtained by using the following materials instead of sand in the same proportions. Green, red, buff, black or white marble screenings all passing a No. 8 screen and all collected on a No. 40 screen. These different colored marble and different colored sand, where obtainable, can be used singly or in a combination. When exposed by scrubbing or the acid treatment very interesting results are obtained.

In mixing stucco, great care should be exercised to obtain the thorough incorporation of cement, sand and the other aggregates. The sand and the cement should be mixed together dry, until an even color results. This can be done by shoveling and by raking at the same time. Water should then be added, care being taken lest too much water is used at a time and the resulting mortar get too wet so that more sand or cement has to be added. Be very careful to bring this mortar up to the proper consistency for use in plastering.

It is advisable to add to the mortar from 10 to 15 per cent. of the volume of the cement of well hydrated lime. This should be mixed dry with the cement and the sand before the water is added. The addition of hydrated lime tends to fatten the mortar, thus making it more adhesive and impervious.

Another specification which we believe will prove of considerable value, is that of the addition of mineral oil to wet mortar. After the water is added and thoroughly mixed with the mortar, add 15 per cent. of mineral oil and remix. If a light effect is to be produced, use white oil, such as Oil Petrole.

When the oil is to be mixed with the mortar it is always advisable to use hydrated lime, as we thus have a larger amount of emulsifying material.

The color obtained by the scrubbing or acid method is limited only to the available sands or marble screenings. The color will be that of the aggregates. An excellent green can be obtained by adding 8 per cent. of the weight of the cement of chromium oxide, which should be mixed

(Continued on page vi)

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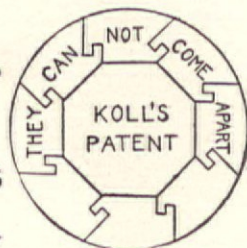
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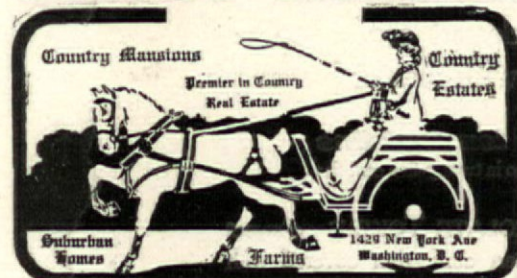
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(Continued from page iii)

dry with the sand, cement and hydrated lime.

Always keep in mind that the surface to which the mortar is to be applied must be thoroughly saturated with water, each coat of stucco kept moist and the final coat remain moist for at least one week and longer if economy will permit.

Stucco should not be troweled to a smooth surface. The best painter would never think of smoothing the paint on his canvas by means of a straight-edge. Texture and color are necessary if artistic results are to follow. By using the suggestions outlined in the foregoing, the architect is privileged to select the aggregates from which the stucco is made and has in fact as great play in the planning of color, tone and texture, as has the artist in mixing pigments on his palette.

### QUEEN OF THE HOLLYHOCKS

By JANET WEED HAZARD

#### PART I

**T**HE Hollyhocks had never been half so many or so beautiful in Grandmother's garden as they were today. All along the side fence, where they stood like sentinels, around the edge of the walk, in front of the south bay-window, all about the pergola, up and down the grape-arbor, and even here and there in the vegetable patch, there they were with their pretty faces upturned to the sun in many colors and various shades.

James was the gardener. He had been snipping and tying up the honeysuckle that grew over the porch, when Grandmother came out to inspect his work.

"Dem Holly-hawks sho' do look fine; we'll be a-missin' 'em 'fore long, Miss Jo. I reckon the young lady be comin' home right soon now?"

"Yes, James," said Grandmother, "I expect her to-morrow. You must clip the Hollyhocks in the early morning while the dew is still on them. They do look well! I hope she will like them."

Just then a slight breeze stirred the leaves and flowers, and a tall, stately crimson that grew in the bed by the porch touched her companion and whispered what James and Grandmother had said. By and by another breeze swept through them, carrying the message from flower to flower. Then another, until a great gust of wind sent all the flowers nodding and sighing "So soon, so soon."

"We are so many and so beautiful," said the first that had spoken, the tall, stately crimson, "we will have a carnival and let the Sun-God crown the prettiest our Queen—Queen of the Hollyhocks."

Then the soft summer breeze swayed them gently and the big golden Sun looking down kissed each one and bade her be happy.

Now, when the soft summer breeze saw what the big golden Sun had done, he grew angry and said, "They shall have no 'Queen'. I will spoil their beauty."

Suddenly it grew dark and darker, until a few big drops came down from the storm-cloud above; then more and more; and by and by they came faster and larger and all the poor Hollyhocks, all but one, shed tears of sorrow.

All but one that grew among the sweet grasses and ferns under the South bay-window shed tears of sorrow for fear their gowns would fade and they appear less richly dressed.

So they wept until late in the afternoon,



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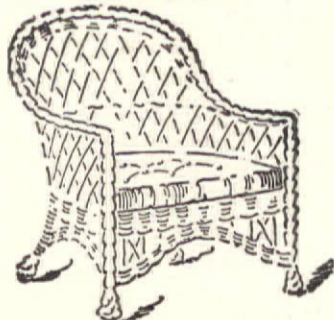
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the Sun-God began to peep out from under a big cloud, and looking down, kissed the pretty tear-stained faces and bade them be happy again.

Then all the Hollyhocks nodded and opened wide their pretty petals and glowed under the Sun-God's warm kisses, until it was almost time for him to say "Good-night."



### PART II

It was that beautiful time in the evening when Grandmother loved to walk in her garden.

The flowers knew she would come, they had ceased to talk and now listened, but was it she that was saying:

"How beautiful they are! You dear old-fashioned flowers, how long has it been since I saw you, a wee little girl, and Grandmother has grown you all for me."

The soft summer breeze stirred the leaves and flowers. They nodded and whispered. "Not Grandmother, but our little girl that played among us so long ago. Can it be? Ah yes, now we shall know our 'Queen'—Queen of the Hollyhocks." The soft summer breeze sighed, "She knows, she knows."

In and out she went among the flowers, talking to and caressing them.

"You are all lovely," she said, "and tomorrow you will smile back at me among the sweet grasses and ferns."

And so she passed on until she reached the pretty white flowers that grew among the sweet grasses and ferns in front of the South bay-window.

The soft summer breeze lightly stirred and the leaves and flowers all listened.

"You pretty white flower, how I love you; you are Queen of the Hollyhocks, Queen of the garden. Grandmother's own little girl planted you, but that was ever so long ago—I can't stop now to tell you, for here comes Grandmother, and she is not expecting me until to-morrow."

The soft summer breeze stirred the leaves and flowers, and each one nodded her homage.

The Sun-God, going to sleep in the West, cast her bright golden rays on the pretty white flowers, on the Queen of the Hollyhocks—Queen of the garden.

### THE ORIGIN OF BULLDOGS AND PUGS

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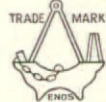
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the skulls of these mammals he concludes that inbreeding is the cause of these peculiar head-formations.

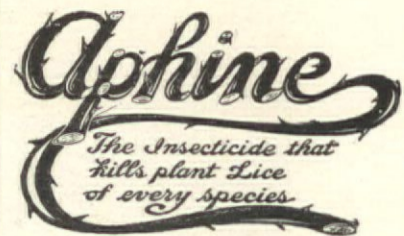
This view is severely criticized by biologists, since it is a well-known law that inbreeding never creates new characters, but only intensifies old ones. A more reasonable view is that which directs attention to the fact that many wild animals, when caught young and brought up in confinement, do not have as long heads as shown by other members of the species in the wild state. A decided shortening of the bones of the face takes place in the case of the wild dogs and the wolf. This is the beginning of the pug face. Inbreeding develops this character; it is the *method*, not the *cause*, says Prof. Hiltzheimer, of Stuttgart. This scientist finds the cause rather in the modified use of the jaws resulting from conditions of captivity. The face, he says, fails to develop the same as it would in a state of nature.

The bending of the bones of the palate in these dogs is explained by the upholder of the inbreeding theory as resulting from degeneration or rachitis ("rickets") due to the inbreeding; Prof. Hiltzheimer explains this bending as due to the crowding of the teeth consequent upon the shortening of the face bones.

While it is true that inbreeding cannot cause the appearance of a new character, it is also true that we have no evidence of any character arising as a result of changed external conditions being preserved by heredity. If it is true that changes in the food have made the jaws of wild dogs under domestication fail of development, we should be able to get the original wild dog again by suitable feeding; this, however, is impossible. According to our present knowledge, the probabilities are that short-faced dogs, like short-faced varieties of other animals, arose as "sports" and were preserved through inbreeding, or even had the character intensified.

### THE DISEASES OF TEA

**T**HE cultivation of the plant is making considerable progress in the Caucasus region, and although its introduction has been comparatively recent, it has already brought a good profit to the planters. However, the tea plant is subject to maladies caused by certain parasites which prevail in these regions. A Russian scientist, M. Spiechneff, observed twelve cryptograms, and one of them, the *Pestalozzia guepini*, causes a curious disease known as the "gray malady." Here the leaves show gray spots surrounded with a border of darker color. After some time there appear small dark spots which represent the fructification of the fungi. Other dangerous species are the *Dicosia Theae* and the *Capnodium footii*. This latter causes a malady known as "soot" of the tea plant, and sometimes gives much damage. Another disease is described by M. Spiechneff, and it has the form of buff-gray spots sometimes covering all the leaves. He considers that it is caused by a cryptogram, but Duconnet and others consider that the disease is not of a parasitary nature. The gray malady and the "soot" disease attack also the leaves of evergreen plants such as the camelia, rhododendron, and magnolia, but on the contrary the former hardly ever attacks any but the Chinese tea plant, and others escape it. We may also mention that M. Voronoff observed in the Imperial plantations near Batoum, a caterpillar which bores galleries in the young tea shoots and causes much damage in this way.



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"I have given Aphine a very thorough trial on plants infested with aphids and find it works very successfully; in fact, have found nothing that compares with it."—E. B. Southwick, Entomologist, Dept. of Parks, New York City.

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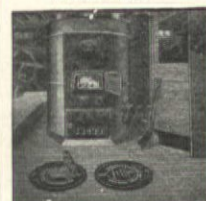
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### THE ANNUAL SMALL HOUSE NUMBER

**T**HE May number of AMERICAN HOMES AND GARDENS will be devoted to the small house, its building, its decoration and its furnishing. The subject will be strongly featured, including a display of bungalows and small houses, which will be illustrated by exterior and interior views, and floor plans.

The small house will be given special attention, since it is the most numerous building in this country, and because it is a type of building that excites the widest interest and offers the largest field for helpfulness to the home builder.

There will be articles from the decorating of the home to the arrangement of flowers for the table, from the planning of the kitchen to the building of a garage, from the purchasing of a motor car to the planting of the garden and the home grounds.

Everything pertaining to the home and garden will be presented in such a form as to solve the problems which so often confront the house owner.

The various departments conducted by specialists add greatly to the value of this number, and besides these departments the magazine will contain a host of articles which will prove of great interest to our readers.

The table of contents published on page 121 in the current issue will give a synopsis of the contents for the May number of AMERICAN HOMES AND GARDENS.

### THE ELM LEAF BEETLE

**A**CCORDING to the leading State Entomologists, the indications are that the ravages of the Elm Leaf Beetle will be far more serious this year than during the past, and it is certainly a matter of vast importance for the consideration of all owners of estates in the country to do their utmost to eliminate this insect.

It is suggested that the owners of elm trees should have them sprayed as soon as the foliage develops in early May. The winter of the Elm Leaf Beetle is passed in adult condition. The beetles take refuge in attics, sheds, barns and other places of similar nature. They emerge from their hibernating quarters as soon as the foliage of the elm develops in the spring, when they take to the leaves and in early June, eggs are deposited by the beetles on the under side of the leaves, from which caterpillars are hatched. These feed on the layer of cells on the under side of the leaves, giving the foliage a skeletonized appearance.

Beginning during the last days of June and continuing until the middle of July, the full grown larvæ, which are less than half an inch long, crawl down the trunk and change to yellow pupæ at the base of the tree and on the ground near it. Adults develop a week after the formation of pupæ, and in the last part of July the summer

brood of beetles is abundant. These fly to the leaves again, feed on them, deposit eggs and the life cycle of the insect is repeated. There are two broods a year.

The only effective way to control the Elm Leaf Beetle is to spray the foliage with arsenate of lead as soon as the leaves unfold. This spraying is important for the reason that if the beetles can be killed before they lay their eggs there will be no larvæ to deal with later. It is this early spraying to catch the adult beetles that is suggested.

If early spraying is neglected, an application of arsenate of lead is necessary when the larvæ begin to feed. This spraying, however, is not as effective as the early one. When the full grown larvæ crawl down the trunks to pupate, great numbers of them collect in the crevices of the bark, at the bases of the elms, and on the ground near the trees. At that time every owner of a tree can do his part to destroy the pest by sweeping up the caterpillars as they come down and kill them by pouring boiling hot water over them.

There are plenty of firms in practically every city, town or village who will do the spraying at a nominal cost, in case one is unable to do it himself, for it should be the pleasure of everyone to assist in the preservation of that most beautiful tree, the elm, so splendidly mentioned by Ruskin, who speaks of it as the mother of Gothic architecture.

### THE REAL ESTATE AND IDEAL HOMES SHOW

**T**HE second exhibition of the Real Estate and Ideal Homes Show will be held at Madison Square Garden from April 26th to May 3d, inclusive.

The first exhibition was held last year, and, while an interest was to be expected from the public, it was not anticipated that the attendance would be so large. On account of the demands of the public it was found necessary to extend the show another week, which was a very unusual concession, and the first on record where the exhibitors made a unanimous request to the management for such a purpose.

The show was organized to afford an opportunity of studying various types of house construction, decorations, and furnishings, and includes everything that goes to make a home.

One of the principal features of the exhibition will be the presentation by real estate companies of models of suburban development. Another feature worthy of note will be the splendid collection of photographs of houses and architects' drawings, from which one may secure suggestions for home-building. The exhibits of all kinds of materials for the building of a home, the models of the most improved kind for use in its perfect equipment, and the latest designs for the decorating of the interior are features in this show, and will prove helpful to those who are interested in either the building or the improvement of the home.

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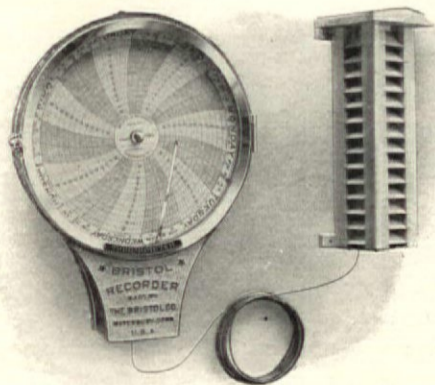


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**A NEW METAL FOR AEROPLANE CONSTRUCTION**

ONE of the chief chemists in the laboratory of Messrs. Vickers, Sons & Maxim, the well-known British armament manufacturers, has recently perfected an aluminum-alloy which has the strength of mild steel, and which is only slightly heavier than aluminum. This new alloy, to which the generic name "Duralumin" has been applied, is especially suitable for the frames of aeroplanes and the cars of dirigible balloons, where combined lightness, great strength and toughness are so imperative; and inasmuch as this firm is now actively engaged in the construction of aerial vessels, it is being extensively utilized in connection therewith. The alloy contains upward of 90 per cent. of aluminum, has a specific gravity of about 2.8, and a melting point of 650 degrees C. (1,202 degrees F.). Its physical properties are secured by special treatment which is well under control, and may be obtained for any purpose for which it may be required with a tensile strength of 40 tons per square inch with very little elongation, from 28 to 30 tons per square inch with 15 per cent. elongation in 2 inches, or 25 tons per square inch with an elongation of about 20 per cent. in 2 inches. Although primarily evolved for the rigid parts of aerial vessels, it has been found that the alloy is eminently suited for the fabrication of any article usually executed in aluminum, either for military, domestic, or commercial purposes where a great economy in weight is of vital importance. The alloy will also take a polish equal to nickel plating, is unaffected by mercury, and is non-magnetic, while it is proof against atmospheric influences and but slightly susceptible to the action of sea or fresh water. For electrical apparatus it possesses many possibilities, emits when struck a clear silver tone, and is suitable for sound producing apparatus such as bells, organ pipes, etc. The alloy is obtainable in its finished form for whatever purpose it may be required, such as rivets, plates, sheets, wire, strip, and so on, but is not recommended for castings. The Vickers, Sons & Maxim Company has erected a special factory near Birmingham for its production, which has been placed in the hands of one of its subsidiary connections, the Electric and Ordnance Accessories Company.

**INSULATING COVERING FOR STEAM PIPES**

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THE cleansed pipes are coated with a priming coat consisting of 200 parts liquid water-glass, 100 parts of water, 150 parts fine sand and 30 parts sifted sawdust. The covering mixture comes next; 60 parts of dry loam, 8 parts sifted sawdust, 3 parts ground cork refuse, 4 parts potato starch, 4 parts potato dextrin, 4 parts powdered water-glass, 30 parts of water. The loam must be well kneaded up with the water and add to this the previously mixed pulverized substances. The paste-like mass is then spread with a trowel on the heated and primed metal surfaces, to a thickness of 3-16 to 3-8 of an inch (5 to 10 millimeters). When this layer is thoroughly dry, the top coating can be repeated, until the pipe covering has a total thickness of at least two inches (20 millimeters). Previous layers must always be allowed to dry thoroughly. To give a smooth finish to the final coat it must be brushed over with water, while still wet.



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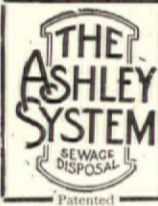


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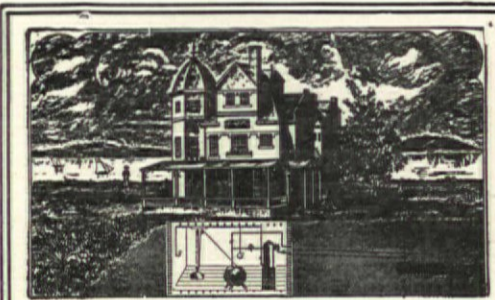
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## American Homes and Gardens for May



### The Small House of To-day

There is no more interesting subject for the home-builder than that which deals with the building of the small house. Exterior and interior views, and floor plans are shown to illustrate an article written by Francis Durando Nichols, which gives a comprehensive idea of the interior treatment of each house.

### Two New England Houses

Illustrations of the modern house of low cost, which have been copied from the old New England farmhouse, are always interesting for the reason that they represent all that is simple, and yet combine all the features for comfort and repose. Paul Thurston has contributed an article on the subject which is illustrated by exterior and interior views, and floor plans, and it presents helpful suggestions for the one who is seeking designs for houses of interest.

### Bungalows

A special number would not be complete without the presentation of the bungalow. There are some interesting ones with views and plans which illustrate the paper prepared by Robert Prescott.

### A Bungalow Built of Terra-Cotta Blocks

The bungalow built for Mr. F. R. Bangs, at Wareham, Mass., was designed primarily for comfort, and its well planned rooms and picturesque environment tend to produce the desired result. It is constructed of hollow terra-cotta blocks, which are exposed in the main living-rooms of the house. Mary H. Northend has prepared a paper on this house which is illustrated by many fine engravings, and is one that is worth knowing about on account of the material of which it is built.

### Flower Arrangements for the Table

Along with the marked progress made in the larger and more important details of home-making is the attention now paid to those which are contributing to the general effect of a home. While the conventional holder for a floral centerpiece for the dining-table is some kind of vase or jar in pottery or glass, there is nothing more attractive than a shapely basket in which a bowl of water is fitted. Edith Haviland has presented an excellent article, illustrated by many engravings showing how this may be attained.

### Decorative Curtain Schemes

Selecting curtains for the house is a rather hard task; not because there is so little to choose from, but for the reason that there is so much. In order to avoid mistakes and to secure the best possible hangings, that will not only give satisfaction to those who occupy the home, but pleasure to all who see them, one not skilled in the art of selection should be interested in the ideas furnished by Mabel Tuke Priestman, who presents many helpful suggestions in the furnishing of the doors and windows of a home. The article is illustrated, and shows some of the latest designs for curtain hangings.

### The Modern Kitchen

We accept without question the idea that the kitchen should be both clean and sanitary, but we are not always so sure that the efficiency of this busy end of the house is a matter of vital importance to those sup-

posed to be interested in home affairs. The kitchen is the place where nearly three-fourths of the actual housework must be performed, and the arrangement and equipment must exert more or less influence upon the whole problem of housekeeping; therefore, it is necessary that great consideration should be given to this part of the house. George E. Walsh has contributed an excellent article on this subject; one which is illustrated by engravings showing some model kitchens.

### The Inexpensive Small Garage

With the increasing use of the motor car, it is becoming more and more the custom to house the machine on the premises of the owner, particularly in rural and suburban places. The practice of keeping the car at home is more practical and satisfactory now than formerly, and H. P. Wilkin has prepared an excellent article on the subject, which is illustrated by many designs for a moderate price garage.

### The Low-Priced Motor Car for the Man of Modest Means

The motor car has become as important and as necessary for the convenience and comfort of the man who lives in the country, as the heater which warms his house. The economic process of the building of a car has enabled many manufacturers to produce a vehicle that is within the means of the average man who lives in the country. Stanley Yale Beach has written an interesting paper on the subject, which is illustrated by engravings showing cars which can be bought for from \$725 to \$1,500.

### Planning a Seashore Garden

The first thing to consider in the making of a seaside garden is the matter of wind-breaks. These may not be over two feet in height, but in most localities they are an absolute necessity. The next important detail is to select the flowers with which to plant it. All flowers will not grow in a seashore garden, so Martha Haskell Clark tells in her article how to make a selection of the best flowers to plant, and the results that are to be expected.

### The Arrangement for the Small Garden

Charles Downing Lay has prepared plans by which to illustrate his article, showing how a garden for a small place may be planted. He tells in his paper how it is possible for one to have a small garden, even though the space is limited, and points out the possibilities and the means of developing it.

### Spraying the Apple Orchard

There is not a neglected "home orchard" in our country but can be brought back to a good bearing condition and made to produce perfect fruit. This is a condition that is realized by many farmers who would gladly give their trees proper attention if they knew what to do. They recognize their trouble, but do not know the cause. Benjamin W. Douglas, State Entomologist of Indiana, has prepared an exceptional article on this subject, which points out the methods to pursue in order to eliminate destructive insect pests. The article is profusely illustrated, and is one that ought to be of interest to all who possess apple trees, whether they belong to the home grounds or to the more pretentious orchard.

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The terrace steps lead to the garden



effective results can be obtained by the use of simple forms in construction. The main doorway is a very excellent example of this kind of building, for it is emphasized by a slight projection hardly more than two feet in extent, but being the only projection on the front is quite sufficient to meet the desired attainment. The vestibule is entered one step above the porch floor, while other steps ascend to the main hall. The woodwork and the low dado which extend around the walls are painted white. The wall surface above this dado is done in two tones of blue; the darker tone lining out a paneled effect.

In most houses of this size the stairs mount directly from the hall, thus doing away with the sacrificing of a great deal of room for a separate staircase-hall. In this house, however, a different treatment was found desirable, and in consequence the stairs ascend from a private hall separated by a classic archway. This passageway also forms an access to the dining-room and the service part of the house.

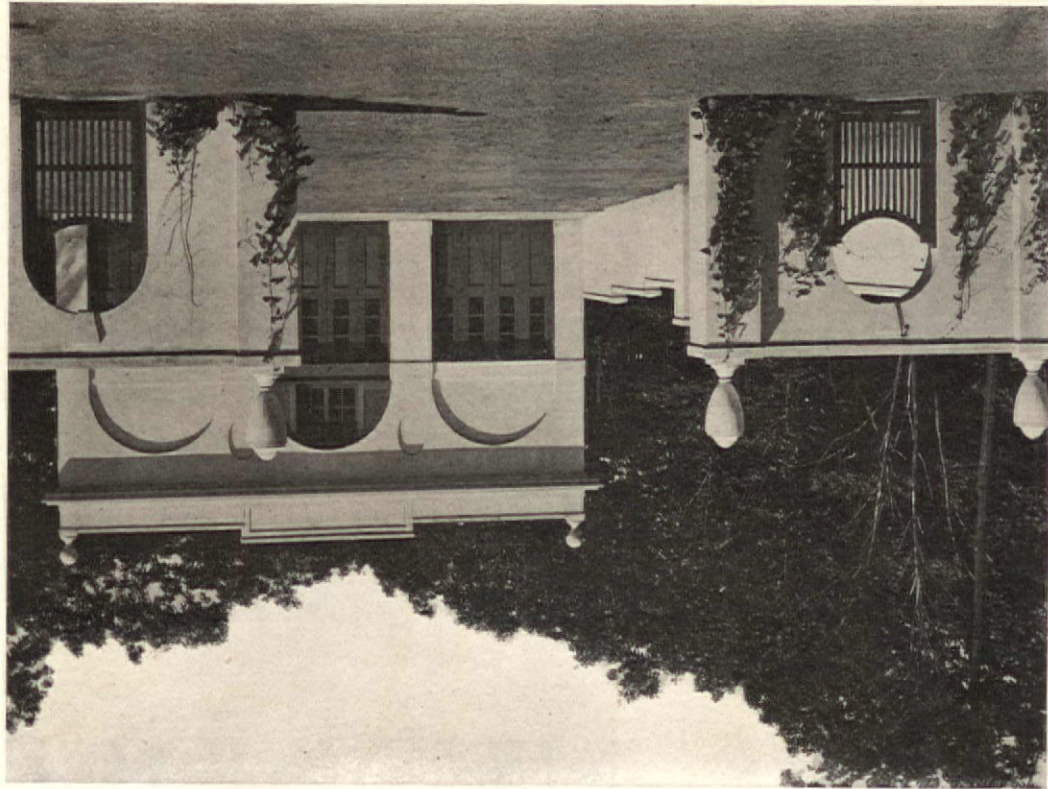
To the right of the entrance is built the den, which is a charming little room. The fireplace is furnished with Welsh tile facings and hearth, and a mantel with a paneled over-mantel. Bookcases with enclosed cupboards below the counter shelf and open shelves above are built in at either side of the fireplace. The trim is painted white and the walls are covered with a soft tone of ecrú, which latter forms an excellent background for the many old prints with which the walls are hung. A flowered chintz covers the furniture, and curtains of the same material are hung at the windows.

The drawing-room, opening from the hall and facing the garden, is delightful. It is a matter of satisfaction to note the absence of any pretence of elaborate ornamentation in its treatment. The walls have a low wainscoting

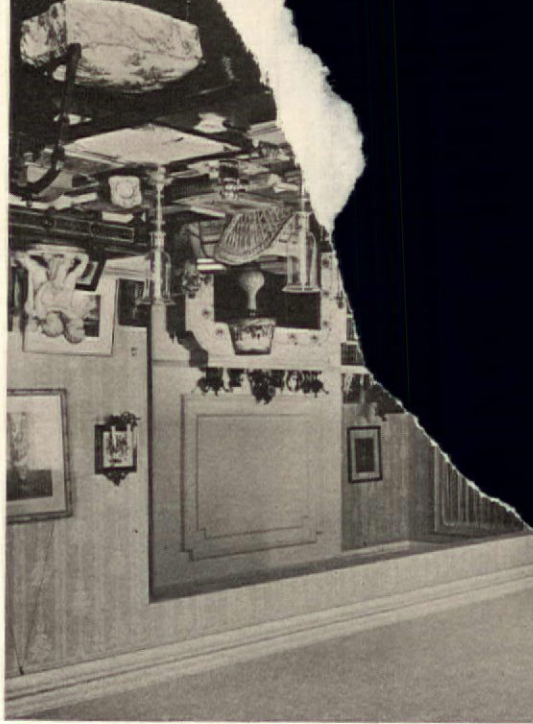
A charming structure; the work of Messrs. Little & Brown, architects, of Boston, Mass.

The classic exterior pleases the eye for its direct lines and for the absence of superfluous ornamentation, which effect is repeated throughout the interior. The plan of the whole place shows a comprehensive idea carried out to its logical end. The problem was to give a sunny exposure to as many rooms as possible and at the same time to create a private garden at the rear of the house.

The forecourt, enclosed with a high stucco wall, has its entrance-way columns ornamented with classic urns. At the side of this court, a similar entrance way leads to the garage, which is built in close proximity to the service and is easily accessible from the service quarters. The main entrance to the house is built in the center of the building, and it is interesting to note what



The stable court



# AMERICAN

# HOMES AND GARDENS

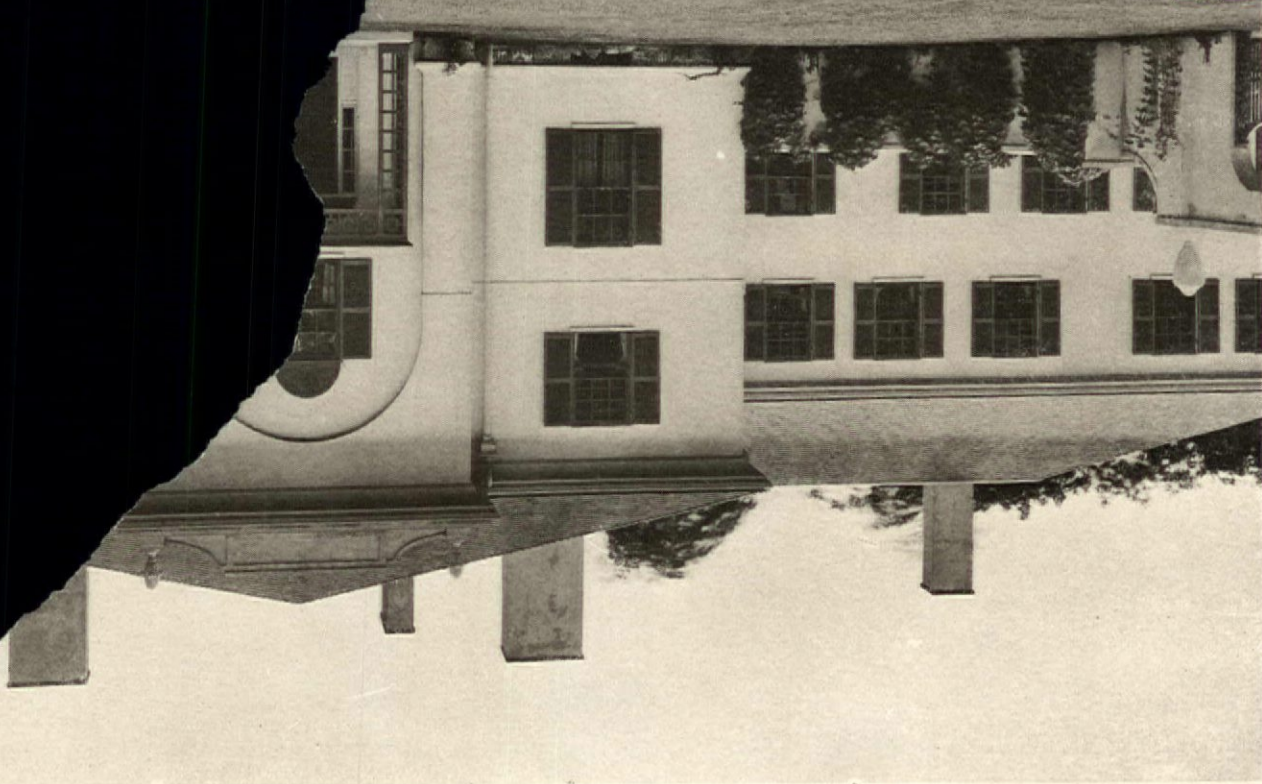


## “White Lodge”

The Country Seat of A. Lithgow Devens, Esq., Manchester-by-the-Sea, Mass.

By Francis Durando Nichols

N  
dismounting from the train at the little station at Manchester, one is met at one side by the sea with its broad expanse of glittering water, while at the other side is the highway. Entering a motor car, one is taken through a delightful road, with its many finely kept estates all linking hands one with the other in such a harmonious fashion as to resemble a single great park. A sudden stop and one enters the woods at “White Lodge.” The primeval forest seems almost impenetrable on account of its denseness; live for the beauty and sequestration, for it holds



painted white, above which they are covered with a paper showing a white floral design on a gray background. The chintz coverings of the furniture give a touch of color to the decorative scheme. The ingle-nook is the important feature of the room. It has an open fireplace, tile facings and hearth, and a mantel and over-mantel. Low bookcases are also built on either side of the fireplace.

The dining-room is the most pretentious room in the house. It is a splendid apartment, long and broad in its proportions. The principal feature here is the scheme for the wall decoration, which is most unusual, and it is particularly handsome, as it is carried out in harmony with the architecture of the house and illustrates the classic feeling. To describe the effect of these wall paintings upon one when entering, would be impossible. While the illustrations show the detail and outlines of the designs, they do not present the coloring, which is the most important feature of the paintings. It is in reality an "Italian Fantisee," and is the work of the well known mural painter, George Porter Fernald, of Boston, Mass. Broad doorways at one end of the room give access to it from the staircase hall, while at the opposite end of the room the broad windows furnish ample light and ventilation, and open directly onto the garden, which is built at the rear of the house. The fireplace has marble facings and hearth and a paneled over-mantel, in which is placed a painting to carry out the decorative scheme of this side of the room. Oriental rugs placed on a highly polished floor, and mahogany furniture and antique cabinets complete the furnishings of this room.

The service end of the house is built in a separate wing and includes a large butler's pantry, finished in white enamel, a kitchen thoroughly equipped with every modern appliance, a servants' hall and laundry, while a private



The garden front

stairway leads to the servants' quarter in the second story of the extension.

The second floor of the main house contains Mrs. Devens' boudoir and bedroom, which are treated with white enamel trim and gray and white striped wall covering. Mr. Devens' room has also white enamel trim and the walls are covered with crimson poppies. The guest rooms are all treated in a particular color scheme. Each of the rooms connects either with a private or a general bathroom, which is tiled and furnished with all the best modern improvements.

The second story porch, opening from Mrs. Devens' room, is screened and enclosed so as to be used as an outdoor sleeping-room.

The garden, built at the rear of the house, was made from the clearing in the woods, and is enclosed with a terraced wall. From this garden broad vistas are obtained



The den



The dining-room

of the surrounding country, beyond which is the sea.

The garden entrance from the drawing-room is ornamented by concrete columns which are placed between the doorway and the windows, the latter built at either side of the opening.

A broad porch flanked on each side by a balustrade and seats, is marked by two ornamented urns at the step line of the porch.

Broad, sweeping steps descend to the garden walk which leads to the woods in either direction and down to the belvedere at the end of the bowling green. The terrace wall which extends around the garden is built of rock-faced stone laid up in a random manner. Vines have been planted that grow over this wall, and it is now nearly covered by their attractive spread.

Considerable planting has been done about the garden porch, which rounds out the corners between the porch and



The hall

the wall. A living-porch is built at one side of the house, and it is reached from the drawing-room. It is enclosed with a green painted lattice work, and is furnished in a comfortable and harmonious fashion. The garage, which has already been mentioned, is constructed in harmony with the house. It is a square building, with three entrances surmounted by three circular arches. It is thoroughly equipped with all the modern appliances

for the care of a motor car. The chauffers' quarters are also provided and are fitted with the necessary appointments.

This country seat with all its accessories is undeniably arranged on the lines that secure a perfect residence; one that even the most jaded taste could welcome with the relish that comes with a gratified rural appetite, for every comfort and luxury are here in very ample measure and with the buoyant adjuncts of land and sea air influences.



Another view of the dining-room

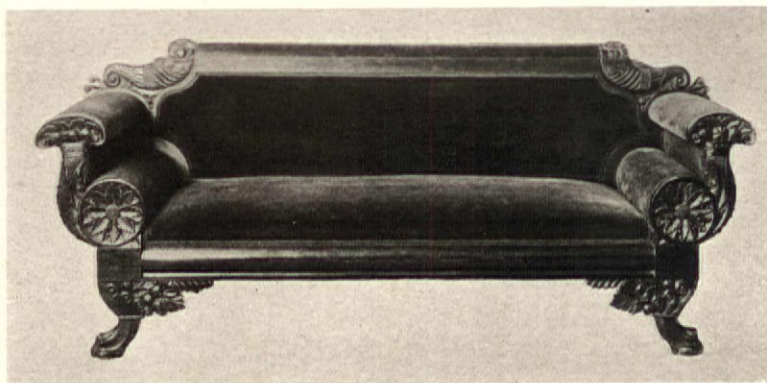


Fig. 1—A Sofa sold for \$230

## Furniture of Our Forefathers

By Esther Singleton

### Late Georgian—Part III.



**R**OUGHLY speaking, furniture and all forms of Decorative Art in which the curve predominated lasted from the beginning until the middle of the century, when the straight line asserted itself and triumphed. In the last days of Louis XV the reaction is already visible. Indeed, indications of the coming Louis XVI style begin between 1745 and 1750. The discoveries made in Pompeii and Herculaneum are responsible for the enthusiasm that the straight line and regular forms of Greek art exerted in certain masters of Decorative Art.

Among the precursors of the Louis XVI style and whose works are a mixture of the Louis XV and Louis XVI styles are Lucotte, Watelet, J. B. Pierre, Dumont, Roubo, Charles de Wailly, Choffart and Neufforge. In the last particularly do we meet with the coming style; and, among the designs of Delafosse (1731), one of the chief exponents of the Louis XVI style, we find many reminiscences of the Louis XV style.

The lovers of the Classic in England were only too ready to welcome the reaction from the rococo and to stimulate the new taste for the straight line, mortuary urn, and arabesque ornamentation. The early Louis XVI was known in England as the Adam style, which is, however, unfair to a great many others who made war on the Gothic, Chinese, and rococo taste. Numerous books on architecture, ornamentation and decorative design, as well as cabinet work, were issued between 1765 and 1771; and it is noticeable that the names of many Italians appear in this list. The artists that the Adam brothers employed to work for them—Angelica Kauffman and her husband, Antonio Zucchi, Cipriani and Pergolesi—had also great influence. The last, whom they brought from Italy, is thought by Mr. Heaton to be the "unacknowledged author of most of the beautiful details of Adam's book." The Adam brothers never made furniture—they were architects and designers; and it was largely owing to their high social position that their influence was so great.

When Chippendale published his famous book of designs, the Louis XV style was on the wane. The very year

of its publication—1754—Robert Adam went to Dalmatia to study the ruins of the Emperor Diocletian's palace; and, on his return to England in 1762 became royal architect. His brother, James, was identified with him in all his work. As the nobility and gentry not only patronized the Adam brothers, but received them socially, these architects and designers of furniture belong to a different class from that of Chippendale, Heppelwhite and Sheraton. They themselves said: "If we have any claim to approbation, we found it on this alone: That we flatter ourselves we have been able to seize with some degree of success the beautiful spirit of antiquity, and to transfuse it, with novelty and variety, through all our numerous works."

An English critic has aptly written: "Whatever were the architectural defects of their works, the brothers formed a style which was marked by a fine sense of proportion, and a very elegant taste in the selection and disposition of niches, lunettes, reliefs, festoons, and other classical ornaments. It was their custom to design furniture in character with their apartments, and their works of this kind are still highly prized. Among them may be specially mentioned their sideboards, with elegant urn-shaped knife boxes; but they also designed bookcases and commodes, brackets and pedestals, clock cases and candelabra, mirror frames and console tables of singular and original merit, adapting classical forms to modern uses with a success unrivalled by any other designer of furniture in England."

Among the ornaments the Adam brothers used were lozenge-shaped panels, octagons, ovals, hexagons, circles, wreaths, fans, husks, medallions, draped medallions, medallions with figures, goats, the ram's head, eagle-headed grotesques, griffins, sea-horses, the patera, the rosette, caryatids, and all other classical and mythological subjects.

Very much simpler than the furniture *de luxe* of the Adam brothers is that appearing in the book published in 1788 by the firm of A. Heppelwhite & Co., cabinet makers, called *The Cabinet Maker and Upholsterer's Guide, or Repository of Designs for Every Article of Household Furniture in the Newest and Most Approved Taste*. In some respects the patterns shown here are more character-

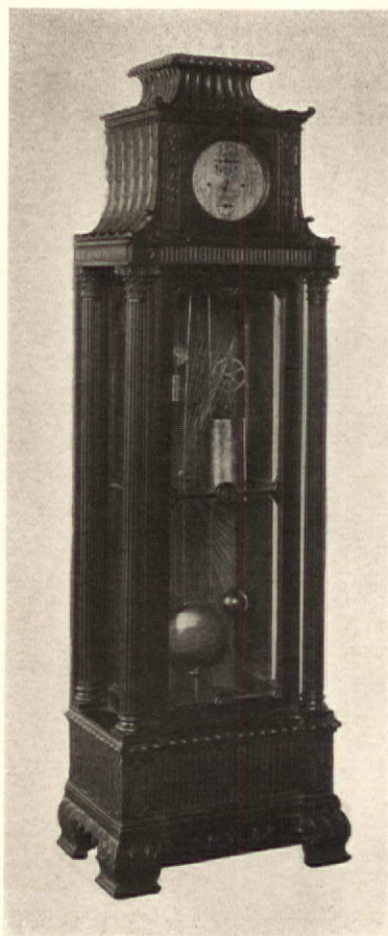


Fig. 2—A clock sold for \$250

istically English than the designs of either Chippendale or Adam. Indeed, the authors of this book claim that they have selected such as will "convey a just idea of English taste in furniture for houses."

They also remark that "English taste and workmanship have, of late years, been much sought for by surrounding nations; and the mutability of all things, but more especially of fashions, has rendered the labors of our predecessors in this line of little use." They also assert that they have avoided all whims, or fancies, and "steadily adhered to such articles only as are of general use and service," but they also claim that their drawings are new and follow "the latest, or most prevailing fashion."

When this book appeared, the Chippendale style was entirely out of date; and as far as Heppelwhite is concerned, neither the "Chinese" nor the "Gothic" styles ever existed.

The general effect of Heppelwhite furniture is lightness and the straight line is insistent. The characteristic ornaments are the bell-flower in swags or chûtes, the lotus, the rosette, the acanthus, the shell, the urn, draped and without drapery, and the three feathers of the Prince of Wales's crest. These ornaments are carved, inlaid, painted, or japanned. To all other legs, he prefers the tapering and slender "term" leg ending in the "spade" foot, as shown in Fig. 12, which is very heavy for a genuine Heppelwhite piece. The carving of the bell-flower chûtes on the legs is also heavy. The fluting on the drawers suggests Sheraton.

The Heppelwhite chair is famous, and two good examples appear in Figs. 6 and 11, which show the oval and shield-shaped backs, of which this school was so fond. Both are "elbow," or armchairs, and Fig. 11 shows a festoon of drapery, which falls in a graceful swag from



Fig. 3—A dining table sold for \$400

of open back and carved chairs silk, satin, and leather and horsehair (figured, checked, plain, or striped) were used.

A table of this period appears in Fig. 5, intended for a sideboard-table for the dining-room.

It was in Heppelwhite's time that the sideboard, with its convenient arrangement of drawers and cupboards, with a large flat top for the display of silver, came into fashion.

Up to this time the court cupboard, the tall enclosed buffet, and large "sideboard table" had been used, but Heppelwhite turns it into a very elaborate piece of furniture, with drawers and cupboards. The Heppelwhite sideboard stands on tapering legs ending in the "spade," or "Marlborough" foot, and is generally made of mahogany and inlaid with satinwood, the legs being ornamented with graduated bell-flowers. Brass ring-handles are used. Knife cases and an urn-shaped spoon case stand, as a rule, on the slab of the sideboard with the plate.

Tea-trays, tea-tables, candle-stands and tea-kettle stands are also to be found among his designs. The tea-kettle stand, of which an example of this period is shown in Fig. 7, was of great use to the hostess. The one in the accompanying illustration has gaps in the banister and rail for the sake of convenience in handling the kettle.

Heppelwhite was as fond of upholstery as Chippendale. He loved the festoon, cords and tassels, and gave explicit



Fig. 4—Wine cooler



Fig. 5—A wall table sold for \$1,750



Fig. 6—A shield-back chair



Fig. 7—A tea-kettle stand



Fig. 8—A Sheraton chair



Fig. 9—A Sheraton chair



Fig. 10—A Sheraton leather chair

directions for his elaborate draperies for beds. Pier glasses, mirrors and girandoles were carved in a great variety of designs. Many indications of the approaching Sheraton style appear among his models.

In all probability Thomas Sheraton, a journeyman cabinet-maker, who settled in London about 1790, made even less furniture than Chippendale. From the time he arrived in London until his death in 1806 he seems to have devoted all his time to writing practical books on furniture and issuing designs. It is interesting, too, to notice that he claimed very few of the models. He says that his *Cabinet-Maker and Upholsterer's Drawing-Book* is "intended to exhibit the present taste of furniture and at the same time to give the workman some assistance in the manufacture of it." Moreover, he continues: "I have made it my business to apply to the best workmen in different shops to obtain their assistance in the explanation of such pieces as they have been most acquainted with. And, in general, my request has been complied with, from the generous motive of making the book as generally useful as possible." Thus, the most fashionable furniture of the day appears in Sheraton's books. In his early publications the designs are chiefly in the Louis XVI style, while in his *Cabinet Dictionary*, published in 1803 and *Cabinet-Maker, Upholsterer and General Artist's Encyclopaedia*, published in 1804-06, the Empire style appears in full glory.

He is particularly fond of carving and gives many graceful designs and motives for the splats and banisters of chairs and the posts of beds. He is also extremely fond of inlaid furniture and painted furniture and liked the new fashion of inlaying with brass. Satinwood he greatly admired, especially of a fine straw color, and thought zebra wood and tulip wood beautiful for cross-banding. His drawing-room furniture was of white and gold, painted and japanned, of satinwood or of rosewood. Mahogany he used only for dining-room, bedroom and library furniture and for chairs with carved and open backs. A typical chair of Sheraton's early period appears in Fig. 8. Here we have one of his favorite square backs, the two central posts forming a round arch, the square top of which rises above the top rail of the chair. The slender, delicate and elegant urn of the Louis XVI period is surmounted by three feathers, and is carved with graceful drapery in low relief. A chair of a later period appears in Fig. 9. Here we see the square lattice-work back, the reeded legs and the twisted stumps that support the arms. The patera, or rosette, hides the joining of the side posts and back and the legs in the front. Diagonal stretchers connect the legs. Of still later period is the chair Fig. 10. This is much in the style of what he calls the Herculaneum, intended for "rooms fitted up in the antique taste." He also recommends them for music-rooms.



Fig. 11—A shield-back chair sold for \$330



Fig. 12—A dining table sold for \$600

The secretary and bookcase was, as a rule, somewhat smaller than during the days of Chippendale; but the glass doors, of which so many varieties appear in Chippendale's book, still remained in fashion. A good example appears in Fig. 13, which needs no description except to say that Sheraton would flute green silk behind the glass doors. One of the central drawers is missing. Another mahogany desk and bookcase appears in Fig. 15. This is built on concave curves, as are also the glass doors of the upper part. The lower part contains a slide, which, when pulled out, forms a desk, beneath which is a drawer, then a cupboard and below this a second drawer. This piece is also in the Sheraton style. A mixture of styles appears in Fig. 14. The model for this is the old Dutch cupboard in two parts; the ogee foot and the framework for the glass suggest Chippendale, the fluted sides Sheraton and the "swan-necked" pediment with its pedestal for a bust, or piece of china, a still earlier period.

The extension dining-table did not come into existence

will admit of eight persons, one only at each end and three on each side. By the addition of another bed, twelve, with four times the room in the center for dishes. The accompanying illustration, Fig. 3, is a table of this period, each pillar ending in three claws. For the further support of the central leaf a horse has been added; but, of course, has nothing to do with the original design. When the central leaf is not needed the two halves, supported by the pillar and claw, if put together form a round table, and they can also be used to form separate pier tables, and placed against the wall in the dining-room.

Although the cellaret sideboard and sideboard with drawers, which became fashionable under Heppelwhite, were still more developed by Sheraton in his early period, in his late period he returns to the old "sideboard table" without drawers. Beneath it stood the cellaret, or wine cooler, also called by Sheraton a wine cistern. These were generally in the form of a sarcophagus and "are adapted to stand under a sideboard, some of which have covers and

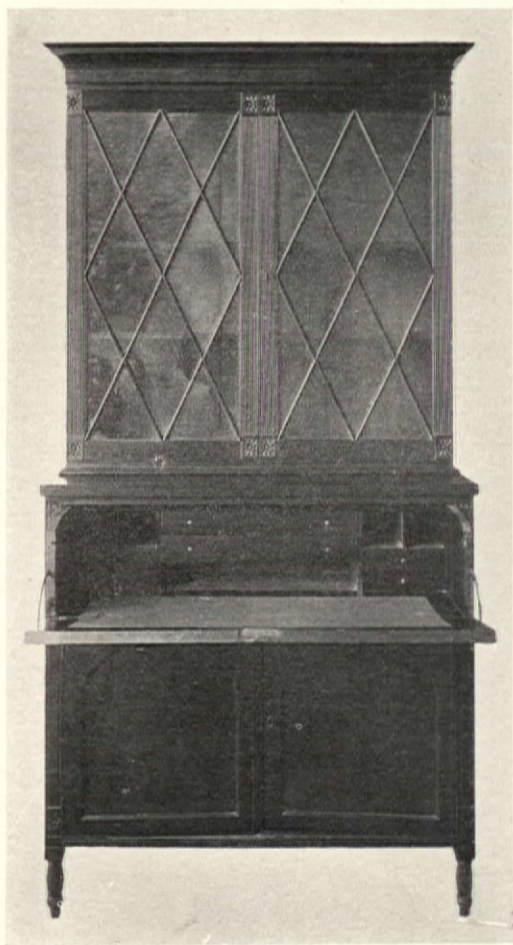


Fig. 13—A secretary



Fig. 14—A china cabinet

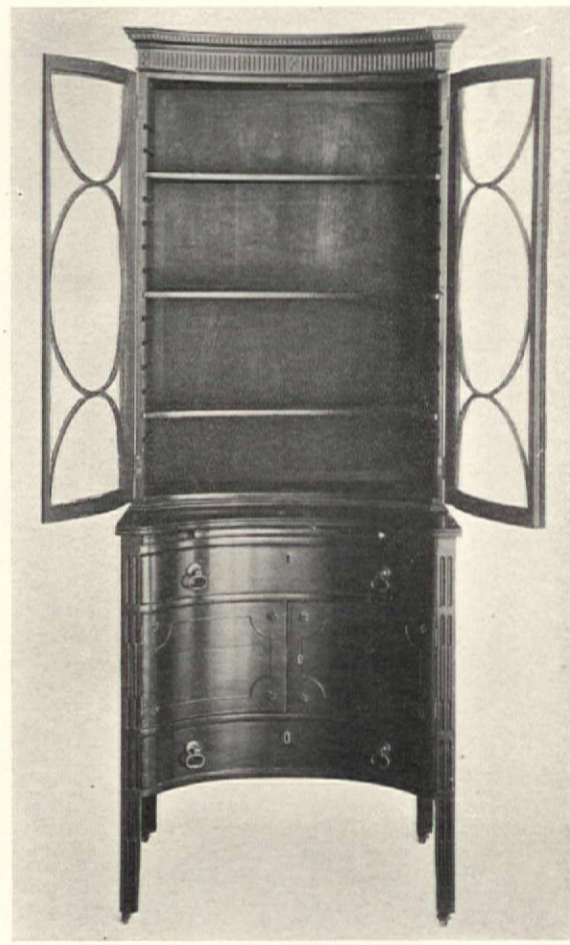


Fig. 15—A desk and bookcase

until 1800, when Richard Gillow, a cabinet-maker in Oxford street, invented the telescopic table which, with its various changes, is the table in use to-day. Gillow's table is described as "an improvement in the method of constructing dining and other tables calculated to reduce the number of legs, pillars and claws and to facilitate and render easy their enlargement and reduction."

Sheraton's ideas of the dining-table are best understood by a reference to his book: "The common useful dining-tables are upon pillars and claws, generally four claws to each pillar, with brass casters. A dining-table of this kind may be made to any size by having a sufficient quantity of pillar and claw parts, for between each of these there is a loose flap, fixed by means of iron straps and buttons, so that they are easily taken off and put aside; and the beds may be joined to each other with brass straps or fork fastenings.

The sizes of dining-tables for certain numbers may easily be calculated by allowing two feet to each person sitting at table; less than this cannot with comfort be dispensed with. A table six feet by three, on a pillar and claw,

others without." A mahogany cellaret of the heavy Empire period appears in Fig. 4. The cellaret is always lined with lead and sometimes partitioned for wine bottles. Sheraton preferred them hooped with brass and with brass rings at the sides.

The cornucopia appears on the sofa, Fig. 1, which also shows the influence of the Empire. This design is used to form the arm, above which on the top rail of the back is carved a dolphin. An animal's claw with leaves suggests faintly the wing of the Assyrian lion. The ends of the rolled cushions are carved in leafy rosettes.

Another Empire piece is the clock case, Fig 2. The dial and works were made by George Prior of London between 1809 and 1811, and the case is of the same date. Although the upper portion slightly suggests the turned-up roof of the Chinese pagoda, the general heaviness and clumsiness belong to the Empire period.

The illustrations of this article are of the Thomas Clarke Collection, which was recently sold at the American Art Galleries.





## Suggestions for Easter Tables

### Jack Horner Pies and Favors

By May L. Schryver

Photographs by Helen D. Van Eaton



THE attractiveness of every table, whether set for luncheons, dinners, or parties, may be increased by the addition of timely centerpieces and favors, and the enjoyment of such an occasion is sure to be greater if the individual favors bespeak in any way the characteristics or pet hobbies of the guests. The clever hostess who realizes this will be able to adapt many of the favors illustrated to her own particular needs. The bunnies, chickens and decorated eggs belong exclusively to the Easter season and provide a wide choice and unlimited possibilities.

If rabbits have been chosen for the decoration of the Easter table, one need not consider whether or not the design in mind may be found. The favor shops supply every variety from the flat, fuzzy white ones, which sell at thirty cents a dozen for the smallest size, up to those of brown and white papier mache in all sizes, from five cents each to the full life-size bunny at eighty cents. They may be had, also, in every conceivable attitude and costume. The bunny chums, with their basket of candy eggs, are a solemn little pair who would delight the heart of any child and be welcomed by adults also. The eggs may be white sugar decorated with candy flowers, or eggshells filled with maple sugar. Their bugler brother is a sturdy figure who will do service as a bonbon box and also allow the band of his cap to be used as a place card. Another dressed figure carries a basket of wee, yellow chicks for an Easter gift, and it is a safe assumption that the child who receives the

basketful is provided with amusement for a week at least.

The fuzzy, white rabbits are the surest ally, if children are to be entertained, for the soft, white bodies and pink ears are certain to delight them. The little fellows with jointed "hands" and feet are very adaptable. Those in the illustrations may be bought by the dozen and used with other trifles, such as the automobile for the guest who motors, or the harp or banjo for those whose tastes are musical. They may be used either for bonbon box decorations, or for place cards.

If chickens, or chickens and rabbits combined, are decided upon, the result will be most attractive, for the yellow chickens will brighten the table surprisingly. These may also be had in numerous sizes at ten cents or over per dozen, and may be used in quite as many ways as the rabbits. Two or three placed in natural positions on top of a bonbon box are a sufficient decoration, and one alone on the corner of a place card will make it a fit companion piece. The one shown in the illustration is rather a hapless little fellow caught in a gilded toaster with a place card dangling from the end.

A simple centerpiece for a children's party table has a nest of clean hay or straw for a foundation. Upon it is placed a hen made from a flat piece of cardboard cut in the proper shape. The sides are padded out slightly with cotton and covered with smooth paper. Upon this are pasted the crêpe paper feathers, beginning with the tail and overlapping them in irregular rows toward the head. Before the head is covered, a comb made of red flannel should



These favors can be bought by the dozen and arranged to suit the occasion



These favors are made from a group of articles purchased from a toy shop



A beehive made of crêpe paper and ornamented with flowers



A rooster with a mail-bag made of crêpe paper containing Easter favors



A Jack Horner egg made of crêpe paper and cotton batting

be glued in place and the bill gilded. When the feathers are on, the eyes, made of round bits of yellow paper with ink spots in the center, may be put on.

In the same way a rooster can be made for carrying mail-bags containing Easter favors. These mail-bags may be made of buckram, in the shape of an egg which has been cut lengthwise through the middle. The top should be left open, after the manner of a wall-pocket, and the outside covered with crêpe paper. A tiny chick for each guest is attached to the ends of the favor ribbons hanging from the mail-bags. The tail feathers should be made double, with a wire between the layers, so that they may be easily curved into shape.

The egg Jack Horner is very easily made by covering an egg-shaped wire frame with crêpe paper or cotton batting. The frame is supported by four large bunnies, and chicks are attached to the ends of the favor ribbons.

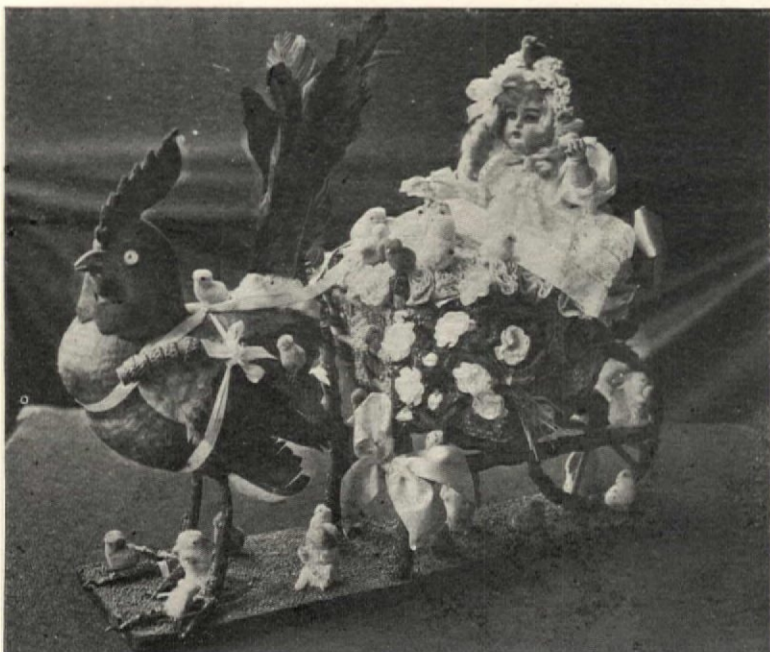
A discarded toy cart decorated with flowers and colored paper or ribbon is the foundation for the chariot. It is drawn by a home-made chick, and driven by a little girl doll. If the chariot is made from a large cart, it will serve as a Jack Horner Pie, and a very small cart may be used as an individual favor.

An adaptation of "There was an old woman who lived in a shoe" is carried out in the shoe swarming with chicks and

presided over by a distracted hen, also made of flat cardboard and covered with feathers. The block shoe is easily made from buckram. The seams should be overcast together and the whole covered with crêpe paper. Short ladders made of cardboard provide a foothold for the numerous brood.

The little carriage with its doll coachman shows another use for a child's cart. It is filled with leaves and moss and topped with flowers, and the harness is decorated in the same way. A Saturday morning sewing bee may terminate in a luncheon with a beehive centerpiece. The foundation is a frame made of thin pieces of wood nailed together, with a flat board top covered with plain crêpe paper. This material, cut into strips narrow enough to look like grass, is fastened to the posts, and clusters of flowers are used for decoration. For the top of the hive use a shallow, round bandbox of a size in proportion to the base. Around the top fasten a cone of stiff paper and cover with paper rope, beginning at the bottom and winding upward, using a little paste to secure it. The rope may be made by twisting two strips of crêpe paper tightly, and then twisting the two together in the opposite direction. A few artificial bees on the hive will give a realistic touch. Under the hive, place a hen and her brood of chicks.

The accompanying illustrations show three or four ways



A toy cart decorated with flowers



An adaptation of "There was an old woman who lived in a shoe"

of using each article, but to the far-sighted hostess they will serve but as suggestions of the countless effects which may be obtained. The materials which may be used for such work are the cheapest of their kind, as, for instance, cheesecloth, crêpe paper, paper muslin, buckram, cotton batting, mosquito netting, and cardboard. These may all be utilized for different effects, and at different times of the year.

A half-dozen toys, outgrown or forgotten by the children, or selected, at five cents each, from a counter of damaged goods after the holiday season, may be repaired and freshened with glue and paint, and made to take the place of more costly favors at each plate. Often one of these toys is so appropriate for a certain guest that it is scarcely necessary to point out the fitness. An automobile that has been discarded for a locomotive may bear a small basket of almonds before the motor enthusiast; the chafing dish, which the little girl has perhaps forgotten in the joys of

bearing upon the scheme of the entertainment, as, for instance, a cart full of Easter eggs to be distributed at an Easter party. Flowers from summer hats may be used for such decorating, or one may buy inexpensive artificial flowers at the ten-cent stores, or make paper ones.

Baskets, such as the one carried by the chums, will supply the whole basis for a table decoration, and the fresh, unpainted willow will be found very cool and attractive for a spring luncheon. A large one in the center may hold a basin filled with long-stemmed flowers or branches of small green leaves, or it may be used as a Jack Horner pie. A small one at each plate may be filled with nuts or

candy, or oval ice cups of plain white paper may be placed inside and the ices served in them.

If one can procure wire frames, or can make them, as one can do occasionally, she has a most helpful addition to her stock of materials. The Easter bell, the Easter egg, the spring bonnet which is used as a Jack Horner



The chums and their bugler brother



Doll coachman and Bunny steed



Centerpiece of hen and chicks. Chicks to be distributed as favors

a new gas stove, belongs, according to tradition, to the college girl; and the last cup and saucer of a toy tea set may be used, as a warning against spinsterhood, at the plate of an unquestionably popular girl.

Toy carts of all sizes, from a three-inch tin affair to a large express wagon, can be used as often as one finds a superfluous number about the house. The wheels and shafts may be wreathed with flowers, and the body filled with them, unless the load to be carried must have direct

pie, the basket to be filled with flowers, and the beehive may all be made over wire frames. These frames, as sold, are made of stout wire that is not easily crushed out of shape, and they may be kept and used from year to year, as the foundation for Easter decorations. The color and design of the covering may, of course, be changed each year, and the accompanying favors may be so varied as to give the effect of an entirely different arrangement as occasions demand.





## New Suggestions for Darning

By Mabel Tuke Priestman



**N**OWADAYS much needlework is done with the evident intent of putting into it a minimum expenditure of both thought and labor, and the results are obtained by a studied blending of colors and individual treatment of design. Each piece should be a part of the whole and should not stand out asserting its right to be admired. The immense popularity of all forms of darning owes its development to the way in which it adapts itself to all kinds of decorative treatment.

The designs for darning illustrated here mark a distinct development along the lines of simple broad effects, so much desired to-day in all forms of needlework. Most of the designs shown are carried out on gray, hand-woven linen. This comes fifteen inches wide; just the width for sideboard cloths and table runners. The material is most interesting both in weave and color. It is made from natural unbleached flax and varies from light grayish tan to a warm light brown. It is often found in almost silver gray and is one of the most decorative materials for needlework to be obtained. The colors used to ornament this fabric should be soft dull tones of linen floss that harmonize with the natural gray of the linen. Outline and satin stitches are used to define the lines and masses very sharply, but the designs are wrought throughout in a simple darning stitch, taken in short uneven lengths parallel with the woof threads. The fabric is allowed to show through these stitches so that the design has the effect of being an integral part of the material, having almost the appearance of hand-weaving. The charm of this work lies in the shimmering jewel-like effect that is gained by allowing the ground material to show through in broken uneven spacings between the stitches. It is worked in several colors—silver, blue and old rose, charmingly blended with soft, dull greens. There is a suggestion of the wings of a dragon-fly in this beautiful piece of needle craft. When hanging in a window with the light filtering through, the effect is most beautiful.

The other curtain is made of brown homespun linen and is darned in a conventional figure in tobacco brown. The ground color is allowed to show through, giving it a translucent effect that is most decorative.

The linen blotters vary somewhat from the other

pieces in the way they have been treated. The center blotter is outlined in gold cord, couched around the design. The darning is run up and down instead of horizontally, the usual way. It is worked in heavy green with a gold outline on the gray linen. The largest blotter is almost as much blanket stitch as darning, but a very bold effect is given to it by an outline of black silk worked in embroidery stitch. The Tussore silk chair back has an insertion of curtain net matching the ground work of the silk. This is darning in medieval pattern in old gold and is very quaint and somewhat out of the ordinary. The little work bag of linen and silk is done in outline darning in several odd shades. We have seen another design on curtain net which showed a somewhat unique treatment of pillow lace and darning. The cushion was covered with old rose satin and the slip consisted of écru cloth ornamented with pillow lace and darning. All the threads ran horizontally and the ivory silk darning shimmered through the curtain net in a very attractive manner. The design was centered and consisted of a group of roses, one overlapping the other, with a few leaves suggested at the edges.

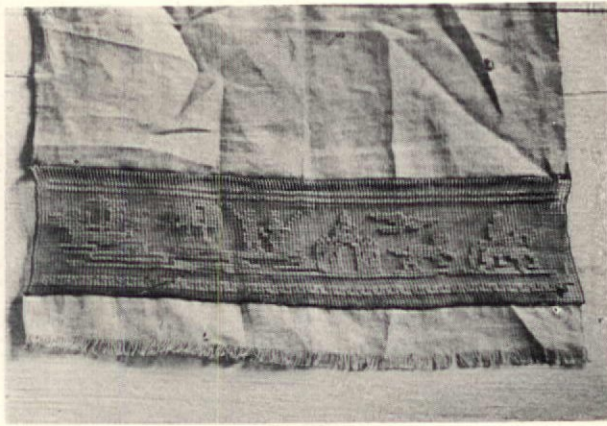
One of the illustrations shows somewhat unique designs. They are made of coarse unbleached linen and the decoration has been impressed with a block print. This is only partly concealed by the darning and has a most unusual and pleasing effect. The chair back in green and old rose is extremely effective. This consists of darning outlined by chain stitch. The dark green lines in the background serve to throw in relief the old rose design. The other designs show a simple treatment for shaving-tidies. One is on ivory ground while the other is almost brown and worked entirely in dark tones. The sort of design suitable for darning

differs considerably from all other kinds. In order to get broad, flat masses which go to bring about the right results, an individual treatment is necessary. At the present time table runners are the latest cry in up-to-date needlework, and naturally a border treatment at either end is the most suitable. Sometimes this is run entirely across, about six inches from each end and with a line at the top and bottom.

The designs are usually based upon conventionalized plant or insect motifs, but a good many are geometrical in their formation. Satin stitch and outline are used to define the lines and masses very sharply, but



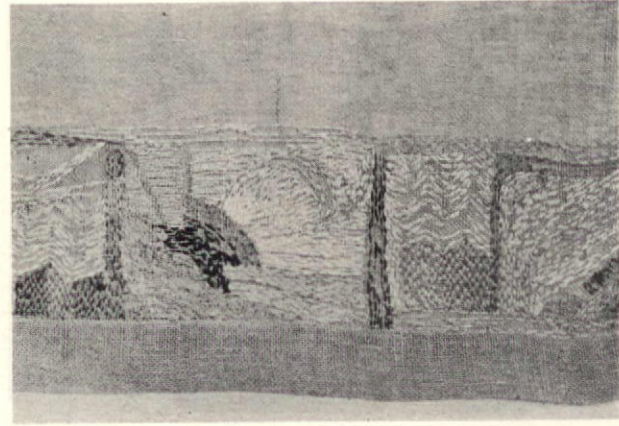
Some dainty workbags ornamented by darning



A border of Japanese effect



A working bag



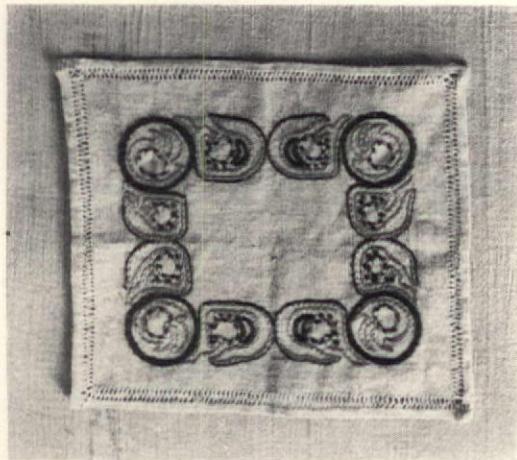
A border of jewel-like effect

the designs themselves are worked in short darning stitch parallel with the woof threads.

A very beautiful table runner consists of a dragon-fly design. The upper and lower border lines are darned in a brilliant blue floss interspersed with uneven threads of green. The legs of the insect are worked in green and the body in art stitch in both blue and green. The eyes and wings are

effect and is significant of the exquisite coloring used in darning craft.

When the design does not run right across the end, a very effective treatment is to outline the whole runner or sideboard cloth with hemstitch an inch and a-half at the sides and at least three inches wide at the ends. The design would look well with an upward growth of conventionalized



Block printing is an important adjunct to decorative darning



A cover for a stand, with a darned border



Table cloth with a decorative center for a small stand

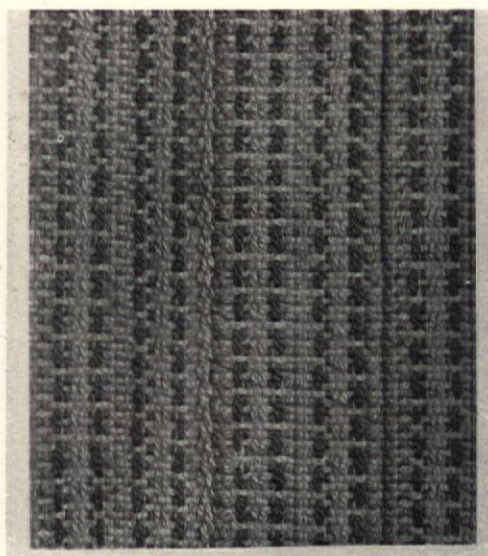
both composed of threads of green with a little blue introduced. The veinings of the wings are blue and green floss run alternately, with touches of old rose darned in the lower spaces of the lower part of the wing. The mixture of old rose, blue, and green, gives the effect of old Persian embroidery, and the sparkle given by the showing of the ground work through the uneven spaces left by the threads is wonderfully effective. Such a border has an almost jewel-like

flowers and a few running lines to support it below, and tulips, poinsettis, crabapples, or water lilies are all suitable.

Pure white is very effective on a creamy ground. Some people prefer white to using colors for table use. The round table center is always popular and lends itself to darning; the edge may be finished with a hand-made lace, or a tiny rolled hem on the upper side of the material, which is known as a peasant roll.



Brown homespun linen is darned with brown; the design is conventional and effective



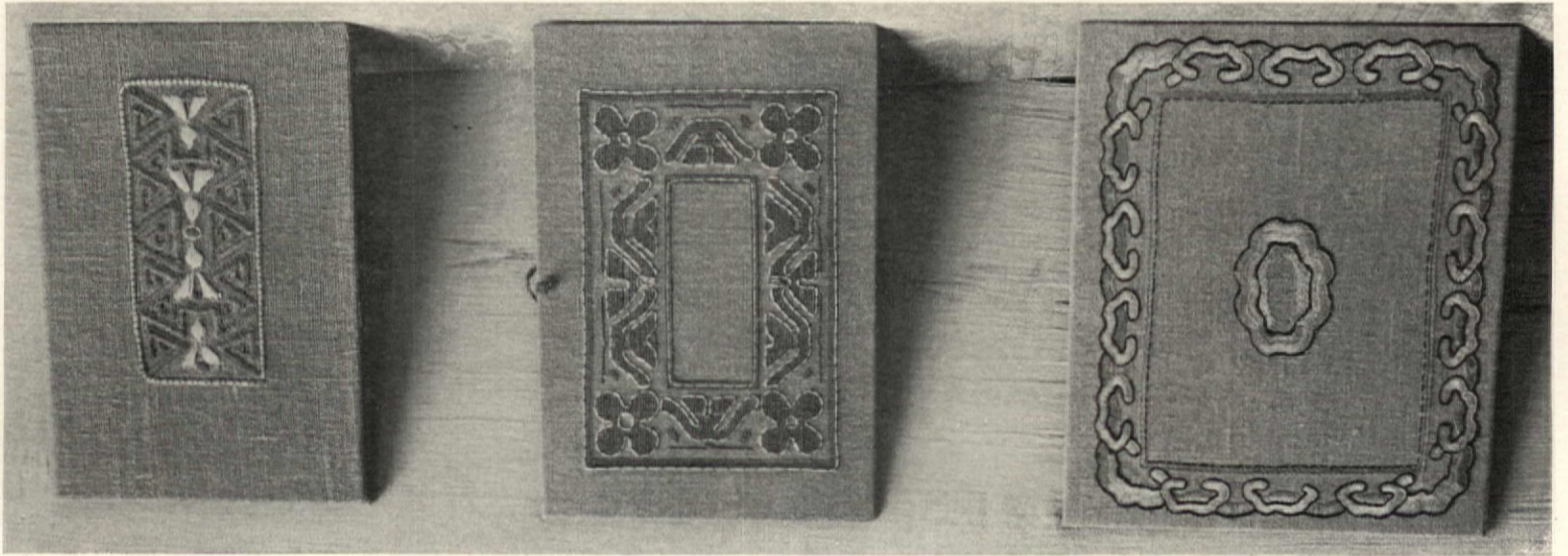
Ivory Java canvas darned with three shades of delft blue



An original treatment of darning. The loops are allowed to appear on the surface

Huckaback toweling is a delightful material to darn on as the weave is loose and the needle can be run on the surface, catching up every other group of threads. This method

two groups of threads makes the surface of interest. Our illustration shows ivory huckaback with stitches of three shades of delft blue. A departure from darning



Linen blotters and all kinds of little things can be ornamented by darning

of darning can be done very rapidly. Huckaback has become so popular for darning uses that it can now be obtained in soft pastel shades for men's waistcoats, and écru, gray, and pale green as well as ivory are seen at fancy needlework stores. It is not necessary to have a design, for the fact of varying the length of the stitch by skipping one or

is allowable, as featherboning and cross stitch look well with it.

Exquisite bits of coloring, original designs and a variety of uses make darning one of the most effective needle crafts, requiring little time and skill, but a good deal of artistic perception to gain the desired results.

## Big Fir Trees of the Northwest



THE fir trees of the Pacific Northwest occasionally attain such proportions, especially in the territory near Puget Sound, that the stumps after the trees have been cut down are employed for novel purposes. In some portions of Washington one can see these huge stumps, which have been

hollowed out and actually made into temporary homes for settlers. To make a stump house, it is only necessary to remove the material from the interior, leaving enough to form walls of suitable thickness. Then a roof of boards or shingles is put over the top of the stump, holes are cut for windows and doors, and the dwelling is practically ready for occupation. A number of these stumps have been used by settlers on what are called logged-off lands, until they have been enabled

to construct larger and more convenient dwellings. After the stump home has been vacated, it is turned into a stable for the horses, or sometimes into an inclosure for chickens or hogs.

Next to the big tree of California, or sequoia as it is termed by the scientists, the fir as found in Washington and Oregon has the largest diameter of any tree in America, and probably in the world. Some have been cut down



Stump of fir tree in Washington which shelters a family of five

which actually measured 15 feet in diameter at the point where the incision was made. As they decay very rapidly after the timber has been removed, usually the interior can be hollowed out with little difficulty. Sometimes they are used for dancing platforms. Another custom is to turn the big stumps into playgrounds for the children, who reach the top by pieces of wood nailed against the sides or by ladders, the latter being easier of use.

# The Japanese Garden in America

By Phoebe Westcott Humphreys



THE ever-increasing demand for novelty in the ornamenting of country-seats has of late years led to pleasing results in the reproduction of the best types of Oriental gardens. Less than a decade ago an authority on landscape gardening lamented the fact that Americans are slow in appreciating the true art of gardening in regard to the idea of fitness and harmony in details, as evidenced by Japanese landscape artists; and the statement was then made, that while there have been a few attempts at copying Japanese methods, there is not a genuine Japanese garden, constructed upon true Oriental principles, to be found upon any of our noted American country-seats. Now, all this has changed. Within the past few years many famous gardens have been constructed by competent Japanese craftsmen, who have given their entire lives to the study of the religious and symbolic, as well as the picturesque features of landscape gardening, and who have carried out with painstaking care upon Occidental acres the artistic details that have made Oriental gardens of world-wide fame.

The study of Japanese manners and customs, of home decorations and gardening features, first became of prominent interest in this country in connection with the early world's fair. The Chicago fair of 1893 presented one of its most charming features in the form of a complete Japanese village, constructed and ornamented with regard to all the traditional details for which our Eastern neighbors are famous. Japanese villages then became the fad, not only for later "fairs," but Japanese tea-rooms and Japanese gardens on an elaborate scale were built as side attractions at famous summer resorts; and an increasing interest in the quaint stone lanterns, the curiously dwarfed trees, the winding rock-bound waterways crossed by novel bridges, and all the significant details of garden accessories associated with traditional and legendary lore of the Japanese attracted the attention of owners of splendid country-seats, who speedily demanded the services of Oriental landscape artists to thus decorate a portion of their extensive acres.

In some instances, of late, Japanese gardens have been transplanted bodily from a summer resort (where they have flourished for a time and then

became unprofitable) to decorate a home-garden of an enthusiastic nature student, as in the case of the quaint and charming bit of old Japan now owned by Mr. Matthias Homer. In other instances, the owners of still more extensive acres have not only employed famous Japanese artists to lay out ideal gardens, but they have themselves become interested in importing the dwarfed and curiously stunted and gnarled old trees direct from the mother country to decorate their unique gardens. Mr. Charles Pilling was one of the first to follow this fad, and the century-old pines, and many novel plants and trees measuring only a foot or two in height and numbering their years by centuries, now decorate his Japanese garden nook imported by himself. Again, the owners of extensive country-seats have given all the details of importing the paraphernalia and the construction of their Oriental gardens to the care of the Japanese craftsmen who excel in this work, while taking an intense personal interest in all the details of their new possessions, growing from year to year, like the garden of Mr. Louis Burk, in which he has watched the tedious process of construction for three years or more with ever-increasing delight (though not taking any direct part in its construction) and who is now planning to greatly increase its area. There is a fourth class who own wonderful Japanese gardens, who look upon them simply as an additional attraction for decorating a portion of their ample areas, and after being assured that the garden building is under the supervision

of a practical Japanese artist, who will "do the thing up right," they give no further concern to this than they do to the Italian gardens and other formal gardens that are appropriately placed on various secluded portions of their grounds. But no matter what the object that influenced the owner to include Japanese gardening in decorating his home grounds, the interest thus evidenced has grown until many are becoming familiar with the true art of gardening in Japan.

There is still another class of enthusiasts upon this subject who have attempted to build their own Oriental gardens, fashioned after those that they have studied on their travels in Japan, or by studying the models already established in this country; but in every instance it is noted that such gardens fail to be successful unless one understands the seemingly endless details that govern true Oriental gardening. It is



Dwarf trees and water-worn rocks cover the little islands

safer if one would have it constructed on correct lines, to give the building of even the tiniest Japanese garden into the care of a native craftsman.

The American-Japanese gardens, which present interesting studies in various sections of the country to-day, almost invariably include numerous flowers with their manifold ornamental accessories—the Japanese azaleas, the dwarfed plum trees and many novel water plants being the prime favorites; but travelers in Japan frequently note the fact that the native gardens are not necessarily flower gardens, neither are they always made for the purpose of cultivating plants. In nine cases out of ten there is nothing in the smaller plots to resemble a flower-bed. Some gardens may contain merely a sprig of green; some (although these are exceptional) have nothing green at all, and consist entirely of rocks, pebbles and sand. Neither does the Japanese garden require any fixed allowance of space; it may cover one or many acres; it may be only ten feet square; it may, in extreme cases, be much less, and be contained in a curiously shaped, shallow, carved box set on a veranda, in which are created tiny hills, microscopic ponds and rivulets spanned by tiny humped bridges, while queer, wee plants represent trees, and curiously formed pebbles stand for rocks. But on whatever scale, all true Japanese gardening is landscape gardening; that is, it is a living model of an actual Japanese landscape.

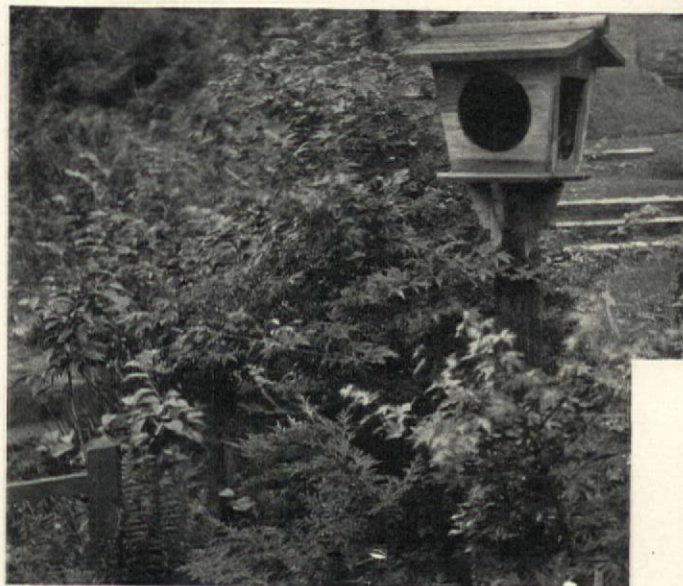
It is an exceptional privilege to study at first-hand the significance of all the details that go to make up the true Japanese gardens, which have now become the fad in this country. I have been informed by an excellent authority on the subject that "through long accumulation of traditional methods, the representation of natural features in a garden model has come to be a highly conventional expression, like all Japanese art; and the Japanese garden bears somewhat the same relation to an actual landscape that a painting of a view of Fuji-yama by the wonderful Hokusai does to the actual scene—it is a representation based upon actual and natural forms, but so modified to accord with accepted canons of Japanese art, so full of mysterious symbolism only to be understood by the initiated, so expressed, in a word, in terms of the national artistic conventions, that it costs the Western mind long study to learn to appreciate its full beauty and significance.

"Suppose, to take a specific example, that in the actual landscape upon which the Japanese gardener chose to model his design, a pine tree grew upon the side of a hill. Upon the side of a corresponding artificial hill in his garden he would, therefore, plant a pine, but he would not clip and trim its branches to imitate the shape of the original, but, rather, satisfied that by so placing it he had gone far enough toward the imitation of Nature, he would clip his garden pine to make it correspond as closely as circumstances might permit, with a conventional ideal pine tree shape, as though buffeted and gnarled by the fierce winds of centuries."

These native craftsmen will also assure the owners of the gardens they are constructing that there are ideal shapes not only for the



Stepping-stones for stairs



Wooden lantern and Japanese maples



A favorite type of stone bridge



A



An exquisit

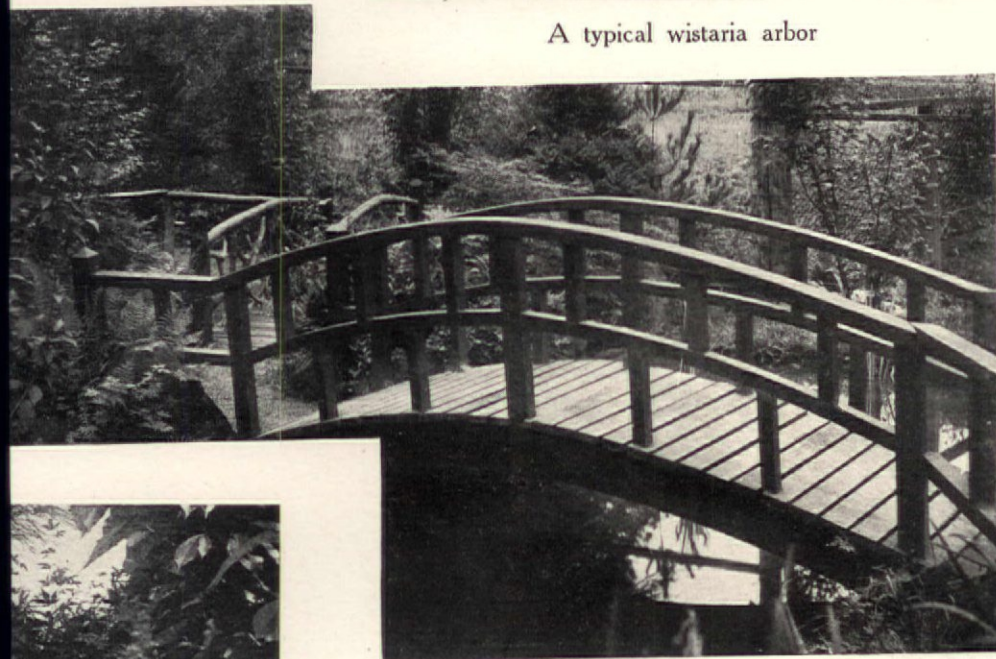




idge



A typical wisteria arbor



A plain type of wooden bridge



cluded spot



Guards at the entrance

pinus, but also for the mountains, lakes, waterfalls, stones, and numerous other accessories; and it is of the utmost importance that the gardener should take cognizance of a multitude of religious and ethical conventions in working out his design. They call attention to the fact that the streams must follow certain cardinal directions, that the nine spirits of the Buddhist pantheon must be symbolized in the number and disposition of the principal rocks. That the trees and stones must be carefully studied as to their relations to each other and to the general garden scheme, and only such combinations made as are regarded as "fortunate." And woe to the unhappy gardener who does not carefully study their symbolic relations and who carelessly introduces what is considered an unlucky combination.

So conscientious are the Oriental garden builders that they give the same care in regard to symbolic details to their "foreign" landscape construction on American country-seats, as in their native country. No matter what the size, form or finish—whether it is large or small, mountainous or flat, rough or elaborate—the true landscape garden must be made to contain, in some form, rocks and water and vegetation, in connection with various architectural accessories in the form of indispensable lanterns, bridges and stepping-stones, while, in the more elaborate gardens are introduced pagodas, water-basins, tea-houses, boundary fences, or hedges of bamboo, and fancifully roofed gateways.

The careful distribution of garden vegetation is considered quite as important as the arrangement of the principal rocks and stones and the contours of land and water. The Eastern travelers who have taken cognizance only of the grounds of the larger temples of Japan will probably fail to realize the significance of tree grouping in regulation landscape gardening. In the temple gardens, groves and avenues of trees are frequently planted in rows, with the same formality adopted in Western gardens, while in the true landscape gardens such formal arrangements are never resorted to. Not only are the trees arranged in open and irregular groups instead of being planted in rows—when several are planted together—but the rules for planting these clumps or groups are rigidly determined. To the uninitiated it is difficult to understand just why these tree clumps must be disposed in double, triple or quadruple combinations, while these combinations may be again regrouped according to recognized rules based upon contrasts of form, line and color of foliage; but all these rules are understood and most carefully adhered to by the student of Japanese garden craft. And it is found on comparing the grouping of tiny dwarfed trees of miniature gardens with the arrangement in larger spaces, that the same rules have been followed.

The disposition and the use of the various architectural accessories of the garden is also formally regulated, and the variety in garden building is found mainly in the form of these accessories, as the pagodas, lanterns, water-basins, wells and bridges are fashioned in many curious and beautiful designs, while the enclo-



A garden gateway



A rare Japanese dwarf tree



An ancient knotted pine tree



An antique Japanese lantern

tures on the form of unique fencing of reeds, bamboo and twigs present many pleasing forms and combinations.

The famous Japanese landscape gardens that have been established on American country-seats have been sufficiently large to give a fairly good idea of Oriental landscape gardening on an extensive scale, and yet there is no reason why the owners of city homes with small backyards enclosed by ugly, high board-fences should not have them transformed by a bit of Japanese magic. Professor Morse tells, in his talks on the Japanese, of how they utilize the smallest areas of ground for garden effects. "I recall an example," he says, "of a cheap inn, where I was forced to take a meal or go hungry until late at night. The immediate surroundings indicated poverty, the house itself being poorly furnished, the mats hard and uneven, and the attendants very cheaply dressed. In the room where our meal was served there was a circular window through which could be seen a curious stone lantern and a pine tree, the branches of which stretched across the opening, while beyond, a fine view of some high mountains was to be had. From where we sat on the mats there were all the evidences of a fine garden outside; and wondering how so poor a house could sustain so fine a garden, I went to the window to investigate. What was my surprise to find that the extent of ground from which the lantern and pine tree sprung was just three feet in width! Then came a low, board-fence, and beyond this stretched the rice-fields of a neighboring farmer. At home such a strip of land would, in all likelihood, have been the receptacle for broken glass and tin-cans and a thoroughfare for erratic cats; here, however, everything was clean and neat—and this narrow plot of ground, good for no other purpose, had been utilized solely for the benefit of the room within."

There is no reason why the smallest of these backyard gardens should lack any of the indispensable accessories, for all may be reproduced on a miniature scale. In fact, a great

majority of city homes in Japan have very little more scope for their gardening than that contained in the brick-paved or cemented space back of the average city homes of America; and yet travelers in Japan, who have had access to private dwelling-places in the cities, as well as to the public inns, tell of wonderful "toy-gardens" in which nothing is lacking in Oriental completeness—there is a little artificial lake of pellucid brightness, a little artificial waterfall fit for a naiad's fountain, both fed by a little sandy-bottomed brook or conduit of clear, spring water; a cluster of little islands (one of them, perhaps, shaped like a tortoise) affording opportunities for impossible quaint little stone bridges, circle-backed, horseshoe-backed, or flat slabs of pretentious size, and every member of the cluster with its little stone pagoda, its quaint daimio-lantern, its toy shrine, or the fantastic bits of rock for which the Japanese pay such extravagant prices.

On the artificial promontories will stand maples—plain maples, copper maples, pink maples, variegated maples—all within the fine splintery-leaf of the Japanese maples, trained into whimsical shapes, though not so whimsical as the fir trees (*matsuji*) which rival the box-hedge peacocks and other armorial bearings in old English baronial gardens. In the garden of the "Golden Pavilion" (*Kinkakuji*) at Kyoto, there is a fir tree tortured into the similitude of a junk in full sail; and every tiny garden will display some strikingly unique form of twisted and stunted pine tree. Where the stream runs into a little lake, there will be a bed of stately purple iris, and built out into it on piles, or spanning a narrow arm as a covered bridge, a wistaria arbor, with long, purple blooms reaching down to the water in the springtime. The wild wistaria, which grows profusely in Japan, is one of the favorite garden flowers, and it is one that should figure prominently in the city gardens of this country, one that would give constant delight.



Symbolical rocks are as important as lanterns in the Japanese garden



# HANDICRAFTSMAN

Conducted by A. Russell Bond

## Home-Made Pottery—III

By W. P. Jervis

Illustrations by E. M. Harlow



THE decoration of pottery by means of colored clays is capable of so much variety and yields such easy harmonies in color as to immediately commend itself to the worker in the studio. From time to time new methods of application have been found, the faience of Haviland, Rockwood pottery, Moorcroft's Florian and the charming creations in *pâte-sur-pâte* by Solon and others, which have been hailed as something new, but the prototype of them all is the old slip painting of the Romans and of the medieval English potter.

The condition of the clay piece to be decorated is most important. It should be just hard enough to enable you to handle it carefully without putting it out of shape. If used any harder than this the colored slips used in its decoration will peel off in the firing. It is essential to success to keep it in this condition until completely finished. This may be done by wrapping in damp cloths when not in use, or better by keeping it in a "damp box." This can easily be constructed with very little trouble or expense by taking a box, driving in on both bottom and sides small nails or tinned tacks, leaving the heads projecting. Cover both bottom and sides with plaster of Paris, from one to one and a half inches thick according to size of box, for which the projecting nails form an anchorage. Treat the cover in the same way and as soon as the plaster is set your box is ready for use and needs only an occasional sprinkling with water to keep the plaster moist.

The colored slips are prepared by mixing certain proportions of metallic oxides or underglaze colors with white clay, and must shrink during the firing in equal ratio with the body. The first requisite is a white base, which can be compounded as follows:

Ball Clay	33	parts
China Clay	28½	parts
Flint	14	parts
Cornish Stone	19½	parts
Feldspar	5	parts
	100	parts

This will mature at cone 1, as low a heat as is desirable to use to insure the ware holding water. When this has been prepared and lawned, dry it out on plaster bats

or in molds, so that it can be accurately weighed. Before trying to decorate any pieces it is best to make trials of the colors you intend using, so that the effect of both the glaze and the firing on them may be accurately judged.

In preparing colored slips, first grind the colorant in a stone mortar and add it in the proportions given to the white clay, and stir thoroughly so as to obtain an intimate mix. Pass through a 120 mesh lawn and any residue remaining on the lawn must be again ground in the mortar so that the whole will pass through the lawn. Leave it to settle, until after pouring off the water you have a slip of about the consistency of cream, and it is then ready for use.

Coloring matter is added in the following proportions:

1. Dark blue . . . 15 parts white clay, 1 part oxide of cobalt
2. Peacock blue . . 25 parts white clay, 1 part oxide of cobalt
3. Light blue . . . 35 parts white clay, 1 part oxide of cobalt

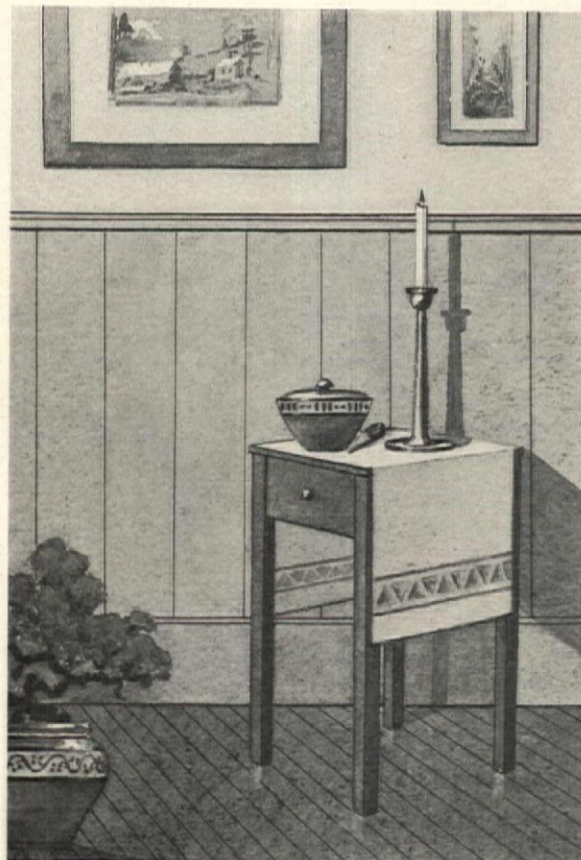
The cobalt cannot be too finely ground, as otherwise it will show in flecks of darker color, occasionally not an objection for grounds. The only remedy is to grind and lawn again. These three blues can all be improved by slightly reducing the quantity of cobalt and about doubling the difference with underglaze peacock and mat blue, according to tint required. No. 1, for instance, is considerably improved by adding green and mat blue as follows:

4. Dark blue, 25 parts white, 1¼ parts oxide of cobalt, ¼ part French green, ½ part mat blue. Greens can be formed from either oxide of copper or chrome:
5. Chrome green, 7½ parts white clay, 1 part oxide of chrome.
6. Blue green, 8 parts white clay, ¾ part oxide of chrome, ¼ part oxide of cobalt.
7. Pearl green, 20 parts white clay, ½ part oxide of chrome, ¼ part peacock blue, ¼ part mat blue.
8. Copper green, 20 parts white clay, ¼ part oxide of copper.

Oxide of chrome cannot be mixed with brown, yellow or orange, and any attempt to do so will result in failure.

The brush, also, must be kept perfectly clean.

9. Black, 15 parts white clay, 1 part underglaze black.



Suggestion for a flower pot, tobacco jar, and a candlestick

10. Chocolate brown, 10 parts white clay,  $\frac{3}{4}$  part underglaze golden brown,  $\frac{1}{4}$  part part underglaze black.  
 11. Red brown, 10 parts white clay, 1 part underglaze golden brown.

Hancock's Worcester black is the safest to use.

12. Fawn, 20 parts white clay,  $\frac{1}{4}$  part black oxide of manganese.

Darker tints by increasing the manganese.

This palette is sufficiently large for general purposes, and is capable of considerable extension.

These slips will agree in shrinkage with the red clay previously mentioned, but as these red clays vary considerably it would, perhaps, be best to make the ware itself of the same white clay as the slips are formed from.

For your trials of color make a tile about eight inches long on which paint strokes of all your colors, numbering them to correspond with the formula for the same. At the same time it will give an added interest if you make a few small pieces, either square tiles or vases, of very simple design not more ornate than those suggested here. A little trouble taken now will save a good deal of time later on. The slips for painting should be soft enough to be easily worked on the palette with the brush.

Use flat sable brushes for the larger spaces, and pointed ones for lines or small spaces. With the end of the brush lift up from the palette as much color as you can, apply it to the desired spot and smooth it down with the tip, not the side, of the brush. If the result is not sufficiently thick allow it to set and then apply a second coat. The color should be distinctly raised from the surface. The brush soon clogs with color and must be frequently rinsed out in water. One color can be superimposed on another, light on dark or dark on light, and will kill, not mix with, the color beneath. A light color on a dark one is a good test as to whether you have attained the desired strength, and only after the glaze is fired can you be sure of this. We repeat that the great desideratum in this slip painting is that the color must be thick enough to form a clay body of itself and be evenly applied, whether in one mass or in a number of successive coats.

If you desire to cover first the whole piece with a ground, this can be done in several ways. The best and quickest is by dipping. A sufficient quantity of the desired color must be prepared so that the whole piece can be immersed in it.

To do this successfully is rather a delicate operation, but with a little practice can soon be successfully accomplished. The manner of handling depends much on the shape. If by putting one hand inside and spreading out the fingers you can easily lift it up and down, it is a simple matter to immerse it in the colored slip. Let the immersion and withdrawal be done

as quickly as possible, being careful not to allow any of the slip to get inside the piece, for it may cause the piece to collapse. Have ready a plaster bat on which to place it and leave it there until it hardens so that by touch-

ing it you do not disturb the color. If it happens that the slip has not quite reached the top it is practical to take the plaster bat in one hand, reverse it, and dip the top in the slip, as the color will give sufficient adhesion to allow the piece to be inserted. But this can only be done when the bat is small enough to be held in the outstretched fingers. Wide-mouthed pieces require the use of both hands, two fingers of each hand being placed directly inside, while a little pressure can be brought to bear against the resisting slip by the thumbs and little fingers resting on the edge. Practice holding the piece until you feel you can safely lift it up and down before dipping in the slip.

You can obtain very nice streaks or runnings of other colors by placing on the ground slip small

quantities of other colors, which should be floated on so as to rest on the top; on withdrawal these colors will attach themselves to the piece. Always be sure the slip is well stirred or the edge of the piece will be thin. A ground can also be put on with a brush or small sponge, the latter giving a granulated surface, often very effective. In both cases care must be taken to have a good body of color all over. There is another way in which a ground can be applied as follows: Before casting the ware fill the mold with a colored slip, allow it to remain there until there is about one-sixteenth of an inch adhering to the sides of the mold, empty it out and so soon as it is a little dry complete the casting with ordinary clay. The objection to this is that unless the mold is very perfectly made, the piece may very easily be marred while being trimmed.

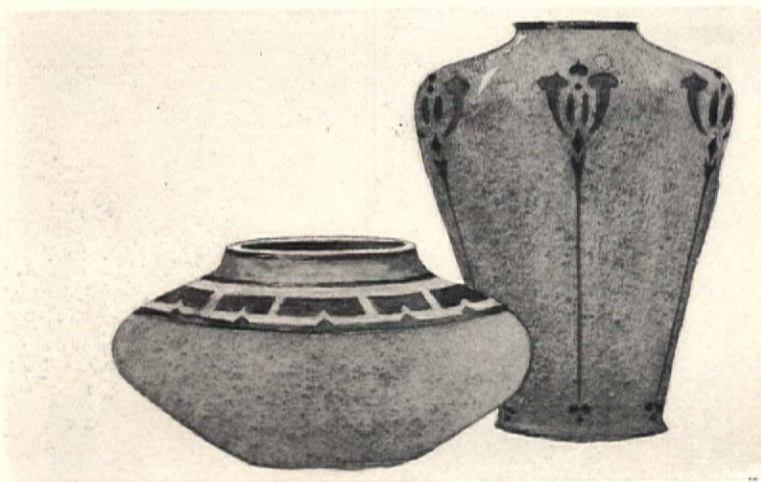
From the simple experiments and trials here indicated the way has been paved for more important work. We urge the adoption of a conventional rather than a natural style of decoration. You may attain distinction in the one,

it is not possible in the other, for pottery is not a material to *paint* on, whilst it is pre-eminently suitable for decoration. One more word: Try to make shapes for a purpose. If for flowers they should suggest almost at sight the particular class for which they are intended. Jugs should be wide enough to allow of easy cleaning, should pour well, and the handle must be so placed as to balance perfectly; candlesticks firm at the base, the nozzle the proper size and large enough to catch the running

wax; tobacco jars wide enough to allow the pipe to be easily filled, and so on. The useless vase of our grandmothers is no longer tolerated. To-day we demand articles of utility which shall also satisfy our aesthetic feelings. The illustration shows how well these slip-painted pieces adapt themselves to the surroundings of an ordinary room.



Designs of pottery made at home



Some simple designs for jars and vases



Semi-double Shasta daisy

## Luther Burbank's Wonderful Work in Horticulture

By Charles J. Woodbury



Branch of sunberry plant



THE chronology of the Burbank creations and ameliorations has never been published. In presenting this, the reader should be informed that these survivors of their producer's rigid exactions have received during their history two and sometimes three names. At first they were merely numbered, separated from their companions by an epithet, or nicknamed for field reference. Then, when proven, they were given in the bulletins less domestic and unscientific designation; as at christening in the Roman Catholic communion a saint's name is given to the child. Finally, when turned over to the nurseryman for distribution, he gives them in his catalogue more high sounding and generally more assuring titles, for which the originator is mistakenly held responsible by the public. For instance, that latest-appearing culture—now in controversy—the cross of the African stubble-berry (*Solanum guineuse*) with the Pacific coast (*S. villosum*) was called the "Sunberry" when it was graduated from the experiment grounds. It came advertised to the public as the "Wonderberry."

The registry begins in 1873, when Mr. Burbank, then 24, answered the demand for a potato which should yield 200 bushels to the acre, with the famous seedling from the "Early Rose" (itself from seed of a garnet Chile plant) which at once gave a yield of 435 bushels, and has since produced 525 bushels. With its proceeds, \$125, Mr. Burbank arrived in Santa Rosa, California, in October, 1875. Five years of severe ordeal, poverty, starvation, discouragement well-nigh fatal awaited him. At last he was able to buy four acres of the soil for which he had crossed the continent. His own words are:

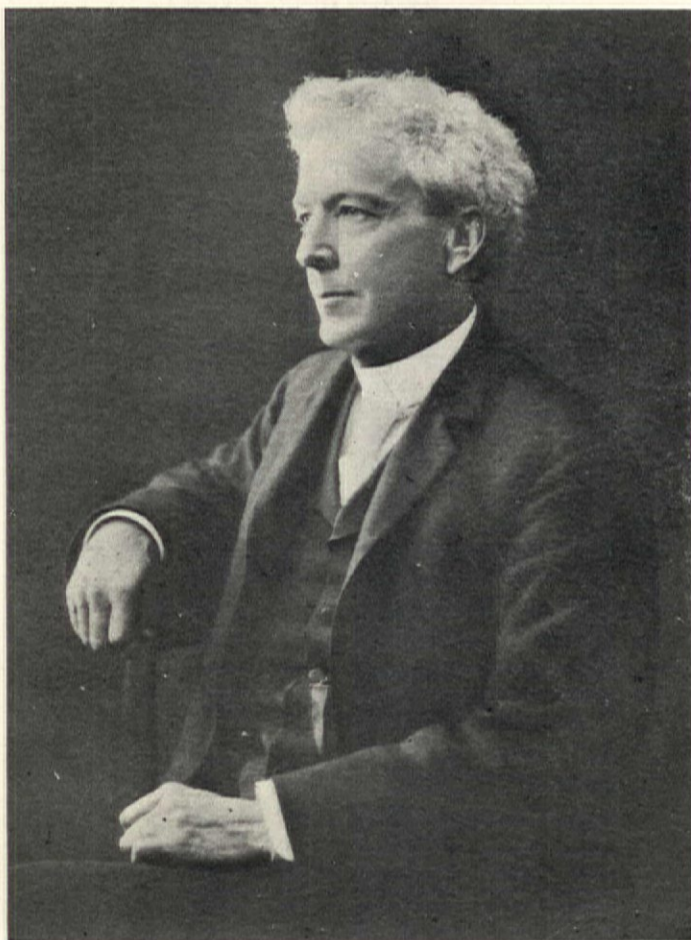
"In 1880 I began paying especial attention to the *Rubus* family. I had in my collection of blackberries and raspberries nearly all the popular varieties. In 1883 I began crossing. In 1884 I had about 60 hybrids, the first ever produced. The next season more extensive trials were made with many new subjects." (He now possessed 10 acres, home land.) "From hybrid seeds of the third gen-

eration, I obtained black, red and yellow raspberries, white, black, red and pink blackberries, in every possible combination of sizes, colors, qualities and flavors. Many were totally barren, some with long trailing vines, some stiff and upright as a currant bush; some thorny, others as free from thorns as currants; still others producing leaves, flowers and fruit perpetually. Then there were others growing into canes 3 to 4 inches in circumference, others 20 feet long on the ground or straight 10 feet high. But from all these were presented more radical improvements in blackberries and raspberries than had been obtained for eighteen centuries."

The list of the main species incorporated to establish these hybrids is too long to print. The photographs of the leaves of different individuals show remarkable variations and eccentricity, a few offering but a single leaf, or leaves, as reticulate as ferns; many profuse and palmate. The

results in their entirety made the scientific botanists' barriers between species and varieties, to use the audacious horticulturists' word, "wobble."

1884 witnessed the announcement of the "Japanese Golden Mayberry" and the "Primus." The distinction of the former was that it led far in advance the berry season, the earliest raspberry known, ripe while yet the standards were well-nigh dormant. It was a blend of the Cuthbert with a diminutive variety of *Rubus palmatus*, characterized by Mr. Burbank as "one of the most worthless, tasteless, dingy, yellow berries I have ever seen." The new fruit is large, sweet, glossy, semi-translucent, growing on bushes resembling trees, six to eight feet high. The Primus is now grown extensively in semi-tropical climates, thriving especially in the Philippines. It ripens a month before either of its parents, the wild dewberry (*Rubus ursinus*) and the Siberian (*X Rubus cratoegifolius*). It produces a



Luther Burbank

large and perfectly black fruit in abundance, a distinct new race of the garden berry. The seedlings of this pioneer have taken their places as standards in various localities.

In 1886 the experiments had become more extensive. He was crossing the Satsuma and other Japanese plums with the Eastern, European and California, Nevada and



A new flowering allium

Oregon natives, many of which in size and clustering growth are grapes, rather than plums. "Some of them are of very little value," remarked Mr. Burbank, "having an unpleasantly bitter taste, reminding one of the eastern cranberry." The famous walnut hybrids are now under culture.

But, important as these successes were, they were only in a way by-products. Mr. Burbank's main business had been to entrench and establish himself. To this end, he had built up the largest and best-stocked nursery west of the Mississippi. For years he had resumed the habit begun as a boy on his fragment of soil at his home in Lunenburg, Mass., of taking the premiums at the State and county fairs; and his reputation for integrity and liberality in dealing was fully substantiated. In 1888 he sold one-half of his nursery (which was yielding a clear profit of \$10,000 per annum) for \$13,000, and focused on his life work the far less promising venture of plant-breeding. He purchased the large experiment grounds at Sebastopol.

The ennobling of the plum, stands perhaps foremost in Mr. Burbank's work; and the year (1890-1891) developed the first twelve of the new varieties which were to distinguish it. They were the "Burbank," so named by Prof. H. E. Vandeman, of the United States Department of Agriculture;

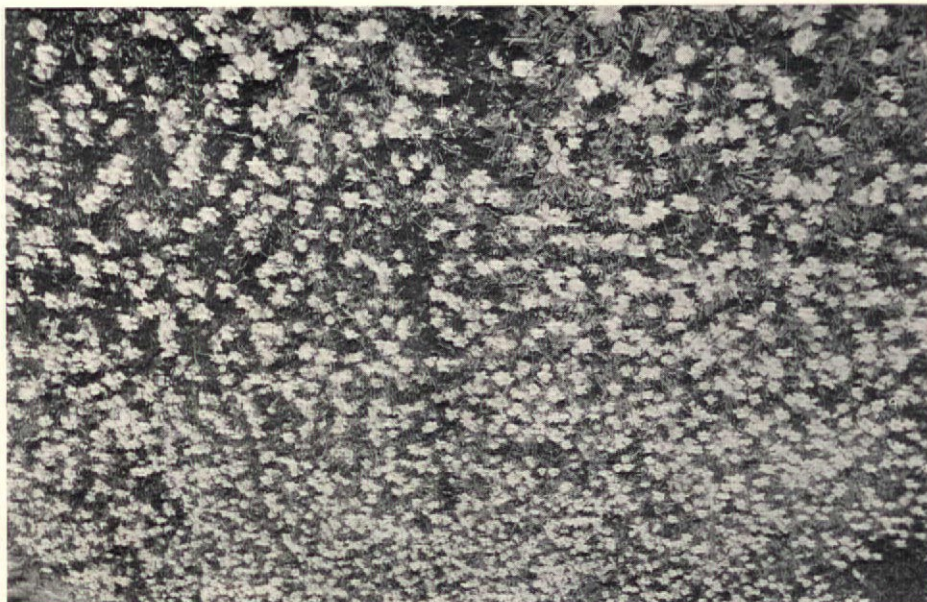


Burbank's new rosy-crimson chives, showing astonishing blooming qualities

from the common *Gardanensis* type as a basis with bulbs from South Africa; and is so vital that even in the scorching sun and wind of inland California, the last flower to

"Satsuma," "Botan," "Chabot," "Long Fruit," "Maru," and six other varieties under numbers as received from his collectors. The last four of these were named by P. J. Berckmans, of Augusta, Ga., president of the American Pomological Society. Prof. L. H. Bailey named the "Berckman," "Humi," "Blood," "Willard." 1891 also saw the delivery to fruitgrowers of the "Phenomenal" berry, which has since made half-acres more profitable than farms.

In the exhibition of the California Floral Society, 1892, the prominent feature was Burbank's new *Gladiolus*, the "California," a large double flower with a solid cone of blossom,  $5\frac{1}{8}$  inches expanse of petals clustered on stiff, compact low-growing stems, flowering so profusely as to hide the stem on all sides. Compared with the thinly scattered blossoms on but one side of the weak-stemmed ordinary flower, it looked like a new race. It came



Gigantic platystemon, native cream-cup of California, greatly improved

bloom on the stalk finds the first unwithered. The same year "Hale," and "Abundance," the latter so named from its ropes of fruit and afterward renamed "Alhambra," and the first perfect freestone of Japanese blood were added to the list of plums. In June, 1893, was published the now historic "New Creations." The stir this pamphlet made was immediate and far reaching. Its bold claim that the new fruits and flowers it described would inevitably displace present standards, the extensive biological knowledge it displayed, its high scientific character and the grace and dignity of its style, ushered it into an appreciation quite outside of the attention usually accorded to the presentations of plant growers. It was sought by students of plant science; received the indorsement of the authorities; was adopted as a class book in universities of this country and abroad. Its singular illustrations from actual photographs were convincing of its statement that "the life forces of plants may be combined and guided to produce results not hitherto imagined," and that "we are now standing at the gateway of scientific horticulture." Among the new

fruits it presented, now prominent, were the "Perfection" (the present popular "Wickson"), "Delaware," "Shipper," "Gold," with as many more hybrid and cross-bred plums; the "Eureka," "Dictator," "Paradox," "October Giant," "Autumn King," with other berries and the peach x almond, x Japan plum, x Chick-

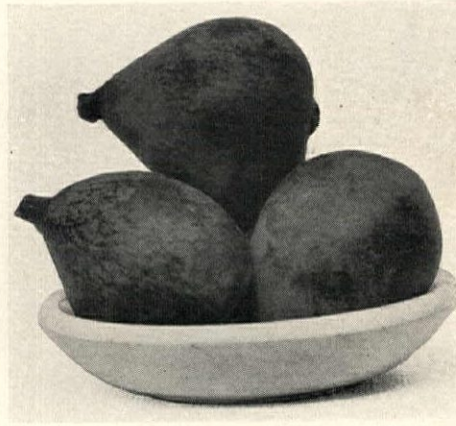
asaw, x apricot; the almond x Japan plum; apricot x the same, pyrus japonica x quince; quince x crabapple; Chinese quince x apple and others. Then there were shown seedlings of the new "Seckel Pear"; five new quinces, including the famous "Childs" and Van Deman; new potatoes, one of them the peculiar "Aerial"; the begonia-leaved squash and the cross-bred tomatoes. The

flower lists include half a dozen more callas and lilies; the more and the third and the fourth editions of "New Creations." 1900, Mr. Burbank's substitute for the French prune, the "Sugar" prune as given to the market. Since known as "Splendor," the original name is derived from the proportion of sugar in the fruit, 24 per cent.; the French variety carrying 18½. It has displaced the French variety, which had been the only reliance of fruit growers. Appear also this year the new winter apple Gravenstein type; other hybrid plums; the "Oriental" poppy, hybrid tigrerias and clematis, and a new canna of the Crazy type. 1901, fifth edition of "New Creations" and a supplement are issued. Announcements are made of the "First" and "Combination" plums (this is a cross of 8 varieties). 1902, publication of "Fundamental Principles of Plant Breeding." 1904, introductions of plums, a rhubarb and three strains of the Shasta daisy. 1905 was a year of flower novelties. 1906, 1907, appear four new plums, and a union of plum and apricot. He has since attained many new cultures, the latest an evening primrose, all a credit to his horticultural skill and perseverance.

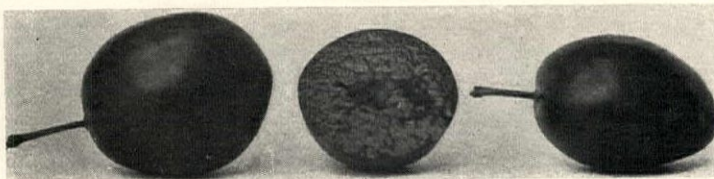
1894, second edition of "New Creations." Announcement of the cross-bred Japan plum "Prolific," finest of the first crosses. Appear, also the cross-bred white blackberry "Iceberg," the blackberry-raspberry



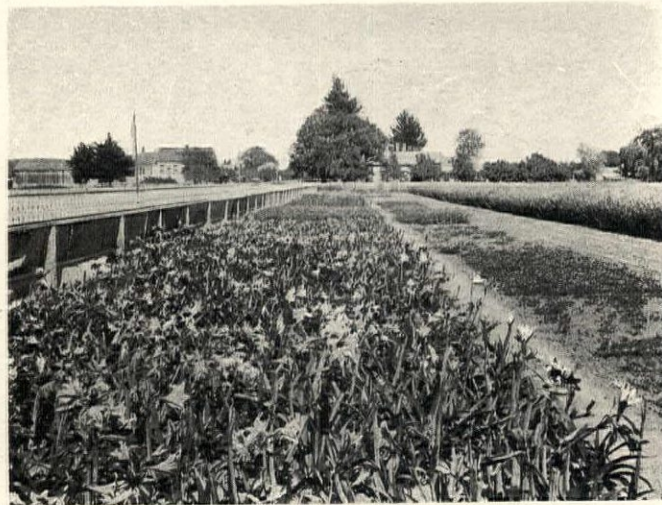
Feijoa sellowiana



A new loquat



Stoneless prunes



View of the home ground in Santa Rosa



Native California golden-leaved chestnut

hybrids, "Humboldt," and "Paradox," a new race of clematis; new callas; "Snowdrift" and "Fragrance," Ostrich Plume, Waverly, Double Jackmaurie and Sanguinosa types, seedlings of Pyrus Japonica, and the new rose, "Peachblow."

1895, a group of hybrid lilies and the "Burbank" and "Tarrytown" cannas are announced; also the "Apple," "America," "Chaleo," "Bartlett," "Shiro" and "October Purple" plums, the last a cross of Satsuma and a Japanese seedling, the "Giant" prune and three new chestnut seedlings, "Coe," "McFarland," and "Hale," offspring of the Japan Mammoth.

No more introductions were made until 1898-1899, when appeared the "Climax" and "Sultan" (cross of Wickson and Satsuma) plums, the pineapple quince and the third and the fourth editions of "New Creations."

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## A Novel Rain-Water Collector

By A. Gradenwitz



WING to the increasing adoption of water works, the rain-water collectors, which were once so much in favor, have been somewhat neglected. Still, such devices could do far better service than might be supposed at first sight. Especially in the open country, and even in small townships

where water works do not pay, they would enable anybody to secure his own drinking and washing water for consumption. It is a well-known fact that rain-water is of absolute purity and far softer than any other water. On account of not being in contact with the ground it is practically free from microbes and accordingly most recommendable from a hygienic point of view. If in spite of these obvious advantages, its use now is generally discarded, it is mainly due to the impurities which attach to the collector, and thus indirectly introduced into water of so excellent a quality. In fact, on dripping from the roof, the water is bound to become mixed with dust and all kinds of animal and vegetable waste matter, so that the liquid at first collected not only is unsuitable for use, but infects the after rainfall.

A French inventor, Mr. G. H. Munier, at Ciboure, has designed a rain-water collector, which supplies an excellent drinking and washing water without any decantation, filtering or chemical cleaning.

The apparatus, as shown in the diagram, comprises two vessels, viz., the drinking water vessel A and the impure-water vessel B, above which is arranged a trough C tilting round the pivot T. At the end D of the trough the rod of a float F is fixed, dipping into the vessel B.

As the rain-water coming from the eaves H flows down the trough C, it at first enters the vessel B, which is still empty, so that the float rests on its bottom. As this vessel

then is gradually filled, the float, and along with it the trough C, will rise continually, until the trough is tilted round the central pivot so as to point towards the drinking water vessel A. All the subsequent precipitation then flows into this vessel, and as the roof has been washed clean in the meantime, it can be used immediately for drinking or for washing purposes.

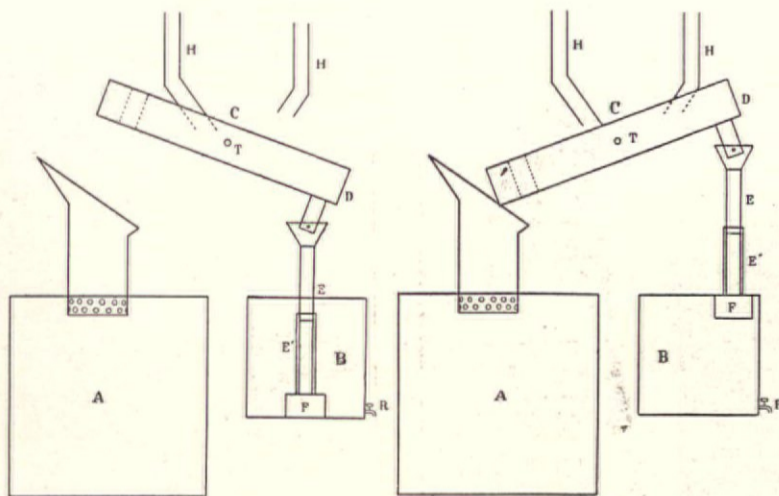
As the water dropping from the roof could carry along foreign objects, the mouth of the trough C is closed by a piece of metal gauze. Moreover, before entering the clean water vessel, the water has to pass through some kind of funnel consisting of a box filled with gravel, and finally the whole tilting trough is covered with metal gauze.

The apparatus should obviously be adjusted in accordance with the amount to be collected in the dirty or waste water vessel. The actual condition of the roof, and the kind and degree of its impurities should therefore be accounted for in each case.

According to experiments made by the inventor a minimum of 4 liters (1.05 gallons) per square meter (10.76 square feet) is required under the most favorable, and 6-10 liters (1.6-2.6 gallons) under the most unsatisfactory circumstances.

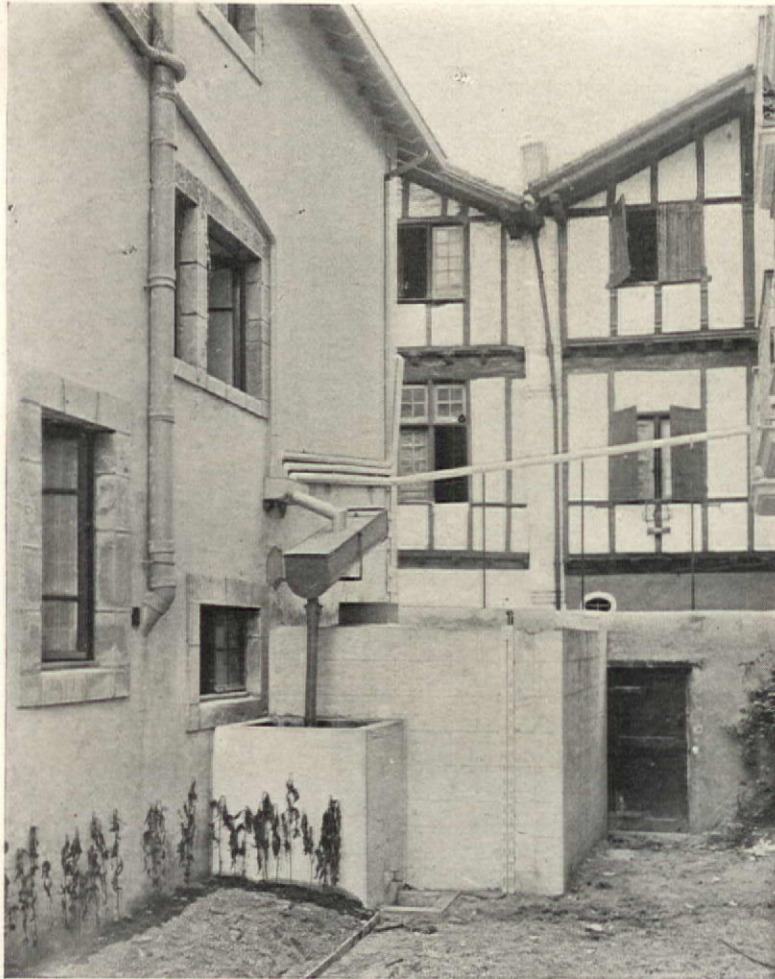
In order to account for any interruption in the rain-fall, which is liable to give rise to a renewed deposit of dirt, a cock discharging the water in drops is arranged at the bottom of the unclean water vessel, the rate of flow being so calculated that only the amount corresponding to the possible impurities flows out

each day. A modified apparatus represented herewith comprises a funnel catching the water as it drops from the roof and directing it towards a dirty-water vessel with the float. As soon as enough water has flown out to wash off any impurities, the float will direct the lower opening of the funnel towards the clean-water vessel.

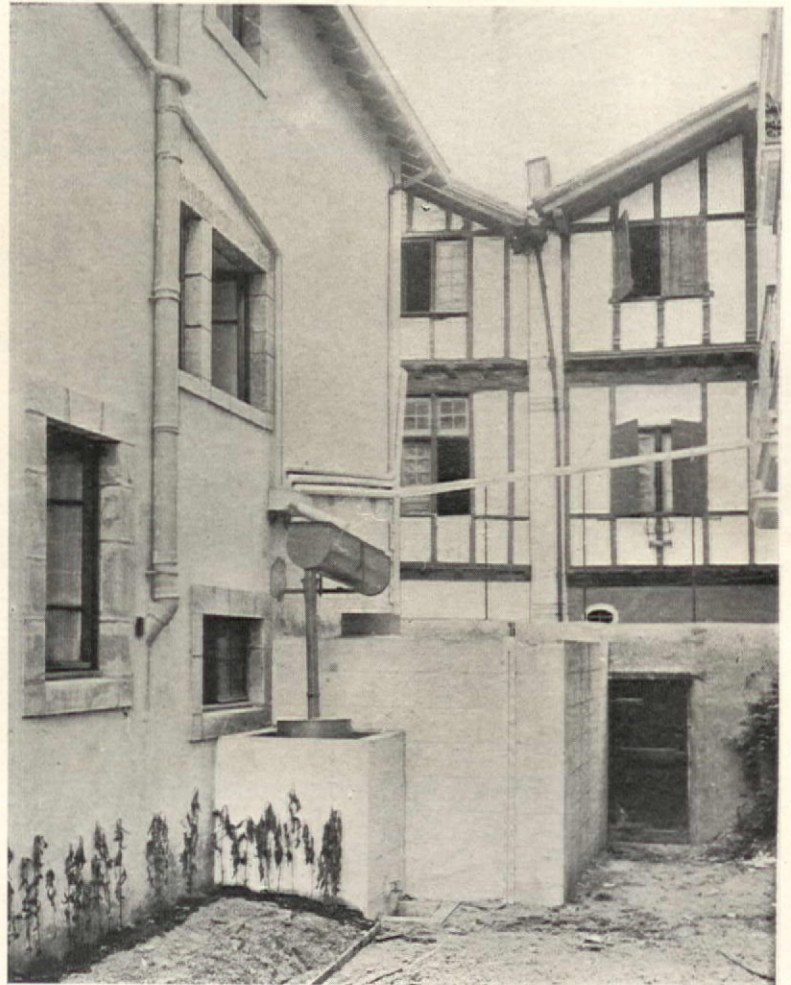


Position of the pipes before the rain

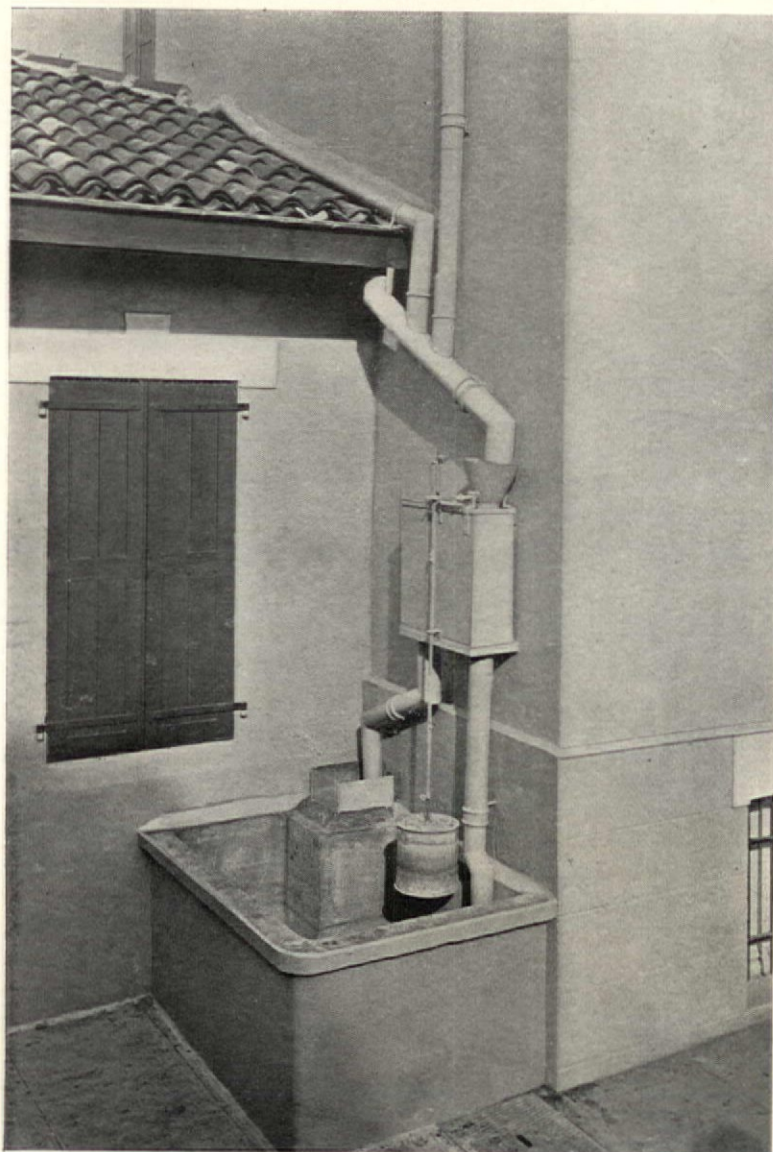
Position of the pipes during the rain



Showing the pipes before the rain



Showing the pipes during the rain



A rain-water collector in the Pyrenees



Another kind of rain-water collector



Fig. 1—Simplicity is the keynote of the exterior design of this house

## A Concrete City the by Sea

### A Group of White Stucco Houses with Red Tiled Roof

By John F. Springer



CONCRETE is by no means a new material. It was used by the ancient Romans. And there are examples of concrete construction scattered about Europe which are undoubtedly quite old. But there are concretes and concretes. A modern concrete consists of three solid ingredients: Port-

land cement, sand, and broken rock or an equivalent. It is hoped that this material is as durable as the more ancient article. And there is some warrant for this. It will be seen at once that indestructibility is a wonderfully attractive quality in a building material. When we combine with this reasonableness of first cost, we do not have to go much further, perhaps, to understand the present popularity of concrete. But this material does have other good qualities. It is easily molded to the forms desired; it permits rapidity of construction; it is vermin proof; it can be made **waterproof**.

But not everything that goes by the name of concrete is deserving of the name. Let me explain. There is only one ingredient in concrete which has the power of binding the whole into a single mass. This is the Portland cement. Now it so happens that this is the most expensive one as well. It can readily be understood, then,

that contractors and builders are liable to be tempted to reduce the proportionate amount used or to use an inferior quality, or to do both. As with everything else, the only way to get a fine concrete is to use the best materials and in the proper proportions. Use the best Portland cement and in proper amount. You have then solved a large part of your problem. Further, when the best Portland cement is used generously, you have taken the right steps to get a waterproof material.

You can make an efficient material without using broken rock at all. A large part of its office—perhaps approximately the whole—is this: Wherever you have a piece of stone, you do not have to have cement, and so the cost can be kept down. There is sometimes this advantage in leaving out the stone: The material, on account of its uniform consistency, can be disposed in very thin sheets. Perhaps one ought not to call such material concrete, as it is more

properly a cement mortar. But popular imagination may be counted on to call it **concrete**, nevertheless.

Down by the shore of the ocean, at Long Beach, Long Island, there is being constructed what we may perhaps be excused for calling a concrete city, although much of the material used contains no stone. Different contractors who are



Fig. 2—A home of bungalow construction

doing pretty much all of the initial building, have set a minimum valuation of \$7,000 on a house. Values go up, however, to \$35,000, though on some parts the minimum price of a house is \$5,000. It will be seen from these facts that the concrete houses being constructed there do not belong to the cheap grade at all. The house must measure up to a certain minimum standard, or it is not permissible to build it. In order to insure a high grade construction, the land companies themselves have undertaken a great deal of building and their houses may very well be considered as models of what concrete construction may and should be.

The location is a sandy one, and the houses are of inconsiderable height. The foundation is secured by digging trenches in the sand to a sufficient depth and filling these



Fig. 3—A simple treatment is appropriate

material as a problem by itself. In other words, a cement house is to be planned especially with a view to the material of construction rather than with the design of fitting in with older ideas connected with stone, brick and wooden types of buildings. Use the material in the way which will give it a natural appearance, free from imitation of other building materials.

Thus, consider Fig. 1. There is no attempt made in the treatment of the exterior surface to make it appear like something else. The house is a cement house. There is no attempt to hide the fact; and why should there be? The ceilings are high on the first floor, and there is much light and air. On the second floor the windows are particularly large.

In Fig. 2 we have the bungalow construction. There are

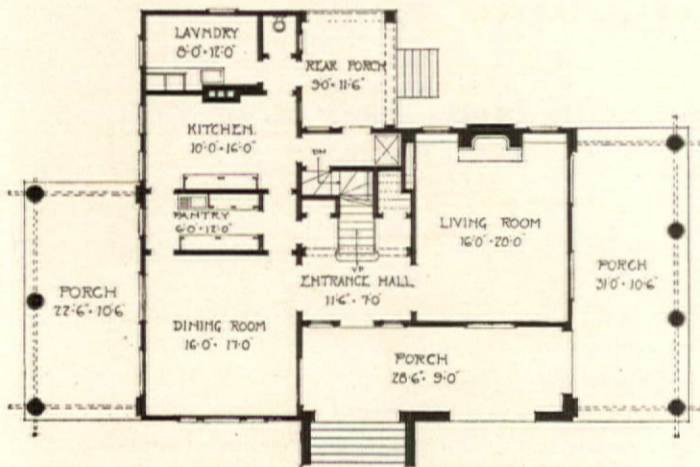


Fig. 4—First floor plan

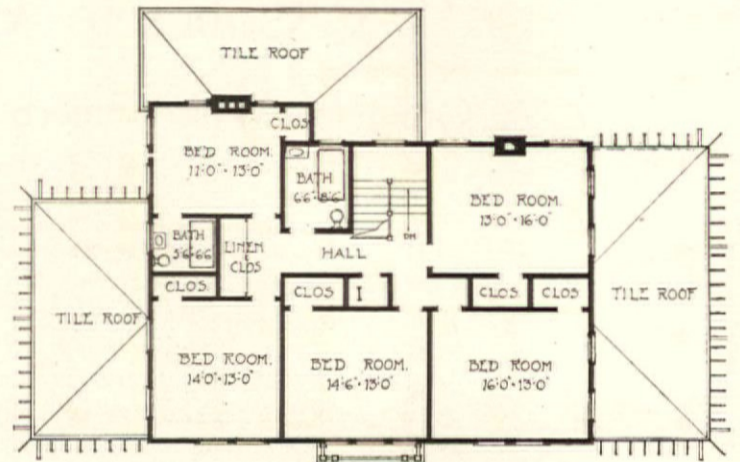


Fig. 5—Second floor plan

with concrete. This is a simple and adequate procedure. Upon this foundation is reared the frame of the house. This consists of wood, to which is attached a covering of galvanized wire netting. Upon this surface the concrete, or rather the cement mortar, is spread. By this means it is possible to make the wall comparatively thin. The netting is sufficiently imbedded to enable it to get a good hold upon the "stucco" of mortar. The roof is constructed of red vitrified tiling. The tinting of the exterior walls can be modified to suit one's taste or the general surroundings.

We may look on these structures as one class of concrete houses. Cement construction in one form or a number has undoubtedly come to stay. It is well, then, to consider the architectural and other dispositions of the ma-

eight rooms, besides bath and laundry. There are two partially inclosed porches at the front, to right and to left. A third porch, between these, but more to the rear, affords entrance to the house itself. One enters at once into a large living-room (17x26 feet.) The dining-room (15x23 1-2 feet) lies just back of the right-hand porch. In the corresponding position on the left is the principal bedroom. Back of it is the bath and three other bedrooms. Back of the dining-room are pantry, kitchen, laundry and servants'-room.

The general plan resembles a letter H, the living-room being the cross-piece. The servants'-room, which lies on the inside of the H, is opposite the last of the family bedrooms, but the wall of the servants'-room is not pierced by a window. Its beauty of appearance may be judged from the picture.



Fig. 6—Built after the same plan as Fig. 5



Fig. 7—The red tile roof and the stucco walls mingle finely together

A very attractive house is shown in Figs. 3, 4 and 5. The entrance onto the porch and the large opening to the right, is absolutely no trimming. This house has about the same amount of household space as that of the bungalow of

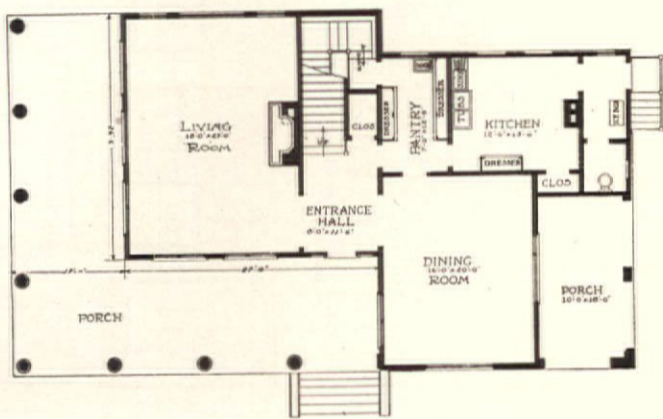


Fig. 8—First floor plan

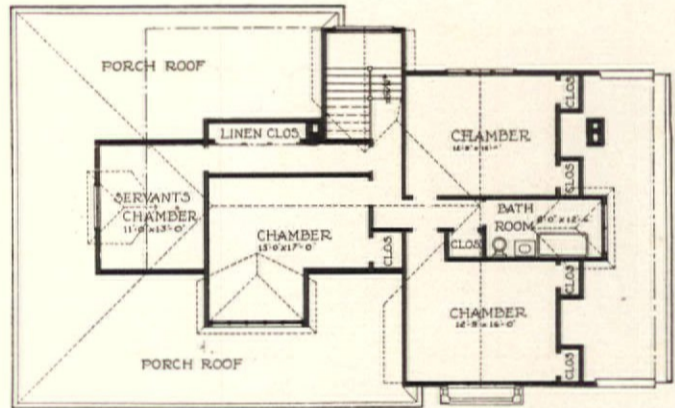


Fig. 9—Second floor plan

are good examples of the simplicity of treatment appropriate to cement houses. It will be noticed that there are no trimmings. All the bedrooms are on the second floor. The partially inclosed porch on the first floor may be provided

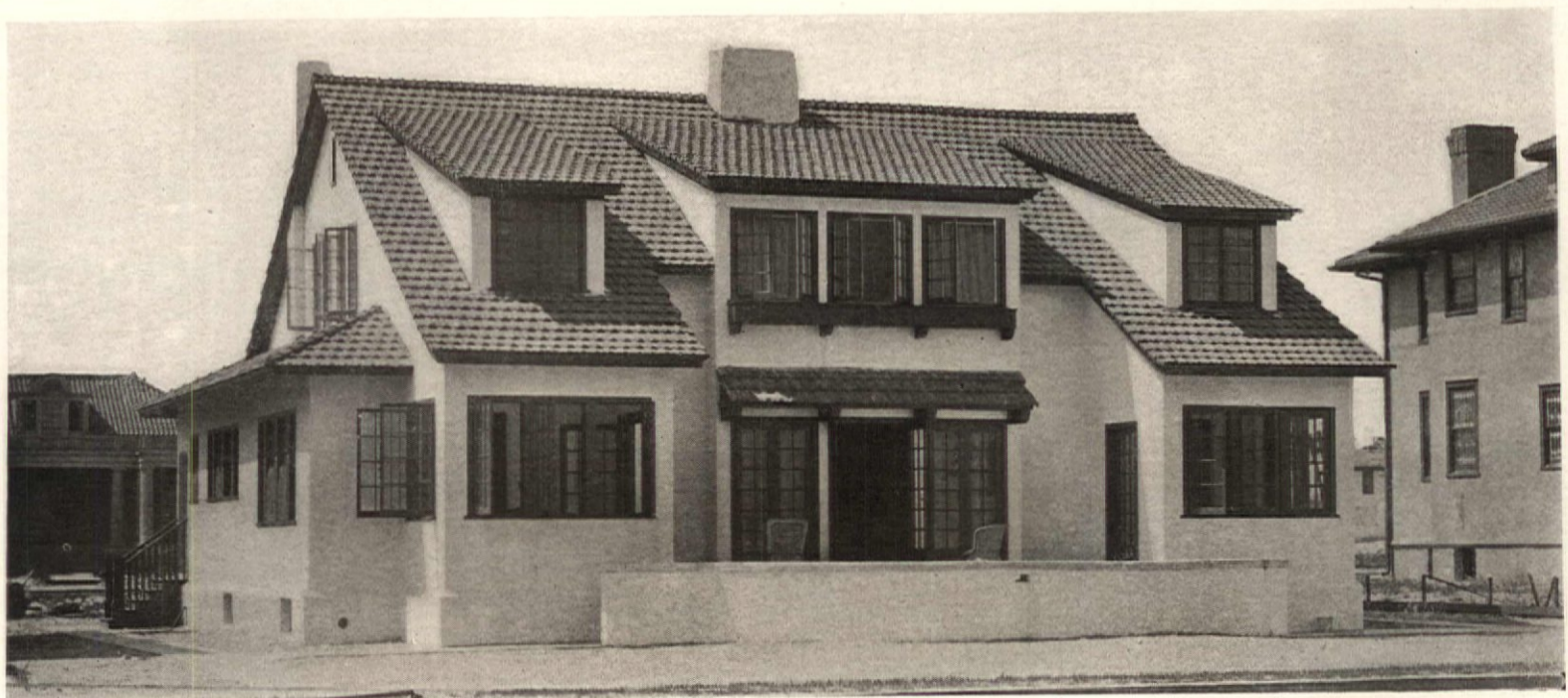


Fig. 10—A house of quaint construction, with fine color contrasts

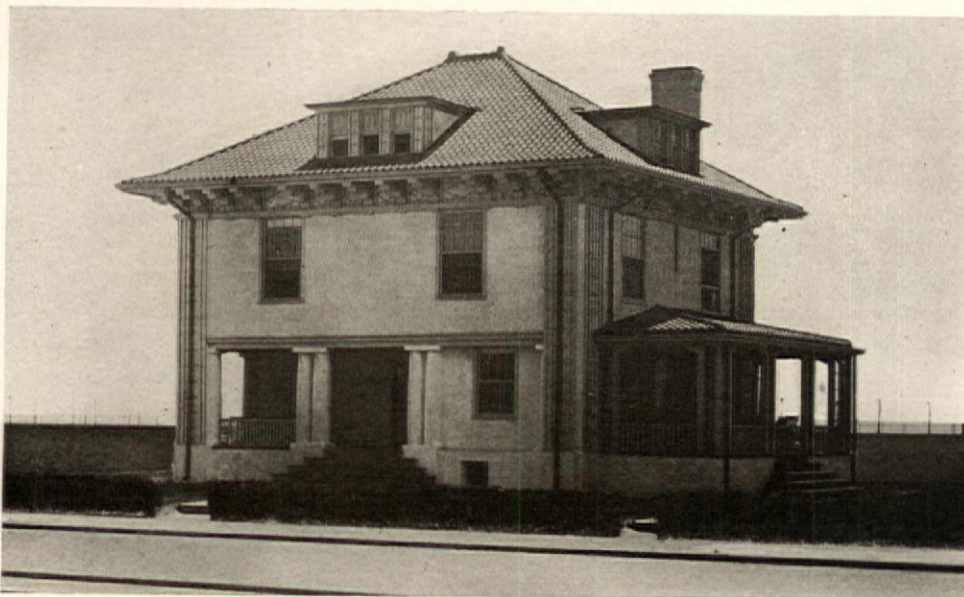


Fig. 11—A house built on square lines

with suitable glass protection to enable it to become a part of the living-room in winter, and is an idea worthy of imitation.

That the same general plans upon the interior may be coupled

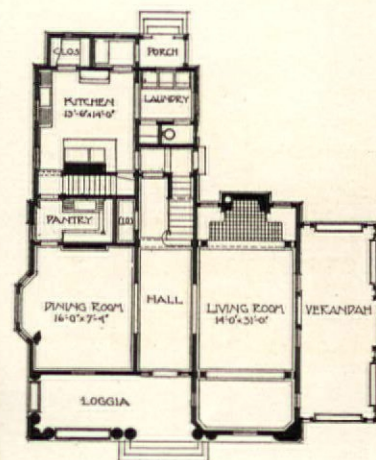


Fig. 12—First floor plan

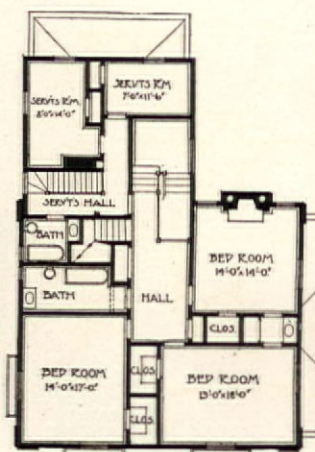


Fig. 13—Second floor plan

with the adjoining bedrooms and bath, can be readily cut off the rest of the second floor and would thus become serviceable use as a nursery and children's room.



Fig. 14—A house of picturesque character

with quite a difference in exterior appearance is shown by comparing Figs. 3 and 6. They are upon the same general plan within, and are charming seashore homes.

It may be added that the upper piazza on the left, together

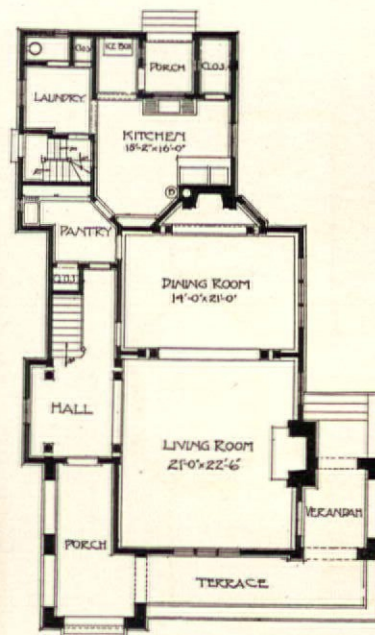


Fig. 15—First floor plan

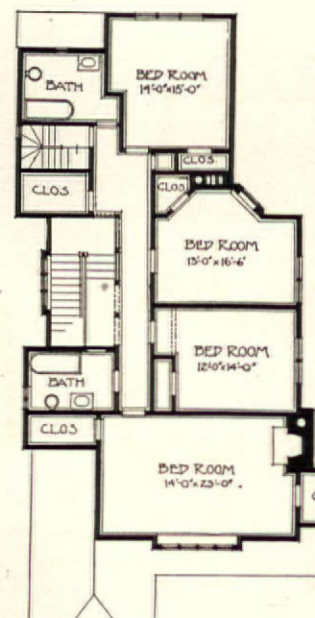


Fig. 16—Second floor plan

We have in Figs. 7, 8 and 9 a beautiful house. Here the of the roof and the pale hue of the cement mingle finely together. The porch is very pretty and commodious. The living-room which it partly surrounds, receives light on still another

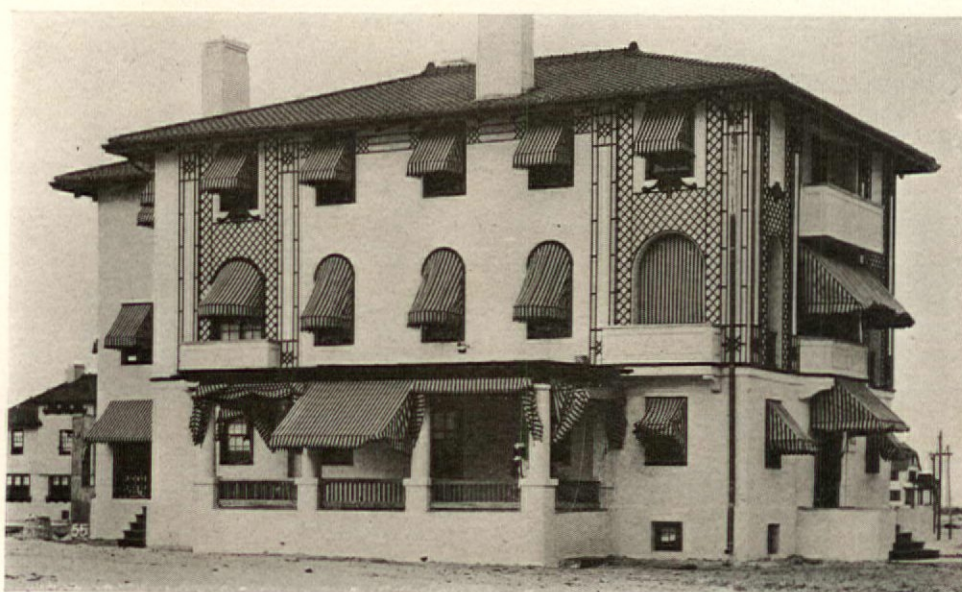


Fig. 17—A house of Spanish type

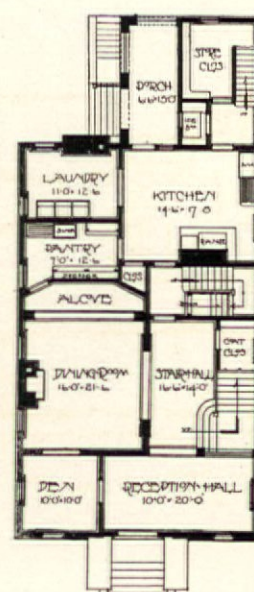


Fig. 18—First floor plan

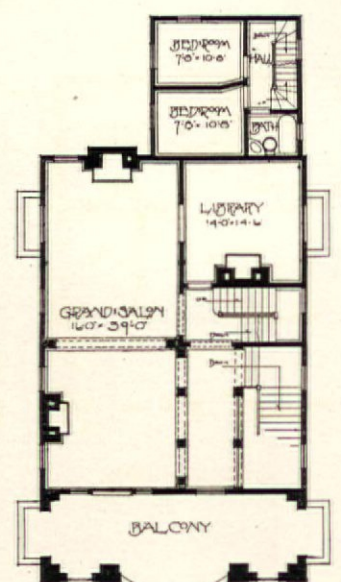


Fig. 19—Second floor plan



20—First floor plan

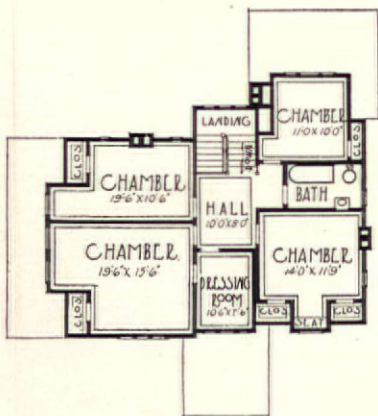


Fig. 21—Second floor plan

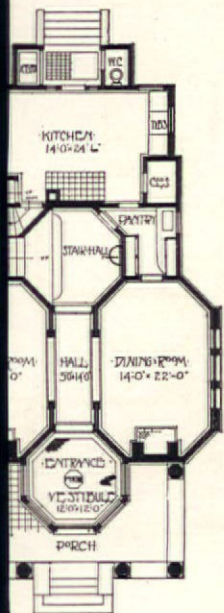


Fig. 22—A design of a true concrete house

rs, the three principal bedrooms are well situated both for  
 nd for convenience of access to the bathroom. The serv-  
 room is well cut off, as may be seen by looking at the plan.

ing with the general design. This house is not at all small, con-  
 tains many rooms, and is a model cement structure.

We have in Figs. 11, 12, and 13 the square house provided with



23—First floor plan

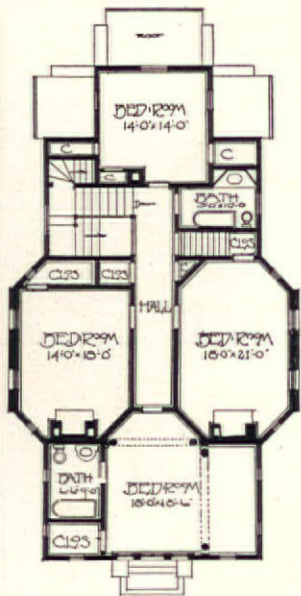


Fig. 24—Second floor plan



Fig. 25—Cement is used with a restraining effect

ouse of quaint construction is that shown in Fig 10. Here  
 or contrasts among the roof, the walls and the window  
 are strongly brought out. The uncovered porch is in keep-

a wing. There are two entrances, it will be observed. On the  
 second floor the three master bedrooms, bath and hall are, or  
 may be, completely cut off from two servants' bedrooms, bath and

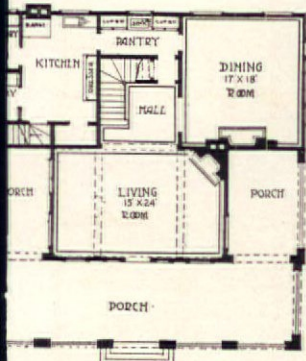


Fig. 26—First floor plan

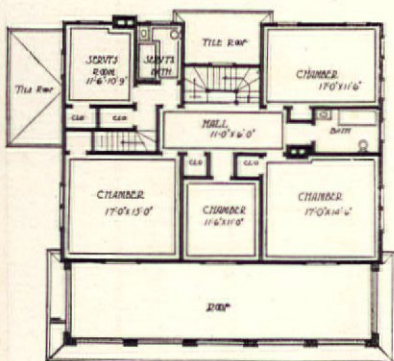


Fig. 27—Second floor plan



Fig. 28—The front porch is the principal ornament to this house



Fig. 29—Lattice work is of the decorative feature



Fig. 30—The porches are the features of this house

hall. This is a very attractive house outside and quite convenient within. It will be noticed that there are also some rooms on the third floor.

Those who go in for picturesqueness will perhaps be taken with the house shown in Figs. 14, 15 and 16. Here the roof does all sorts of things. There is a great deal of

In Figs. 17, 18 and 19, however, we have a Spanish idea of a home. This is a somewhat complete establishment. On the first floor we have dining-room, kitchen, and so on, together with a small corner room and a reception hall at the very front; but there is nothing of the nature of a parlor or living-room. The small room, or den, is ten by ten

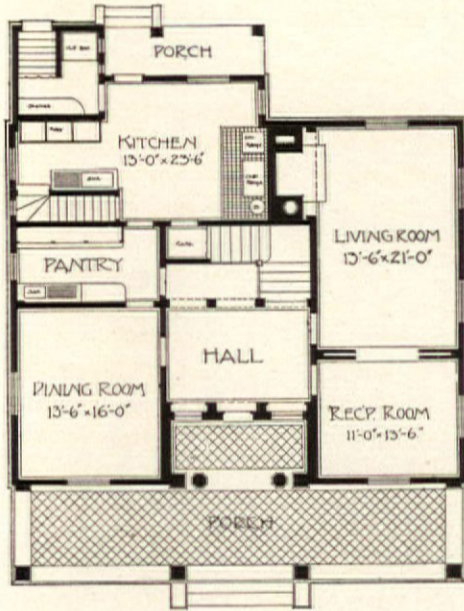


Fig. 31—First floor plan

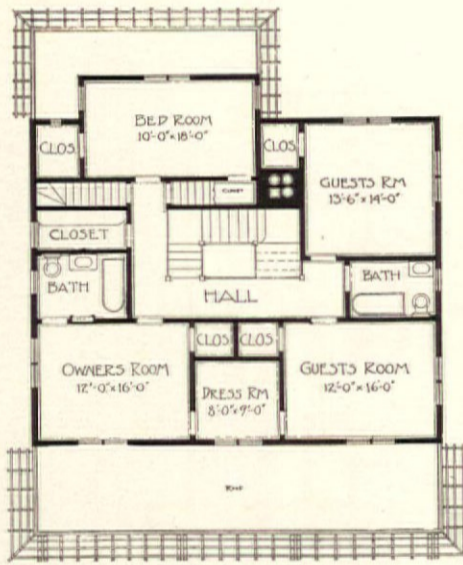


Fig. 32—Second floor plan

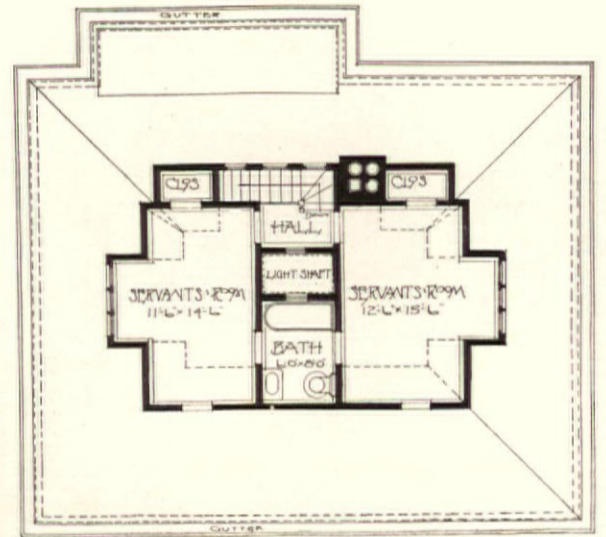


Fig. 33—Third floor plan

porch, as may be seen by consulting the view and the plan of the first floor. As one enters the house, he finds a side hall, which affords access on the right to the living-room and the dining-room. On the second floor are four bedrooms and two baths. Still other rooms are on the third floor. The general style of this house is German.

feet and is located at the corner, seen in full in the view. The reception hall has the same depth, ten feet. On the second floor there are two small bedrooms, bath and separate stairway. These are all cut off from the rest of the second floor. The main portion consists of a fine balcony, a library, and a "grand salon." This grand salon is sixteen



Fig. 34—The living-room



Fig. 35—The dining-room



by thirty-nine feet. All master bedrooms are above, on the third floor. There are five of them, besides two baths. There is also a small balcony at the front, and two servants' bedrooms and bath at the rear. The latter is reached by a separate stairway and is entirely cut off. In fact, the three servants' rooms and bath have no connection whatever with the main portion of the home on either the second or third floors.

In the view shown in Figs. 20, 21 and 22, we have a fine example of the true concrete or cement house. There is a simplicity about the lines to suit the material. Notice particularly the heavy posts of the uncovered porches. The simple doorway admitting to the covered porch is very attractive.

The house of Figs. 23, 24 and 25 is, perhaps, a little more ornate; but there is still a restraint which goes well with the material. Observe the plainness of the main lines of the bay window portion. Ornamentation is here secured by the arrangement of the openings. Especially attractive in this house is the rise of the side walls above the roof. This is a fine concrete house.

Another admirable example is the one shown in Figs. 26, 27 and 28. Here it is the front porch which beautifies the house. The large square pillars with their continuations above to form posts on the uncovered portico, taken in connection with the intervening projecting roof of red tiling, make of the whole a charming picture—simplicity and effectiveness.

Figs. 29, 30, 31, 32, 33, 34 and 35 show a pretty home. The double windows are especially attractive. All the

views of the page refer to the one house. As with all square dwellings, there is plenty of room. The side porch is not shown in the plan of the first floor. It is, however, an important addition, and is reached by a French window from the living-room. Exclusive of the two bedrooms and bath for servants on the third floor, there are eight rooms and two baths for the family and its guests. On the lower left-hand side of the page is shown the interior one end of the living-room. Very attractive, isn't it? The dining-room is shown by the picture to the right. The broad window seen here is the one which opens onto the front porch.



Fig. 36—A picturesque house of bungalow form

tructive, isn't it? The dining-room is shown by the picture to the right. The broad window seen here is the one which opens onto the front porch.

Figs. 36, 37, 38, and 39 show a picturesque house, from the side and rear. The bay window belongs to the dining-room. On the first floor are, in addition to a servants' room and bath, four bedrooms and bath. A little winding stairway and the tower to which it belongs are attractive features. In the left-hand interior view, we have a portion of the living-room, and get a glimpse through the doorway to the dining-room and see the bay window belonging to the latter space. The adjoining view is that of the inside of the dining-room.

Messrs. Kirby, Petit and Green, of New York, were the architects of all of the houses illustrated in this article, except six dwellings which were designed by Mr. Louis R. Kaufman, also of New York.

In order to avoid excess in giving details, we have not treated the under features of the individual house, but have pointed out the most essential features.

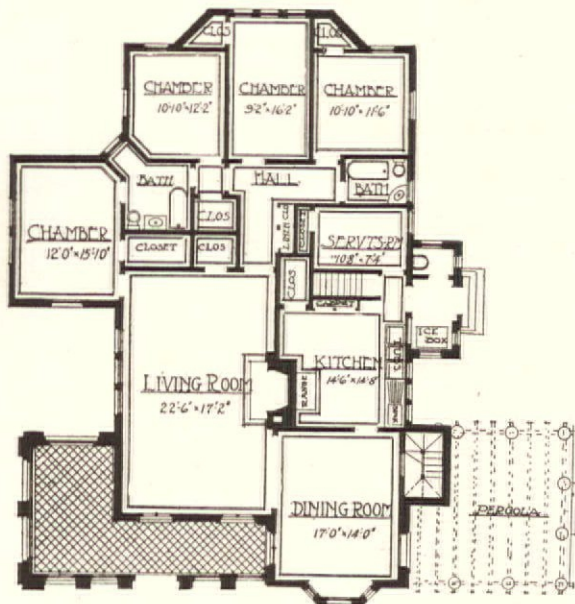


Fig. 37—The floor plan



Fig. 38—The living-room



Fig. 39—The dining-room



# GARDEN NOTES

CONDUCTED BY CHARLES DOWNING LAY

## CRITICAL NOTES ON PLANTING

IT IS often difficult to explain why one scene pleases and why another fails to please, why one grouping of trees is satisfying to our taste and another grouping of the same trees not so. The landscape which displeases is "Nature" and the unsatisfactory group contains the same trees that are in the satisfactory group. It is hard in any art to explain the finer shades of feeling, but we, who work with living trees and shrubs find a new trouble; namely, the veneration for all growing things which is so thoroughly inculcated to-day. A tree is sacred and must not be spoken of without respect!

I shall try, however, to point out by means of similar but contrasting examples why one scene pleases and another is vile, at the same time taking the opportunity to speak of the means by which the results were obtained.

Figure No. 1 shows a good group of Norway spruces flanked by deciduous



Fig. 1—A group of Norway spruces, with beeches and maples, forming a wind-break

trees (beeches and maples) all forming an effective wind-break for the house. The spruces have been taken advantage of as a background for the large bed of rhododendrons and lilies (which are now in flower). It is a charming arrangement, good at all seasons of the year and it is just the place to plant rhododendrons and lilies. They are protected from the winter sun and yet get enough in summer. It will also be noticed that they are not planted too near the spruces, which rob the soil of fertility and moisture.

A little more variety in the height of the rhododendrons would help and it would be better to have them extend further to each side, losing themselves in the trees. As it is, they are disconnected and fill up a bay, which should be open, but with rhododendrons at the margin, linking trees and grass.

Figure No. 2 shows a scheme which is obviously insulting to any taste and needs little comment except the suggestion that the large Norway spruce to the left be cut out. The other trees would be more effective without it.



Fig. 2—The large Norway spruce to the left should be cut out to make the cluster effective

Figure No. 3 is not only a good group of hemlocks, maples and oaks, but it also shows a well located blue spruce and another which is badly located. The one in the middle is excellent. It is a magnificent tree in a good place. The smaller spruce at the right, however, detracts much from the beauty of the scene, and I should like to take out the insignificant bushes dotted on the lawn.

Figure No. 4 is the prize of our collection, and if one may judge from a photograph it is a masterful piece of work, full of charm and restraint and technically excellent. It is probably as good in color as it is in form and texture. What could be nicer than the way the rhododendrons and the taller shrubs and trees blend together? What more picturesque than the sky line of the group? Only hints of such beauty are to be found in real unspoiled "nature."

The last note in atrocious work is found in Figure 5. The line of the path is bad, the planting is spotty even in the photograph, and in real life it must be hideous. With the naked eye I can count 57 varieties of trees and shrubs, all different tones and showing the complete range of color from yellow to blue, with



Fig. 3—An excellent group of hemlock, maple, oak and spruce trees with the exception of the smaller spruce at the right

## JAPANESE ORNAMENTS FOR THE AMERICAN GARDEN

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The accompanying illustrations show two pagoda-shaped lanterns. A most delightful effect is obtained at dusk by lighting candles in these lanterns. The glow is seen through



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Fig. 4 - A presentation full of charm and technically of fine form

probably a few reds thrown in to make it lively! The forms of the small trees and shrubs are no more in harmony than the colors, and in texture of foliage they are constantly waning. Such a jumble of goods one expects in a hardware store, but not on a lawn!

No. 6 is in a way comparable to the living pictures which one sees on the stage. It is a nurseryman's catalogue done in living trees instead of type, and for completeness only lacks the price mark.

For instance, take the first items:  
"Pinus Mugho, slow growing dwarf pine. Spreading habit. 18-24 inches. \$1.25.

"Retinos pora squanosa, slender branches, silvery foliage. 3-4 feet. \$3."

The hand of the artist can be detected no less readily in planting than in painting or sculpture. In planting, as in all arts, the greatest masters get their effects most simply and most easily. Their sound judgment and the perfection of their technique leads them at once to the easiest way of doing their work. With amateurs it is quite different. Their interest in the technique of



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THOMAS ALLEN, J. C. HERZ, Union Course, L. I., N. Y., says: "This spring I received from you Farmogerm for peas and use of Farmogerm on beans, and I must say that I was surprised at the difference between those that I put Farmogerm on and the seed very quickly and that there were none of plants were slow to germinate and the rows were sparse and irregular and the plants did not grow as large and strong as in the inoculated rows. The inoculated peas were picked for the first time on the 23d of June and the inoculated beans on the 28th of June. The uninoculated peas and beans that were planted two days later were ten days later in maturing. The yield from my inoculated peas and beans was much heavier and the rows were more prolonged than from the uninoculated."

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**EARP-THOMAS FARMOGERM CO., Bloomfield, N.J., U.S.A.**



Fig. 5.—The line of the path is bad and the planting is "spotty"

the art unbalances their weak judgment and they overdo everything until the work becomes a catalogue of their attainments, interesting as much, perhaps, but without repose or breadth.

The crowded palette of the young painter betrays his unripened mind just as the long list of trees, shrubs and flowers on the young planter's plan betrays his uncertain



Fig. 6.—The tree arrangement has a "stage" effect

judgment and the desperate means he must rely on to attain his ends.

Few trees and those native, not many shrubs and those all hardy, vigorous growers, adapted to the soil and the situation, will produce a far better result than a miscellaneous collection of many varieties, no matter how beautiful each may be in itself. Planting is only part of a place, and if it be not simple, how can the place as a whole be beautiful?

**WILD FLOWERS WORTH GROWING**

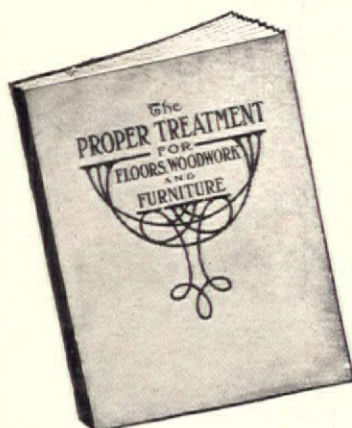
By NATHANIEL S. GREEN

**I**N YOUR rambles through the woods when the ground is carpeted with spring flowers did you ever think of the possibility of transplanting some of these flowers to your garden? There are many wild flowers and ferns in every locality that take kindly to domestication. Planted in loose, fertile soil in a partly shaded spot, they grow and thrive wonderfully, and their blossoms rival our cultivated favorites in beauty and charm. Once well established they grow and blossom luxuriantly for years with little care. The only attention they require is a mulch of leaves to protect them from cold, and an occasional watering during summer drought.

The best time to secure these wild plants is in the early spring when they are just starting into growth. They may be a bit difficult to find to one unaccustomed to their haunts, but a little searching among the leaves along the slopes near a woodland rill will reveal the young plants pushing through the ground. They appear earliest on south slopes, where the mid-day sun has a chance to melt the snow and warm the soil.

The daintiest of spring flowers are the wood anemones that may be found in great profusion along overhanging banks or beside fallen tree trunks. Their delicate pink and white blossoms are as beautiful as any greenhouse flower. The bulbs are small and a dozen or more may be placed in a six-inch pot; but they are more charming planted outdoors in a shady border. Here they become naturalized and bloom year after year without care. Another charming wild flower of early spring is *Dielytra*, or as the children call it, Dutchman's Breeches. Its clumps of tiny bulbs may be found just under the leaves, only half covered with soil. Its flowers closely resemble the cultivated "Bleeding Heart" in shape, but are smaller and white or pinkish white. The abundant lacy foliage is as attractive as the blossoms. The bulbs of *Erythronium* or Dog-tooth Violet, are difficult to obtain, as they are usually found six to eight inches deep, but they well repay the work of digging them out. The dark green leaves covered with blotches of bronze and purple make a charming setting for the lily-like blossoms. Two varieties are found in our woodlands: *Erythronium Americanum*, having bright, yellow flowers an inch broad, and *E. Albidum*, having bluish-white flowers. Both make pleasing additions to the garden, or they may be naturalized in the grass and allowed to spread at will.

The large rose-colored flowers of Claytonia, or Spring Beauty, compare favorably with any of our garden blossoms. The bulbs are easily obtained and grow readily if given a moist, shady spot. Violets—blue, white and yellow—give a most charming effect when planted in masses on a shady slope. Among the



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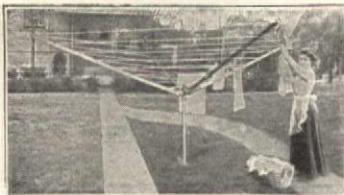
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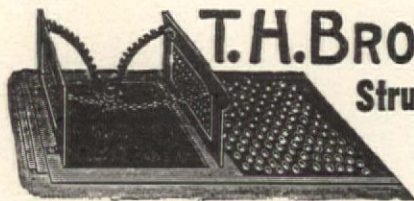
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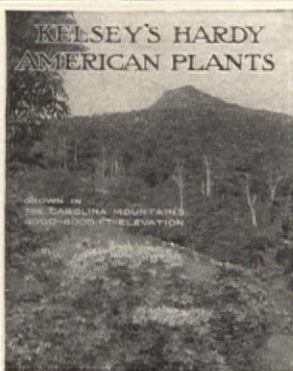
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larger wild plants suitable for the garden are *Polygonatum*, or Solomon's Seal, the glossy green foliage and bright berries borne on a long, curving stem making a pleasing background for smaller plants—Larkspur, May-apple and purple Phlox. Of the shrubs one of the most pleasing is "Burning Bush," which is at its best in autumn, when frost has killed the tender plants. Its seed pods divide when ripe, revealing the scarlet seeds, which make a brilliant display all winter long.

Quite as attractive as the flowering plants and as easy to grow, are the many varieties of ferns that abound in every woodland. Maiden Hair is one of the easiest to grow and it makes a fine display. Christmas fern gives a picturesque effect planted among the roots of a tree or on a rocky shaded slope. Its leaves are a glossy green and remain so throughout the winter. In a moist, rich soil the stately Sword fern will make an immense growth, its fronds often reaching a length of four feet.

The plants mentioned give only a hint of the possibilities of a wild flower garden. There are dozens of other native plants that may be transplanted to the home grounds, where they will thrive with little care, and by judicious planting a brilliant display may be enjoyed from early spring until the beginning of winter.

**FELLING OF TREES**

**A**BERLIN inventor has recently designed a simple device for the felling of trees. The trunks are cut by the friction of a steel wire about 1 millimeter in diameter, which, as demonstrated by practical tests, is able to cut through a tree about 20 inches (50 centimeters) in thickness in six minutes. The wire, which is carried to and fro by an electric motor, is heated by friction on the tree to such an extent as to burn through the timber, the result being a cut which is both smoother and cleaner than that effected by saw. The wire will work satisfactorily on the thickest trees without the insertion of wedges into the cut, and the trees may be cut immediately above or below the ground. In the latter case the stump may be left safely in the soil. The motor which actuates the wire is placed outside of the range effected by the fall of the tree, and when electricity is not already available it can be generated by a transportable power plant consisting of a 10 horse-power gasoline motor and dynamo, which are left at the entrance to the forest during the felling operations.

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# HELPS FOR THE HOUSEWIFE

BY PHEBE WESCOTT HUMPHREYS

## Delectable "Sweets and Sours" from Old-time Recipes

SPICED APPLE JELLY

OLD-FASHIONED housewives—especially the thrifty home-keepers of New England—held the secret of making a spicy and delicious jelly from the comparatively worthless buried-apples of early spring. We seldom taste in these days a jelly with a flavor so peculiarly rich and spicy. When the jelly closet is empty just before the fresh fruits and berries begin to appear, a thing to be reckoned with is the unpalatable condition of the kept-over fruits and their lack of flavor for jelly making. In New England they used to bury the apples in underground pits when it was desirable to keep over a quantity for use in the spring. Naturally these old apples "tasted of the earth" and those kept over in the cellars were spongy and juiceless at the approach of spring.

Some of our cold-storage apples of today that are kept till fresh apples come again are equally lacking in flavor and juiciness in the spring and early summer. Yet, when they are manipulated by the same processes as used by the old New England housewives, the jelly is even more delicious than when made in the usual manner simply as apple jelly.

For this richly spiced apple jelly, our grandmothers washed and quartered the apples, removing all "specks," but leaving on the skin. They were then put in a preserving kettle with sufficient liquid to keep from burning—using one part water and two parts vinegar. When boiled until thoroughly done, with all the juice and jelly substance subtracted from the skins, the whole was poured into a cheese cloth bag and allowed to drip until all the clear juice was secured. This juice was then measured, an equal quantity of sugar added, with a teaspoonful of whole cloves, a teaspoonful of broken mace and one of stick cinnamon broken in small pieces for each quart of the syrup. It is important to avoid the use of ground spices for clear jelly, and even the whole cloves and other spices should be tied loosely in a bag to avoid "specking" the jelly. When boiled until ready to "jell," the spices were removed, the liquid poured into glasses, and covered when cold, and the result was a clear, red jelly, much more attractive in appearance than the usual apple jelly and of a rich, fine flavor.

For a change in making apple jellies at any season of the year, it will be pleasing to have a portion of it spiced, for variety in color and flavor; but it is especially wise to "doctor up" old apples by this process.

APPLE-LEMON JELLY

Lemons are scarce and high in the spring, it is true, but it will be desirable to include apple-lemon jelly in the

emergency preserves; and, after all, very few lemons will be required for good results when intelligently used. After preparing the apple juice as for the spiced jelly, do not add spices, but prepare the clear slightly acid jelly in the usual way. If the lemons are sufficiently plentiful one lemon may be added to two quarts of apple juice; slice the yellow rind from the lemon in small pieces, pare off and discard the white inner coating, then slice the juicy pulp, throwing away the seeds, boil up with the apples, and strain the juice through the cheesecloth bag. The picturesque part of the lemon jelly is the finishing touch, however. After the juice has jelled, and is ready for pouring into the glasses, slice fresh, juicy lemons, cutting through the rind and pulp and forming the circular slices about a sixteenth of an inch thick, or as thin as can be sliced. Remove the seeds. Place a slice in each glass, and pour the hot jelly over it. No other cooking will be required. Then with a silver fork, make each circle of lemon stand on edge where it will show to best advantage through the glass and it will retain this position when the jelly is cool and firm, and is especially attractive when the mold of jelly is turned from the glass for serving. Not only is the distinct lemon flavor of this jelly pleasing, but the decorative feature is unique—and how the children clamor for that slice of lemon, to be dipped in sugar and nibbled after the jelly is served.

Here is a secret that our grandmothers understood—jelly can be made from dried apples that will vie with the fresh apple jelly in quality, color and flavor. The old-time sun-dried apples with the skins left on are the ones to be used if possible, instead of the white, evaporated apples. In some portions of New England it was customary each summer to dry all the apples, to be set aside with the skins left on, for spring jelly making. Other "wind-blown and specks," as the unmarketable apples were called, were used for cider making, for immediate jelly making, and for summer apple sauce, with a certain proportion dried without the skins—the thrifty housewives using the skins from the drying apples for the fresh-apple jelly. But a goodly proportion of the dried apples were simply washed and cored, cut into drying slices, and dried in the sun. These were dependable for fine jellies in the early summer, between the season of the "kept-overs" and the "new" apples.

SPICY APPLE BUTTER

Again we can follow the thrift of the old-time housekeeper by utilizing all the apple pulp from which the jelly juice has been drained. Rub it through a fine colander to remove all skins and waste. The fresh apple pulp from the lemon jelly can simply be sweetened and served with a dash of grated nutmeg. The pulp from the spiced apples and the dried apples will form delicious apple butter or apple marmalade with additional flavoring of ground spices—equal proportions of cinnamon and nutmeg or mace—to make



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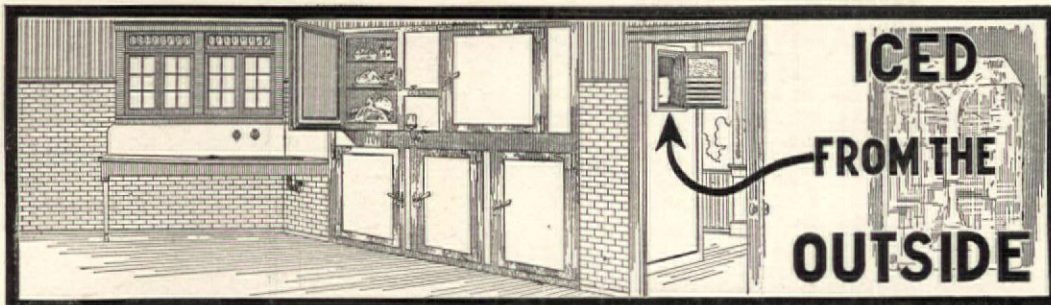
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the butter rich and dark; also add half a cup of vinegar and one cup of sugar to each quart of pulp; boil all together, then simmer slowly, stirring frequently, until a firm, rich marmalade results—sometimes known as apple butter, but finer in flavor and texture than the usual apple butter of to-day.

**OTHER DRIED FRUIT BUTTERS**

It should be more generally known that dried peaches, dried plums, and especially the spicy dried apricots, may all be made to supply delicious butters, jams or marmalades when carefully prepared, and when vinegar and spices are added as for the apple butter, it will not injure the flavor of the butter if a portion of the juice is drained from the fruit for jelly. Any sort of dried fruit should be very carefully washed and thoroughly soaked until the small, dark shriveled pieces become "life-sized," tender and light-colored. Soaking for a day and a night is a good old rule; then cook quickly, drain off a portion of the juice for jelly, and proceed as with the apple jelly and butter.

**LITTLE KNOW-HOWS FOR CANNING**

\* It is always more difficult to keep the canned goods fresh and sweet than the jellies and preserves that are cooked down thick and firm. The general principles of canning may be thoroughly understood (and they have been too frequently discussed to require repetition here), but there are several little "tricks" known to experienced canners that should be brought to the attention of young housewives if they would prevent breakage of glass jars and avoid fermentation.

For instance, many new jars are sacrificed for want of care in filling with the hot liquid. I once watched a practical housekeeper at her canning and noticed one little trick that was new to me. She invariably held the palm of her hand for a moment over the jar after filling in a cupful of the hot fruit—for a quick steaming of the jar to prevent breakage when the boiling fruit came in contact with the glass. She claimed that she had never lost a jar by cracking after she began to practice this one extra precaution. Of course, she followed the usual accident preventative of setting the jar on a hot cloth. She folded several thicknesses of cotton cloth, laid it on a pie plate or other shallow tin, poured hot water on the cloth, and set the jar on this. And, equally of course, she rinsed the jars out in very warm water in preparing them to receive the boiling fruit. But even with the hot rinsing and the hot water pad beneath the jar—insuring one against cracking the jar with the first cupful of fruit—on continuing to fill, often the very last cupful will break the jar. The moment of hand covering to "even up the temperature" is the needful finishing touch.

Another precaution for successful canning is to fill the jar to running over, and remove all air bubbles before putting on the top. If the syrup of the fruit is evenly distributed through the latter, in filling the jar, the air bubbles will not be likely to appear; but if they form, run the long handle of a spoon around the sides, and they will rise to the top and be entirely removed by the final overflow of the fruit juice. Then wipe the jar quickly and screw on the cover.



WM. M. CLARKE  
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# CORRESPONDENCE

The Editor of AMERICAN HOMES AND GARDENS desires to extend an invitation to all its readers to send to the Correspondence Department inquiries on any matter pertaining to the decorating and furnishing of the home and to the developing of the home grounds. All letters accompanied by return postage will be answered promptly by mail. Replies that are of general benefit will be published in this Department.

## Problems in Home Furnishing

By ALICE M. KELLOGG

### A PARLOR THAT IS TOO LIGHT

PROVIDENCE, R. I., correspondent is discouraged about her parlor, which has just been repapered. "I fear I have made a mistake," she writes, "as the room looks much worse than it did before. The new paper is a warm tan-color in two tones and I find it accentuates the brightness of the room. There is a large bay with three windows, besides two windows on the side. The woodwork is painted white and the window shades and thin, net curtains are white. The room looks garish and inhospitable. Is it possible to improve it without putting on another paper?"

Under the conditions described a wall paper of a gray-brown tone would be helpful in softening the light. Another suggestion would be to change the thin net curtains for cream-white scrim, trimmed with a lace edge and insertion, and hanging them across the glass. Over-curtains to hang at the side of the windows would also assist in darkening the room.

### DECORATING A CEILING

A Lincoln (Neb.) reader, G. O. F., asks about decorating the ceiling of her parlor, and if it would be better to leave the plaster in the original white finish.

The ceilings of houses of moderate cost are better treated with a water color tint, either cream or buff, rather than attempting an expensive decoration. If a wall paper must be applied to the ceiling on account of defects that cannot be covered with a tint, the design should be inconspicuous. Some wall papers have ceiling papers to match, but this is not necessary. If a considerable amount of money is expended on the interior of the house, the ceiling may be covered with the English relief material made for this purpose in various designs. This comes in plain white, and is intended to be tinted in one or more colors to suit the tones of the side wall and general color scheme.

### OBJECTS FOR A PARLOR TABLE

"We have been boarding the past few years, and previous to that our furniture, then in storage, was all burned up in a fire. Consequently, on starting again this year to make a new home we have had to buy all new furnishings. In the parlor we have a mahogany table with a round top thirty-six inches in diameter. What would you suggest as ornaments for it?"—Mrs. G. A. R., Sandusky, Ohio.

Usually, a family has odd pieces of bric-a-brac on hand to meet the need described by this Ohio correspondent. Sometimes wedding presents of one kind and another are useful. In purchasing new articles it would be well to deliberate carefully so that each one piece may be worth the attention it will receive in this conspicuous position.

(Continued on page xx)

## Garden Work About the Home

By OLIVER INGRAHAM

### WINDOW BOXES

"I WOULD like suggestions about the plants to grow in the boxes at the sides of the steps to my piazza and on the balcony above the piazza," writes a correspondent from Columbus.

Evergreens would, of course, be the best in winter, and you might use pyramidal box bushes or red cedar trees or arborvitae. A high tree at each end of the box and low ones in the middle would give a pleasing effect. In summer these evergreens can be planted in the back yard (if they live, which may happen) and the boxes can then be filled with flowering plants. Geraniums, nasturtiums and petunias are best because they are vigorous growers, bloom continuously and make a good show. Plants with pale colored flowers like heliotrope will not be pretty in such a situation. The foliage of carmas, caladiums and castor bean, which are sometimes used in such a situation, is too coarse and is out of scale with most buildings.

W. H. F.

The Black Walnut is a beautiful tree in some localities. It grows best in moderately rich, moist soil, as in bottom lands near rivers. I should not attempt to grow it on a rocky hillside or on a gravelly knoll.

It is one of our grandest trees, reaching a height of 70 feet, and it has a broad, open top with the foliage carried well out on the branches.

It loses its leaves early in the fall, which is sometimes an objection, but its branches are bold and strong and impressive when bare.

The gray birch is a charming tree and will grow anywhere. There is no handsomer lawn tree. It is easy to transplant when young, but the old clumps, which are so much admired, are so difficult that it does not pay to bother with them.

To recommend a course of home study in Landscape Architecture as S. D. asks would be difficult.

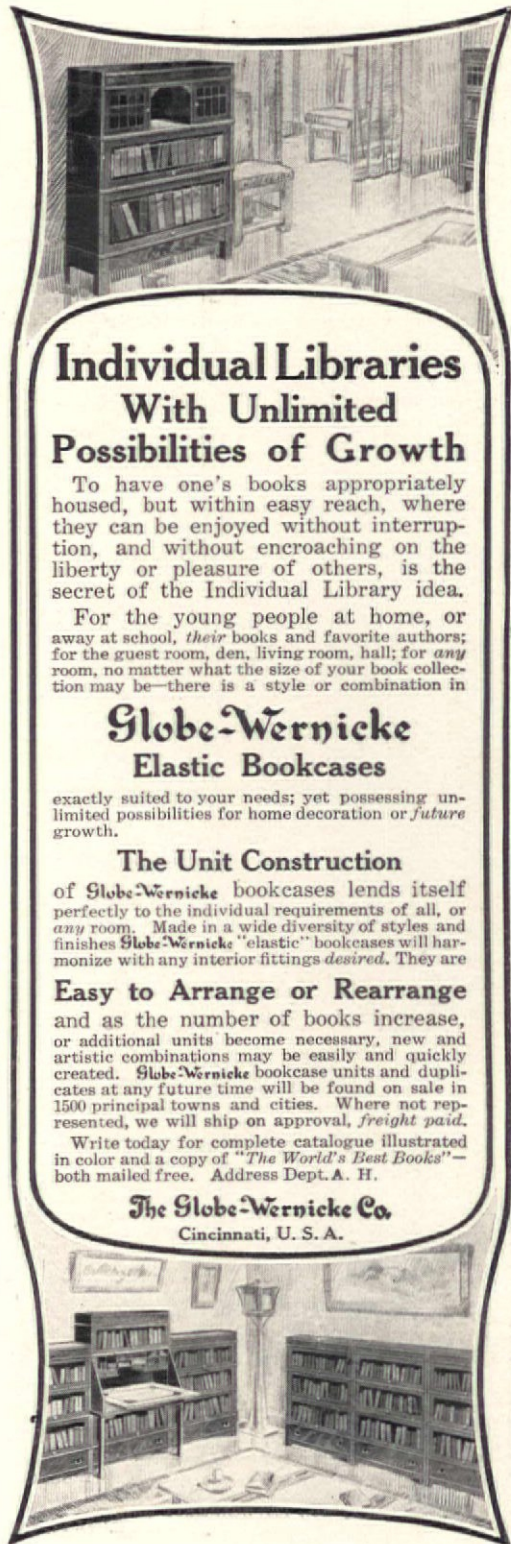
The course in Landscape Architecture at Harvard requires four years for completion and it must be preceded by at least two years of work in the college. Such an amount of work it would be difficult to accomplish at home, even if time is of no value.

A course of reading, however, might be arranged, which could be finished in a year or two and which, with the aid of outdoor study and observation, would give one an understanding of the art and a more cultivated taste that might be a sufficient return for the labor expended.

The technical side of the art it will be difficult to get from books, but the aesthetic side may perhaps be better grasped.

Such a course of home reading should include the following books, read more or less in sequence: Bawn's Essays, "Of

(Continued on page xxi)



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### Problems in Home Furnishing

(Continued from page xix)

A tall lamp or vase may be the first object secured for the center of the table. If fresh flowers cannot be kept in the vase, some of the artificial Japanese plum blossoms in white and pink may be substituted. A square of antique embroidery edged with gold braid may be laid underneath the lamp or vase as a mat. A small picture, framed with a support at the back, may stand near the edge of the table. Such a picture should have real artistic merit, or be of enough general interest to attract a visitor.

Two or three small books in good bindings (preferably with illustrations that may be enjoyed without depending on the text), and one or two pieces of glass or pottery of real beauty may complete the outfit for the table.

#### DESIGN FOR A CHAUFFEUR'S COTTAGE

A request comes from a New England reader, Mr. N. F. J., for a floor plan for a chauffeur's cottage, which is to be built this summer. Only a one-story house is to be erected to meet the requirements of man and wife.

In the back numbers of this magazine will be found a variety of plans for small houses. These may be adapted to the needs specified; or, the arrangement of rooms may be as follows: Across the entire front of the house may be the living-room, with one corner at the back used for dining purposes. A chimney may be built into the wall, facing the front door, and opening into a kitchen at the back. The rear of the house may be divided into bedroom, bathroom and kitchen.

#### INTRODUCING GRAY IN A COLOR SCHEME

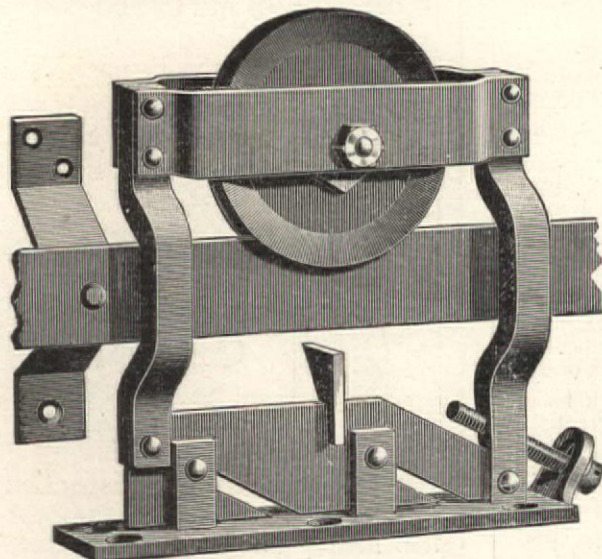
A western reader has noticed the references in articles on house furnishing to gray as a successful color for the house. "I would like to know if I could introduce this color in a guest room that I am fitting up. What shall I have in the room in this color? The exposure is south and west with a bay of three windows and a side window. At present there is a white Chinese matting on the floor and a brass bedstead. I can add whatever you think will make the room restful and attractive for my friends."

If you can find a large rug with a plain gray center and a border with green and yellow in it to lay over the matting it would give a keynote for the rest of the room. There is a good variety of gray wall papers from which to choose, and if pictures are to be hung in this room the pattern may be an inconspicuous one. If the picture element is lacking, a decorative wall paper introducing gray would be the better choice.

White muslin or white scrim may be made up at home with two rows of filet squares set in near the bottom as an insertion. Over-curtains may be added for winter use, selecting a plain or two-toned effect with a decorative wall paper, and a chintz or cretonne with a plain gray paper. A bedspread and pillow cover may also be made of the curtain material and seat covers for two arm willow chairs stained gray.

The bureau, side chairs and table may be of white enamel or mahogany, and the amount to be expended often determines the choice of these pieces. Either selection would accord with the color scheme suggested.

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**Garden Work About the Home**

(Continued from page xix)

Gardens"; Sieveking, "Gardens, Ancient and Modern"; P. G. Hamerton, "The Landscape"; Van Rensselaer, "Art Out of Doors"; Repton, "The Art of Landscape Gardening"; Downing, "Landscape Gardening"; Hemp, "Landscape Gardening"; Blomfield, "The Formal Garden in England"; Robinson, "The English Flower Garden"; Robinson, "The Parks and Gardens of Paris."

These books will give general knowledge. For information on special subjects, consult "The American Cyclopaedia of Horticulture," "Garden and Forest," and all the volumes in the Rural Science Series.

**HOW BIRDS WORK TOGETHER**

**T**URNSTONE is the name of a variety of shore-birds that are allied to the plovers and the sand-pipers. This name has been given to them because of their singular manner of feeding. With their strong bills they turn over the small stones lying in the sand of the beaches to find the insects that may be sheltered underneath. If the stone prove too heavy for the bill, they push it over by applying the breast to the upper side. Frequently a number of these birds will work together to turn over an object that is too heavy for one alone to move.

Two little workers were once seen busily endeavoring to turn over a dead fish that was fully six times their size. They were boldly pushing at the fish with their bills and then with their breasts. Their endeavors were, however, in vain, and the object remained immovable.

Then they both went round to the opposite side and began to scrape away the sand from beneath the fish. After removing a considerable quantity, they again came back to the spot where they had been, and went once more to work with their bills and breasts, but with as little apparent success as before. Nothing daunted, however, they ran round a second time to the other side and recommenced their trenching operations with a seeming determination not to be baffled in their object, which evidently was to undermine the dead creature before them in order that it might be the more easily overturned.

While they were thus employed, and after they had labored in this manner at both sides alternately for nearly half an hour, they were joined by another of their species, which came flying with rapidity from the neighboring rocks. Its timely arrival was hailed with evident signs of joy.

Their mutual congratulations being over, they all three set to work, and after laboring vigorously for a few minutes in removing the sand, they came round to the other side, and putting their breasts to the fish, succeeded in raising it some inches from the sand, but were unable to turn it over. It went down again into its sandy bed to their manifest disappointment.

Resting, however, for a space, and without leaving their respective positions, which were a little apart the one from the other, they resolved, it appeared, to give the work another trial. Lowering themselves, with their breasts close to the sand, they managed to push their bills underneath the fish, which they made to rise about the same height as before. Afterward, withdrawing their bills, but without losing the advantage which they had gained, they applied their breasts to the object. This they did with

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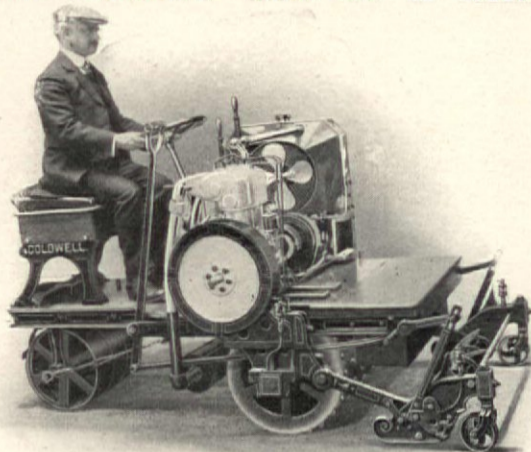
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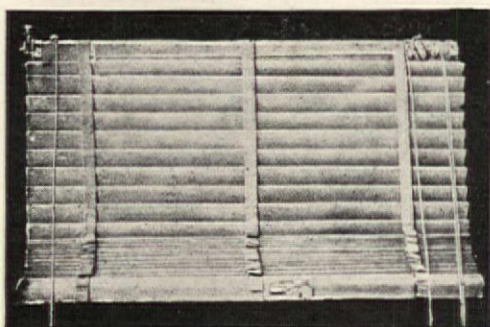
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such force and to such purpose that at last it went over and rolled several yards down a slight declivity. It was followed to some distance by the birds themselves before they could recover their bearing.

### TO COLOR TIN SOLDER YELLOW

**P**REPARE first a saturated solution of blue vitriol in water, dip a polishing stick into it with which the place to be soldered is moistened. Touch the spot thus moistened with an iron or steel wire or rod. If this is frequently repeated copper will be deposited. To produce yellow color, the spot is moistened with a mixture of 1 part of saturated aqueous solution of white vitriol and 2 parts of blue vitriol solution by means of a zinc rod. The spot is to be finally rubbed with gilding powder and polished with the burnisher. In the case of gilded objects, the coppered spot should be coated with a thin covering of gum or isinglass solution, dusted with bronze powder, and after drying, brushed smooth. For silver articles the coppered place is to be rubbed with silvering powder, brushed and polished.

### POISONOUS PLANTS

**S**OME of the plants of the family *Cruciferae* which grow in pastures are distinctly poisonous. Among these dangerous plants are various species of mustard. The field mustard, or charlock, which is very common in many parts of France, is particularly dangerous. The black mustard appears to be less irritant, but it is not free from poisonous qualities. Its seeds seriously affect the health of cows and make their milk unwholesome. The white mustard is still less poisonous, but not entirely innocent.

### THE TRANSFORMATION OF SEAWATER INTO FRESH WATER

**T**HE belief was prevalent among the savants of the 17th and 18th centuries that a hermetically sealed earthen vessel dipped into the sea would fill itself with fresh water. At the present day it is difficult to say on what this belief was grounded. It surely could not have been evoked by experiment. In a similar sense Marsigli, the founder of oceanology, made in the year 1725 an experiment which effected the filtration of sea-water through a system of fifteen pots filled with washed garden-earth or sand and so placed as to let the water fall as if in a cascade. It is stated that the palate disclosed a definite diminution of the presence of salt. Similar assertions are everywhere current among seamen.

A scientific test of the endeavor to free salt from water was recently made by the French investigator Thoulet. His report, which appears in the minutes of the Académie des Sciences of Paris, states that the presence of salt can be reduced by filtration. Forty centimeters of the length of a glass tube, which was one meter long and was placed in a perpendicular position, was filled with sea-sand, and the rest of the tube was filled with sea-water; portions of the filtrate were examined at intervals of the experiment to ascertain its density and chemical composition. The result was that in the initial stage of the experiment density as well as saline content were found to be moderately reduced; very soon thereafter both recovered their original value. The early decrease of value is explained by the mechanical attraction which every

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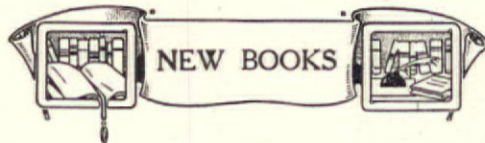
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chemically neutral body exercises on the molecules of a substance in solution as soon as the body comes in contact with the solution. In nature, too, sand fails to effect the separation of salt. Through shipwrecked seamen it became known that relatively fresh water may be found on very low and barren coral reefs in the Pacific Ocean by digging to a trifling depth in the coral sand. It is not, however, as was supposed, sea-water freed from salt through the layers of sand, but is simply rain water that is retained by a sandy stratum and by it protected from admixture with the sea-water. Similar phenomena may be observed on the European coasts. They may be considered the key to the popular belief, now contradicted, that sea-water can be sweetened by filtration through sand.



HUNTING WITH THE ESKIMOS. By Harry Whitney. New York: The Century Company, 1910. 8vo; 453 pp. Price, \$3.50.

This is a unique record of a sportsman's year among the northernmost tribe—its big game hunting, the native life, and the battle for existence through the long Arctic night. It is illustrated with photographs by the author and is a timely and sumptuous book. Mr. Harry Whitney has brought out of the Arctic a remarkable and absorbing narrative of thrilling adventures and unusual experiences. It is a narrative unlike any other description of Arctic life and travel. It is a distinctive and valuable contribution to the literature of the region. Not only will it interest and hold the sportsman and lover of wilderness adventure, but from an ethnic standpoint it contains much that is new concerning the Highland Eskimos, the most northerly inhabitants of the earth. The chief feature of the narrative, however, is adventure. The imaginative writer could hardly picture more thrilling incidents and hair-breadth escapes than fell to the lot of Mr. Whitney and his Eskimo companions on their hunts for bear, walrus, or musk-ox, on the trail; on the sea, or at times when they were overtaken by the fearful storms and hurricanes characteristic of the region. Hardly a chapter but contains an unusual adventure. Mr. Whitney is a very modest man, however, and in his record he has so undervalued the hazard and peril of many of the positions in which he was placed, that one must read between the lines to fully appreciate them.

OLD ENGLISH INSTRUMENTS OF MUSIC. By Francis W. Galpin. London: Methuen & Co.

The Rev. Francis W. Galpin's name is well known to antiquaries in this country, partly because of the assistance which he gave in arranging and cataloguing the old musical instruments in the Crosby-Brown collection of the Metropolitan Museum of Art. From so distinguished a student in the domain of antique musical instruments, we cannot but expect a work of authority, and this expectation Mr. Galpin has fulfilled in the book before us. The subject is so vast in extent that it is difficult indeed to compress, as Mr. Galpin has done, in a space of 314 pages, and in a form which would satisfy both the general reader and the student, an amount of material which is truly enormous. Although the book is confined almost entirely to English



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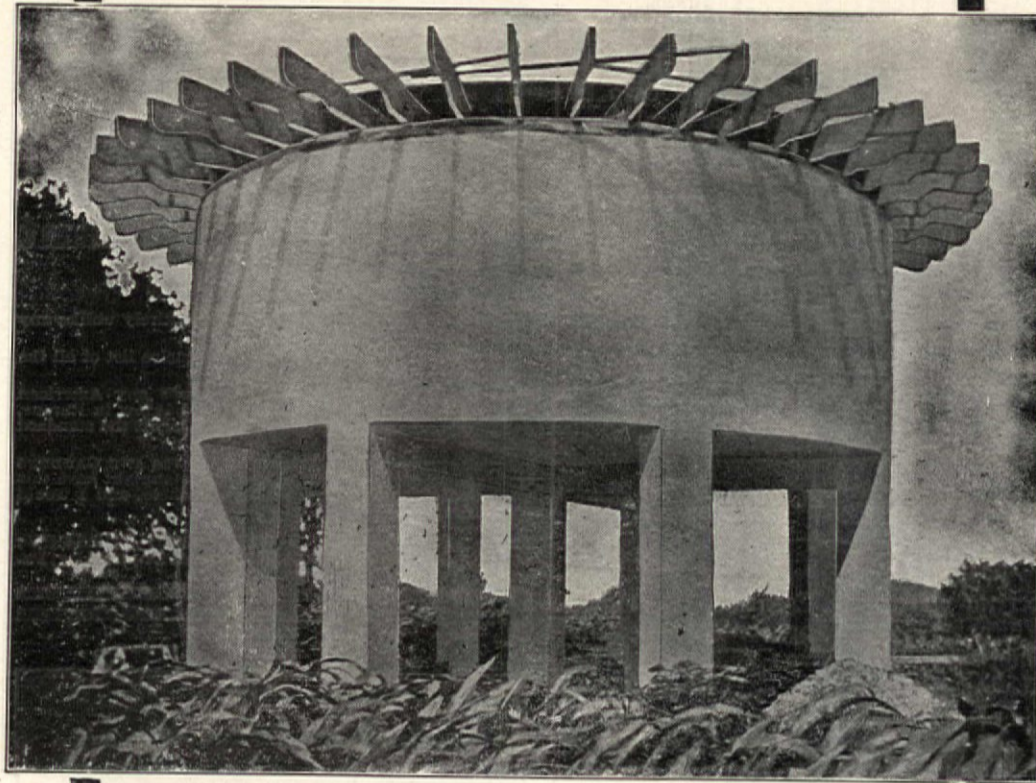
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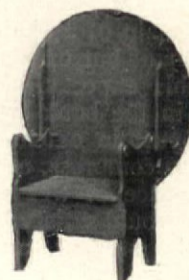
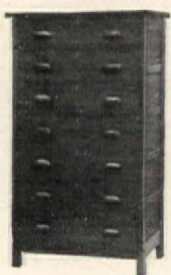
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IN AND OUT OF FLORENCE. A New Introduction to a Well-Known City. By Max Vernon. New York: Henry Holt & Co., 1910. 12mo.; 370 pp. Price, \$2.50 net.

This is a kind of guide book or introduction to Florence, both for those who actually are coming or have come to it, and for those who can come only in the spirit. It tells something about Florence and the Florentines of to-day as well as about those glorious people of the earlier centuries. Finally, it tells also something of how one may become, with the least trouble and expense and most advantage and interest, temporarily a Florentine. The illustrations are from both drawings and photographs, and are very pertinent to the text. There is an excellent bibliography of books on Florence at the back of the book. The chapters relating to various galleries are particularly interesting, while the information which is conveyed about servants, marketing and housework is extremely valuable.

HEALTH PROGRESS IN THE ADMINISTRATION OF THE WEST INDIES. By Sir Rubert W. Boyce, M.D., F.R.S. New York: E. P. Dutton & Co., 1910. 8vo.; 328 pp. Price, \$3.50.

The epitomized record of the progress or sanitation and sanitary administration in the West Indies is the outcome of a visit which the author paid to the West Indies in 1909 in order to investigate an epidemic of yellow fever which was present in the colonies of Barbados at the time. While making the investigations on the subject of yellow fever in Barbados, he was requested by the Governor of the Windward Islands and the Governors of Trinidad and British Guiana to prolong his stay and visit their respective territories and report upon the health conditions obtaining in these colonies. The results of the author's experiments as described in the present volume is of value not only to the medical and business man, but also to the tourist who wishes to reside in or visit these beautiful colonies. The book is beautifully illustrated with interesting half-tones.

NAUTICAL SCIENCE. In Its Relation to Practical Navigation. Together with a Study of the Tides and Tidal Currents. By Charles Lane Poor, Professor of Astronomy in Columbia University. New York and London: G. P. Putnam's Sons, 1910. 8vo.; 31 illustrations; 11 plates; 329 pp. Price, \$2.

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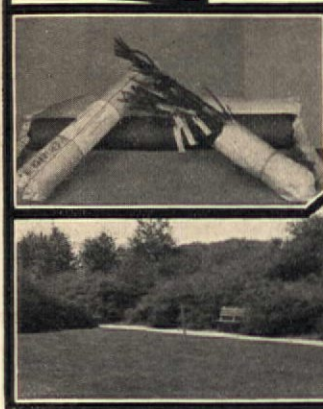
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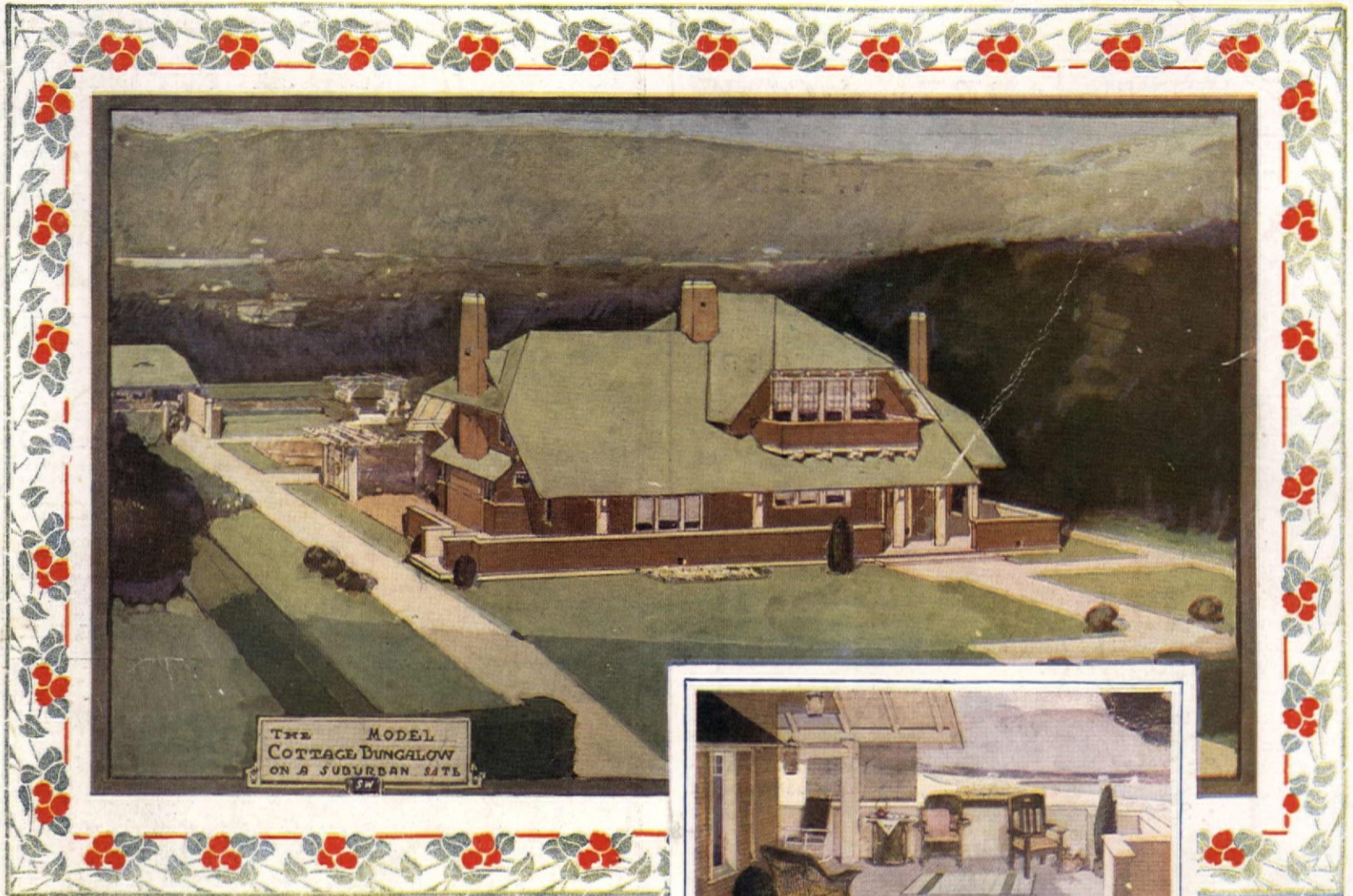
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