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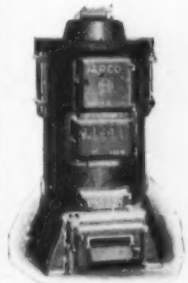


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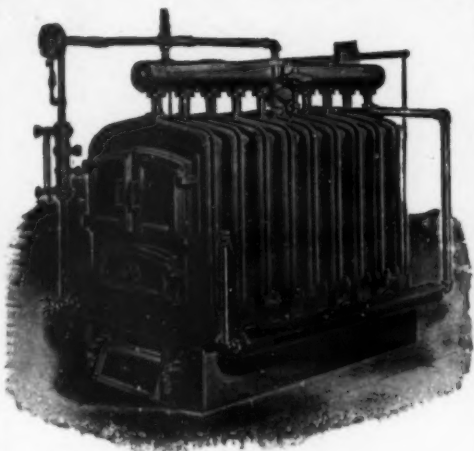
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A Word From the Publishers

IN the September issue—the first one to appear over the new management's name—we said that we were far from being satisfied with our first month's number. That was before we saw it all printed, bound and published. When it actually lay before us, an irrevocable product, we confess to a considerably greater degree of dissatisfaction. The issue simply had to be rushed through the mechanical part of its creation. There were many things that could have been so greatly improved if we had had just a little more time to work over it, trying matters of typography and general make-up.

The ready response with which the September number has met is most gratifying indeed. The actual news-stand sales have been nearly double those of August and our orders for October show substantial increases over September. During the past week, more subscriptions have come in than during the whole two months previous, all of which proves, we think, that our treatment of our subject is along lines of most interest and value to those who love beautiful homes.

The series of articles on landscape gardening as applied to the home grounds of modest proportions, starting in this issue with one bearing the title "Utilizing Natural Features in Garden Making," is going to fill, we firmly believe, a great big want among home makers. There have been articles innumerable published in many magazines telling how to grow this flower and that shrub, telling the best rhododendrons to plant, and so on, but never, to the best of our knowledge, has the whole matter of beautifying the home grounds, and particularly the home grounds of modest proportions, been adequately treated, either in text or illustrations. Miss Tabor is a trained landscape architect who acquired her knowledge of the subject at the Arnold Arboretum under the guidance of that grand old man of American horticulture, Professor Sargeant. She brings to this task not only an exceptionally complete technical knowledge of the subject, but a wealth of good common sense, excellent taste and a great enthusiasm. Here are just a few of the general headings that will be taken up in future numbers: Getting Into a Place—entrances, walks, driveways and gates; Winter Effects—use of evergreens for utility and ornament; The Vegetable Garden; Boundary Lines and How to Treat Them; The Offscape—bringing surrounding objects into the picture or shutting them out; Flower Planting—beds, borders, etc.; Dressing Up Buildings—vines and planting around the base of a building. These articles will all be of the most helpful, practical sort—they will tell you just how to treat your own individual problem of making your house seem at home in its site.

Then here is another series of articles that will be absolutely without precedent in publishing. We have been most fortunate in persuading Mr. Alexander Buel Trowbridge, former Director of the College of Architecture

at Cornell University, and member of the American Institute of Architects, the Society of Beaux-Arts Architects, the Architectural League of New York and other professional organizations, to write a series of plain talks to home builders. Building a home should be a thoroughly enjoyable occupation, both for owner and architect. Unfortunately it is open to so many different forms of trouble that it has come to be a commonly accepted belief that a man must build one or two houses before he can finally get what he really wants and needs. This is all wrong, and there seems no doubt that the cause of it all lies in a lack of understanding regarding building methods and practice on the part of the prospective owner of a home. Mr. Trowbridge is going to try to clear up this fog. He is not going to be dry and technical, either, but will set up guide-posts all along the road to a successful home. If you ever hope to build your own home and have it to suit your own individual needs and taste, you will do well to follow this series of talks. They will be short, concise, and full of meat. Here are a few samples of the headings: Choosing a Site—the things that are essential; Appropriate Architecture—styles; The Question of Cost; Extras—how they occur and how they can be avoided; Specifications—what they are for and what they should contain; Estimates—to what extent they may be relied upon; Contracts—just what they should cover and how; and so on through a long list of really vital subjects. Watch for the first of the series next month, taking up the First Steps—what you will have to pay for besides a house.

Miss Jeannette Gilder, the distinguished literary critic, will tell in the November number the story of her cosy country home: how she bought the house and its two acres of ground for \$600, in the charming Connecticut Hills, two hours ride from New York, and how by knocking out a few partitions and adding an improvement here and there, succeeded in getting a home after her own heart—an experience that can be duplicated by any one.

We are seeking articles and pictures of distinct types of houses. If you have built a real bungalow, or a pure Colonial house, or a thatched-roof cottage, or a replica of some famous house, let us have the story of it with photographs, or even the photographs without the story. Likewise if you have obtained an unusual decorative effect in your living- or dining-room or have worked out some unique scheme of furnishing, tell us about it. The same in gardening—if you have had some gardening experience that would prove helpful to others, if you have made your vegetable garden pay, have produced some pleasing effect on your lawn or border, put it into your own words and send it to us. Perhaps you have a photograph of your house and garden that would make a cover design as beautiful and striking as the front cover of this number. For all such contributions we will gladly pay.

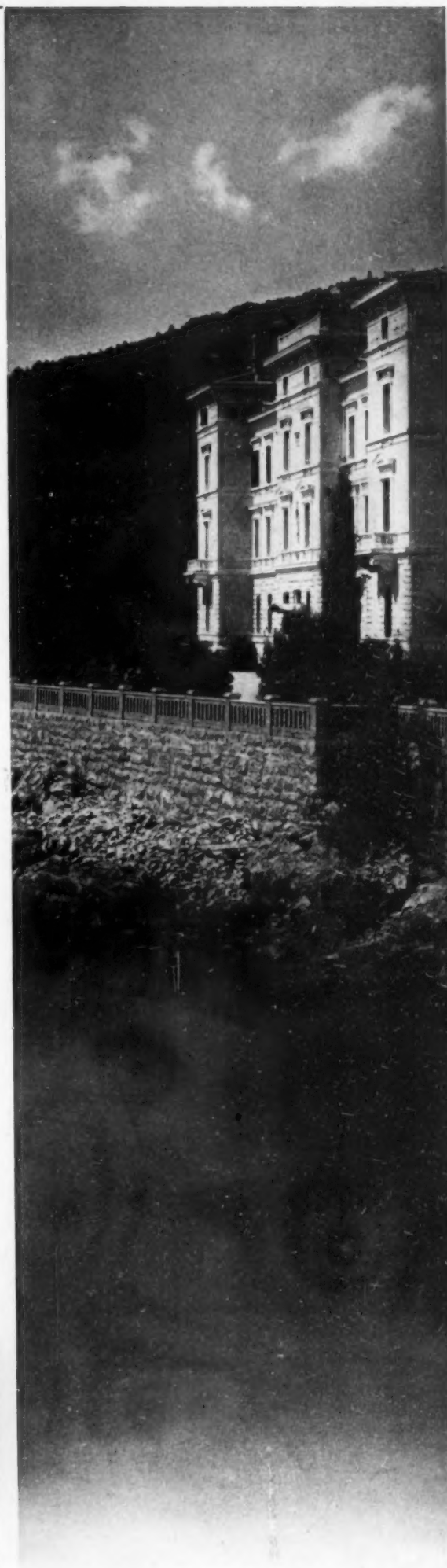
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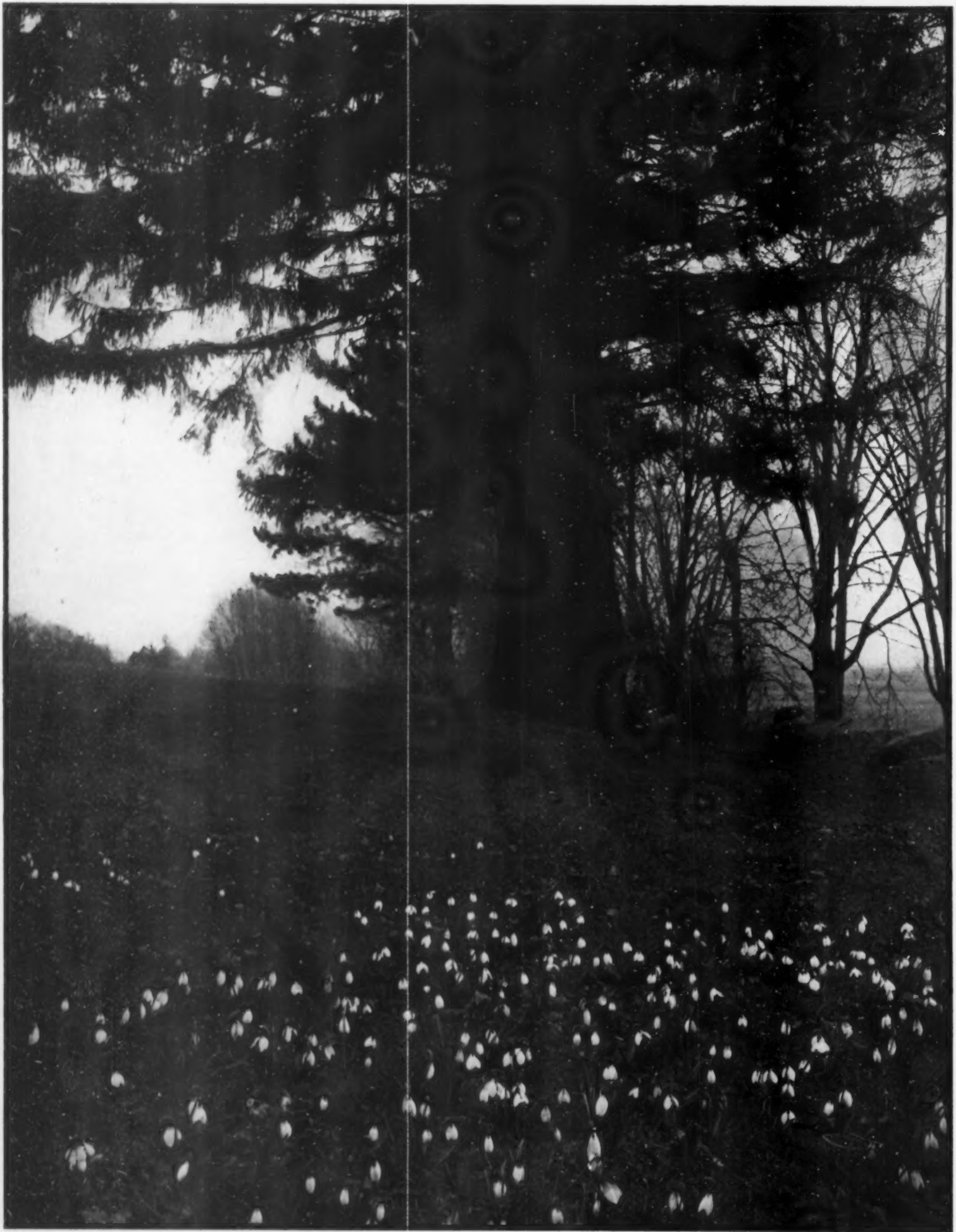
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HENRY H. SAYLOR, EDITOR

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Plant snowdrop bulbs now in the lawn—several hundreds of them, and enjoy, next spring, the thrill of a sight like this

House & Garden

VOLUME XVI

October, 1909

NUMBER 4

Naturalizing Bulbs on the Home Grounds

HOW TO HAVE A GLORIOUS MASS OF BLOOM IN EARLIEST SPRING WHEN FLOWERS GIVE THE KEENEST PLEASURE—AN ANNUAL JOY FOR A FEW DOLLARS AND A LITTLE LABOR SPENT NOW—WHAT TO PLANT, WHERE, HOW, AND ALL THE DETAILS

BY E. O. CALVENE

Photographs by Nathan R. Graves

EVERYTHING lovely in the world is rolled up in a bulb! Positively it is—every spring I am more certain of it—and you can buy bulbs and plant them and have all this loveliness, for about one-tenth the expenditure of money and energy which a corresponding display of any other flowers would demand.

If we can have the moonwhiteness of the snowdrop, the heavenly blue of the scilla, the starry brightness of ornithogalums, the rainbow hues of the crocus, and the sunlight of daffodils all about us, and have them year after year without doing a thing but let them alone after the first planting is made, what are we thinking of not to?

Of course all flowers are beautiful, but there is a thrilling loveliness about the very first flowers which the summer's proudest blossom cannot boast. If you doubt it, try having some. You will be convinced as soon as the first little shoot thrusts itself up through the barren earth; if it should come through snow, beware! It brings a kind of delight that is almost madness—a wild dancing of the pulse and a childish impulse to jump up and down and shout. They make the heart young, do spring flowers; and a young heart means youth, whether at eight or eighty.

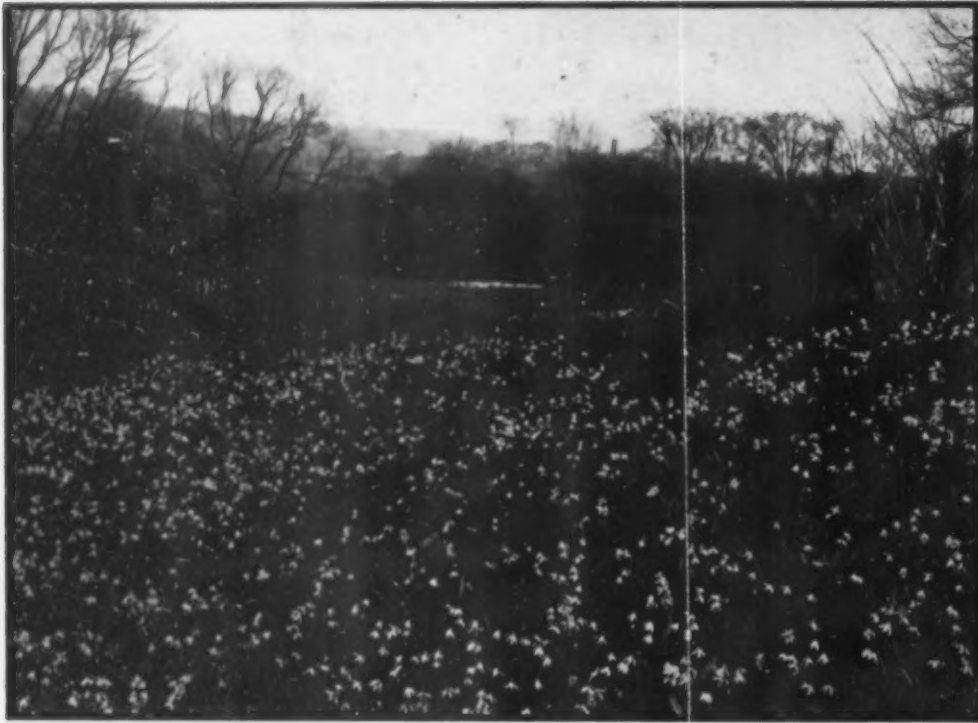
In all the multitude of variously designated bulbs—the botanists unfeelingly call these treasure-caskets bulbs, tubers, corms, or rhizomes, according to their form—one, a tiny thing not bigger

than an ox-heart cherry, seems to me to occupy the place of honor. If you have ever seen a colony situated as it should be, you will surely know at once that it is the snowdrop; but if you have never seen such a colony—and by colony I mean anywhere from a hundred to a thousand or more bulbs—so situated, you may be forgiven for not realizing that it deserves to be so honored. For the snowdrop is so small and delicate in its ethereal beauty that unless it is planted thickly in masses one may very possibly overlook its surpassing loveliness, and fail to realize its merits.

Of course every one hasn't room for even snowdrop bulbs by the thousand, but if you are the possessor of a lawn plot even five feet square let me urge you to set at least a hundred bulbs in it. If it boasts a tree, group them around its base; this is precisely what they like—and if it is an evergreen let your heart rejoice, for the pure, modest little blossoms gain in airy charm by contrast with the dusky green and its deep shadows.



Tulips will thrive among weeds and grasses



With snowdrops combine squills (*Scilla Sibirica*) to get blue with the white

Snowdrops bloom early in the spring before there is a sign of life anywhere—even earlier than the pussy-willows come—beside snow patches if not actually up through them; consequently there is no danger of injury to them by the lawn mower, as they are ripened long before time to cut the grass. The grass does not crowd them out in time either, as it does the crocuses which are so generally recommended for lawns—these are injured by the mower too, in spite of the statements to the contrary—and, last but not least, they are cheap, costing less than a dollar a hundred.

Do not select the large-flowering forms for naturalizing, but choose the common, old-fashioned kind—*Galanthus nivalis*—and remember that they do not endure the intense heat of a very open and sunny situation; it bakes the bulbs in summer.

With the snowdrops combine *Scilla Sibirica*—old-fashioned squills—for the color effect. This is a most wonderful heavenly blue and its blossoms appear along with the snowdrops, though it is not always so early as the very first of these. They are very nearly as delicate and must be planted quite as lavishly; and they are similarly adapted to close-shaven lawns, being dwarf and ripening early.

Scilla bifolia is another variety that blooms in March, of which there are blue, rose and white forms, as there are also of *Scilla campanulata* which blossoms in May. The latter will thrive under evergreens quite like the snowdrop. These bulbs average one dollar per hundred.

There are one or two other things usually suggested for planting along with snowdrops and squills, but I am purposely omitting them for the reason that with these two, thickly set, there is no need for further species. Indeed, the introduction of anything more would spoil the effect of natural simplicity.

Wherever grass is not to be cut until after July first—and then not with a lawn mower—it is possible to plant such a variety of bulbs as will give practically eight weeks of constant bloom; and in a place of any size at all, if the house and locality are not strictly formal, it may be worth while to let what would ordinarily be close-shaven lawn take on

the character of meadow, for the sake of the different varieties of narcissi which may be naturalized in the grass.

They like best a cool location, in a soil that is neither extreme of sand or clay, *thoroughly* drained—there are one or two varieties which will grow in comparatively wet places—and lacking the meadow they may be planted with delightful effect in an orchard, in open woods, or among shrubbery. Indeed, they can be tucked in in clumps in every vacant corner, if there is no better place.

The common pheasant's eye—*Narcissus poeticus*—which blossoms in May after other bulbs have gone by, is unsurpassed for naturalizing and the one most commonly used, being cheap—\$7.50 a thousand or \$1.00 a hundred—and I should not advise planting any other narcissus in quantity unless the ground is wet. In that case do not use this, but try the earlier variety which blooms the last of April—*N. poeticus, ornatus*—and does not mind moisture so much.

Jonquils may be freely strewn among the narcissi with excellent effect and their delicious fragrance adds to their desirability. These and the jubilant daffy-down-dilly are really only varying forms of narcissi, the latter name being applied usually to the double, trumpet-shaped yellow variety. Notwithstanding the objections which I have cited against the crocus—the injury



Why not have poet's narcissus among the rhododendrons?

done it by close cutting of the grass and the fact that the grass itself will crowd them out—they are irresistible. And they are one of the few flowers that look well in a mixture of colors, possibly because they come at a time when there is no other vegetation and when we are eager for the promise which their gaudy cheeriness brings.

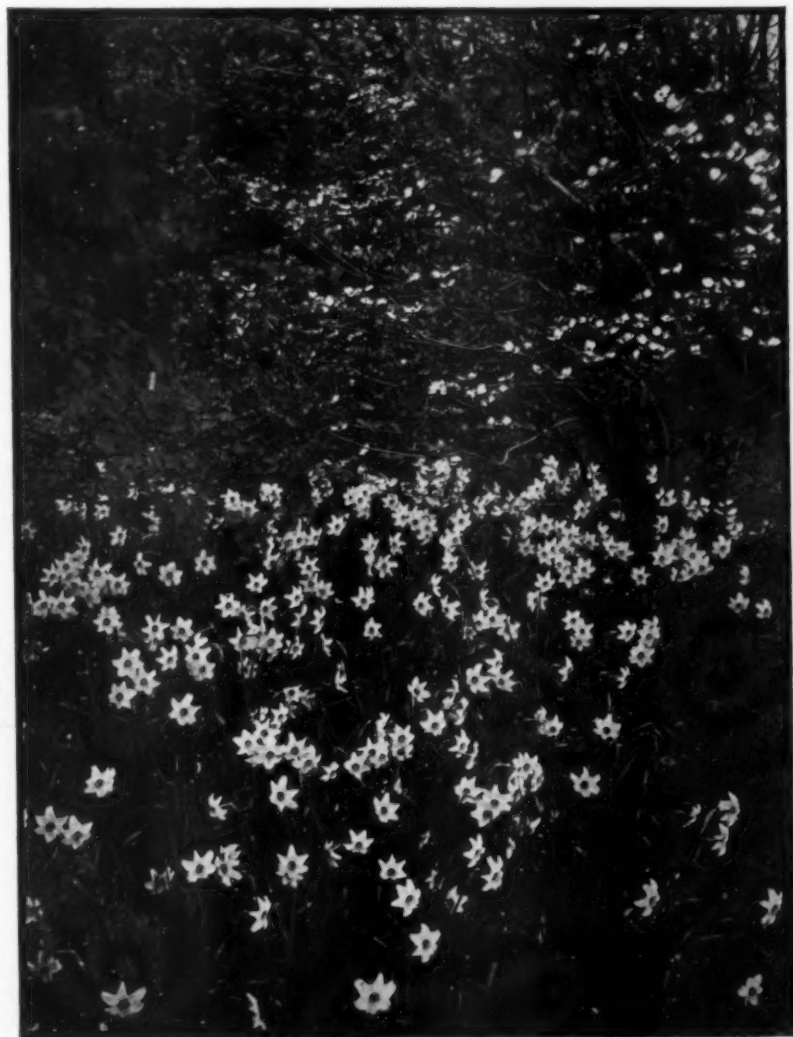
If you decide to use them do not allow the grass to be cut under any circumstances within a fortnight after the last flower is gone, and not then if the leaves have not turned brown and died. This is the signal that above ground the crocus' work is over for the year and therefore danger of injury is reduced to the minimum.

The Star of Bethlehem is overlooked nowadays, which is a pity, for each plant blooms more profusely than bulbous plants generally do, and its bright, white little blossoms sparkle among the green of its leaves and the neighboring grasses with a lively beauty most reminiscent of the twinkle of its celestial namesake.

This does not seem to spread so freely as most plants of the sort, though I have heard one variety of it complained of as a nuisance when planted in borders where other varieties of the same species were being cultivated, owing to its very numerous formed bulblets which lead to confusion. The true Star of Bethlehem is splendidly hardy



Plant myrtle and crocuses where grass will not grow. The myrtle will hide the dying bulb foliage after the crocuses have bloomed



The pheasant's eye or poet's narcissus, with flowering dogwood

however, even if it does not spread rapidly, and is quite unmindful of adverse conditions, living on valiantly by arid roadsides and in fields and pastures whence it has escaped from old-time gardens.

In England it is highly prized and many varieties are cultivated, especially in wild gardens; taking a hint from these we cannot do better than use it for one of our species in naturalizing, for it lends itself to such planting unusually well. *Ornithogalum umbellatum* is the true Star of Bethlehem; *O. Arabicum* is listed by some dealers, but this is not reliable enough for the amateur or for naturalizing. Scatter the former freely in long grass either in the open or at the margin of thin woods—and let it alone. It blossoms during April and May.

Tulips, especially the late or May-flowering class, take on an altogether new charm when naturalized. The idea seems revolutionary at first, yet they thrive amongst weeds and grasses and will not be driven out—which is about the best argument in the world to prove them suitable for such planting.

The dealers offer collections of named varieties at very low prices, and it is sometimes well to buy this way if one is not familiar with the coloring of the flowers. After one season of bloom take out any that have not been pleasing to you and put them somewhere else—or throw them away if you dislike them very much. I should advise choosing the single forms always for natural planting.

For June flowering there is the golden lily leek—*Allium Moly*—that takes kindly to naturalization and is very showy and attractive when planted in a "scattered mass." A blue variety is very lovely, but I am not sure of its being satisfactory for this sort of planting, never having seen it used in this way. Some time I shall try it, for blue flowers that are really showy are so rare, comparatively, that we never have enough of them.

In moist cool English meadows there is a strange looking flower that grows wild—a checkered curiosity that some find beautiful and some do not. Commonly it is called snake's head or guinea-hen flower; rightly its name is *Fritillaria*

Meleagris and it is blood brother to the old-fashioned crown imperial that is so attractive but smells so "most awful vile."

The variety *Meleagris* lacks the latter unpleasant attribute and naturalizes very readily in the right situation. It must have the congenial conditions however—which means moist though well drained soil, and partial shade.

Curiously enough the common native irises have never been naturalized to any extent, so far; yet the exquisite color of the blue varieties—the larger, and the slender blue flag—is so vividly refreshing as it gleams forth from meadow, open thicket, roadside and boggy underbrush, in the localities where they grow in wild luxuriance, that it is an inspiration to the beholder.

Irises do not by any means require damp or swampy land, the little *Iris verna*—lilac, sometimes white, and yellow—being native to woody hillsides. *Iris versicolor*, which is the common flag, may prefer moist places but it thrives perfectly in ordinary garden soil. The yellow European flag has become naturalized in New York, Massachusetts and New Jersey and though at home it grows in marshland, it does not seem to be so particular here. Irises are curious plants which have a way of refuting popular notions about what they like and what they do not like, and one can only be sure that a species will not grow in a given spot by trying it there and having it fail. The bright yellow *Iris arenaria* should be chosen for distinctly dry soils, and the mountain variety from North Carolina—*Iris cristata*—which has been tested as far north as northern Vermont. This is blue and fragrant.

Lilies can hardly be naturalized in as broad a sense as snowdrops or Narcissi, yet there are some varieties which ought always to be planted among shrubby thickets or along half shaded woodland borders. The wild yellow meadow lily—*Lilium Canadense*—and the white trumpet lily—*Lilium longiflorum*—are both good and different enough to give sufficient variety. Their fragrance is not the least of their charms.

One autumn-flowering variety I must include here and that is the "autumn crocus" or colchicum. This funny little thing turns the cart before the horse by blossoming in September without any leaves and sending up leaves in spring without any blossoms. Its colors range from white to purple and there is a yellow form but I doubt if it is in the market. Colchicum bulbs should be planted thickly in grass that is not mown very often, nor before July first. It should be cut short before their blooming period however, else you will miss them entirely for they are not tall.

And now a word about getting these masses and colonies that

we have been talking about, into the ground in natural patches. Of course anything like regularity must be guarded against so thoroughly that it simply cannot occur—and this isn't easy always, for things have a way of getting into rows when we least expect it that is most astonishing and exasperating.

My way is to take all the bulbs to be planted in a pail—or as many as the pail will hold—and turn the pail upside down over the spot to be planted at a good height from the ground—say on a level with the shoulder. The bulbs, falling this far, scatter if the pail is inverted quickly, so that they lay finally in a group that is thicker at the center and runs off at the edges, with here and there odd ones that have gone farther than the rest. Plant

them exactly where they lay; if there are open spots so much the better—there will be if you have held the pail high enough.

If you are mixing two kinds take the larger bulbs first and then the smaller. This gives the latter a chance to roll in and around the others just as they would naturally spread under ground in the process of growth.

Bulbs are generally planted too near the surface rather than too deep. It is not possible to give a hard and fast rule, but ordinarily cover to twice the depth of the bulb itself, unless otherwise specified in the catalogue from which you make your selection.

Always guard every kind of bulb carefully from coming in contact with manure; this is the only safe way. It can be done by putting a little cushion of sand down for the bulb to lie on and sprinkling sand around it before covering.

For planting bulbs in the sod of a lawn there is an ingenious tool made

from gas pipe, sharpened at one end. This is pressed down into the earth as deep as the bulb is to go and removes a core of sod and earth. The bulb is dropped into place and the core pressed down upon it by a wooden plunger that moves inside the pipe. The work is rapid and easy and no mark whatever is left in the turf.

Do not credit the statement that small sizes or "seconds" will produce such results as first size bulbs. A bulb is a plant storehouse in which an entirely new plant is formed during the "ripening" process, after flowering. Unless this process is complete—that is, unless the bulb is allowed to store up its full quota of nourishment and energy for the succeeding plant—that plant cannot possibly be as large and vigorous as it otherwise would.

For general naturalizing, however, the smaller sizes will do because not so much is expected of them at first; they will do better in succeeding years, gradually attaining their full growth.

NAME	COLOR	BLOOM	COST PER 100	INSTRUCTIONS
<i>Galanthus nivalis</i>	White	Feb-Mar.	1.00	Plant in shady lawn—grass can be mowed closely over these
<i>Scilla Sibirica</i>	Blue	Mar	1.50	
• <i>bifolia</i>	Blue	Mar	1.25	
• <i>campanulata</i>	Rose	May	2.00	Plant in meadows, open woods, shrubby borders, and on stony banks of streams and ponds
<i>Narcissus poeticus</i>	White	May	1.00	
• <i>poeticus, ornatus</i>	White	Late Apr.	1.25	
Jonquils (single)	Yellow	Apr	1.00	Lawn or meadow
Daffodils	Yellow	Apr	1.50	
<i>Crocus</i>	Mixed	Feb-Apr	0.60	Meadow or woods
<i>Ornithogalum umbellatum</i>	White	Apr-May	0.75	Wild spots
<i>Tulip Gesneriana spathulata</i>	Mixed	May	1.75	Uncut grass by paths or on banks
<i>Allium aureum</i>	Yellow	June	0.75	
• <i>azureum</i>	Blue	June	6.00	Moist semi-shade
<i>Fritillaria Meleagris</i>	Checkered	Apr.	1.75	
<i>Iris versicolor</i>	Blue	May-June	10.00	Meadows, open thickets, roadsides and banks
• <i>pseudacorus</i>	Yellow	May-June	10.00	
• <i>verna</i>	Violet Yellow	Apr.		
• <i>arenaria</i>	Yellow	Apr.		
• <i>cristata</i>	Blue	May	4.00	
<i>Lilium Canadense</i>	Variable Yellow	June	7.00	Thickets
• <i>longiflorum</i>	White	June	6.00	Shrubby, thickets

What to plant, where, how, what it will cost and what you will get

The Whole Art of Transplanting Trees

WHEN THEY MAY BE SAFELY MOVED AND WHY—HOW NURSERY-GROWN TREES ARE HARDENED AGAINST THE SHOCK OF TRANSPLANTING—JUST HOW TO AVOID FAILURE IN DOING THE WORK YOURSELF

BY W. R. GILBERT

THE PERIOD during which trees and shrubs generally can be transplanted with safety extends from the middle of October to the middle of April. At this time growth is in abeyance, or at any rate, whatever activity may be going on inside, there is little or no visible exterior evidence of it. Whenever the weather is what is termed open, that is mild and moist, planting operations may be actively carried on at any time during the period named. There are, however, circumstances and cases which require to be considered before a tree or shrub or plant of any kind is transplanted. For example, in dry weather the soil may be too dry for the operation, and the plant may suffer through the absence of moisture both at the root and in the air. On the other hand, there may be so much moisture in the soil, and rain may be falling so frequently, as to favor transplanting to an exceptional degree. Not only is the "softness" of the weather propitious, but autumn transplanting is favored by the bygone heat of August and September, which has the effect of forcing many plants to ripeness and to rest unusually early. There is danger of this early ripening being followed by premature starting in growth; indeed, there are often many evidences among hardy trees and plants of all kinds that this happens. Transplanting has the effect of checking and retarding growth, and therefore every plant that is dug up and planted now or at any time before March is likely to be favored.

Deciduous trees and shrubs of all kinds or reasonable size, if handled with care and judgment, will bear transplanting at any time while they are leafless. They can bear the operation even before the leaves have fallen or after new growth has started, if they are well watered at the root and protected for a little while from dry winds. Some plants appear to recover best from root disturbance if they are transplanted late as May. Hollies, evergreen oaks, bamboos, Portugal laurels, magnolias, bays, and a few other less well known things never recover satisfactorily if transplanted before the middle of May, or just when they are about to burst into new growth. The same rule applies to the majority of evergreen plants and trees, spring rather than autumn planting being most to their liking.

There is a great deal more in transplanting than the layman would imagine. Too commonly one sees newly planted trees and shrubs dying and dead in situations where with proper care there should have been no failures. Nurserymen who have a reputation to maintain train their young trees and shrubs to bear

the trials of transplantation by digging them up and replanting them again every two or three years. After such treatment quite large specimens may be safely transplanted. The training means simply the checking of the root growth so as to induce the formation of a compact mass of small feeding roots instead of a few long woody roots, which are formed when the young trees are not lifted, and which have to be cut when transplanting takes

place. There is, of course, a difference, often very considerable, between the price of nursery trees that have been lifted every two or three years and those which have never been disturbed since they were first planted. To the inexperienced the latter may be, and often are, better to look at than the former, and it is only after the planting has been done and the first season has been passed that the penny-wise and pound-foolish policy of the purchaser of cheap trees is revealed. The nature of the tree should never be overlooked while it is passing through the trying ordeal of transplanting. Too often valuable trees are spoilt by careless packing, by rough handling during transit by rail or otherwise, and by unreasonable exposure before they are planted in their permanent positions. Where proper precautions are taken, trees of large proportions can be transplanted without suffering appreciably, but where there is no care, no feeling for plants while going through the process, even small examples which with ordinary treatment would not have turned a hair, will perish by the wholesale.



When putting the tree into its new setting, spread the roots naturally, and see that it is neither deeper nor higher than it stood before

When a tree is ready to go into its new site, go over the whole root growth systematically and cut off with a sharp knife all broken or bruised portions. Spread the roots out naturally, that they may occupy as nearly as possible the same relative positions to the trunk that they had before being taken up. Fill in gradually with fine soil, working it carefully under and about the roots so that no unfilled spaces will remain. Put the soil in layer by layer, carefully trampling it until it is firmly packed about the roots. Continue this method until the hole is filled to within two inches of the level. The remainder of the soil should be spread in lightly until the hole is filled to a surface level. If the soil is very dry pour in a liberal quantity of water before finishing off with the loose soil. There is usually a soil mark shown on the bark of the tree or shrub that indicates the depth it stood in the forest or nursery, and it should be set as near that depth as possible; never more than two or three inches lower, and certainly no higher. If these suggestions are followed there need be but little fear for a successful planting and growth.



The Bates house stands upon a knoll commanding a view over Long Island Sound



The kitchen and service porch are at the left, conveniently near the street front

A House Built for a View

THE HOME OF MR. GEORGE V. BATES AT MAMARONECK, CONNECTICUT, AYMAR EMBURY, 2D, ARCHITECT—A HOUSE ON AN INLAND SITE THAT COMMANDS A VIEW OVER LONG ISLAND SOUND—THE RESULT OF INDIVIDUALITY IN PLANNING

BY JARED STUYVESANT

Photographs by the author

LAST summer while driving along a road running parallel with the shore of Lake Minnetonka in Minnesota, my attention was drawn to a house that stood on a slight elevation between the road and the beautiful lake. The site was one of unusual natural advantages, yet the house had been built with its front looking down over a miry cow-yard that bordered the road, while at its back, on the lake side, a dense clump of ragged evergreens effectually shut out the glorious lake below, even from the back door. I believe that this particular house has been torn down to make way for the new home of a man who knows a view when he sees one, yet I venture to say that this same brand of stupidity is to be found—though in a lesser degree, let us hope—all over the land among those who are content with stereotyped house plans, whatever may be the character of the acquired sites.

If there is one principle that will apply to every home that is being erected to-day, one slogan that needs to be shouted from the house-tops, it is "Design your house to fit its site."

Mr. Bates' house at Mamaroneck is an excellent example of what may result when this vital principle is held to, firmly and understandingly, in the making of a home. The site is at

the corner of two streets, well above and perhaps a half mile back from a small bay opening into Long Island Sound. From the intersection of the streets the ground rises to a rounded knoll and then drops sharply away towards the east and the water. All over the plot there are occasional outcroppings of rock. The house has been placed on the knoll, with its longer side to the north.

The natural—or shall we say the commonplace?—thing would have been to have the porch running around the north and west sides of the house, so that one might sit out upon it and watch one's neighbors walk along the nearby sidewalks, putting the kitchen and service portion of the house as far away from the street fronts as possible, where, incidentally, they would have had the view down over the garden towards the Sound. Perhaps a further conventional detail would have been the use of those nice pressed brick for the walls and piers, since stone was so "common" around the place. However, Mr. Bates and Mr. Embury, his architect, didn't do it just that way. Stone piers and underpinning grew naturally into the design, as do the rocks from out of the site itself. The passing of neighbors and an occasional butcher's boy did not seem so



Across the living-room end of the house the view porch is built. The boys' playroom is entered beneath it

interesting for a steady diet as did the view out upon the ever-changing Sound. So the living-room was put at the back of the house and the kitchen brought to the front. Even then the house did not seem topsy-turvy, for the main path to the entrance led naturally up from the corner of the plot and around to the entrance porch on the side, which happened also to front on the other street.

A fairly large porch is to be found on the north front, about thirteen by fifteen feet in size, and marked by massive stone piers at the four corners. To the left, as one faces the front door, is the living portion of the house—a large room and its adjoining view porch, which one reaches through French windows in the east side of the former. A glance at the floor plan will show that the view porch may be reached only through the living-room, so that its privacy is assured. And that it differs from the ordinary run of porches is evident in several of the photographs of the exterior, in which it will be seen that the supporting members are not the customary piers or walls, but sturdy brackets of dark brown stained wood, braced against the stonework of the main structure below.

On the other side of the central hall lies the dining-room, fifteen and a half by fifteen feet in size and with a distinctive character all its own. A white painted wainscoting extends around the room, bearing on its top a plate-rail. Above this, and reaching to the picture molding, the walls are covered with a



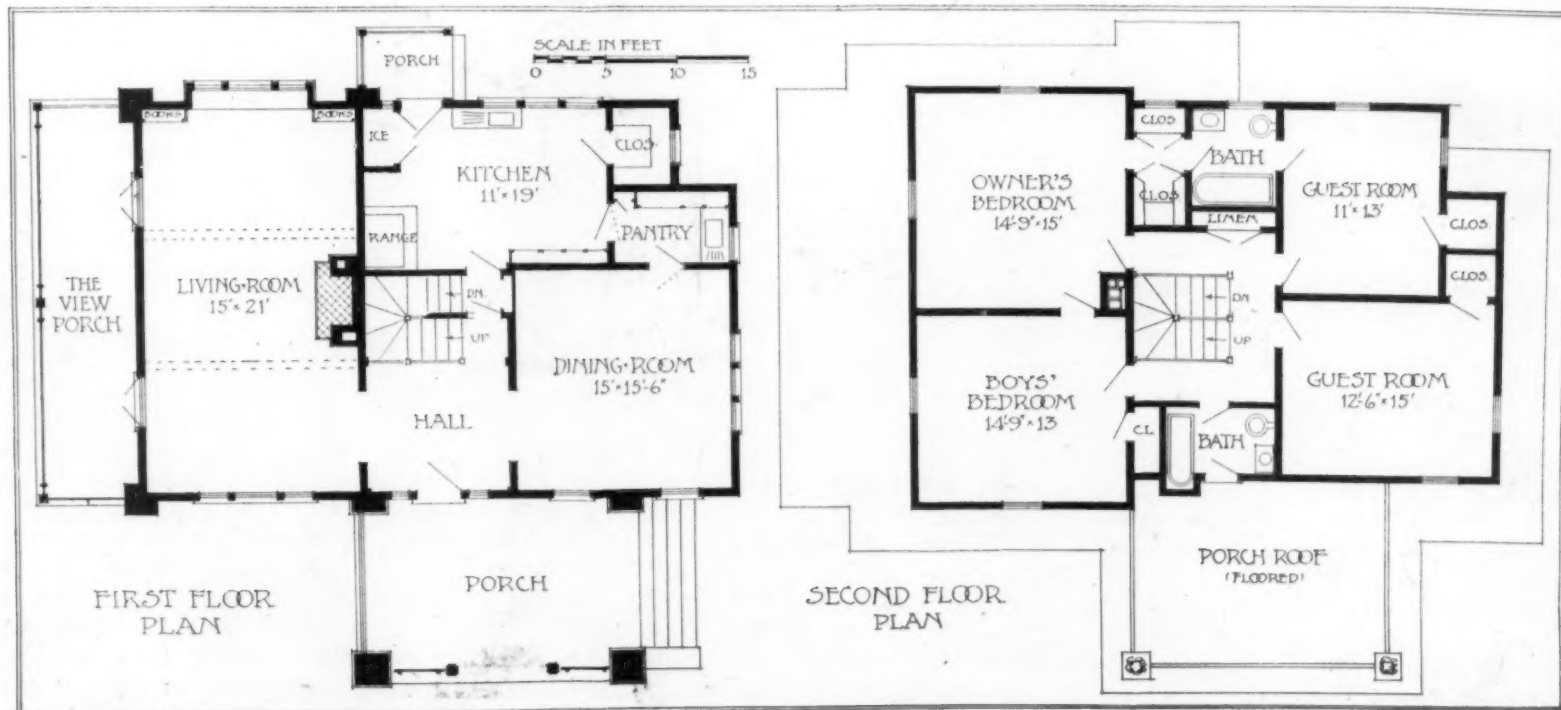
From the porch the view is down over the Sound, with Long Island just visible in the distance

Japanese paper in dull gold and green, which colors are repeated in the stencil pattern that is applied to the upper square panels of the white wainscoting. The furniture is of mahogany, contrasting well with the white woodwork. The table light is rather unusual; instead of a dome light hanging low over the table, this one consists of a shallow dish-like member of opalescent glass, supported by chains, and diffusing the light from the electric lamps immediately above it. The effect is an evenly lighted room, with a soft rosy glow over the table itself. The small bronze button on the bottom of the fixture may be removed to uncover a socket for a drop-light connection when one is desired.

Immediately back of the dining-room lies the butler's pantry and the kitchen. The first floor plan shows how well and how generously the latter has been equipped with dressers, pot-closet, ice-box compartment and windows. An economical feature of the plan is the arrangement by which but one chimney is needed, providing flues for the hot-water heater, a laundry stove in the basement, the kitchen range and the big fireplace in the living-room.

Throughout the first floor, and in the hall upstairs as well, the woodwork is of cypress, stained a soft brown without the least gloss. The bedrooms and baths, of course, are in white.

On the second floor there are four bedrooms and two baths, and, as is shown by the plan, the provision for closet room has been complete. There really is more available room of this kind



On the first floor the kitchen range and living-room fireplace use the same chimney. A maid's room and storage rooms are in the attic



The entrance porch, 13x20 ft., is on the north side of the house, convenient to the corner of the two streets, and marked by massive stone piers.

than becomes apparent in the plan. In the owner's bedroom, for example, and in the boys' room as well, small closets have been built into the slope of the roof adjoining the dormer windows. They are down near the floor and not very deep, but they do make excellent repositories for shoes, hats and such things. Then, too, in the larger guest room there is a similar closet built into the slope of the roof on the north side—this time about four and a half feet high. To those who object to having gambrel roofs on their houses because of their necessary accompaniment of sloping ceilings in the bedrooms, the possibility of this extra closet space may offset the former exaggerated fault.

On the third floor, the presence of which is hardly suspected from the exterior appearance of the house, there is a commodious maid's room at the west end, lighted and ventilated by two "eyebrow" windows of ample size, and equipped also with a stationary wash-basin. In addition there are two store-rooms, each with its window, and with ceiling boards over the rafters in the interest of a more even temperature and absence of dust.

In the basement, which has two entrances on the ground level—one leading to the laundry, heater-room and cold-cellar, and the other one opening under the view porch directly into a large room that

is ceiled with stained pine boards, heated with hot-water pipes on the ceiling, lighted with wire-screened electric lights, and used as the boys' playroom. In it are gathered all their toys, rods, racquets, express wagons and the thousand and one other necessary parts of their equipment, with plenty of shelves, workbenches and lockers. It is the boys' own room and it looks the part.

Variety of materials in the exterior of a house can scarcely be put forward as an invariable guarantee of beauty or effectiveness. Indeed, unless the combination is very carefully thought out, mere variety usually presupposes an uneasy effect of fussiness and a lack of repose. Roughly laid stonework, dipped

shingles and stucco, for the walls, with shingles again, but in a different color, for the roof, make a variety that sounds rather formidable for a house of comparatively small area, yet the Bates house can surely not be accused of being lacking in repose because of it. In fact the variety seems here to have given the house a thoroughly agreeable air of distinction as well as an appearance of greater size than it really has. Mr. Bates takes much pride in the stonework. Many of the pieces he spied out along the roadside, and brought home because of their attractive qualities.



White wainscoting with stencil patterns, and a gold and green Japanese paper above, make an effective dining-room

A Way Around the Chestnut Blight

THE JAPANESE VARIETY AS A SUBSTITUTE FOR AMERICA'S DOOMED CHESTNUT TREES—A DWARF TREE THAT PRODUCES GIANT NUTS IN THE HOME GARDEN

BY C. B. HORNOR

Photograph by J. A. Walling

DOES not the accompanying picture suggest that the passing of the native chestnut tree need not leave us altogether destitute and that in the Japanese chestnut we have a worthy successor, a tree that is highly ornamental, as well as useful—one whose diminutive size requires but a small space of ground and which may be grown in almost any garden plot?

The most casual excursion into the country shows (despite the unusually heavy yield and the inspiring sight of boys and girls returning from the hunt, heavy laden) that more than half of the chestnut trees are diseased—the dead and dying making a most unsightly contrast with their healthy brothers.

Experts tell us that a remediless blight, produced by a fungus, is the cause of this mortality, and that the American chestnut is doomed. The chestnut bark disease, or chestnut blight, as it has been appropriately called, was first recognized by Dr. Murrill, of the New York Botanical Garden. It is a fungous disease that spreads in all directions through the tender inner bark, girdling the limb or trunk and causing the death of the portion above the infection. Curiously enough the disease seems to have come from Japan, where it is less virulent. But the fungus that finds so secure a hiding place in the soft, rough-barked American tree finds the case very different with this smooth-barked congener. The blight so largely affecting the native chestnut tree at the present time has not taken hold of its Japanese rival, at least not in New Jersey. The individual trees are free from it, as are also the young trees in the nursery. The Japanese chestnut is a perfectly healthy tree; or perhaps we had better say that it is a highly resistant one.

The tree in the picture is an American seedling, planted and raised from the nut and then grafted from the Japanese chestnut. Seen at a little distance, the cluster of burs looks like a large green ball, the burs are so compact; and only as you get quite near do the divisions appear. Standing alone in an open space, in what would be considered a small garden, it gets full sunlight and air.

It is under a high state of cultivation—good, sandy loam garden soil, well drained, and kept free from weeds. The appearance of the strawberry patch (from which, by the way, five hundred plants set out last April yielded in June seventeen quarts of fine strawberries) in front of the tree gives an idea of the condition of the soil—not a weed in it.

In height this tree is ten feet; its diameter, one foot from the

ground, six inches, and the space between the ground and the first branches, three and one half feet.

The bark is hard and quite smooth, somewhat resembling the bark of the gum tree or the box maple in appearance. The burs are two and a half to three inches in diameter and grow on the branches in clusters of from ten to twenty. At the proper time they may be picked off with care, instead of being stoned or beaten

off with sticks—"thrashed," as the boys say. Each bur contains either two or three nuts—rarely, one or four. The nuts themselves are as large as small horse-chestnuts and very sweet and palatable—a notable improvement on the native, or American, chestnut.

One curious thing about the Japanese tree is that it ripens its fruit by the heat and not by the cold; so that when the frost comes the nuts have all been gathered.

When two years old this tree yielded two quarts of fine chestnuts; and now, at the age of six, it is weighted down with nearly two thousand burs, containing more than a bushel of nuts.

The tree is very beautiful in appearance, so symmetrical, and showing its burs in such a highly ornamental way.

The branches bend with the

weight of the nuts; so, almost, as to need support—a sight worth going far to see.

Surely, it is necessary for us to be not only exercised in mind about this question of the extinction of our chestnut trees; but it is necessary, as well, for us to take immediate action, and begin now, either by planting nuts just when it is time to select the most perfect ones, if the grafted trees are preferred, or, to buy and plant the young Japanese trees. This last would seem to be the better way, the results being quicker, and, no doubt, more certain.

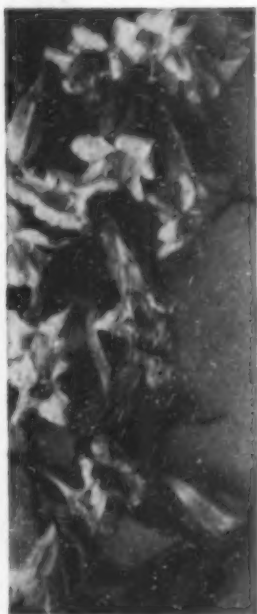
Let us plant the Japanese chestnut tree by all means. Let us plant it right away: either before the ground freezes, or in the spring, as soon as the ground can be worked. This will cause no greater waste of time than is occasioned by one of the barren years that, from one cause or another, come to us quite often.

The low height of the tree renders the nuts most accessible, and they commence bearing almost from the start. Almost anyone can spare the small space of ground, either in yard or garden, that it takes to grow a Japanese chestnut tree. And in two years from the time of planting they may gather nuts.

Plant these trees and we will have, when the American trees are all dead, new and better ones to take their place.



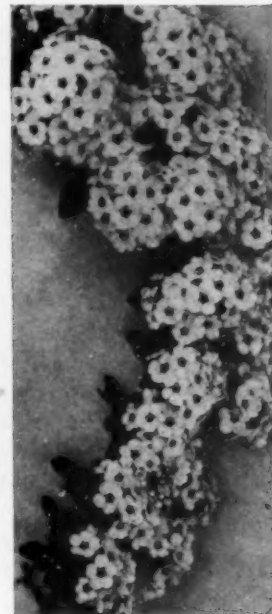
Plant a Japanese chestnut tree to take the place of the doomed American species—and incidentally get bigger, better nuts



The weigelias are showy June-flowering shrubs. This one has variegated foliage



The hardy hydrangea is a shrub you really cannot be without. It blooms in August and September, and the frost-nipped pink blooms will last through the winter indoors



Spirea Van Houttei is a June-flowering shrub, with long, graceful branches of bloom

Color on the Lawn from Frost to Frost

HOW TO HAVE SHRUBS IN BLOOM THROUGHOUT THE SEASON, WITH NO BOTHER AT ALL AFTER THE FIRST PLANTING—WHICH SPECIES ARE THE BEST TO USE, WHAT THEY ARE LIKE, AND WHEN THEY FLOWER

BY M. VON TSCHUDI PRICE

Photographs by Nathan R. Graves and others

SHRUBS play such a conspicuous part in the pageantry of a landscape, such a utilitarian part in nature's economy, that the last word seems never to be said in regard to them. With the first spring wild flowers of wood and wayside, the blossoms of the yellow-flowered jasmine shrubs appear, even upon their leafless branches, and when the last vestige of the Gipsy Joe-pye-weed and his straggling, disheveled companions is disappearing, there is the hardy hydrangea to bid him farewell with its great heads of bloom, tinged pink with the approach of winter.

Shrubs seem to lend an air of permanence, of ripe age, of solidity, to a home—far more so than do annuals or even perennials. Here are some of the most trustworthy ones, given as nearly as possible in the order of their bloom. Pick out the ones that appeal to you for each period of the season, and plant them, so that at any time from early spring until late fall there will always be a shrub in bloom on your home grounds.

An old favorite that blooms in April and has been seen in flower as early as February, is the yellow, sweet-scented jasmine (*Jasminum nudiflorum*). Its vigorous habit and responsive adaptability make it a desirable shrub for a group and it may be trained also to climb over pergolas and trellises. It blooms nearly all winter in the South and is said to be hardy as far north as the Hudson Valley.

A more striking blossom than the jasmine, and one that appears about two weeks later, is the forsythia or Golden Bell. There are two varieties other than the common *viridissima*, namely, *F. suspensa* and *F. Fortunei*, both hardier than the first. With their abundant display of flowers, they are irresistibly lovely in ornamental grouping.

Another familiar and popular shrub, that blooms in the spring, is the Japanese quince (*Cydonia Japonica*). It appears equally

well when planted alone, placed in a group, or used as a hedge, and the several varieties deserve all the praise lavished upon them. The hardy Japanese quince has bright green foliage and while brilliant red is the predominating color of its flowers, there are other lovely varieties that bear pink-tinted white blossoms. *Alba simplex* and others bear pure white ones; some have flowers striped red and white, while others bear rich salmon-color blossoms in great profusion; but none surpasses the large-flowered *Cydonia Japonica grandiflora* in its display of richly blended shades of salmon-pink, red and white flowers, almost double the size of the better known varieties. In planting a group of Japanese quinces, all the different varieties may be utilized, as they harmonize and grow well together.

The spring months see the double-flowering apple shrubs, the flowering almond and many varieties of the *Prunus* family all in full bloom. The white and the pink blossoms of the thorns and many hawthorns make these desirable shrubs to be planted for spring effects, while small-flowering dogwoods, with white or pink mixtures, precede and follow many varieties of magnolias, and blossom among shrubs and trees full of flowers at this time.

Everyone is familiar with the lilac, or syringa, that blossoms in delicate purple masses early in May. It is an Oriental shrub that was first introduced into Europe from Constantinople, so it is said, and this species of young Turk has made for itself an honored place wherever it is cultivated, thriving in almost any situation not bordering on the extremes of heat or cold. Many varieties of lilacs have been developed under cultivation, of which *Syringa Persica*, or Persian lilac, with its fragrant rose-lilac colored flowers is a conspicuous favorite. The white lilac is a variety of the common species, that has again been modified into one with cut leaves called *Syringa laciniata*, and there is a handsome third variety

known as Josika's lilac, bearing bluish-purple clusters of fragrant blossoms in the midst of purple twigs and spreading branches. Many Chinese, Japanese and Manchurian lilacs have been brought to this country, and as there seems to be an affinity between plants of the northeastern part of Asia and North America, they thrive here with no diminished beauty and develop a marvelous number of varieties, both double and single flowers.

From the name *syringa* given to the lilac, one is apt to think it related to the garden "syringa" or mock-orange that belongs to a very different family of blooming shrubs. The garden

syringa (*Philadelphus coronarius*), the large-flowered *P. grandiflorus*, and other easily propagated varieties, bloom about the latter part of May and continue with the roses in bloom until the last of June, when the petals of their dainty flowers, resembling orange blossoms, that came in the shape of bells and evolved into white stars, are scattered in a shower of fragrant summer snow. These petaled flakes usher in the summer as the first frost heralds the approach of winter, and when they fall the spring has fled on towards the north. There is also a charming dwarf golden *Philadelphus* worthy of note, and no well planted lawn should be without some examples of this species.

A very choice native Chinese shrub, difficult to propagate but in every way suited to occupy a conspicuous position on a lawn, is the Pearl-bush (*Exochorda grandiflora*). Its flowers resemble cherry blossoms, although it is more closely allied to the spireas, and the general habit of this vigorous plant is broad and husky, sometimes tree-like. It blooms late in May or early in June and is often grouped with the Nine-bark whose clusters of flowers resemble those of *Spirea Van Houttei*, blooming also in June.

Among conspicuous spring-blooming shrubs are numerous spireas, especially *Spirea prunifolia*, sometimes called Bridal Wreath (*Spirea*



Calycanthus floridus is the sweet-smelling shrub of our grandmothers' gardens, whose blossoms we used to tie up in the corners of our handkerchiefs

Van Houttei also is in some localities known by this popular name), but most of them are lovelier in early June when covered to the tips of their slender branches with tiny, pure white flowers. A striking spirea for a lawn is the June-flowering *S. opulifolia aurea*. Its foliage is gold- and purple-tinted and its white flowers lovely and abundant. A dainty spirea for a group is the little *S. bella*, and, with the red-flowering *S. Fortunei* and other varieties, it blooms in June. The pink and the pale rose-colored meadow-sweet and steeple-bush spireas bloom in July and September.



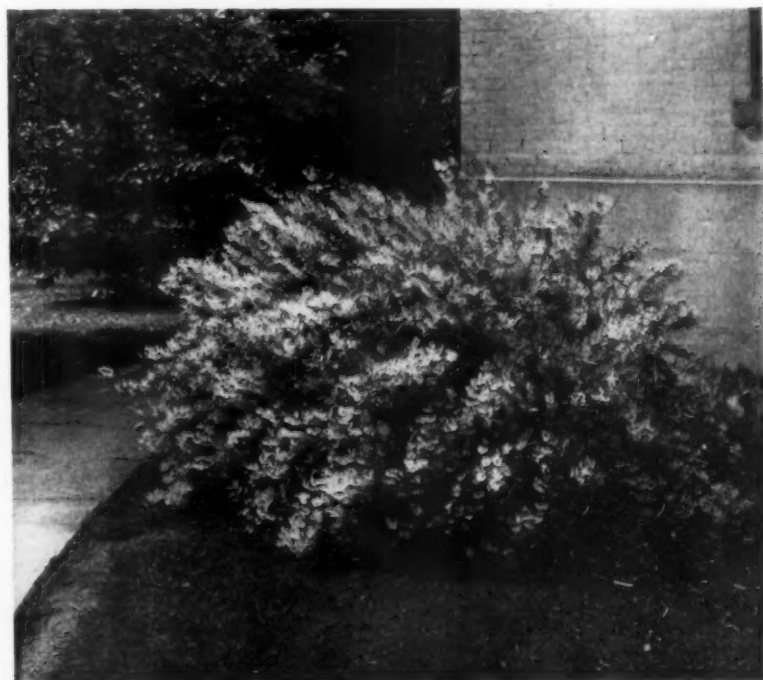
The Japanese Snowball is a striking, June-blooming shrub

The snowball or viburnum genus has many hardy varieties suited to lawn and group planting which are very conspicuous in June. The Japan snowball (*Viburnum plicatum*) is by far the most attractive, while the high-bush cranberry, or Guelder rose, the downy, the maple-leaved, the hobble-bush and numerous other viburnums, are all more or less adapted to ornamental grouping.

Among other large June-flowering shrubs adapted to the center of shrub groups are the showy weigelas, some bearing light-red and others striped flowers. The *Weigelia rosea* is the best.

The many varieties of deutzias, bearing masses of pink-tinted flowers, some blooming in May and others in June and July, are all hardy and lovely shrubs, while the *Calycanthus floridus*, known as the sweet-smelling shrub, offers also in June the spicy fragrance of its bud-like blossoms; they resemble diminutive chocolate-colored magnolias.

Another conspicuous shrub, suitable for the outskirts of lawns or groups, is the Japanese rose (*Kerria Japonia*), bearing attractive masses of double yellow flowers.

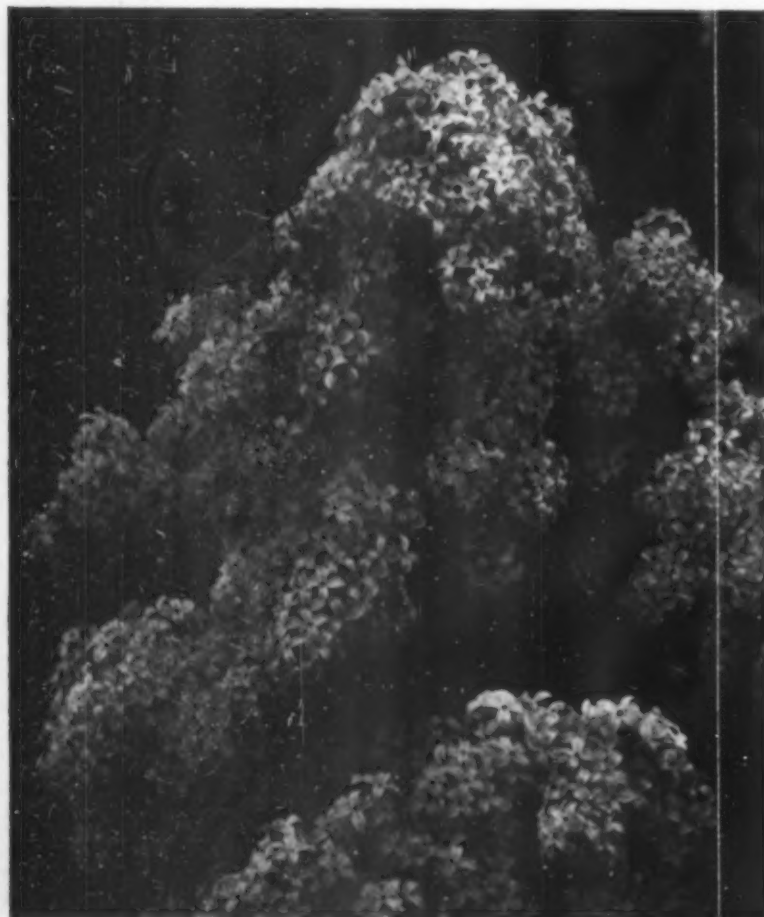


There are many varieties of deutzias, bearing pink-tinted blossoms that bloom in May, June and July



Rose of Sharon or shrubby althea is one of the old-time favorites. It blooms with the hydrangeas, in August and September

One of the most effective, however, of the large shrubs in summer is the Bladder Senna or Colutea. There are several vigorous varieties, all having acacia-like foliage, whose compact growth makes them specially valuable for group combinations, while their yellowish-red flowers, shaped like pea blossoms, appearing in June and July, and followed by reddish, bladder-like pods, make these shrubs conspicuous and ornamental.



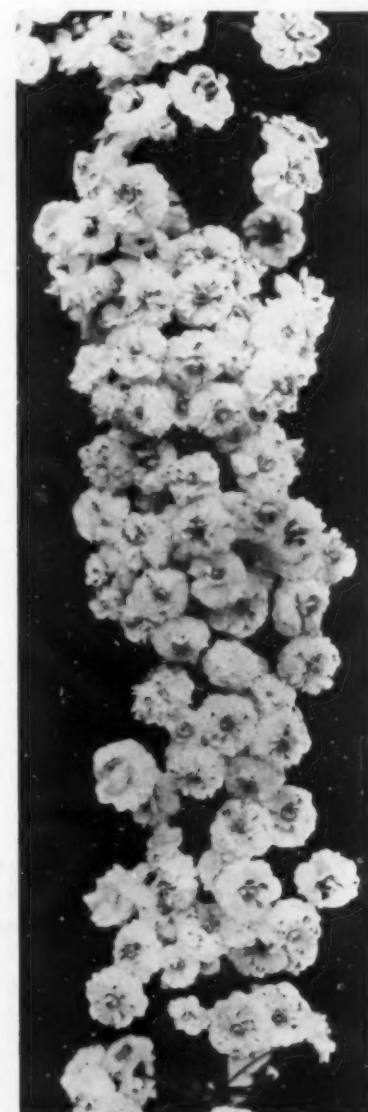
No lawn or garden is complete without a lilac bush. *Syringa Persica* is one of the most reliable varieties

A vigorous shrub of from four to ten feet high is the wild hydrangea, growing from New York south to Florida, and west to Iowa, and although it is useful to screen unsightly buildings and may be planted in masses for shelter-beds, it is neither so showy nor such a favorite as the hardy garden species, *Hydrangea paniculata* var. *grandiflora*, which we owe to Japanese floriculture. The flowers of the cultivated hydrangeas, and their varieties are numerous and showy, have a beautiful scale of color, ranging from pale-green and cream-white to rose-pink and red. They bloom in August, reach perfection in October, and remain on the branches until literally whipped off by the storms of winter. The wild hydrangea blooms in June and July, while the *Philadelphuses* blossom in May and June, so that the various shrubs belonging to the hydrangea family have a long flowering season. Hydrangeas should find a place in every garden, as they are easily cultivated and strikingly ornamental, and none more so than *H. Hortensis*, with its pale rose-colored flowers suffused with a deeper shade of pink.

Two tree-like shrubs, beautiful and unique in mid-summer, are the *Stuartia*, with orange-like clusters of creamy-white flowers, and the sorrel tree (*Andromeda arborea*) whose swaying tassels of fragrant blossoms are most attractive at this time.

Where low-growing shrubs are required for the outskirts of groups, no shrub is more desirable than the *Clethra alnifolia*, or sweet pepper bush, with its white, sweet-scented flower spikes appearing in mid-summer. While I can do no more here than give but a hint of the many beautiful blooming shrubs to be utilized in planting a picture, I must not omit to mention the tamarisk (*Tamarix Africana*), whose great vigor and characteristic feathery habit make it valuable in groups where variety of form and beauty are required. There are other charming varieties and *Tamarix Indica* is often planted with the Rose of Sharon (*Hibiscus Syriacus*) or shrubby althea, on the outskirts of lawns to mark informally the corners, or used as tall shrubs in groups; they both bloom in August and September, and there are many altheas of the mallow family known as *Hibiscus* that are ornamental and full of lovely color.

Then there are about nine species of native wild roses and several acclimated ones, and these, together with innumerable varieties, amounting to hundreds, give them a preeminent position in any list of fast-growing decorative shrubs. They may be planted to bloom alone, grouped, trellised, twined, espaliered, pleached or left to grow at their own sweet will over unsightly rocks or walls. A hedge of roses is as beautiful as one of privet.




Spirea prunifolia, sometimes called Bridal Wreath, is a splendid Spring-blooming shrub

The Shooting Star

A VERY COMMON HERBACEOUS PLANT THAT IS NOT SO WELL KNOWN AS IT DESERVES TO BE—A WAY TO OVERCOME ITS ONE FAULT OF UNTIDY FOLIAGE

BY W. C. EGAN



THERE is a very common flower known as the Shooting Star and also as the American cowslip, which has never achieved the high place in popular favor that it really deserves. It has a high-sounding Latin name, *Dodecatheon meadia*, of which the first part means twelve gods, from the arrangement of the twelve or more individual flowers forming the umbel.

Once seen, the Shooting Star will never be forgotten, for its stamens come to a sharp point and hang downward, while the petals stream behind, like the tail of a comet. The plant belongs to the primrose or cowslip family, and is well known in England as the American cowslip. The flowers suggest a diminutive cyclamen and represent every shade from pure white through lilac and rose to purple, and they all have a yellow circle in the middle, that is, at the mouth of the corolla. The umbel, or group of flowers, is held high above the foliage on a stiff leafless stem. They last very much longer when grown in partial shade, when they may be depended upon to remain in good condition from two to three weeks.

The fact that the Shooting Star is found in the open prairies, upon railroad banks, and in such unpromising places, is a good word for its

vigor and strength. I recently found a few on the upper edge of a wide ravine on my own grounds, where they had sown themselves. I have taken the hint and planted a colony of a hundred plants near there. The absence of tree foliage overhead in the early spring, when these plants appear above ground and bloom, secures to them the amount of sun they need. The rather untidy appearance of their dying foliage—for all the plant that is above ground disappears after blooming—is hidden by the surrounding vegetation. The flowers are extremely stately and imposing in mass, but if grouped in the ordinary garden border would, when their foliage disappears, leave a bare space that would be

a serious objection to their use, if it could not be readily overcome. As the illustration at the bottom of this page shows, the Shooting Star may be set in between plants of the *Campanula carpatica*, which have a habit of spreading well over the ground. These are set about fifteen inches apart and the Shooting Stars between them. The campanulas are rather late in starting up in the spring, so that there is at that time plenty of room for the Shooting Stars until their foliage withers; then the campanulas throw a mantle of green over their departing neighbors and hide their untidiness. The campanulas, with their white and blue bells, occupy the ground until frost.

Sometimes I plant *Lilium superbum*, or *L. Canadense*, with the Shooting Stars and they, of course, bloom much later and are most effective towering above the campanulas. Their habit of renewing their bulbs in a lateral direction causes them to get beyond bounds and necessitates replanting every three years.

The former, *Lilium superbum*, is one of the stateliest lilies that grows, and is another thing that is not used enough in our home gardens. While preferring a rich and rather moist soil, it will grow almost anywhere if the soil around its roots is shaded. I have these lilies growing on a bank in a wild planting of low-growing shrubs, where they tower above

the latter and make a splendid showing. To digress a bit from the Shooting Star, these lilies do well when planted among the bulbous class of Iris, like *Iris Sibirica*, *Iris orientalis* or the Japanese Iris, and also among peonies. The foliage of these plants affords the shade which is necessarily required at the roots of the lilies.

Dodecatheon is an exceedingly puzzling genus to the botanists. It is found from Maine to Texas and from the Atlantic to the Pacific, but in this vast region it varies immensely. Strangely enough, the best varieties come from Europe.



Plant the Shooting Star among campanulas to conceal the dying foliage



Plant with nature, not against her, following the line of least resistance

Utilizing Natural Features in Garden Making

FIGHTING AGAINST NATURE THE GREATEST CAUSE OF DISCOURAGED HOME MAKERS—HOW TO HAVE RATIONAL, EASY, BEAUTIFUL THINGS—HOW TO FOLLOW THE LINE OF LEAST RESISTANCE

BY GRACE TABOR

Photographs by Thomas W. Sears, landscape architect, and by Nathan R. Graves

[This is the first of a series of articles by Miss Tabor on the great subject of landscape gardening as applied to the American home of modest proportions. It strikes an eminently practical note, not primarily for the connoisseur but for the layman who would like to give his home a beautiful and distinctive setting.]

EVERY plant in the world that springs up naturally in any spot has selected that particular spot because it finds there the conditions of light and air and moisture best adapted to its needs. In other words, you will find that every square foot of soil all over this round earth is covered by the vegetation that likes that particular kind of soil and location—and other things won't grow there without a struggle.

Of course this is the statement of a perfectly obvious fact—yet it is not so very long ago that the owner of a charming country home complained to me of the fruitlessness of all his efforts to establish a smooth and conventional lawn at one side of his house "because water would settle there in spite of all that he could do." Subsequent investigation revealed a group of little springs under the fine old trees—Nature's marvelous provision for a multitude of wild, elusive things of exquisite beauty which defy domestication in the ordinary garden.

He gave up trying to defeat Nature's purpose by filling in what he had always regarded as a miserable, low, wet, soggy area, and now he has a lovely and unusual bit of garden where pitcher plants, orchids, trilliums, iris and ferns mingle genially with other less familiar bog-loving things. The whole is deftly inclosed and hidden from the outer world by a grouping of marshmallow and tall, reedy grasses and bamboo; and not the least of the joys of this garden is its startling unexpectedness.

All of which points a moral, does it not?—even though it adorns no tale—and the moral leads to a certain very definite rule which I would urge every maker of gardens, actual or expectant, to learn by heart and deeply to impress upon his inner mind.

Here it is, briefly and simply: *Plan and plant a garden always along the line of least resistance.*

What with the rain when it ought to be dry and the drought when it ought to rain, the slugs, and the blights of varying form but unvarying fatality, the moths and the bugs and the beetles and the borers, and all the other unpleasant things which lurk around, determined to evade the wariest and the wisest of those who plant either for pleasure or profit, gardening is one of this life's most tantalizing uncertainties the best way we can fix it. Therefore we owe it to ourselves and to the patch of ground we seek to beautify, to mitigate this unhappy state of affairs as much as lies in our power—to make our heads save our hands and our backs, and incidentally our garden hopes—by teaching us to garden according to Nature's laws instead of against them.

So we come to the question which should always be the first consideration: what has Nature done with the land where you are going to build your garden? Before a stone or brick of a building is laid or the style of the house is determined upon, this should receive attention, for on a property of any size at all it governs not only the kind of garden one is to have but also the location of the buildings and their "kind."

A wild garden ought not to be actually under one's windows, while a formal garden very appropriately may—and the set of conditions which calls for the former imperatively, will, quite as imperatively, preclude the possibility of the latter, or vice versa, thus affecting the position of both house and garden. Plan therefore, if possible, before any building is done, both the house and the garden. Take every natural feature and peculiarity of the land, topographical or otherwise, into consideration. Is it rocky or is it stony?—there is a big difference. Is it wet or dry? Is it hilly or flat? What is the nature of its soil? What can be done with it *most easily and simply*? What is the line of least resistance?

The very hopelessness of changing things where great boulders and shelves of solid rock thrust themselves up through the earth prevents the possessors of such land usually from even trying. They are convinced from the beginning that nothing will grow, so what's the use? That is, they are apt to be thus convinced if they are unfamiliar with plants.

There are a great many things that will grow—not what is seen in common gardens to be sure, but isn't that in their favor? Distinctly rock-loving plants must have the conditions which they like, and these cannot be supplied them everywhere. You are fortunate if your location affords them. Such species are spoken of sometimes as "alpines," but this is incorrect. True alpines are too difficult for the amateur to attempt to grow, as they are at home only above the line where trees and shrubs cease, high up in the mountains. Make your selection from the long list of rock-loving plants that do not need the high altitude—the simple, easily grown, hardy and charming things which almost any good nursery carries in stock. These, with suitable ferns and mosses which you may find already growing among the rocks, will supply the needs of such a situation completely.

The arrangement of such a garden should of course conform to Nature's grouping; there should be no attempt at precision, either among the plants or in the walks or paths, and the look of extreme tidiness which spoils everything but the most formal plan, should be avoided like the plague. Keep out the weeds, but don't bother about stray wildlings that may take up their abode among your treasures. There is as much beauty in common toad flax as there is in many highly prized aristocrats of the flowery kingdom—and long feathery grasses are more in keeping with rock or wild gardening than close cut, trim turf; likewise edges should never be sharply defined nor trimmed.

Stony land requires rather more consideration in the planting than in the planning, and is therefore outside the scope of this article which has to do with planning. There is one "don't," however, for stony land and that is, don't attempt anything formal. The stones are thicker in some places than in others and will not allow the same amount of moisture to reach each plant. Consequently the plants will not grow at an even rate—which they simply must do in a formal design.

Of the bog garden on wet land I have already told. If there is so much water that it lays on the surface constantly, it is better to dig out enough earth at the lowest point to make a pool, even though it is a very small one. You will be giving the birds a bathing place and yourself an opportunity to grow one or two real aquatics,

as well as the other things which love dampness, though they do not actually live in water.

If this pool can be located in the open where it can catch the sunlight, have it there by all means rather than in the shade. There is very apt to be gloom about a shaded bit of water that is depressing, but water in the sunlight has just the opposite effect—and cheeriness is essential to the success of any sort of garden. Stock the pool with a few goldfish, or something more ordinary if these cannot be had, to keep the mosquito larvæ down—and you will have a garden at a quarter the cost, both in labor and money, that will be ten times more interesting than the conventional lawn could possibly be, in that particular location.

Uncleared land, full of rank underbrush and wild growths, is not common, because one of the first things that an up-to-date development company does is clear away every scrap of growing thing. Even the trees are not always spared. But now and then one does come across such a plot and it is a great piece of good fortune, if handled properly. Leave the wild growth along its boundaries and let it form the backing for whatever shrubs you may wish to plant, instead of mowing down and digging out every thing on the place. Many times there are shrubs which, left to grow, will develop into as fine specimens as anything you may buy—and the advantage of having them native is immense.

Common elder is much used in shrubbery borders by the best landscape architects, also sumach which grows so freely wild. Cornels and viburnums between them furnish more—and more pleasing—varieties for general landscape work than any other two species in the world, and both are to be found in almost any patch of woods or underbrush. Woodbine clammers about luxuriantly very often, over all the rest—one should learn to distinguish it from its undesirable relative, the poison ivy, however;



Here is a convincing argument against "grading" a hilly site



If there is a damp hollow on your land don't fill it up—make a water garden of it and have flowers that dry ground lacks

the former has five leaflets to the leaf, the latter poisonous plant only three—and it may be trained over anything you wish by giving its twining tendrils something to clutch. Little Jack-in-the-pulpits spring up under foot and often there are lovely ferns hidden away under the rest, if you look carefully for them. Keep the character of such a place unchanged and bring in wild flowers rather than the usual garden favorites. And here, as on stony ground, make no attempt to carry out formality of design. Nothing is lovelier than architectural gardens, in their own distinct and proper place—but unsuitably placed they are an abomination.

Even a very slight slope is a charming variation in a garden, while a hillside is a fascinating site for both house and garden—yet not infrequently, with the former at least, elaborate grading is resorted to, to level the place up; which is proof of our unhappy bondage to a conventionality that stifles all original ideas. Unless the slope is so steep as to be actually impassable, not a particle of grading is necessary. If the getting up and down is too much of an effort, a very little "cutting and filling" will break it into terraces which not only make every part accessible but also give a succession of levels along which walks may be carried from which to view the whole. Whether seen from above or below, bear in mind that the entire garden, and probably the house, is seen at once, unless screens of planting are introduced. The design may be formal or not according to outlying conditions, the style of the dwelling, the owner's taste—and the evenness of the slope. Land which descends sharply at one point and slopes off gradually at others is not ready-made for an architectural design to be carried out upon it, therefore the line of least resistance takes us to the informal, rambling, quaint and unexpected upon such a site.

On the other hand, an even, smooth slope seems to demand the classic treatment—but the house must conform to classic standards as well, else the place will end up by being ridiculous. This doesn't necessarily mean a dwelling patterned after an Italian palace, however. The simple old white houses of New England are classics quite as truly as any Grecian temple—and in the midst of their prim, box-bordered little gardens, redolent

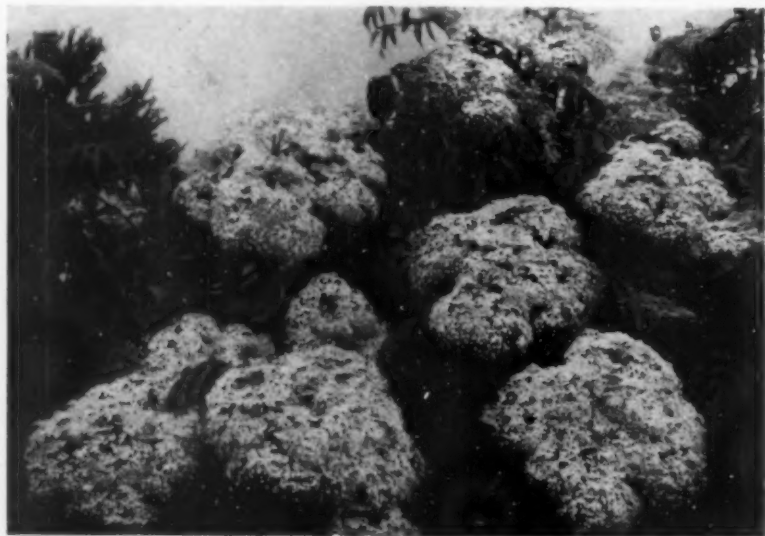
of a bygone generation, are far saner and safer models for us generally than those that many are too prone to follow.

In general, where the environment is that of the usual suburb, and the house is not distinctly unusual, some adherence to formal lines is better than utter disregard of them, for the reason that they afford a transition from the work of Nature to the work of man which harmonizes the two. Attempts at broad, sweeping lines in the planning of a typical suburban place are a great mistake under any but exceptional circumstances. Park-like effects require acres where the suburban plot measures square yards, and efforts to secure such effects in such a restricted area only result in making a place seem smaller than it actually is.

Boundaries and corners may be somewhat thickly and irregularly planted with shrubs, but along the approaches to the house regularity should rule, whether it be a turf edge, a row of flowering shrubs, or a border of perennials.

Not many places have the features that have been here dwelt upon—features that are commonly held to be distinct disadvantages and which sometimes lead to the rejection of land because they are present—yet natural variations in even small plots are not uncommon.

No matter what these may be, be sure that they are *never a disadvantage* if you are willing to study them a little, and think and plan. They mean an individuality for the place, if they are thus carefully made its motif, which can never be achieved by the most cunningly contrived artificial means. Individuality is what we are all after, whether we know it or not, and doubtful though it sometimes seems; but that's another story.



Common Elder would command fabulous prices if it had to be imported, instead of being merely moved in from the roadside



A typical dormer of the Colonial or Georgian style. There are often delicately carved pilasters on the front



These dormers are somewhat unusual in that they break through the eaves. Ellicott & Emmart, architects



In a gambrel roof the most appropriate dormers have for their roofs a continuation of the upper slope



These broad, high-gabled dormers would be out of place on any roof other than one with such a broad low sweep



A continuous dormer gives more space in the upper story. Chauncy Olcott's home, Saratoga. Keen & Mead architects

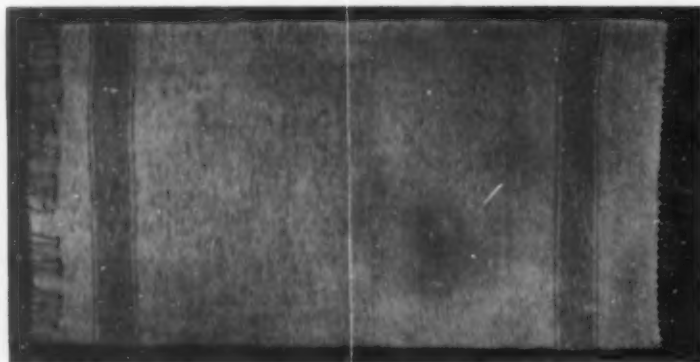


The rounded-top dormer, as on this Rochester house, is not very common in modern work. Claude Bragdon, architect

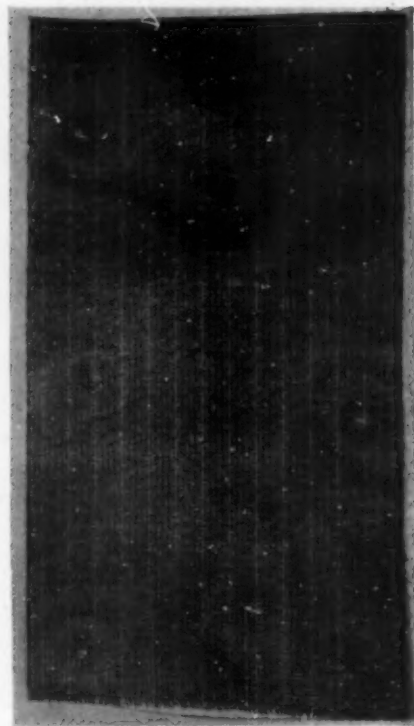
SIX TYPES OF AMERICAN DORMER WINDOWS



For the bedroom with craftsman furniture a bungalow rug was used



Strips of blue and white oilcloth have been used to make this bath mat; these are woven as in a rag carpet



For the billiard-room a runner of grass matting was found most serviceable

Rugs for the Whole House for \$400

HOW ONE HOME MAKER SOLVED THE BIG
PROBLEM OF FLOOR COVERINGS—WHAT
WAS BOUGHT AND WHAT THEY COST

BY LOUISE KING

AN ARTISTIC, enthusiastic, but inexperienced young matron furnishing her new home (an attractive three-story house) was supplied with a definite sum for this purpose, and a great point was made of her ability to keep within the amount. The walls were decorated, the furniture ordered, and the curtains on the way. On these a generous sum had been expended, when she discovered there was but \$400.00 available for the floor coverings throughout.

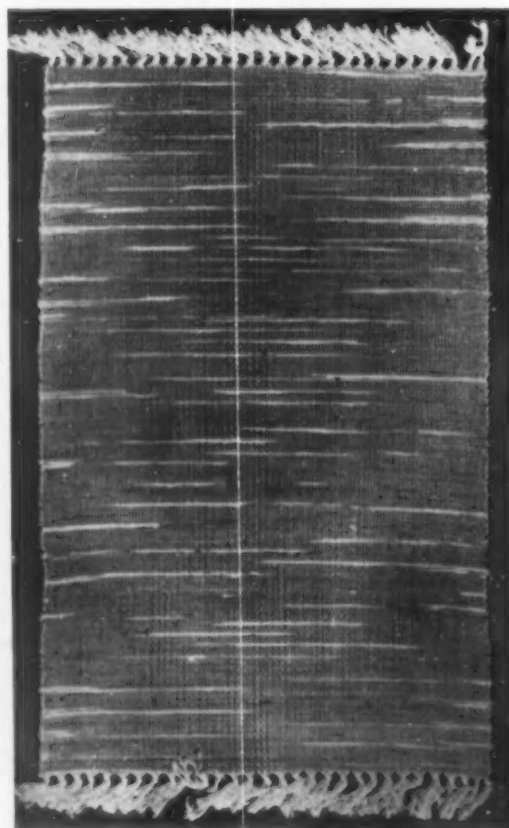
In disconsolately taking count of her requirements in this line, the well polished hardwood floors seemed to reflect discouragement, and the halls, living-room, dining-room, three second story bedrooms, third floor billiard-room and adjacent bachelor's chamber intruded themselves insistently.

She had never thought of any effect other than that supplied by the soft rich and enchanting color combinations of rare Oriental rugs, for her first floor, and these seemed to her absolutely necessary. She found the living-room alone would require one rug at least 8½ by 11 or 12 ft. and a runner in addition—to sufficiently cover its 14 by 18 dimensions. A hasty calculation showed her that she could not purchase an Oriental rug of the weave and colors she wanted for less than \$300.00 even if she was lucky enough to strike an unusually good bargain. She felt she could not spoil the rest of her furnishings with inferior rugs, and some one suggested auction sales as the solution of her problem. She attended one and for \$25.00 purchased a Saraband for her hall, which upon investigation she found at one end badly worn and for which she had bidden against herself, raising the price from \$20.00 (her own bid) to \$25.00, when a kindly neighbor warned her of

her mistake. However, she made the best of a bad bargain, although it left much of the floor uncovered. "I will go to no more auctions and I will give up my Oriental dreams," she decided, and proceeded to look up other weaves. She found Wilton carpets in lovely soft colors and small designs which could be made up into a rug of the desired size. When she had almost determined upon devoting \$100.00 of the remaining \$375.00 to the living-room floor, trusting to luck to see her through on the other rooms, she heard of some domestic rugs of excellent

weave and soft colors, reproducing, it was said, beautiful Oriental designs. The pile of the fabric was deep and insured a long life to the rug. The walls of the living-room were covered with a tapestry paper, dull old blue, olive green and brown in tone. Her mahogany furniture was of good lines reproducing the quaint and delicate Sheraton style. The woodwork of the room had been enameled in a very deep tone of ivory which harmonized with the background of the paper. The rug she selected was a 9 by 12 size for \$50.00—in color a deeper shade of gray blue than the wall paper and showing a mosaic Oriental border, brown, dull olive and smoked gray in color. With this she used a runner of the same design and color for which she gave \$15.00.

In the dining-room adjoining, the upper wall was covered in two tones of sage green above the English oak wainscot. A ready made rug of Royal Wilton in 9 by 12 size, costing \$35.00, showed a ground of dull green with small blue figures. The Oriental draperies of raw silk were of dull blue and the portière between the living-room and dining-room was of tapestry, of similar color and design to the living-



A blue and white rag rug was selected to go with old mahogany furniture in the principal bedroom

room wall paper. This, however, she used on the dining-room side. The living-room side was of old blue wool damask. The scheme of blue, brown and smoke gray extended to both rooms.

The hall walls were covered with a soft, golden brown, Japanese grass cloth, and the woodwork was finished with the same deep ivory enamel. The Saraband rug showed old rose, blue, ivory and green in its design and was harmonious. The ceilings throughout were tinted a lighter shade than the ivory white woodwork and extended to the picture rail.

In the principal bedroom on the second floor

some fine old pieces of mahogany were used; real heirlooms these were, and the young mistress of the house particularly desired to provide a setting for this furniture which would be characteristic. On the walls she had used a small diamond-pattern Colonial paper in two tones of oatmeal color, and at the windows dainty white muslin embroidered curtains, made with 2½-inch frills, were hung next the glass, with over-draperies of dull blue flax. The same muslin used for curtains draped the four-poster and for the floor covering she had planned a Wilton velvet rug of the same small design as the wall paper, completed by a border of larger pattern. But this, it was found, would have cost \$85.00 or \$90.00, and was, therefore, quite out of the question. A body-Brussels rug was the next choice; this cost \$35.00, but somehow when laid on the floor, although various designs and colors were tried, seemed crude and quite "out of the picture." Finally some one suggested that she try a rag rug. Her dealer explained to her that such rugs could be gotten in any shade or combination at a very modest cost of \$18.00. She selected a clear blue-and-white without border, the blue exactly matching the blue of her curtains.

In the adjoining chamber, her husband's room, the wood trim of oak was stained dark brown and the room furnished in craftsman or mission furniture of the same tone. The walls were covered in stripe paper in soft sage green shades. In this room there would be no muslin curtains used at the windows, but self-colored pongee, finished with a conventional sten-

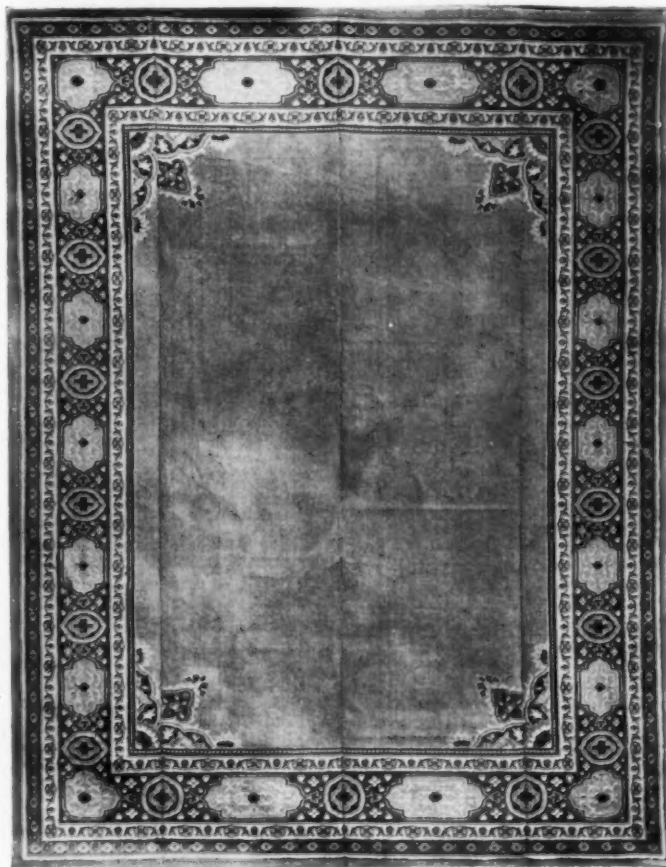


If you cannot afford an Oriental, there are excellent American rugs now made in good colorings, at one-sixth the cost

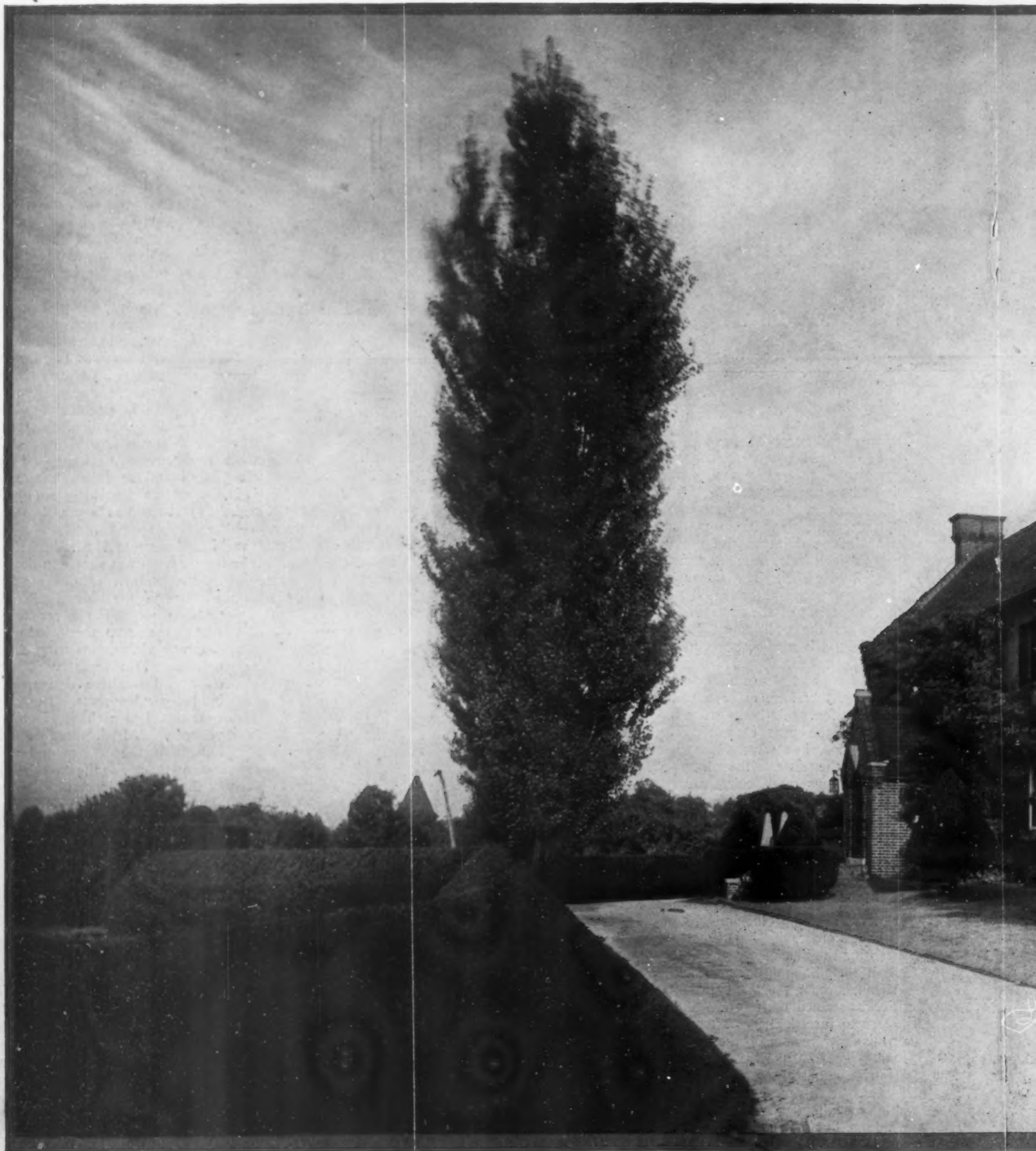
this same blue. A so-called tapestry Brussels supplied her with this color in the background and at intervals showed quaint little pink rose buds in the pattern. This rug was cheap but decorative, and well suited to this room as it would receive less than ordinary wear.

Now there remained the billiard-room and the bachelor's room on the third floor. The former room was simple in design, the hazel woodwork being stained to a warm effect of Circassian walnut, corresponding with the frame of the billiard table—a wedding gift. The other furniture was made up of easy lounging chairs of wicker, two wing chairs upholstered in tapestry of rich color and effective design, and built-in window seats. The walls were tinted in a shade of golden yellow which harmonized delightfully with the yellow and rich brown tones of the woodwork. At the windows, curtains of green Singapore lattice were hung, but the floor! what could be used to take the place of the Oriental runners she had pictured to complete this room? By this time her resources were considerably dwindled, and there was but very little money to spend. After much indecision she finally decided upon single widths of grass matting, the strong green and tan of this fitting perfectly into the color schemes of the room. It was used around the billiard table and in front of the long window seat and seemed to supply all that was needed to make the dark brown floor appear sufficiently covered.

In the bachelor's room a gayly
(Continued on page vi)



For the living-room a domestic rug, 9x12 ft., cost \$50



WHY GO TO ENGLAND TO SEE COUNTRY HOMES IN THEIR PROPER SETTINGS? THIS IS WHAT CAN BE DONE

ND GARDEN



PHOTOGRAPH BY MR. THOMAS W. SEARS, LANDSCAPE ARCHITECT
WHAT CAN BE DONE IN AMERICA IN A FEW YEARS—THE BORIE HOUSE, RYDAL, PA., MR. WILSON EYRE, ARCHITECT

Portières of Distinction

SUGGESTIONS FOR HANGINGS THAT MAY BE MADE FROM INEXPENSIVE MATERIALS AND DECORATED WITH SIMPLE DESIGNS IN APPLIQUÉ AND EMBROIDERY

BY LOUISE SHRIMPTON

THERE seems to be a sad lack of originality in the hangings one sees to-day. It is nearly always the same old velour or the same old rep, guiltless of any relieving color in the way of an edging or an appliqué design. Why not get some distinction into these important elements of home decoration?

After all, the portières in a home are just as important factors contributing to the success or failure of the whole as are the wall coverings or rugs. Because they occupy less area than the things we put upon the walls or floors, they are only too frequently passed over without their due of consideration. Their importance and value in carrying out a comprehensive scheme of decoration in color and design is something that may well be reckoned with.

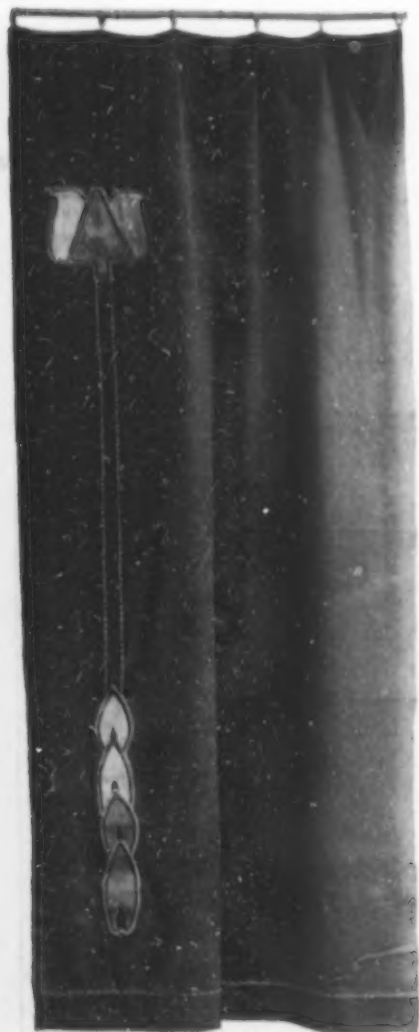
It should be understood at the outset that in the short space allotted to this article it is quite impossible to cover the whole subject of portières. It goes without saying that the designs illustrated herewith would be utterly incongruous in an Empire drawing-room, for example. In rooms, also, in which other French or Georgian period styles have been carried out in the architectural details and in the furniture, the hangings should, as a matter of course, be along the same lines. There are many beauti-

ful fabrics from which to choose portières for rooms furnished in period styles—and at prices to suit everyone: velours, linen, upholsterers' velvets, silk-crinkled tapestries, brocades, corded silks, goat's hair, Armures, figured tapestries—each of which may be found the one suitable material for a certain purpose.

It is for the everyday American living-room, den, library, or hall, however, that the designs here shown would solve the problem of hangings—rooms where no period style has been permitted to assume its jealous reign, but where the furnishings are of the simple, unassuming character that marks modern American work of the best type. In such a room the note of individuality and distinction that any of these designs strike will be a welcome and unobtrusive one.

The portières that are described and illustrated herewith are all made from inexpensive materials and decorated with very simply executed designs. Patterns for the work can easily be made by anyone possessing only a very slight knowledge of drawing. The embroidery requires acquaintance with but few easy stitches.

Of the portières illustrated at the bottom of this page, the first



A portière of golden-brown Arras cloth, with the conventionalized tulip OOO in burnt-orange linen



Pompeian-red linen, costing \$1.80 a yard, embroidered in gray silk



Russian crash makes an inexpensive and effective portière, embellished with linen-and-worsted appliqué

is made from a material called Arras cloth, in color a light golden-brown. Jute and linen are used in the composition of this fabric, resulting in a weave that has an unusually pleasing variety of texture and color. It is an imported material and costs eighty-five cents a yard. To break the monotony and to give the hanging a distinctive character, the conventional tulip design in appliqué has been used. The flower itself is in appliqué and made from linen of a burnt-orange color. Inexpensive linens may be used for this purpose with good effect, but in some of the more costly kinds there are to be found changeable tones that are really worth the difference in price. The conventional leaves at the bottom are of pale gray-green linen, and the stem joining the two pieces of appliqué is indicated by lines of couching.

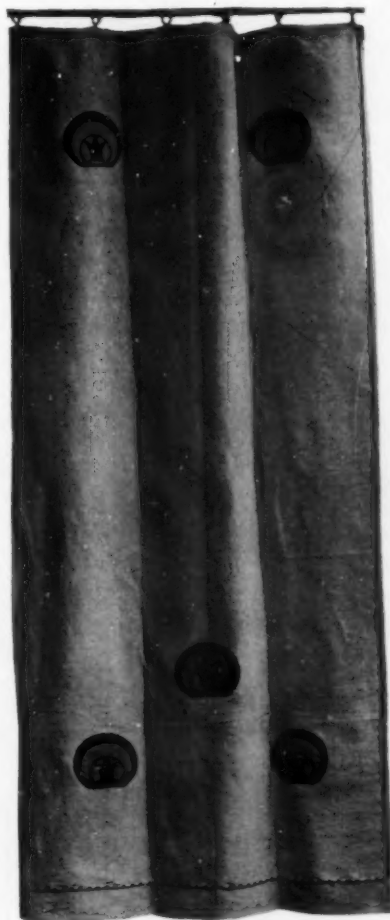
The second illustration at the bottom of page 132 shows a portière of heavy linen, Pompeian-red in color, and costing \$1.80 a yard. The design in this case, which is not so startling perhaps in its character, is embroidered in gray silk. It will be noticed that there is a feather-stitch edging along the inside edge and across the bottom at the top of the hem.

Russian crash is the material that has been used in making the third hanging illustrated at the bottom of the opposite page. Since crash comes in rather narrow widths, two were required for the example shown in the illustration. It must be borne in mind that it is always essential to plan so as to get a whole set of portières from one piece of crash. The reason for this is that the pieces, containing several yards each, vary considerably in color and texture. The fabric is not at all expensive, probably for the reason that it is woven by Russian peasants at hand looms in their huts. It shows a far greater variety of weave and color, for this reason, than any machine-made product possibly could. A conventionalized pattern, worked out in a series of squares and lines, is used for the appliqué. Pieces of linen in rose and green are used, and the embroidery is done in pale green worsted.

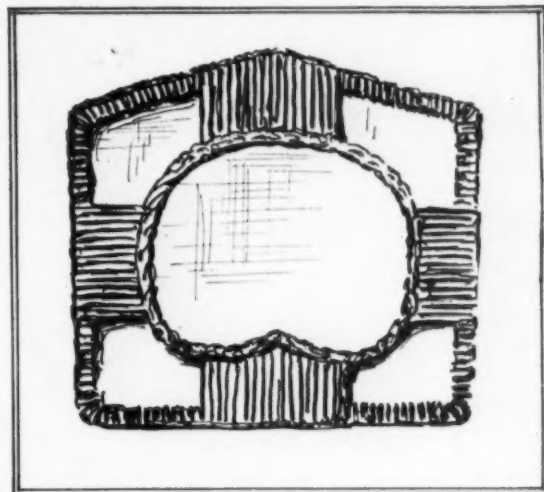
Of the two examples illustrated on this page, the upper one has the conventionalized



The trees are of apple-green velvet with couching of embroidery cotton



Cream-yellow rep, couched in a pastel blue; the discs are of brown linen and blue worsted

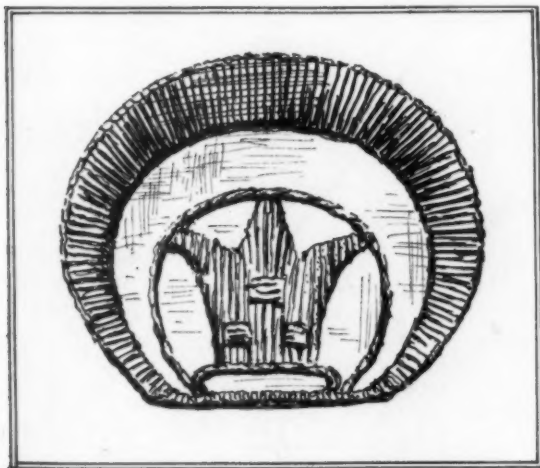


Sketch your own patterns for the appliqué decoration

trees worked in the so-called "peasant embroidery." They are in appliqué of apple-green velvet or velveteen, with couching of embroidery cotton, pale gray-green in color. The fabric of the portière shows a similar color in a deeper tone.

The illustration at the bottom of this page is made of plain rep, costing fifty-five cents a yard. It is instructive to see how much more interesting it has been made merely by the addition of the five spots of decoration. The material is a cream yellow and the deep hem is couched on the top with worsted in a soft pastel shade of blue, the line of couching extending around the inner edge of the portière. For the decoration, discs of appliqué are used, stiffened with buckram, and embroidered in blue worsted. These are tacked to the hanging after the work on them is completed. In this example the discs measure 6½ inches by 8 inches. The buckram is cut out in the desired shape and covered with a coarse brown linen, after which it is buttonholed around the edge with the heavy worsted. In the center of the discs, the pattern is also in blue worsted. It may readily be imagined that the cream yellow contrasts pleasingly with the blue spots of decoration, a combination which is further improved by the glimpses one gets of the brown linen. It should be remembered of course that much of the success of portières of this kind depends upon the proper placing of these bits of appliqué. The best way to determine how they should be put on is to lay the portière out upon the floor and, with markers, try various combinations.

All of these designs, however, will serve their best purpose if they are accepted as suggestions rather than as arbitrary patterns, to be taken as a whole or rejected. One must always keep in mind the color scheme of the room in which the hanging is to be used; it may be one that would be absolutely spoiled by the introduction of any of these designs. The point is, however, that there is a splendid chance for distinctive originality somewhat along these lines; the details must be altered to fit individual cases.



A detail pattern for the disc patterns on the adjoining hanging. These measure 6½ by 8 inches



The front of the building is almost hidden by a group of sycamores



For the walls and roof cypress shingles have been used, not stained but left to weather

The Wigwam

A MODEST COUNTRY HOUSE AT WAWA, DELAWARE COUNTY, PA.,
THE SUMMER HOME OF MR. EDWIN R. KELLER—A THOROUGHLY
AMERICAN TYPE THAT SHOWS UNUSUAL FEATURES OF CONSTRUCTION

BY HENRY LORSAY, 3rd

Photographs by Bond Brothers

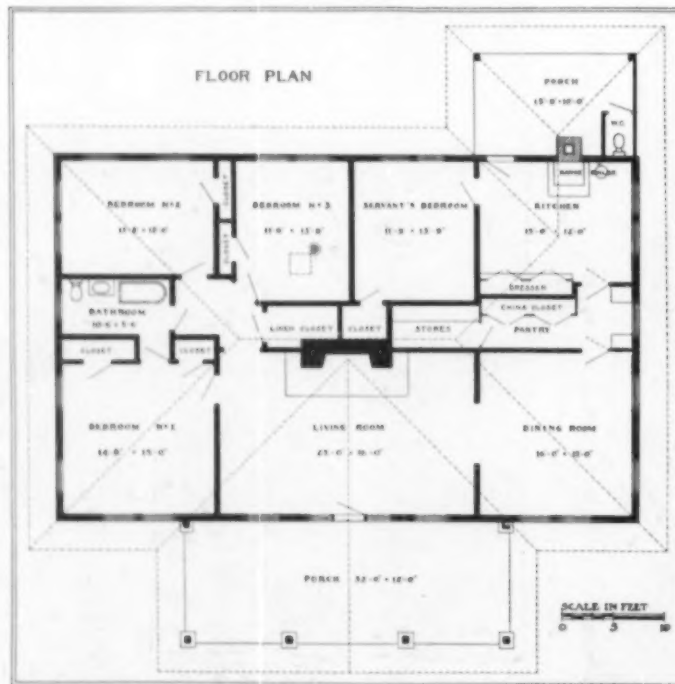
ALMOST every house that can lay any claim to picturesque-ness, almost every house that the owner confidently believes he is going to build for less than it could possibly cost him, almost every house that is being put up in the country districts to-day, is joyously dubbed "a bungalow." When we in America get hold of a new word that sounds well, and of which few people know the exact meaning, we almost invariably work it to death. By the time it has been in use for several years its mother tongue would not recognize it at all. It would be an interesting thing to see a composite photograph of what everyone who uses the word bungalow conceives it to mean.

Now as the word is used in India, its own home, it means a house having all of its rooms on one floor; and incidentally one whose roof is a prominent and picturesque feature of the building. Measured by this standard, Mr. Edwin R. Keller's country home at Wawa, Pa., is not a bungalow, for it boasts an attic, but since the latter is a very unobtrusive feature of the exterior—and of the interior too, since there is no stairway leading up to it—probably ninety persons out of a hundred would call it by that name and go unchallenged. However, since it really isn't a bungalow, let me tell you what it is.

The site of the building is

located on the crest of a hill about 150 feet above the level of Chester Creek, which forms the eastern boundary line of the property. The country round about is one of the most picturesque parts of that famous land in the immediate vicinity of Philadelphia—a type of farm land that is celebrated for its rolling character and the abundance of its vegetation. One of Mr. Keller's advantages is the fact that the adjoining property on the north is a famous dairy farm, a fact that brings hundreds of grazing cattle into the vista from any side of "The Wigwam." In the valley to the south can be seen the old town of Lenni, and in all directions upon neighboring hillsides, one catches glimpses of other country estates.

The site on which "The Wigwam" is built is the highest point of land in a 15-acre tract, a tract that was picked out by a former owner of a large farm, some twenty years back, as a site for his country home. With this purpose in view, he planted all over it fruit trees, shade trees and evergreens, which have now reached their full growth. In fact the site was so densely wooded that it became necessary to cut down several fine old cherry trees, in order to get a space large enough in which to set the house. The first picture at the head of this page, showing the front of the house, indicates how completely sheltered the building



All the main rooms are on one floor; the attic is reached through a trap-door in the linen closet and is used only for storage

is by a group of sycamores and the other trees. The picture of the rear gives a better idea of the lines of the building, which are almost the same on the front, excepting that a wide low gable end stands out over the porch.

The house stands upon an underpinning of stone, the excavation being carried only to a depth of four feet. This stonework, which is carried out also in the chimneys and fireplaces, is a rough local stone of a variable dark color, sometimes a little stained with iron. It lays up very effectively with the broad white pointing which has been used throughout. For the walls and roof, cypress shingles have been used, neither dipped nor painted, but left to weather. The trim around doors and windows and on the underside of the eaves is painted ivory white. The shutters are painted green.

In the living-room the walls are plastered, with white sand finish. Upright studs, ceiling beams and all other woodwork in this room are of chestnut finished with a dark stain. The furniture is finished to correspond. The contrasting black and white are subdued to some extent by a rich red Indian rug. Needless to say, Mr. Keller has not forgotten to provide for a fireplace in this room, and a good big one at that. As the above photograph shows, it is built of the rough local stone that has been used for the underpinning of the house. The masonry has been very well executed, particularly in the selection of suitable stones for the flat arch and the corbels that support the heavy chestnut shelf.

Throughout the house the other rooms are not plastered. A very clever scheme has been followed, dividing the wall spaces into panels over the interior sheathing, using 1 by 4 inch cypress strips, painted a dull white. The panels formed in this way are decorated in various ways in the different rooms. In the dining-



Sand-finish plaster and dark chestnut woodwork are found in the living-room. The red rug gives the necessary color

room the lower panels are filled with an indigo blue burlap, while those above the plate-rail contain a figured linen taffeta, repeating the same color. In the front bedroom the panels are tinted a light green that brings out the grain in the woodwork very effectively. The other bedrooms have the panels finished natural, in each case the doors and trim being white.

The attic is reached through a trap-door in the linen closet. While the space up there is large, it is used at present only for storage purposes.

Mr. Keller's country home is not an example of how cheaply a house may be built. All the materials that have gone into it have been of the best, and it is now being equipped with a hot-water heating system. Of the total cost probably about three-quarters went for the house proper, the remainder being spent for water-supply, wind-mill, drains, drilling of a well, making driveway and paths.



Over the inside sheathing strips of white-painted cypress divide the wall space into panels



In the dining-room blue burlap fills the lower panels over the sheathing, with a figured linen taffeta above



Lilium Hansonii, a June-blooming yellow lily that attains a height of four feet



Lilium Leitchlini requires leaf-mold and manure added to the soil



Lilium croceum, a cup-shaped type, as distinguished from the adjoining Turk's cap forms

Lilies Everyone Can Grow

A SUMMARY OF THE VARIETIES THAT CAN BE RAISED IN THE HOME GARDEN WITHOUT DIFFICULTY—WHICH LILIES TO SELECT AND HOW TO GROW THEM

BY RUSSELL FISHER

Photographs by Nathan R. Graves

EVERYBODY ought to grow lilies. Next to the rose there is probably no flower that stands higher in popular favor than the lily, yet for some strange reason people seem to leave it out of their list of plants for beautifying the home grounds. Perhaps this is done in the thought that the lily is hard to grow. If so, the idea is a mistaken one, for if the few simple requirements are fully grasped at the outset, there is little difficulty to be met with, and the resulting bloom cannot be equaled in richness and beauty.

To grow lilies successfully outdoors it is necessary, first of all, to select the kinds that will be suitable for the available location—some lilies do best in sunny locations, others like the shade. Then again, some do best in ordinary soils, some in peaty soils, and still others in a combination of peat and loam. So the thing to do is, decide upon the location first—if that is the essential thing, and then select the kind of lilies that will do well in that. Or, if you can have any sort of a location and soil that may be required, pick out the lilies that you would rather have, and plant them in the place and soil that they will like best.

Lilies that thrive best in shady loca-

tions are Brown's Lily (*Lilium Brownii*), *Lilium Canadense*, *Lilium maculatum* (known in the catalogues as *Lilium Hansonii*), and *Lilium Leitchlini* (*L. Majimowiczii*).

The sunshine-loving varieties are *Lilium croceum*, the Madonna or Annunciation Lily (*Lilium candidum*), *Lilium speciosum*, *Lilium Martagon*, and others. There are many other varieties to be found in the specialists' lists, of course, but the above are all well known and may be recommended for the amateur. Of those mentioned, the Madonna Lily is the most reliable and at the same time the cheapest white lily. It is of the erect bell-shaped type, with flowers about four inches long. The bulbs may be had for \$1.50 a dozen. These should be planted early in the fall; they usually start early into growth, so are more likely to flower the next season if they are planted now.

Lilies that thrive in good ordinary garden mold are: the Madonna Lily, *Lilium Hansonii*, *Lilium Martagon*, *Lilium speciosum* and *Lilium Chalcedonicum*. With these it is necessary to add only some well rotted manure to the soil before planting, and a little coarse sand if the soil happens to be heavy. Of these *Lilium Martagon* is



Lilium speciosum, vars. *album* and *rubrum*. The *rubrum* is the easier to grow

the cheapest purple lily, costing about \$2.00 a dozen. The flowers are rather small and of a dull color, but there are lots of them. This is the lily that probably gave to its type the name "Turk's cap," from its nodding, pendulous flowers, the petals of which are much reflexed. *Lilium Martagon* blooms in early July. *Lilium speciosum* is the most reliable of the fall-blooming lilies, and its most popular form is the rosy variety, *rubrum*, of which eight-inch bulbs cost about \$1.50 a dozen. September is its time of bloom, and it lasts for years without much care.

Lilies that require a little leaf-mold and well-rotted manure to be added to the soil before planting are: Brown's Lily, *Lilium Leichtlini* and *Lilium auratum*. The latter is the large, showy lily of Japan. It has the reputation of being rather hard to bring into bloom successfully, but it does make such a fine showing that it is worth while trying a few of the large-sized bulbs. One grower recommends that auratums be planted in pots in the fall, wintered in the cold-frame, and set out in the garden towards the end of May or the first of June.

The lilies that grow best in peaty soils are: *Lilium Canadense* and *Lilium pardalinum*. The well-known Tiger lilies (*Lilium tigrinum*) will grow almost anywhere. It is the cheapest of all lilies and in its improved form, variety *splendens*, may be had for a dollar a dozen. If it were not the most permanent and for



Lilium Brownii, a splendid one for beginners. The flowers are white inside and deep vinous purple outside

at the base of the bulbs, and need be planted only three inches deep. For the first group dig holes eighteen inches deep. Place six inches of well rotted manure in the bottom, covered by six inches of soil. For the second group dig the holes fifteen inches deep, and put manure and soil in as before. Arrange the bulbs six inches apart, putting a handful of silver sand under and two handfuls over each one. Then fill up with good soil.

that reason the commonest of the lily family, it would be held in the highest esteem—such is the reward of merit. It is of the Turk's cap type, orange red, with dark spots, and it blooms in July. *Lilium Hansonii* is the fashionable substitute for the Tiger lily, blooming in June, and attaining a height of four feet. The bulbs cost \$7.50 a dozen.

Bulbs of lilies other than *Lilium candidum* should be planted later, excepting in the case of the auratums, which should be planted as early in the year as possible, unless they are potted in the fall as has been suggested. If these bulbs have only recently been imported, they had best be laid in cocoanut fibre refuse, in boxes, for a month or so, to regain their plumpness before planting.

Lilies are best grown in groups of three, four or half a dozen bulbs. Sorts like *auratum*, *Brownii*, *croceum*, *Hansonii* and *speciosum*, form roots on their stems above the bulbs, and should be planted six inches deep. Others, as *candidum*, *Canadense*, *Chalcedonicum* and *Martagon*, form roots



The Madonna Lily (*Lilium candidum*) is the best white lily and incidentally the cheapest, costing \$1.50 per dozen.

The Floors of the House

HOW TO FINISH FLOORS OF NEW WOOD—HOW TO BRING BACK THE BEAUTY OF OLD ONES — PRACTICAL SUGGESTIONS FOR HARMONIOUS FLOOR COVERINGS

BY MARGARET GREENLEAF

Photographs by Waldon Fawcett, L. V. Browrell and others

WHERE the floors are new and of hard wood, to stain and finish them properly should be a very simple matter, but even under such apparently easy conditions they are frequently so wrongly treated as to be a continual trouble to the housewife, and to present an irregular and unbeautiful surface showing either a too high gloss, or a stickiness and a tendency to hold the dust.

One important point to bear in mind when selecting the color for floors is that it should be uniform in all rooms directly adjoining. This will be found to make for spaciousness of effect. The door-sill is more frequently omitted than not, and the unbroken, softly polished surface of the floor extends from room to room without break, save that supplied by the rugs used in the different rooms. A good plan, where the general color scheme of the house will permit it, is to leave the wood in the natural color or unstained; with the passing years this will darken most agreeably.

If the floor is of oak or any open-grain wood, a paste filler should be used to give a perfectly smooth surface which will not hold the dust. In laying the floor the boards, of course, should be perfectly fitted and made from well-seasoned lumber to avoid any shrinking. Three coats of the best floor finish obtainable should be applied, allowing each coat to dry thoroughly before putting on another. The final coat may be of wax applied over the tough elastic surface produced by the two undercoats, or the same material may be used for the final coat and rubbed to a

dull or semi-gloss surface with powdered pumice and crude oil. This latter treatment supplies a floor finish which is beyond compare the best as it has the full beauty of wax but is not slippery and does not spot with water. It can be wiped up with a damp cloth and does not require the polishing and constant attention a wax finished floor demands. Another method is to use over the first two coats a finish which shows a soft polish like wax. Such a finish gives very satisfactory results, though it is not so enduring as the one above recommended, requiring renewal at least once a year; otherwise it is entirely satisfactory. This treatment is recommended, however, where the first cost is an item, as the labor of rubbing brings up the cost of application.

The same method of finishing should be employed where a stain is used. The filler must be colored with the stain and when the floor is filled, the coat of stain is carefully applied; this should be allowed to dry thoroughly before the first coat of finish is put on. Forty-eight hours is not too long a time to allow between each coat. While the wearing qualities of the best floor finishes are unaffected by the use of stain, footprints and dust marks show much more readily on a dark floor than on a light one.

In determining upon the stain the general color treatment of the rooms must be kept well in mind. Ordinarily a light stain of brownish tone is found effective with the greatest variety of standing woodwork, decoration and furniture. This stain should be deep enough to remove all crudeness of color from the wood, supplying such a tone as it would naturally acquire with time.

Southern or yellow pine is a wood very generally used for floors in houses of moderate cost. This wood does not require to be filled, as its grain is close. If stain is desired (and owing to the strong yellow tone it frequently must be used) the specification should be: one coat of stain applied to the bare wood, followed by three coats of the finish selected; the final coat to be rubbed or to be of the material which will produce a semi-gloss surface.

In the treatment of old floors there are very many difficulties to overcome, but with patience, labor and good material, surprisingly satisfactory results are often obtained. If the floors have been previously finished they must be thoroughly cleansed from the old stain, wax or varnish, using for this purpose some one of the varnish removers now upon the market. These are of varying degrees of efficiency, but if one secures the best, and carefully follows the directions for application, a good job may be depended upon. Where the floors are of oak or any other wood which has been filled, it is well to use a brass wire brush in applying the remover, as this will greatly facilitate the



With white woodwork the floors look best when little or no coloring matter is used in the filler and finish. Incidentally they show less dust than dark floors

work. When the bare wood has been reached and is perfectly dry it may be treated as a new floor.

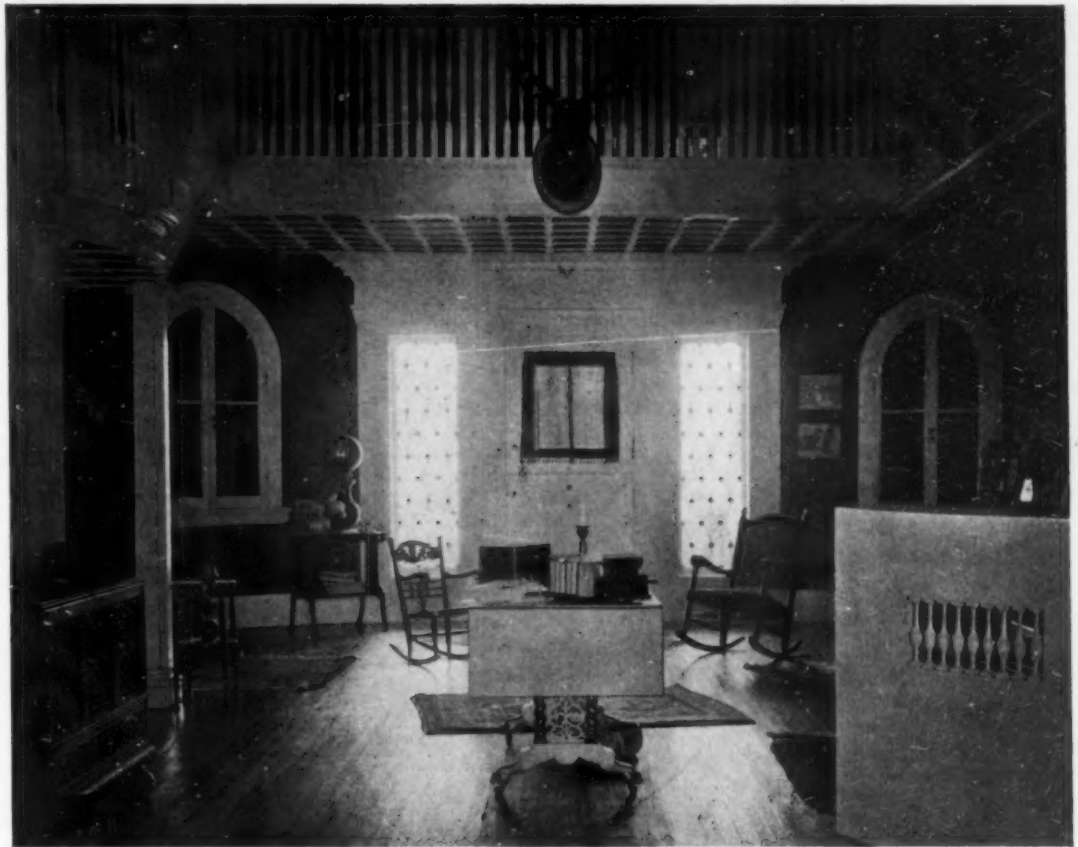
If the floors are of soft wood, such as white pine, poplar, etc., the best method of treatment is to give them three coats of floor paint; a good choice of color is a tone of soft brown. When the last coat is perfectly dry and presents a smooth surface, two coats of some good floor finish should be applied as to a new floor. Such a floor will wear and look fairly well, and afford a good background for rugs. The several coats of paint give firmness to the soft wood and render the floor much more durable.

There is now manufactured a wood covering for old floors known as wood carpet. It is obtainable in a variety of parquet patterns and, when laid over the old floor and securely fastened in place, is practical and serviceable. Such a floor may be given any finish desired.

The choice of floor covering is affected by so many conditions that it is not easy to lay down any definite rules as a guide. The rugs or carpets selected should, so far as is practical, be inconspicuous. Obtrusive and unsuitable rugs or carpets will render an otherwise beautiful room unpleasant to live in. The less prominence given the floor of the room the better for the completed effect.

The rugs selected should, in color and design as well as in their placing (which is not the least important feature in good floor treatment), fit like mosaics into the picture. Where a rug of large and pronounced design is used upon the floor the side walls should be plain and show at least two tones of the same color. In rooms where a high wainscot is employed rugs showing pronounced figure and design look well, as in the dining-room presented in the first illustration at the bottom of this page—in the Boardman residence, Washington, where the Tafts stayed just prior to their occupancy of the White House.

In the illustration adjoining the latter, showing a hall, the



Georgia rift pine makes an excellent flooring and is less expensive than oak or maple. North Carolina pine is cheaper still

very beautiful Persian rugs supply the variety of color. The walls here are painted a shade of mulberry red which harmonizes well with the rich brown of the woodwork.

Among the best domestic rugs are those made in two tones, the central color being lighter than the marginal border. These rugs have a deep pile and are closely woven. They are particularly suitable to use in rooms where there is pronounced figure and color in the wall treatment or draperies. To select the dominant color in the wall covering and reproduce it in a darker shade in the two-toned rug goes far towards making a restful and attractive room.

Objection is sometimes made that these solid-color rugs show dust and footmarks too plainly. There is a sure remedy—keep the rugs clean.



With sombre walls or dark wainscoting the floor covering should be pronounced in design or coloring



Beautiful Persian rugs supply the variety of color here; the walls are painted mulberry red, the woodwork finished brown

Prize Fruits on a One-Acre Homestead

HOW A BOSTON AMATEUR GARDENER CARRIES OFF PRIZES FOR FRUITS—THE DETAILS OF HIS INTENSIVE METHODS OF GARDENING—HOW TO RAISE PRIZE CURRANTS, GRAPES, GOOSEBERRIES, APPLES, PEARS AND PLUMS

BY F. C. BABCOCK

THERE is a one-acre lot in Atlantic, Mass., which, in the hands of its owner, Dr. Walter Gardner Kendall, yields such remarkable returns that it seems but fair that his methods and results should be detailed for the help of other amateur gardeners.

Dr. Kendall is well known locally as a successful huntsman, dog fancier and home gardener. In the latter capacity he contributes to the weekly exhibits of the Massachusetts Horticultural Society in Horticultural Hall, Boston, and has been a persistent winner of the prizes offered. Every year his large and handsome gooseberries and currants secure first prizes. It is particularly interesting and instructive, therefore, to find out just how he does it. Dr. Kendall gives special thought and care to these fruits, subjecting the bushes first to careful pruning and thinning out of dead wood, followed by deep digging about the roots, and a generous mulching with stable litter. The worm which attacks so savagely both currants and gooseberries, is hunted diligently. It yields always to frequent applications of hellebore mixed with flour, which is best put on the bushes on wet or damp days. One of the modern insecticides has also proven entirely efficacious in ridding the bushes of these pests. The doctor's favorite currant is the Wilder; his choice of the gooseberries is the Bates. This superior gooseberry was developed from a chance seedling found on the premises of Mr. Bates of Hingham, Mass., who recognized a promising healthy plant, and by cultivation developed this

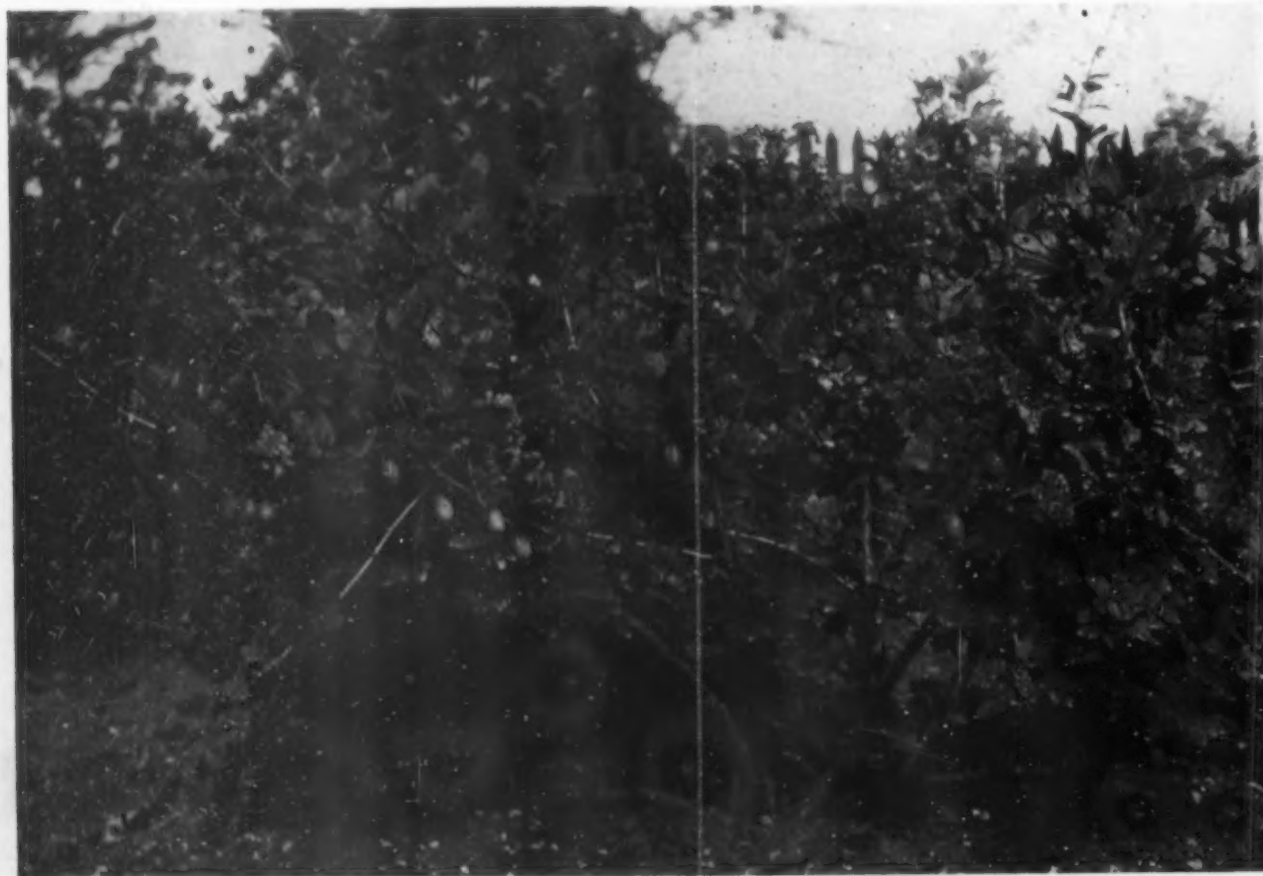
seedling to fulfil all his expectations. He produced just what fruit-growers wanted in the gooseberry—large, light-colored, smooth, thin-skinned fruit, sweet and of fine flavor. The Massachusetts Horticultural Society voted Mr. Bates a valuable medal as a recognition of his success, and as a benefactor to fruit-growers. Dr. Kendall has removed all of his old gooseberry bushes in favor of the Bates seedling.

Dr. Kendall's favorite fertilizer for the small fruits is raw ground bone-meal, mixed with wood-ashes. Sometimes, to attain quick results, he uses a preparation of nitrate of soda, made into a weak solution and applied to the roots.

Of the larger fruits, such as apple, pear, peach and plum trees, Dr. Kendall has made a careful study, and they respond finely to the low trimming and heading which is his rule in pruning. "Trim as low as possible," he says. The apple he ranks highest is the McIntosh, for which he predicts a leadership in quality and quantity. As an insecticide Dr. Kendall has a method of his own, and gathers, by the bushel almost, "the miller that makes the worm that eats the apple." On each apple tree he hangs by a string or wire a glass jar or wide-necked bottle. In this is put a preparation of molasses and water, half and half. The millers are tempted by the sweet liquid, drink themselves to death, and remain in sticky masses, which are removed and burned.

Dr. Kendall confines his efforts in pear culture to the varieties known as Bartlett, Seckle, Dana Hovey and Bosc. His personal choice is Worden's Seckle, as it has all the good qualities of the ordinary Seckle, but is larger and finer in many ways.

It is, however, in grape culture that Dr. Kendall shows the greatest individuality of treatment. When the vine is in the blossom it is watched with sleepless eyes for rose bugs. These pests he combats successfully by steady hand-picking and immediate burning. As soon as the grapes form so as to show the probable shape of the bunch, the whole vine is gone over carefully, and two-thirds of the green fruit cut off. Dr. Kendall argues here, as with other fruits, "Better one bushel of the very best than ten



Twelve-year-old gooseberry bushes are kept pruned down to three feet in height. This fruit has taken first prize at the annual show of the Massachusetts Horticultural Society for the last five years

of poor or even of medium quality." In training the grapevine he has a method of his own. It is not allowed to grow more than four or five feet high before the vines are stretched from the trellis or support to a tree or post a few feet away, and upon these separate wires the grape-bearing branches are trained. The fruit clusters thus have the best chance possible for absolutely unobstructed growth, air and light. Dr. Kendall's grapes have several times been prize winners. His leaders are Delaware, Worden, Campbell's Early and Green Mountain.

The doctor has tried cultivating the modern Japanese plum, but has set the variety aside in favor of the older American strain known as the Jefferson. The latter has been lost sight of in recent years, but is invaluable for domestic use, rich in flavor, prolific in bearing.

Like many other amateur gardeners, Dr. Kendall has had his fancies and fads in experimenting with foreign fruits and nuts, but says the returns do not warrant the time and expense. Apricots, nectarines, etc. have been nursed to maturity, but the New England climate is not favorable to such attempts. Huckleberries and blueberries, of our wild fruits, have been planted within the garden border, but, in his experience, they cannot be satisfactorily domesticated.

Doubtless, one secret of Dr. Kendall's success with his single



Dr. Kendall's currant bushes, though fifteen years old, are kept pruned down to three feet in height. They bear fruit that is as large as cherries

acre is the intensive cultivation he gives it. By intensive cultivation is meant heavy fertilizing, rigid pruning, and generous thinning-out of the green fruit. Another secret is the personal care he gives to everything and the fact that he has the interested help of a man whom he has trained to the work, and who has been his faithful assistant for fifteen years.

The experience of Dr. Kendall in his selection of varieties is the experience of one man in one particular locality. It should not be inferred that no other varieties of currants or gooseberries or pears are worth while. Another gardener under like conditions of soil and climate, or Dr. Kendall in another locality, would perhaps have made an entirely different selection.



The grape vines are permitted to grow only three or four feet high, then stretched out over wires to get the maximum air and sun



Dr. Kendall's one-acre home garden is made to yield prize fruits through heavy fertilizing, hard pruning, and thinning out the green fruit

Inside the House



Edited
by
Margaret
Greenleaf



Miss Greenleaf will gladly answer questions pertaining to individual problems of interior decoration and furnishing. When an immediate reply is desired, please enclose a self-addressed envelope

Readers' Problems

WALL TREATMENT You have been of such assistance to certain friends of mine that I am encouraged to write to this Department asking your aid for myself. I send you under separate cover a set of blue prints showing the plan of my house. The house faces west and is painted white with green stained roof. The eaves, overhanging three feet, give a broad low appearance suggestive of the Dutch Colonial, and I would like to work in the Dutch effect in the interior wherever possible. I must tint the walls of the rooms downstairs; perhaps you could suggest some way of decorating them in addition to this which would not be too expensive.

Woodwork in living-room is of walnut; the tiles about the fireplace are cream color, shot with black. The floors are birch stained oak. I shall use ecru net curtains. I have mahogany furniture for this room. I also have two medium size rugs in tans and browns which I would like to have dyed to suit the room, or I might use one large brown rug with two small Orientals, retaining the other square rug for the hall. Kindly advise me. I should be glad to have advice and samples for inside curtains. We also have a large davenport in Bagdad covering; this I should like to have done over. I wish to use nasturtium shades for this room—deep brown leading up to some pieces in nasturtium red with tan and yellow between.

I would favor a Dutch dining-room. For furniture we have a round table, chairs and plain buffet of dark oak. The woodwork of the room is of Circassian walnut. Could I have shelves over the doors and windows and do away with the plate-rail, and will window seats look well with this? How should I tint the room? What over-draperies? Also I would like suggestions for children's room with samples of wall paper for bedrooms and bath.

The ideas for decorating your house as outlined in your letter are good, and in the following suggestions we are keeping to them.

The wall tint for the living-room should be a soft tan, neither yellow nor brown, like the sample we send you. The net curtains you now have should be hung next the glass reaching only to the sill. Over-draperies for these windows could be made from the tapestry fabric of which we send sample; these curtains should extend to the floor line. The red velour of which we send sample is recommended for door curtains; this, as you will see, is a double faced material, 50 inches in width, and may be purchased for \$3.15 a yard. In working out this scheme we have had in mind the nasturtium shades you mentioned. Your woodwork of Circassian walnut will supply the darkest shade of brown. The tapestry fabric shows a combination of

brownish tan and a little red; this should make a most attractive room.

The hall wall should be treated the same as the living-room. Your idea of using one brown rug in the living-room with two smaller Orientals would be a good plan. The other brown rug could be used in the hall. We send you the address of a firm who will dye rugs satisfactorily.

For the dining-room we send two schemes, one showing the Dutch wind-mill frieze—this to be applied at the ceiling line, and the wall tinted either a soft green, the color of the sample we send, or dull cinnamon brown. The coarsely woven Arras cloth is advised for upholstering the window seats, and for door curtains. We like your idea of using shelves over doors and windows. The second scheme sent for this room shows a delft blue wall with ivory white ceiling. We send a figured madras for over-draperies and blue upholsterers' velveteen for door curtains. The figured blue and tan tapestry is suggested for covering the window seats.

For the children's room a frieze showing Dutch children is sent. The wall should be tinted soft gray-blue, like the background of the frieze; the ceiling to be ivory. The small-figured linen is recommended for upholstering and for over-draperies.

For the bedrooms we are sending a selection of floral papers. One shows yellow roses on a cream ground, the other the nasturtium design, since you favor these colors. In both of these rooms embroidered white muslin curtains should be used next the windows with over-draperies of plain colored linen—in the yellow room the yellow, in the nasturtium room dull red. These are intended to be banded with a border of cretonne showing yellow roses and nasturtiums respectively.

For the rear room a plain rose paper is recommended; with this a figured cretonne or linen taffeta should be used. Since your woodwork will all be treated with white enamel these suggestions will be found harmonious.

The question next of importance for you to settle is the style of rug to use in each room. You will find some helpful suggestions on this subject in an article on another page of this issue.

MANTELS We are selecting the mantels for our new home which is rather Colonial in style, though I believe much modified. The rooms are not very large. The woodwork is painted white and the doors are mahogany. We have seen a very good mantel for the dining-room in golden oak. As my furniture is oak I thought this would be a good choice, but the furniture unfortunately is much darker than golden (almost brown in fact). Would such a mantel be

correct used with this furniture? The living-room will be furnished in mahogany, so we thought the mahogany mantel would look well. Should there be a cabinet top and mirror to this?

It would be most unwise to place the golden oak mantel in your dining-room with white woodwork. The mantels for both rooms described should be painted white like the standing woodwork.

Simple, artistic, Colonial mantels treated with white undercoating and ready for the final coat of paint are made by several manufacturers, and a design suited to the architectural detail of your rooms can be readily secured. You will find that this treatment will make for greater harmony in the completed room. The brown oak furniture for your dining-room will look well with this standing woodwork.

In England both architect and decorator are much given to the combination of *dark* oak and ivory white enamel. Our own Colonial architecture has established the accepted combination of mahogany and white, and therefore, this is most frequently seen in American homes. The cabinet mantel is not so desirable as the simple mantel shelf supported by columns. This may be topped by a mirror of design appropriate to the room in which it is used.

WALL COVERING Is there any fabric which HOUSE AND GARDEN will recommend for covering walls, other than burlap or wall paper? We wish something very durable, and wish to avoid a surface which will roughen readily.



The type of mantel that distinguishes the genuine Colonial architecture. A mirror of this kind is not easily improved upon for the over-mantel decoration

We are glad to send you samples of materials which we can heartily recommend for your purpose, also the addresses of firms from whom these goods may be obtained. These are made in a varied selection of colors, and artistic and pleasing combinations for the different rooms may be secured from them. The materials are very durable; walls so covered may be painted in oils, or washed with water color tints if at any time it seems desirable to change the decoration of the room.



Modern Colonial mantels are obtainable, patterned after the good old types like this Salem example

A New Wood Finish

THE revival of gilded wood in interior decoration is very general. The soft brown gold tones of the finish which is most favored harmonize well with almost any scheme of color. Lamps, sconces, lighting fixtures, mirror frames, desk sets, book ends, and quaintly carved boxes are among the articles which readily find places in a decorative plan. Two very beautiful lamps for a library table have recently been used in a modified Colonial room. Corinthian columns of carved wood, standing about 24 inches in height from a heavily weighted base, hold the brass fount of the lamp, which is small, though arranged to hold sufficient oil to burn for eight hours. Half-barrel shades of golden-brown fluted silk completed these attractive lamps.

Garden
Suggestions
and
Queries



Edited
by
John
W Hall

Mr. Hall will gladly answer queries pertaining to individual problems connected with the garden and grounds. When an immediate reply is desired, please enclose a self-addressed stamped envelope.

October Activities

THE LAWN The bare spots in the lawn should be looked after. Loosen the bare places with a sharp rake and then treat them to a dressing of pulverized sheep manure, and seed liberally. After seeding, again rake over the surface so that the seed will be well covered. This should be followed by the use of the roller to smooth the surface. The finer the soil can be made before seeding, the better will be the result in securing a good stand of grass. If the lawn is well cared for, properly fertilized, and kept closely mown, the sod will improve from year to year. Many gardeners think that the grass should be let grow rather tall about this time of the year to make a protection for the roots. This is a mistake; the lawn should be kept closely mown until the grass ceases to grow. If left to get tall a great deal of the grass will die out during the winter and this long grass will have to be raked out by hand in the spring before the lawn can be made to take on a fresh appearance. If closely mown late in the fall it will start into growth very early the following spring. Bone dust or pulverized sheep manure, preferably the latter, makes good lawn fertilizers. It is not necessary to have the lawn unsightly all the winter months through the use of coarse stable straw-manure. Give a good top dressing of pulverized sheep manure—that is sufficient.

ORNAMENTAL TREES AND SHRUBS October is the best time of the year in which to plant ornamental trees and shrubs, except in localities where the winters are extremely severe. In the selection of both ornamental trees and shrubs regard must be had for the adaptability of the subject to the climatic conditions existing where it is to be planted. In planting always make the hole at least a foot wider than the root area of the specimen, and the depth according to the depth of its root system. If the earth at

the bottom is a stiff hard clay, or a gravelly hard-pan, it should be broken up to a depth of a foot or more and a goodly portion of sods and manure incorporated with it. If the soil where the tree or shrub is being set is poor, a good compost of well rotted manure, leaf mold, and sods should be thrown in and dug in to a depth of six inches or more. See the article "The Whole Art of Transplanting Trees" on another page.

SWEET PEAS Sweet pea seed planted now to lie dormant in the ground all winter will give much earlier bloom than the earliest spring planting. Fall planting is especially desirable for well drained, light, sandy soils, as the vines start early in the spring and come into flower much earlier than they would in a heavier soil, where they make a much stronger growth. The period of sweet pea blooming may be very much extended by placing a mulch of fine straw or grass about the roots, keeping

them well watered and the blooms picked off. It is well to keep in mind that sweet peas will not do well planted in the same soil two years in succession. But if they are desired in the same location the trench method can be resorted to—the old soil taken out and the trench refilled with new soil and manure. Sunlight and fresh air in abundance are essential to successful sweet pea development. In the shade the vines will make a tall growth, little foliage, and less flowers; in damp places the foliage is apt to mildew and the vines die off without flowering. Spade and prepare the ground properly, having it in a fine loose condition, putting on a liberal application of well rotted barn manure, or pulverized sheep manure, before spading. Use a liberal quantity of seed to make sure of a good stand—one ounce to fifteen feet of row is sufficient—and, when well started, thin out the young vines until they stand from four to six inches apart. Light two-inch-mesh poultry wire makes a very convenient support for the vines. A better and more satisfactory way of supporting the vines is to drive stout round stakes, four



Dig over your trench and sow sweet peas now to gain several weeks in the spring

or five feet high, every four or five feet along the row, and then run light jute twine from stake to stake, commencing a few inches from the ground and putting the twine about six inches apart on the stakes. The best support for the sweet pea vine, however, is brush cut from the ends of tree limbs or from young bushes. These when firmly planted in the soil allow the vines to grow in a more open way than the trellis made of either wire or twine. The support for the vines should be provided before or as soon after planting as possible so that the first tendrils may attach themselves firmly to the supports. Commence cultivation as soon as the plants are above the surface and continue it during the entire season. About the only thing to be done is to keep the soil loose and fine for a depth of two or three inches. Frequent workings keep out weeds and admit the air more freely to the roots, and keep the soil in the best condition for plant growth. During dry weather thoroughly soak the roots of the vines twice a week. Do not allow seed pods to form on the vines, and keep all faded or dried flowers picked off. Cutting the branches or tips of the vines back occasionally will induce them to branch and thus prolong the season of bloom.

HYACINTHS Childhood recollections of spring flowers are usually associated with the fragrant hyacinth. The florists have not been able to supplant or even approximate it for early outdoor flowering. Delightful effect can be had by massing different varieties that grow approximately the same height and bloom at the same time. Now is the time to plant hyacinths in the open. They do best in light soil with sunny exposure, and where the soil is naturally heavy it should be lightened by the addition of sand. Spade the bed to a depth of twelve or fourteen inches, letting it rise only very slightly above the level of the walk. Plant the bulbs evenly at a depth of about six inches. To plant them at uneven depths is sure to produce irregular blooming. The bulbs should be set from six to eight inches apart and care should be taken not to firm the soil too much around and over them. To set each bulb in a handful of clean sand is a guarantee of proper drainage. After the ground freezes cover the bed with a few inches of dry litter, evergreen boughs, or straw manure which should remain through the winter.

The hyacinth is equally desirable for pot culture. For this purpose the large varieties should be chosen. They should be set singly in 5-inch, or smaller pots; a 7-inch pot will carry three bulbs very effectively. The best potting soil can be had by using two parts of fibrous loam to one part of pulverized sheep manure, with the addition of a little powdered charcoal. First fill the pot and then press the bulb into the soil, leaving about one-third of the bulb exposed. Bury the pot in the ground with its top about six inches under the surface and leave it in the open five or six weeks, by which time it will be well filled with roots. It can then be taken into the house where it will soon be brought into flower by the warmth. Continue to pot until the end of November for a succession of bloom. Supply plenty of water, and when the flower-spikes appear hasten development by the application of liquid manure.

TULIPS Both for beauty of form and brilliancy of coloring there is no flower that equals the tulip. It is admirably adapted for the border around the house. By the harmonious massing of contrasting colors the most gorgeous effects can be produced. Tulips are also invaluable for pot culture. The color of bloom and height of growth are usually given by the nurseryman and that makes it an easy matter to select just what is wanted. The cultural directions given for the hyacinth are equally applicable to the tulip. However, as the bulbs are smaller they should not be planted quite so deep. Four inches to the bottom of the bulb set in the open is enough, while the distance

between the bulbs can be to four to six inches. A 5-inch pot will contain satisfactorily from three to five bulbs. The double tulips generally come into bloom later than the single variety, though there are some late flowering single ones.

NARCISSUS Add the narcissus to your selection of fall planting for spring flowering. They are very easy of cultivation and do well in almost any soil and situation, but preferably in stiff soil and shaded location. See the first article in this issue for full particulars. The narcissus is grown extensively in pots for winter cut flowers and require practically the same treatment as has been suggested for hyacinths and tulips. The jonquil is related to the narcissus and is suitable alike for pot culture or planting in the open.



Set out narcissus bulbs this fall either to naturalize them or to get early bloom in the border

Care of Begonia Roots

Will you please tell me how I can best keep my begonias during the winter?
R. S. W.

Detroit, Mich.

As soon as the edges of the leaves and flowers become blighted by cool nights, the plants should be taken up, the tops and some of the roots cut off the tuberous-rooted varieties, and the bulbs carefully dried for storage. Do not dry too rapidly, else the bulbs will shrivel and lose their vitality. Some of the soil may be left on the plants when taken up and if placed in a cool airy shed will dry out gradually. When well dried, clean and wrap in cotton wadding to prevent moisture, and place in a dark closet where there is not enough warmth to cause them to shrivel. In the spring the bulbs may be planted about the same time the seed were sown the previous year.

J. W. H.

Perennial Peas

Please tell me something about the habits of the perennial pea, how and when best to start them.
R. C. H.

New Bedford, Pa.

Perennial peas (*Lathyrus*) are entirely hardy and attractive climbers when given proper support. The flowers are quite similar to sweet peas but are borne in large close clusters and are without fragrance. They commence to bloom early in the spring and continue to flower throughout the season. This is a good time to transplant the roots. If grown from seed, the seed should be planted quite early in the spring, about one inch deep in rich moist soil. They will always flower the first year when grown from the roots. While rather slow in growth from the seed, if planted in real good soil they will flower the first summer after planting. The second year they will grow more rapidly, attaining a height of eight or ten feet, and come into bloom very early. They make excellent cut flowers, retaining color and vitality for several days when supplied with fresh water and if the ends of the stems are cut off.

J. W. H.



The purpose of this page is to set forth in the most direct, non-technical form the fundamental principles of amateur gardening. Unlike the great mass of garden literature, it presupposes no knowledge of the subject, aiming to satisfy those who now for the first time want to know how to make things grow. The Editor will welcome any questions from beginners and will print in these columns the experience of contributors when they seem to have a wide appeal.

SOIL. There is one thing that surely is essential to a garden—without which there can be no garden; that is soil. And there is one thing just as essential to a gardener—without which he cannot be a successful gardener; that is knowledge of soil. To be sure it is not necessary to go into an exhaustive study of the subject, but a general acquaintance with the physical characteristics at least of the various kinds of soil, is imperative. Nothing can make up for the lack of it.

In the first place soil is classified in three ways: first, according to its origin, which means according to the rock from which it was derived—as limestone, sandstone or granitic for example; second, according to its chemical properties—as calcareous, alkali and so on; third, according to its physical or mechanical properties—as stony, gravelly or clayey, etc.

But the first and second we will overlook, giving attention to the third only, at present—the mechanical or physical.

Soil is made up of particles of broken down rock combined with decomposed organic or living matter. The size of these particles, their relation to each other, the proportion between them and the air and water which they retain in the infinitesimal crevices separating them—these are the things which govern the physical characteristics and the soil texture; these, clearly understood, make it possible for anyone to follow a line of common sense reasoning and arrive at the right thing to do to put any soil in the condition most favorable for supporting vegetation. For soil may be modified almost as one chooses, especially within the area of the average home grounds.

Loam is the ideal soil most generally favorable to plant life because, being a combination of sand and clay—of large and small soil particles—in about equal proportions, it retains moisture in sufficient quantity to supply plant food in solution, and at the same time it is properly aerated. Air is an important factor in soil and needed by the roots of plants quite as much as water.

The first thing toward actual garden making for the beginner to do, therefore, is to determine which side of the balance between

sand and clay is overweighted in the soil with which he has to deal, and how much it is overweighted; there is a simple test which will show, approximately and near enough.

HOW TO TEST SOIL Go out into the garden or where the garden is going to be, and turn over a spadeful of earth three days after a rain. Is it powdery and light? Then sand predominates—and when sand predominates organic matter is what is needed to bind the particles together. Is it sticky and like putty, retaining the imprint of your fingers? That means a lack of sand, with correspondingly too much clay; so it is sand or some loosening agent that is the thing required.

Ordinary manure is as good as anything you can get for supplying the needs of a too sandy soil, while deep plowing, which gives the water a chance to escape from clay, is often all that an ordinarily heavy soil that has lain unworked, requires to make it into a friable loam. If this does not lighten it enough, however, a dressing of lime should follow.

Begin your garden now by doing this work with the soil. The weathering of it during the winter will help greatly, for the action of the frost and sun has a decided physical effect that should be taken advantage of whenever possible. With a spring beginning there is no time to wait for these to do their portion of the work—but with a start made now there are from six to seven months ahead, during which the elements may have free rein.

With outdoors looked after, pay particular attention to all that the catalogues and garden books and magazines, which you are going to read during the winter, have to say about soil. You know what they mean when they talk about sandy loam, or clay loam, or just plain loam, and you know which yours is. What have they to say about your particular kind? Never mind if they do not agree with each other or with what I have said; read them. You will find something to think about—you'll get ideas—and you will begin to appreciate how much there is of interest about this very common, ordinary dirt under our feet that we have always taken for granted. Our very lives depend upon it, literally. Isn't it worth studying a little bit?

NOMENCLATURE Plant nomenclature is a staggering proposition when you first meet it face to face—but don't get discouraged over your books and catalogues. It isn't really half so bad as it looks, nor as it sounds when you begin trying to pronounce the words. And believe me, your enjoyment of every growing thing will be very much keener if you make its acquaintance under its own true name instead of under some dubious nickname which may or may not fit. The true botanical name has been bestowed upon it for some definite reason by students who knew what they were about. It fits—and it means something. Learn it; pronounce it in sections, just the way it is spelled; nine times out of ten you will have it right—and the tenth is not going to matter.

Of course no one in his right mind will speak of familiar flowers under their Latin names in ordinary conversation. That is not why I urge you to learn them; but there are very many things which we already know commonly under their true name. Why not know all of them? By doing so you will find yourself able to trace relationships among plants and plant families which you have never dreamed of—and you can order the thing you want from any dealer under the sun, except possibly a Japanese, and be sure you are getting it right.

Common or popular names vary in different parts of the country so greatly that they are absolutely unreliable. Botanical names are fixed as the laws of the Medes and Persians—and they come easy, once you get started.



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(Continued from page 129.)

colored large-figured paper, with a design of green paroquets disporting themselves amid the brown branches and pink blossoms, was found most effective as a wall covering. Green flax curtains, exactly the shade of the birds, were hung over white curtains next the glass, and outlined the casement windows. The same material was used to cover the cushions in the wicker chairs and on the *chaise-lounge*. The brown stained bed, birch chiffonier, bed-side table, dresser and Morris chair completed the furniture. The floor and woodwork were stained a moss green and several small Brusse's rugs, showing a mingling of brown tones, were used in front of the bed, dresser, and chiffonier at a cost of \$8.00.

The floors of the two upper halls still remained uncovered, and for these dust-brown filling was selected as not readily showing footprints, and also harmonizing with the brown wall covering. This was purchased for 75 cents a yard.

Three dollars and sixty cents remained in the exchequer, which amount was promptly expended for a blue-and-white bath mat.

How to Know Antique Furniture

WHEN searching for old chairs, bedsteads, etc., one must remember that a marked characteristic of real antiques is their softness. Just as embroideries tone and mellow with time, so does mahogany, and nothing has yet been found to imitate this effect of years. Much so-called mahogany which is sold to the unsuspecting is cherry, a wood much used at one time, and some beautiful pieces, in the same designs as mahogany tables, etc., were turned out in this red wood. It, too, mellows and becomes richer with age, and in its best condition there is little choice between the two, but it denotes a woful lack of knowledge when cherry is put forth by a purchaser as mahogany.

In some of the older bureaus, or those made at a certain period, the two woods are combined. When new no attempt was made to disguise the fact, but a different method is now sometimes pursued, and because a drawer may be mahogany it by no means follows that the rest of the piece is of the same wood, but if the furniture is hauled into a bright light there will be no difficulty in detecting the difference between the two colors. Cherry is valuable, but less expensive from the collector's point of view than the brown wood, unless the former has carving or special work to give it particular value.

The difference between veneer and solid mahogany is that only in the veneer can the exquisite pattern of the grain be made to match perfectly. As it is a thin coating of wood, pressed to a solid foundation, it is naturally less durable than the solid,

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M. J. WHITTALL

DEPARTMENT I.

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and so is liable to chip. Nevertheless, it can be repaired always at small cost, and many persons prefer it because of its greater beauty.

Drawers, tables or buffet tops, or such plain surfaces, are most apt to be veneered. The work is sometimes done on solid mahogany, and the other parts of the piece are finished on the natural surface. Such are valuable, but, like cherry, should be bought understandingly.

Modern reproductions can be told, as a rule, because the two shades used in the finish are almost distinctively brown and red, instead of the two blending into one. Yet the better the finish the less separate are the two colors, and I know of no way in which an amateur may be certain that she is getting what she wishes. One who knows the difference sees them as plainly as the average individual would the difference between sateen and velvet, for the same reason—one has depth and softness while the other is shiny.—*Exchange.*

The Chestnut Bark Disease

ABOUT five years ago chestnut trees were observed to be dying in the city of New York. The cause, then unknown, has since been found to be a fungous disease of the bark. This disease is very fatal to the trees, and it has since spread so as to completely infest the areas lying near New York City in the States of New York, Connecticut, and New Jersey. It has also been found in scattered areas in the Eastern States from Rhode Island to Virginia. Where it becomes thoroughly established it destroys all the chestnut and chinquapin, but no other species. In Forest Park, Brooklyn, over 16,000 trees have been killed. One competent authority estimates the loss from this disease in and around New York to be over \$5,000,000.

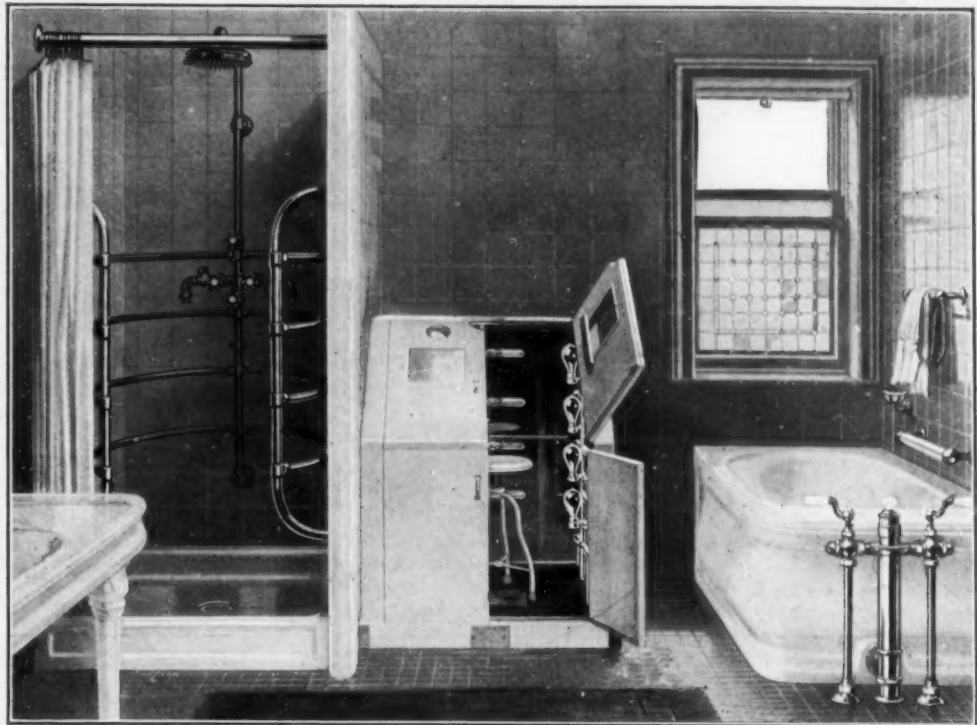
This disease has been studied by scientists of the U. S. Department of Agriculture, and the Department has issued a report on it (Bul. 141, Bureau of Plant Industry).

It is believed that this disease was brought to this country from Japan, although this has not been positively demonstrated. Its spread has resulted mainly from the sale and shipment of nursery stock. Young chestnut trees are sent out from many eastern nurseries, in which the disease has recently been found. The Department recommends, as a preventive, the careful inspection of nursery stock. It also advises, as a means of checking the spread of the disease, that all affected trees be cut down and utilized, care being taken to burn all the brush.

How to Paint Concrete

THE painting of concrete is sometimes very desirable, as when the concrete is a part of the interior or exterior of a dwelling. Painting not only improves appearance, but it prevents weathering. In applying paint to concrete we encounter

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different conditions than when wood is to be painted; for example, the surface is more or less caustic, and it is very absorbent and rough. These conditions, however, can be overcome if the following treatment, given by a writer in the *Farmers' Guide*, is applied before painting: "New concrete that is to be painted should first be sponged with a solution of one to two fluid ounces of oil of vitriol (sulphuric acid) in one gallon of soft water. This neutralizes the caustic lime in the cement and makes the surface like gypsum, as well as roughening it, giving the paint a firm grip and leaving only traces of acid alkali, which are overcome by sponging the surface a day later with vinegar. This must then be allowed to dry before applying the oil paint. Concrete from two to six months old should be sponged with a solution of two ounces of bicarbonate of ammonia in one gallon of soft water, after which the paint may be applied as soon as dry. Concrete over a year old and on the outside of a building can be painted without the above washes, as the exposure to the elements for a year will cause the same neutralization of lime that the acids bring about in a few days. Should waterproofing be the object of painting, then prime the surface with old raw linseed oil, giving it several weeks to become hard. On this apply one coat of flat paint, either of the ready-mixed paints or a paint composed of linseed oil, turpentine and Japan drier. This makes a fine finish except in a few cases. These exceptions, which generally consist of unevenness of color, are always overcome by a second coat of the same paint.

How to Destroy Rats

THE brown or Norway rat (*Mus norvegicus*) is the worst mammal pest in the United States, the losses from its depredations amounting to many millions of dollars yearly—to more, probably, than the losses from all other injurious mammals combined. In addition to its destructive habits, this rat is now known to be an active agent in disseminating infectious diseases, a fact which renders measures for its destruction doubly important.

Introduced into America about 1775, the brown rat has supplanted and nearly exterminated its less robust relative, the black rat, and despite the incessant warfare of man has extended its range and steadily increased in numbers. Its dominance is due to its great fecundity and its ability to adapt itself to all sorts of conditions. It breeds three, four, or even more, times a year, and produces from six to seventeen young in a litter. Females breed when only four or five months old. The species is practically omnivorous, feeding upon all kinds of animal and vegetable matter. It makes its home in the open field, the hedge row, and the river bank, as well as in stone walls, piers, and all kinds of buildings. It destroys grains when newly planted, while growing, and in the shock,

stack, mow, crib, granary, mill, elevator, or ship's hold, and also in the bin and feed trough. It invades store and warehouse, and destroys furs, laces, silks, carpets, leather goods, and groceries. It attacks fruits, vegetables, and meats in the markets, and destroys by pollution ten times as much as it actually eats. It carries disease germs from house to house and bubonic plague from city to city. It causes disastrous conflagrations; floods houses by gnawing lead water pipes; ruins artificial ponds and embankments by burrowing; destroys eggs and young poultry; eats the eggs and young of song birds and game birds; and damages foundations, floors, doors, and furnishings of dwellings.

Rats have developed so much intelligence and such extraordinary caution that attempts to exterminate them have rarely succeeded. The failures have been due not so much to lack of effective methods as to the neglect of certain precautions and the absence of concerted action. We have rendered our work abortive by continuing to provide subsistence and hiding places for the rats. When these advantages are denied, persistent and concerted use of the methods here recommended will prove far more effective.

First in importance, as a measure of rat repression, is the exclusion of the animals from places where they find food and safe retreats for rearing their young.

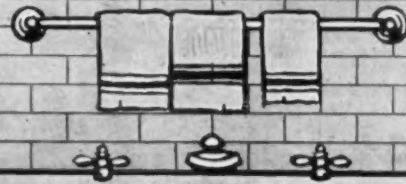
The best way to keep rats from buildings, whether in city or in country, is by the use of cement in construction. As the advantages of this material are coming to be generally understood, its use is rapidly extending to all kinds of buildings. Dwellings, dairies, barns, stables, chicken houses, ice houses, bridges, dams, silos, tanks, cisterns, root cellars, hotbeds, sidewalks, and curbs are now often made wholly of cement. The processes of mixing and laying this material require little skill or special knowledge, and workmen of ordinary intelligence can successfully follow the plain directions contained in handbooks of cement construction.

In constructing dwelling houses the additional cost of making the foundations rat-proof is slight as compared with the advantages. The cellar walls should have concrete footings, and the walls themselves should be laid in cement mortar. The cellar floor should be of medium rather than lean concrete, and all water and drain pipes should be surrounded with concrete. Even old cellars may be made rat-proof at comparatively small expense. Rat holes may be permanently closed with a mixture of cement, sand, and broken glass or sharp bits of crockery or stone.

On a foundation like the one described above, the walls of a wooden dwelling also may be made rat-proof. The space between the sheathing and lath, to the height of about a foot, should be filled with concrete. Rats cannot then gain access to the walls, and can enter the dwelling only through doors or windows. Screening all basement and cellar windows with wire netting is a most necessary precaution.

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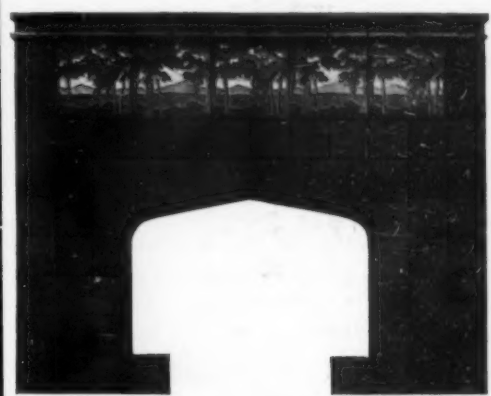
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The general rat-proofing of buildings is the most important step in limiting the food supply of rats. But since much of the animal's food consists of garbage and other waste materials, it is not enough to bar rats from markets, granaries, warehouses, and private food stores. Garbage and offal of all kinds must be so disposed of that rats cannot obtain them.

Among the natural enemies of rats are the larger hawks and owls, skunks, foxes, coyotes, weasels, minks, dogs, cats, and ferrets.

Probably the greatest factor in the increase of rats, mice, and other destructive rodents in the United States has been the persistent killing off of the birds and mammals that prey upon them. Animals that on the whole are decidedly beneficial, since they subsist upon harmful insects and rodents, are habitually destroyed by some farmers and sportsmen because they occasionally kill a chicken or a game bird.

The value of carnivorous mammals and the larger birds of prey in destroying rats should be more fully recognized, especially by the farmer and the game preserver. Rats actually destroy more poultry and game, both eggs and young chicks, than all the birds and wild mammals combined; yet some of our most useful birds of prey and carnivorous mammals are persecuted almost to the point of extinction. An enlightened public sentiment should cause the repeal of all bounties on these animals and afford protection to the majority of them.

Owing to their cunning it is not easy to clear premises of rats by trapping; if food is abundant, it is impossible. A few adults refuse to enter the most innocent-looking trap. And yet trapping, if persistently followed, is one of the most effective ways of destroying the animal.

For general use the improved modern traps with a wire fall released by a baited trigger and driven by a coiled spring have marked advantages over the old forms, and many of them may be used at the same time. These traps, sometimes called "guillotine" traps, are of many designs, but the more simply constructed are preferable. Probably those made entirely of metal are the best, as they are more durable and are less likely to absorb and retain odors. Guillotine traps should be baited with small pieces of Vienna sausage (Wienerwurst) or fried bacon. A small section of an ear of corn is an excellent bait if other grain is not present. The trigger wire should be bent inward to bring the bait into proper position to permit the fall to strike the rat in the neck. Other excellent baits for rats are oatmeal, toasted cheese, toasted bread (buttered), fish, fish offal, fresh liver, raw meat, pine nuts, apples, carrots, corn, and sunflower, squash, or pumpkin seeds. Broken fresh eggs are good bait at all seasons, and ripe tomatoes, green cucumbers, and other fresh vegetables are very tempting to the animals in winter. When seed, grain, or meal is used with a guillotine trap, it is placed on the trigger plate, or the trigger

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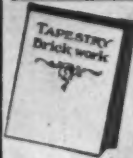


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wire may be bent outward and the bait sprinkled under it.

Among the principal poisons that have been recommended for killing rats are barium carbonate, strychnine, arsenic, and phosphorus. One of the cheapest and most effective poisons for rats and mice is barium carbonate. This mineral has the advantage of being without taste or smell. It has a corrosive action on the mucous lining of the stomach and is dangerous to larger animals if taken in sufficient quantity. In the small doses fed to rats and mice it would be harmless to domestic animals. Its action upon rats is slow, and if exit is possible they usually leave the premises in search of water. For this reason the poison may frequently though not always, be used in houses without disagreeable consequences.

Barium carbonate may be fed in the form of dough composed of four parts of meal or flour and one part of the mineral. A more convenient bait is ordinary oatmeal with about one-eighth of its bulk of the mineral, mixed with water into a stiff dough. A third plan is to spread the barium carbonate upon fish, toasted bread (moistened), or ordinary bread and butter. The prepared bait should be placed in rat runs, about a teaspoonful at a place. If a single application of the poison fails to kill or drive away all rats from the premises, it should be repeated with a change of bait.

The value of dogs as ratters cannot be appreciated by persons who have had no experience with a trained animal. The ordinary cur and the larger breeds of dogs seldom develop the necessary qualities for ratters. Small Irish, Scotch, and fox terriers when properly trained are superior to other breeds, and under favorable circumstances may be relied upon to keep the farm premises reasonably free from rats.

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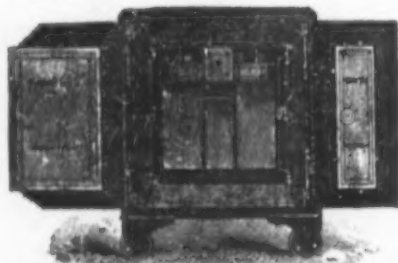
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well it often refuses to dry perfectly, always remaining sticky or "tacky." If, however, the suggestions given above are followed the results will be entirely satisfactory. M. G.

CURTAINING ORDINARY WINDOWS

I have a little house with sliding-sash windows. These are about 2½ feet wide and 6½ feet high. They give the room a common look. I have tried hanging net curtains next the glass within the window casing, and this seems to make them look even narrower. Please give me some suggestions for treating these, also advise what materials to use next the glass and for over-draperies. I should like to treat all windows on the first floor alike.

Answer: Double sash curtains, such as one often sees used in English cottages, would be a good way to treat the long narrow windows which you described, as this would provide an agreeable break in the length of the curtain. Two sets of rods are required for each window, placed directly on the sash.

Scrim, dotted net, Arabian net, or thin raw silk—any of these materials could be used satisfactorily. The curtains should be hung two to each sash run by a casing on the rod and finished with a 2-inch hem at the bottom. For the over-draperies the rods should be set as close to the outer edge of the window frame as possible, allowing an extension of about 3 inches on either side. The over-draperies of cretonne, plain linen taffeta, silk, or wool, as the case may be, should extend the full width of the rod and be well pushed back on either side, simply covering the inner line of the window frame. This will apparently make a decided difference in the width of your windows. These curtains may extend to the floor or stop at the sill, the decision being influenced by the character of the material used. If a large figure is chosen, full length curtains would be better; if plain color, they may stop at the sill line. A valance may be used across the top of the window with good effect. This should not be more than 8 inches deep, finished. M. G.

SELECTING A HALL RUNNER

I have \$30.00 to put into a rug to be used in my hall 6½ x 14 feet. I do not hope for an Oriental rug, but I should like something with more character to it than the regular hall carpet of Brussels or Wilton or the plain velvet filling.

The walls of the hall are plain tint—tan in color—and I will buy my curtains after I have selected the rug. The woodwork is ivory white with hand-rail of banister stained mahogany, and doors of mahogany.

Answer: You have put your requirements so clearly before us that we feel safe in advising a domestic rug which is of good weave and has a deep pile. The fabric is very durable and some of the

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colors these rugs show, as well as the designs, are artistic and beautiful. For your hall we would recommend the Serebend design. This can be obtained in dull old rose, tan, blue, green and black. The design is taken from the Oriental Serebend; the colors are low toned and beautiful. A runner 3 x 12 feet can be purchased for \$22.50, and we are quite sure you would not regret the choice. Should you decide upon it, with these colors in the rug, old rose, green or blue can be brought out in plain raw silk in the curtains for your hall and give a very harmonious effect. M. G.

A LAMP FOR A COLONIAL LIBRARY

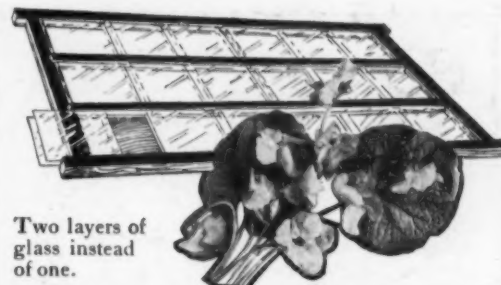
Can you suggest a correct lamp to use on a large library table in a room which is Colonial in character? We do not wish the ground glass thumb pattern shade, but something which will be practical as a reading lamp and throw the light down. It must carry oil. The room is very carefully furnished, the furniture being after Chippendale.

Answer: The lamp selected for your library table should stand from 30 to 34 inches in height and can be of brass, carved and gilded wood, or of crystal, the single column springing from a wide base supporting in the cap the bowl of the lamp, which must be large enough to hold sufficient oil to burn five hours. A wide-spreading shade of fluted silk, of some distinctive color suited to the room, should be finished with a narrow silken fringe, or the half barrel style of shade would be equally correct. This may be made from dainty brocade, or the fluted silk, and finished by a gold galloon, fringe or double frills. Such lamps are exceedingly decorative and add much to the room in which they are placed. Dull soft red from shades of mulberry to old rose, yellow, tan or neutral brown and reseda green are good colors from which to select one for the shade. M. G.

The Campaign Against the Mosquito

TO-DAY the people of Staten Island are talking of erecting a monument to Dr. Doty. He has rid them entirely of the striped-legged mosquito, the savage *Culex sollicitans*, that, besides driving away no one can compute how many potential residents, has hitherto made life a burden during the summer months; and he had all but annihilated the *anopheles*, its malaria-carrying relative. The conquest of the mosquito has increased the value of real estate on the island by hundreds of thousands of dollars; new houses are going up throughout its length and breadth, and residences that have long been inhabited only by caretakers are being rented.

Dr. Doty's researches show that the water in which mosquitoes breed must be



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continually present for about two weeks in order to allow of the full propagation of the insect, and that they are not produced in water that may accumulate for two or three days or a week. They will breed, however, wherever there is standing water.

The anopheles larvæ are frequently found in the most unexpected places, such as old glass and tinware, wooden receptacles, defective roof leaders and the crotches of trees. As, with the exception of the sollicitans variety, mosquitoes do not go far from their breeding places, if any others are found about the house it is almost certain that a breeding place exists in the immediate vicinity. Filthy water or that which contains an excess of organic matter is generally preferred by the anopheles mosquito for this purpose, so that obstructed cesspools, street gutters and similar places are found to be favorite breeding spots. The mosquito deposits its eggs on the surface of the water usually at night, and from fifteen to twenty hours afterward the larvæ are released. Although the larvæ can live only in water, they are dependent entirely on air for existence, and must rise every minute or so to the surface and project above it their respiratory apparatus. Petroleum does not poison the larvæ, but kills them by suffocation, as the oil on the surface of the water plugs up the respiratory apparatus and prevents the intake of air.

The campaign against the mosquito does not stop with Staten Island. The genus culex is doomed throughout the rest of the city. At Flushing, in the Borough of Queens, which has suffered almost as much as Richmond from the ravages of the sollicitans, the work of draining the great swamp comprising 2,200 acres that stretches from Flushing Bay to College Point is all but completed, and the marshes at Douglaston, Woodside, Maspeth and Newtown Creek are being ditched. Similar work is going on in the 5,000 acres of swamp land along the Bronx River, and in the Borough of Brooklyn ditching has begun in the marshes that stretch from Spring Creek and Jamaica Bay to Remsen's Landing and from Gravesend Bay to Bergen Beach. With the completion of this work the mosquito will have been deprived of lying-in accommodations in the five boroughs and New York city will be entirely rid of the pest.—*Harper's Weekly*.

What Not to Move

This is the time to establish new beds, which may be filled with the thinnings from the hardy perennials. Do not, however, move hardy chrysanthemums, Anemone Japonica, yuccas, late tritomas, magnolias or altheas; these are best moved in April. The young plants of hollyhocks, foxglove, hardy gaillardia, sweet william, and clove pinks if not transplanted by September 20th should be left undisturbed until spring.