

A North Shore Garden
Shrubs for the Amateur
Auguste Rodin

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Why Many Amateur Gardeners Fail
A Semi-Tropical Garden
The Small Flower Bed

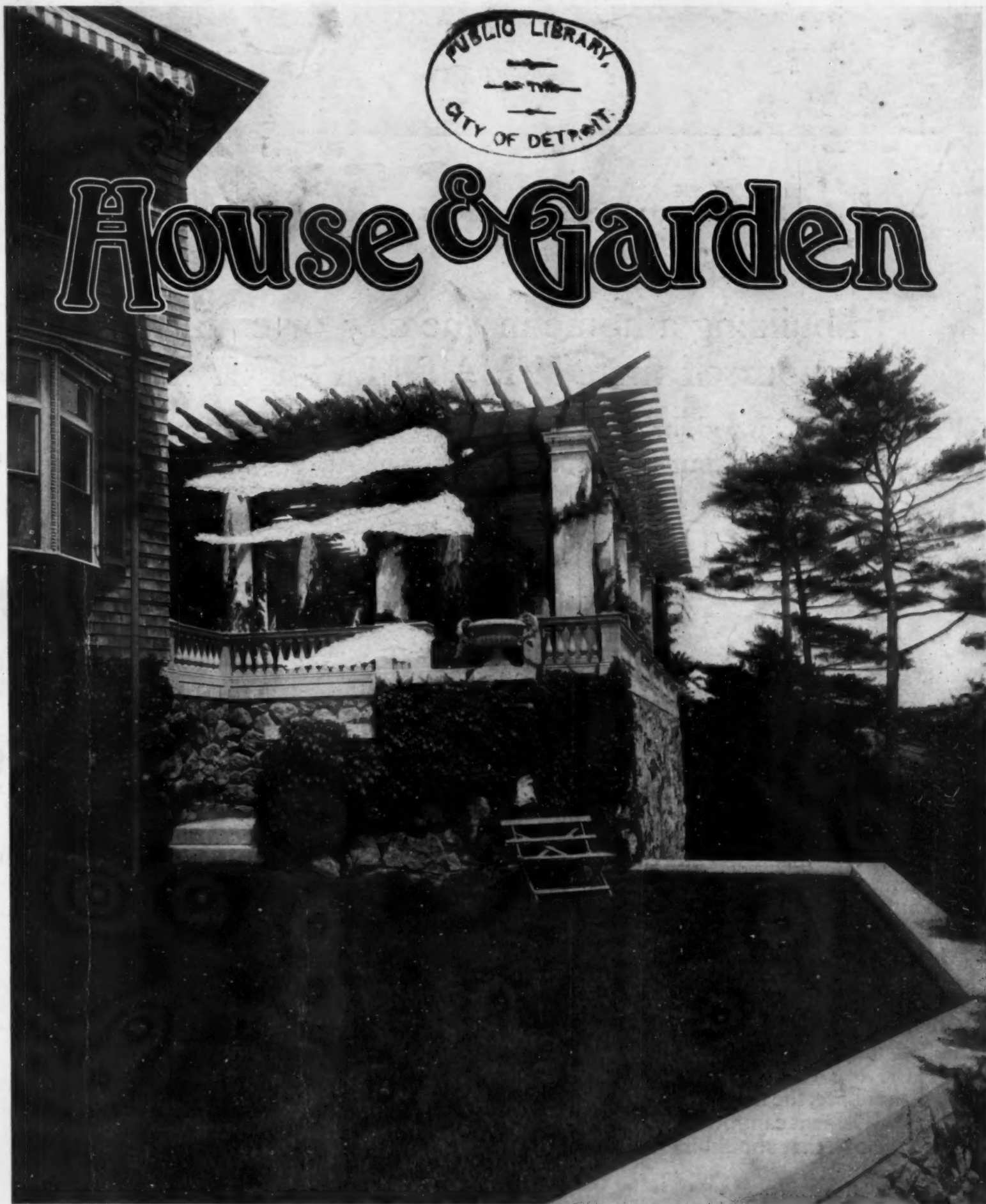
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MARCH, 1909

No. 3



House & Garden



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American farmers lose millions of dollars annually from the damage wrought by bugs and insect pests generally. What is known as the Mexican boll weevil has spread over a large area of Texas and parts of Louisiana. The annual loss attributed to the boll weevil has been estimated at \$10,000,000 to \$15,000,000. At great expense the department of agriculture imported from Guatemala colonies of ants which were guaranteed to clean out all the boll weevil in the world. They were to make short shrift of the great enemy of the cotton planter. These Guatemalan insects were placed on one of the experiment farms in South Texas and there

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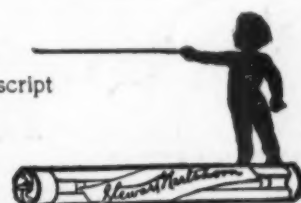
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they were to be cultivated. The press of the cotton States printed columns upon columns telling what great things were to be expected of these ants. In order to give the Guatemalans an opportunity to see what they would do to the Mexicans a colony was placed in a Texas cotton patch.

Now, it has always been claimed by the entomologists that the boll weevil will not molest anything except cotton, but when the ants were turned into the field with the weevil they became the prey of the cotton pest. Instead of the ants eating the weevils the weevils are said to have fairly gorged themselves on the nice, fat, juicy Guatemalan ants. Meantime the boll weevil continues to enlarge his field of operations by taking in more territory each year.—*Journal of Agriculture*.

MR. JUSTICE CAVE ON ARCHITECTS

IN the case of Jalland v. Tyler and Hind, before Mr. Justice Cave at Nottingham, the learned judge, in summing up, thus delivered himself on the value of expert evidence given by architects: "This was one of those unfortunate cases in which they had to listen to what architects came and told them.

There were no such unsatisfactory men as architects, for they were always at the opposite poles to one another. All other scientific men tried to come to some sort of an agreement; but architects, on the other hand, tried to contradict each other entirely. That might be due to three causes, and three causes only. Which of these causes was the correct one was not for him to say. It might be that architecture had no science whatever about it. Secondly, there might be science in architecture, but the witnesses who had been called knew nothing about it. Thirdly, there might be science in architecture, and these men might possess that science, but not have the honesty to tell them truly what it was.

One or other of these things must be true, or the architects would not be found differing so widely as they always did. In point of fact, they helped the jury very little indeed, and they had, so far as they could, to come to a decision with as little regard to the architects as possible.—*Journal of the Royal Institute*.

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A SIDE VIEW OF THE FOUNTAIN IN MR. PICKMAN'S GARDEN, BEVERLY COVE, MASSACHUSETTS

House and Garden

VOL. XV

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A North Shore Garden

Mr. Dudley L. Pickman's Formal Garden at Beverly Cove, Mass.

By MARY H. NORTHEND

WHILE the grounds which surround the charming summer home of Mr. Dudley L. Pickman, situated on Hospital Point at Beverly Cove, are not extensive compared with those surrounding many other residences along the North Shore of Massachusetts Bay, yet they comprise many acres of field and woodland which slope at the rear to the water's edge, and thus afford a magnificent view of old ocean and the opposite shore.

Through the entrance gate one passes along a wide, tree shaded avenue, lined on either side with beds of dainty wild flowers, which winds between two wooded hills until it opens upon an expanse of velvety lawn,

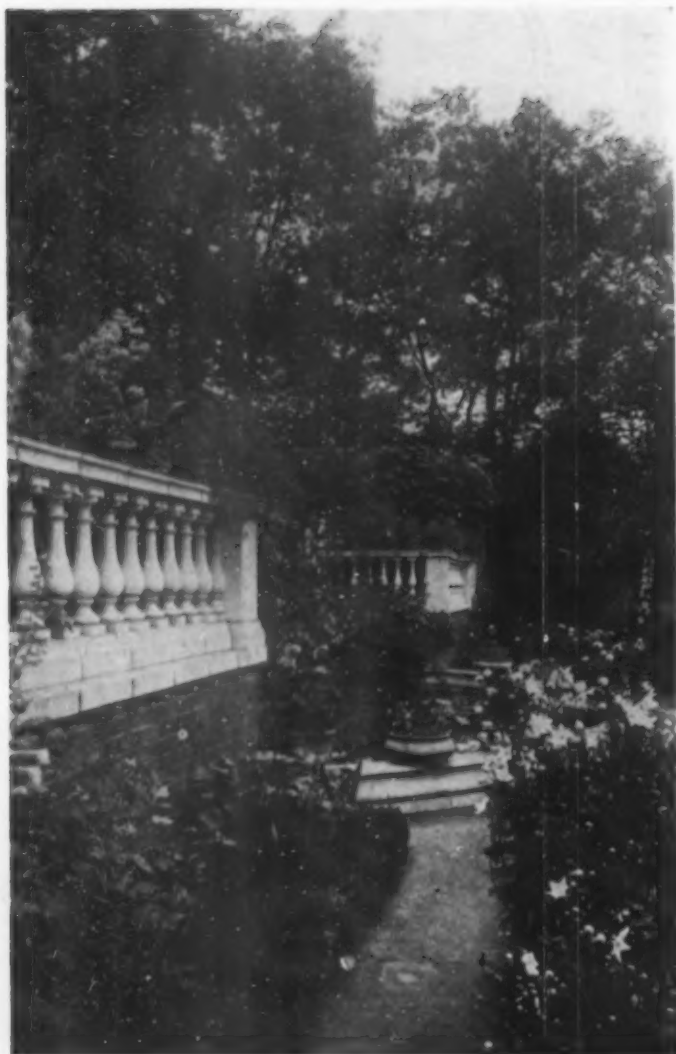
in the midst of which stands the homestead, flanked on the right by a large, well-appointed tennis court, a spot much enjoyed by the younger members of the family during the season, and the scene of many an exciting contest.

The house itself is of the Colonial type of architecture, with broad verandas extending around three sides which display to advantage the wealth of flowers, ferns and palms that thrive there during the summer. The flowers are planted in large garden pots and urns, which are arranged all about the veranda, and are changed as their season of bloom ends, and others substituted, so as to continue a



THE GARDEN FROM THE VERANDA STEPS

House and Garden



THE FOUNTAIN AND TERRACE



A SIDE OF THE GARDEN WITH STEPS TO TERRACE

constant succession of bloom, and thus render the veranda a retreat of beauty from early summer until late in the fall.

Through the wide front door one enters the great hallway and is struck with admiration at the beauty of its furnishings. Fine old Chippendale chairs, beautiful Italian sofas, and cabinets of the time of James I. of England, are placed about, and vie for attention with the magnificent landscape paintings, set in panels in the wall over the daintily carved mantel, as well as the old Dutch clock, which stands in one corner, and faithfully ticks the hours away as it has done for many years.

Passing on to the right, the drawing-room is reached, and here one pauses again to examine the exquisitely designed mantel and mirror above, with its delicate columns and garlands of flowers, beautifully carved by a master hand. To the right is a great Dutch cabinet, filled with an abundance of rare old Delft, the finest collection of this ware to be found in all New England. Beautiful old mahogany furniture lends charm and distinction to the room, and the fine old mirrors that hang on the walls are especially attractive, being heirlooms from the Pickman homestead at Salem, and accordingly cherished not alone for their beauty, but for their association with the past, and the old social life of the Witch City.

The dining-room is a large, handsomely finished apartment, fitted with rare Colonial furnishings, with which the house abounds. It ends at the rear in long French windows, which open on to the veranda, from which is obtained a fine view of the charming formal garden which lies just below, and which con-

tains many interesting features not generally found in a garden of its size.

It is located at one side of the house, and laid out on land which originally sloped to a bank overlooking the valley. The ingenuity of the architects, Messrs. Little & Brown, of Boston, was taxed to the utmost to devise an attractive garden space out of such unpromising material, but they hopefully set to work, and the result has been most successful. One side of the bank was filled in, and a high brick

A North Shore Garden

wall with limestone copings and a semicircular recess was built at the rear to serve as protection from the high winds which blow even in summer along the Massachusetts coast. Within the recess was arranged the upper terrace and just below the lily pond, with a quaint little marble fountain in the center. The formal garden was laid out to the right of the pond, and extends on either side of a central path to an archway from which a short flight of steps leads to a second and smaller terrace, which marks the end of the garden space.

The garden is entered from two opposite points of the estate. One entrance is from the lawn at the rear end of the garden, where a quaint, little latticed doorway opens directly upon the smaller terrace, and the other is by way of the veranda, at a point just outside the reception-room, from which a short flight of marble steps descends to the central path.

A low terrace wall, constructed of brick with copings of limestone, surrounds the entire garden, and just outside stand tall, stately trees, which are special features of this fine estate. Their great overhanging branches lend a welcome amount of shade to an otherwise sunny space, and at the same time form an effective framing for the very pretty picture made by the vari-colored blossoms that thrive within the enclosure.

Over the high terrace wall at the rear of the garden, pretty flowering vines have been trained to clamber, and the delicate tints of their blooms contrast prettily with the dark green of the leaves of the great old trees which stand just beyond, and lend a touch of dignity to a very charming whole.

The central path is some eight feet in width, and is outlined on either side by delicate flowering plants, which vary as the season progresses.

Undoubtedly the most beautiful bordering of all is the dainty Easter lily with its pure white blossoms and dark green leaves, which make a very attractive edging during the season of bloom.

To the right and left of this path are arranged the flower beds, which are delightful combinations of old and new gems of floriculture. Gravel paths, five



THE TERRACE PATH WITH ARCHWAY AND GATE



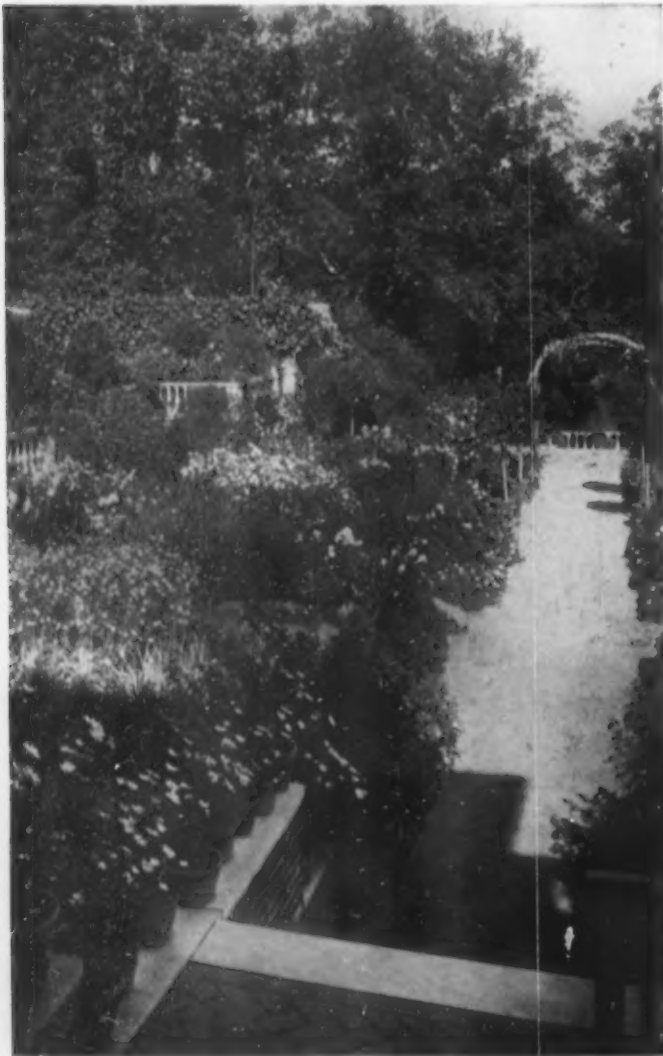
THE CENTRAL PATH IN THE GARDEN

House and Garden

feet wide, intersect the beds, and allow inspection of all the flowers at close range. A stone curbing outlines the plots, and takes the place of the prim, old-time box hedge. The flowers vary from month to month, the planting being carefully thought out to make a succession of bloom. The garden reaches its highest state of perfection during the month of August, when it presents a spectacle of beauty unrivaled in any garden along the shore.

The sweet-scented heliotrope mingles its delicate perfume with the delightful fragrance of the mignonette; phlox of every shade and color vie for attention with mallows delicately tinged in pink and white; campanulas nod their dainty cups in the breeze, and extend a friendly greeting to great beds of waving larkspur, while the magnificent Japanese iris, and poppies of gaudy hue command well-deserved admiration.

These are but a few of the many beautiful specimens that thrive in this delightful garden, which comprises all the charm of the old-time Puritan type



TERRACE AND MASS OF BLOOM



A SIDE PATH IN THE GARDEN

of New England, combined with the ideas of French and Italian gardeners.

The great arch that marks the end of the central path, is made bright and attractive by the rich crimson of the rambler rose, during the season of blossoming, and later, by the delicate, feathery white of the clematis.

Passing through this archway and down a short flight of steps one enters the lower terrace, hidden from view on the garden side by a high lattice wall, and outlined on the opposite side by a low white balustrade. Pots of delicate ferns ornament the low wall beneath the lattice screening, while great vases containing ornamental bay trees decorate the balustrade. An attractive tea table with accompanying chairs occupy one end of the terrace, and from this vantage point, superb views of the ocean and surrounding territory can be enjoyed.

Re-entering the central path and turning to the right, one comes to a flight of steps, ascending which he reaches the upper terrace, half hidden by beds of blossoming flowers, arranged on either side, and

A North Shore Garden



THE GARDEN PATH LEADING TO THE FOUNTAIN

connected by means of a semicircular pathway with another flight of steps at the opposite end. Against the high terrace wall is a four foot border of low growing white roses mingled with the lavender of the dainty heliotrope, which combination is most effective.

The terrace is broadened in the center into a semicircle, outlined by a border of free growing, flowering vines, which trail to the edge of the lily pond, just below, and make an attractive background for the white of the lily petals.

In the center of this semicircle is a large ornamental vase filled with shrubs, and just

beyond is a tiny tea table, with four chairs placed around it, suggesting the idea of frequent afternoon teas in the midst of the sweet-smelling flowers.

Just below the center of the terrace is found the gem of the garden, the lily pond, surrounded by a white limestone coping, ornamented by pots of bright red geraniums.

The white blossoms and large leaves of the water lily float on the surface of the pond and gold fishes dart here and there below, while water hyacinths and other aquatic plants are arranged in triangles at either end. It is truly a most delightful garden.



THE FOUNTAIN AND LILY POND

Rehabilitating a Hotel Apartment

By LUELLA McELROY

AFTER returning from Europe and searching New York for an apartment which could be made comfortable with such things as I possessed, I decided to take one in an apartment hotel, one of the first of its kind erected. It seemed anything but homelike when I looked at it for the first time, the large living-room having four bare walls with a window at one end and a stone floor. However it appealed to me because it was so barren and I could do more with it than I could with the modern apartments and their cheap decorations. There was a living-room, three bedrooms, a bath and a hall.

The woodwork in the living-room was in red mahogany with an ugly mantel and gas log. Having been built at the time when wrought iron was used so extensively, the chandeliers, side brackets, and the mantel trimmings were of this metal which I at once dispensed with. Being unable to convert the gas log into a fireplace, which I very much desired, I was obliged to disguise it as best I could. Through the kindness of the proprietor I was allowed to make many changes. I stained the woodwork in this room a soft moss green, and on the wall I put a reseda

shade of plain cartridge paper and the floor I covered with moss green filling. The outlook from the window was very unpleasant and I treated it as the photograph will show; then the doors being too high, I lowered them with shelves and fretwork, the latter of original design.

Having completed the background I placed a black oak chest of English origin at the end of the room. The central part of this is very unusual and interesting, and the massive base has one long carved panel into which are worked the initials Z. S. H., after the English custom of the olden times. This can be seen in the photograph under the wooden sconces which were taken from a Spanish church, and which I placed against a tapestry in old rose tints woven in the same country.

The Welsh cabinet is also of English origin and is beautifully carved in low relief. It originally had ball feet and a canopy top, and in the center of what is now the top part or cornice it is marked L. E. 1674. These Welsh cabinets were dining-room pieces as the size of the compartments would indicate. The wood is all old oak and extremely hard.



THE LIVING-ROOM LOOKING TOWARD THE WINDOW

Rehabilitating a Hotel Apartment



THE REAR OF THE LIVING-ROOM

Before the gas log, so difficult to disguise, I placed a church seat of dark oak very simply but heavily carved. This is two of a series of choir seats taken from an old French church. The shelf that one sits on is hinged at the back and when lifted up has what is known as a *miséricorde* attached to it, which is nothing more than a small bracket that one can rest on while in a standing position. The object of this was to help out the priests during their long services.

Opposite this in the corner I placed a wine cabinet of Flemish origin. It has a compartment for bottles and glasses and a drawer for spoons underneath. The design is very architectural and the carving rich and in high relief.

Believing that the room should have an air of comfort I had a couch made to fit in the space at the side of the room. At the end of this couch stands an Italian cabinet of dark oak very elaborately carved. The upper part is divided into five panels, the carving representing Gothic windows, while the separating ribs are in imitation of buttresses. Immediately under the middle panel or door is a very ornate coat of arms containing three Italian words. The lower part is open except the back which is divided into three panels of the "folded linen" design.

The door hangings in this room are of moss green silk with tapestry borders, and the rugs are of antique cashmere and soumaks in soft coloring. The effect

of all this is lost in the picture as the best feature of the room is its color scheme.

Living in this hotel apartment and not caring to take our meals in the public dining-room, we sacrificed one of our small bedrooms, making it into a dining-room large enough for two, where we have our meals served. In the small alcove where the bed would stand, we had some shelves arranged, and here behind a screen I keep my dishes, chafing-dish, etc. The china, which is mostly foreign, is all antique, one piece being a fountain of Brittany ware of the Louis XIV. period, in use before the days of finger bowls. The woodwork in this room is the same as that in the living-room, and the wall coloring is of Pompeian red canvas cloth, while the rug on the floor is soumak in red and green. The chandelier and side brackets are of Russian brass, and the room is well lighted by a window through which we get the welcome sunlight.

I have never believed in an antique bedroom, and for this reason I have made mine as near like a country room as one could make in the city. The room is of very good size with one large window at the end, and one oval window in an alcove through which I get the morning sun and a view of Central Park. This window is one of the best features of the room, as I have made it over into a casement window, with a long low seat beneath. The woodwork is all



THE DINING-ROOM

white enamel and the paper a reseda shade of green like that in the living-room. The floor is covered by moss green filling which I do not approve of, but which stone floors make a necessity. Furniture is all white enamel. Windows are curtained with swiss muslin and the overhangings are of washable English chintz, the color being a delicate pink. The

same material is used for covering the window seat, chairs, bed-covers and door hangings. Owing to limited space I have had boxes made and covered with this English chintz to be utilized for hats and shoes. In addition I have had placed on the closet door a full length mirror.

The third and smallest bedroom has been converted into a den in white enamel with reseda shade of green on the wall, and a deep fringe of English chintz in yellow and green. The general tone of the room is continued by the use of this same material for couch cover, cushions, window and door hangings. One interesting feature of this room is a wine closet which I had built in one corner. Also have an English antique secretary which I use as a combination bookcase and writing desk.

The hall from which this room leads is continued in the same tone, and I have placed here an old mahogany table and mirror and a cashmere rug. On the walls are engravings and colored English prints.

This completes an apartment which to us has been so pleasing and satisfactory that we have been content to remain here for a number of years.

Propagating the Begonia

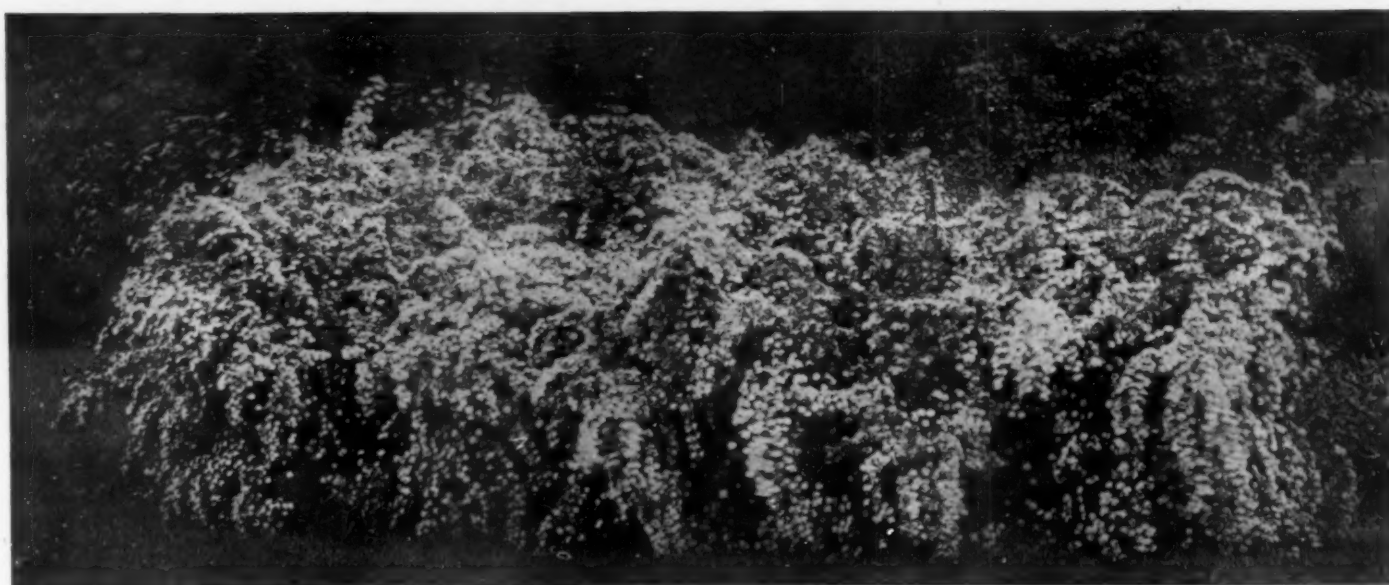
By L. J. DOOGUE

NO decorative flowering plant has had the deserved vogue of the begonia, Gloire de Lorraine. A well-flowered plant is wonderfully beautiful but such a well-flowered plant costs a goodly sum if purchased at the florists. In explanation of the necessity of charging so much the florist will tell you how difficult it is to grow the plant, the expert knowledge required etc., etc., but under his breath he will say that he needs the money.

While you cannot treat them as roughly as you do your geraniums and such plants, it is still possible to propagate a stock with considerable ease. They can be grown from cuttings or from the leaves. The latter method is very interesting and successful and insures a big stock from very little. Well ripened leaves should be taken from the plant and the end of the stem stuck into coarse sand. With the sand moist, not soggy, in the course of a few weeks little corms will form around the part in the sand and the

new plant will push up from this. Don't remove them until the plants are showing good growth. Pot them into a soil with liberal mixture of leaf mold. Put them into a heat of about sixty-five degrees and keep them well shaded when the sun is hot. If given full exposure to the sun they will quickly wither and dry out. During the summer they make slow growth but towards the fall they make rapid progress.

In carrying over old plants it is well to remember that they need a rest in the spring, during which time water should be sparingly given to allow the plants to get into a resting state. If this is done most of the great difficulties in getting up a stock of these begonias will vanish. Of course, these plants are not suitable for household cultivation but need the overhead light that is only found under glass. It may be possible to successfully grow them in the house but the chances are greatly against success.



The Bridal Wreath Spiraea

Shrubs for the Amateur

By EBEN E. REXFORD

NO home-grounds ought to be without shrubs. There should be trees, also, if the grounds are large enough to afford them ample accommodations when fully developed; there should be vines about the house, and a collection of hardy garden plants, as well as a space devoted to the culture of annuals. But, if one only of these several features of attraction can be realized because of lack of room, or lack of time to plant and care for them, I would advise that the choice be given to shrubs. For the following reasons: They are not expensive. They are easily planted. They will begin to give satisfaction the second year from planting, as a general thing, and increase in attractiveness rapidly thereafter, until fully developed. Properly cared for, they are good for an indefinite period. They require very little attention, and this of a kind any one can give. They are quite as beautiful as any other class of flowers we might select, and, last, but not least, they are admirable substitutes for trees. Not as large, of course, nor as stately, but giving us the "happy medium" between the low-growing plant and the tall tree, and, on this account, are better adapted to the needs of the small home-lot than any but the very smallest trees are.

By making a judicious selection of varieties, one may have flowers from shrubs during the entire season. Very early comes the Japan quince—catalogued as *cydonia*—with its fiery scarlet flowers. Close after it follows the forsythia, and the almond, the flowering peach, plum, and blackberry. It seems rather inconsistent to designate the three latter

plants as "flowering," since all the members of the family produce blossoms, but the adjective has been pressed into use by the florists to apply to the ornamental sorts, which have large flowers, for the most part double. The lilac is an early bloomer, and so is the flowering currant. Later on, we have the deutzias, the spiræas, the halesias, the syringas, the weigelias, the snowball, and in the fall the hydrangea, and the hybrid perpetual roses. There is plenty of material to work with.

A correspondent writes: "I hope you will tell us about a few shrubs suitable for amateur cultivation. I cannot have many. Those I do have I want to bloom freely. I want them to be hardy, and kinds that don't need coaxing. I don't care whether they are new or old ones, if they are beautiful. I think there are many other young home-makers who would be glad of information along this line."

This correspondent is wise in her decision to have but few shrubs, if her accommodations for them are limited. One of the common mistakes of most amateurs is to plant about four times as many as they have room for. They do this because, in their untrained enthusiasm, they want about all the desirable kinds and also because they do not stop to think what the difference is between the tiny shrub we plant to-day and the fully developed one of four or five years from now.

To be most effective, a shrub must be given ample room, in which to display its individuality. Crowd half a dozen specimens into a space only about large enough for one, and none of them are satisfactory.

They cannot be, because each is apparently trying to elbow its neighbor out of the way, and the natural consequence is that each is continually getting in the way. They interfere with each other to such an extent that it is impossible for any of them to do themselves anything like justice. One shrub would be vastly more pleasing than several, under such circumstances.

Under certain conditions, however, close planting is not only allowable, but advisable. This is where it is desired to produce a strong and massive effect. Our illustration of the bridal wreath spiræa shows what I mean by this, better than it can be put in words.

Here several plants of spiræa are set so close together that, when well developed, they have almost the effect of one plant. The result, as will be seen, is most delightful. This is what we call grouping, and it can be practiced very satisfactorily with nearly all shrubs of spreading and somewhat drooping habit. The effort is often made to combine several kinds, but it is not satisfactory, as a general thing.

The result is very much the same as that I had in mind when I spoke of crowding. It is only by putting a good deal of study on the matter, and knowing just what you can expect of each plant used, that success can be attained in grouping shrubs of different kinds. It is well for the amateur who wants to try her skill at this phase of gardening to use only one kind of shrub in a group. Crowding doesn't much matter, then, since the individuality of one is the common individuality of all, therefore, there will be no struggling for first place in the display, as is the case where several shrubs of varying color and habit are used.

The Japan quince, already referred to, is of low and spreading habit and can be made quite effective by training it as a sort of hedge. Its foliage is of a rich, dark, glossy green, almost as attractive as its flowers, and

makes the plant very pleasing after the flowering period is past.

I am a great lover of the lilac. I think it would be my first choice among all shrubs, if I could have but one. It has the merit of being entirely hardy. It blooms early, and profusely, and it is deliciously fragrant. It is of rapid growth, and does well in almost any kind of a soil, and in nearly all locations. We have both double and single varieties, ranging in color from purest white to dark purple-red, and almost blue. Some sorts are so strong in habit as to almost deserve the title of tree—indeed, by training them to one stem they can be made trees on a small scale—while some, like the Persian, are slender and graceful, and produce so many spreading branches that they form great masses of symmetrical growth without any attention in the way of training. Among them all, the white variety is my especial favorite. It has smaller spikes of bloom than the colored sorts, but it is all the more graceful on this account, especially when used for cut-flower decoration. The double varieties are exquisite, at short range, but are no more effective than the single kinds when seen at a distance.

Syringa, or mock orange, is a large shrub, producing enormous quantities of white flowers, early in the season. It is hard to determine whether it is most popular because of its beauty, or for its rich, powerful fragrance. Both qualities, no doubt combine to make it one of our favorite shrubs. Those who are not familiar with it can form but a slight idea of the effect produced by a large shrub, loaded with blossoms from the ground up.

The snowball is one of our old standbys, and deserves a place in every yard. When well grown, its balls of bloom have the appearance, at a little distance, of double roses. Our illustration shows a specimen trained as a standard. It is commonly grown, however, in bush form, but those who have a fondness for novelty may



BLUE HYDRANGEAS

Shrubs for the Amateur



DEUTZIAS

take pleasure in making a little tree of it. This is easily done by allowing but one stalk to grow from the root. Keep all side-branches rubbed off until the stalk has reached the height where you would like to have the head form. Then allow half a dozen or more branches to develop and train these horizontally by tying them to strips of wood, supported by posts. After the first year, these branches will have taken on the spread you want them to, and no further support will be needed for them. With very little trouble, you can secure a head seven or eight feet across. Of late, complaint has been general from all over the country, that the aphid has seriously injured this plant. It attacks the leaves, when about half developed, and causes them to curl, as if scorched, and the flowers are dwarfed, and sometimes wholly spoiled. My plants have been attacked, each season, but I have applied my favorite insecticide promptly, and saved them from disastrous consequences. This insecticide I make by melting about six ounces of ivory soap, and adding to it, while hot, a teacupful of kerosene. By agitating the oil and soap rapidly, a union will take place. I use one part of this mixture to eight parts water, and spray my snowball bushes so thoroughly with it that not a leaf escapes. I am very careful to see that it gets to the underside of the leaves, where the aphid lurks.

The spiræas are lovely shrubs. So are the deutzias and the weigelas. Of all we grow, they are probably the most prolific bloomers. Each bush can count its blossoms by the thousands. In habit of growth, the spiræa excels almost all other shrubs. Its spreading branches bend to the ground beneath the wonderful profusion of its lovely flowers. There are double sorts, and single ones, and which are most beautiful is a matter of individual taste.

The flowering currant is an early bloomer. It has great quantities of small yellow flowers, possessing a delightfully spicy fragrance. It is quite as attractive in fall, as in spring, for its foliage takes on rich yellows and reds more brilliant than its flowers.

Daphne
cneorum is a
favorite of mine.

It is of low, spreading habit, therefore admirably adapted to locations near the path. Its foliage is evergreen. Its flowers are produced in clusters. They are a soft pink in color, and very fragrant, and are borne throughout the season. A charming little shrub that everyone ought to grow.

Forsythias bloom in April. Their flowers are a rich yellow. Halesia, better known as "silver bell," has a pendant, bell-shaped flower of pure white. This is one of our most desirable shrubs.

The barberry is an old plant, but none the worse for that. It is beautiful with its many clusters of crimson fruit, and still more so with its richly colored foliage. If you want a fine hedge between your own and your neighbor's grounds, this is the very plant to make it of. Set about eighteen inches apart. Prune it back sharply, each season, until the bushes are thick and compact. After that, let it alone. You will be delighted with it, grown in this way.

Perhaps the best late-flowering shrub we have is *Hydrangea paniculata grandiflora*. It blooms in August, as a general thing, but its flowers are so persistent that they remain until after frost. At first, they are a cream or ivory white. By and by, they take on a pink tinge, and later a greenish brown color. This is a shrub that groups well. Set five or six plants together, and make them develop a bushy, spreading form, by allowing no branches to grow more than two feet high before you nip off their top.

It must not be understood that the kinds I have mentioned include all our desirable shrubs. By no means. There are many others having merit nearly



SNOWBALL

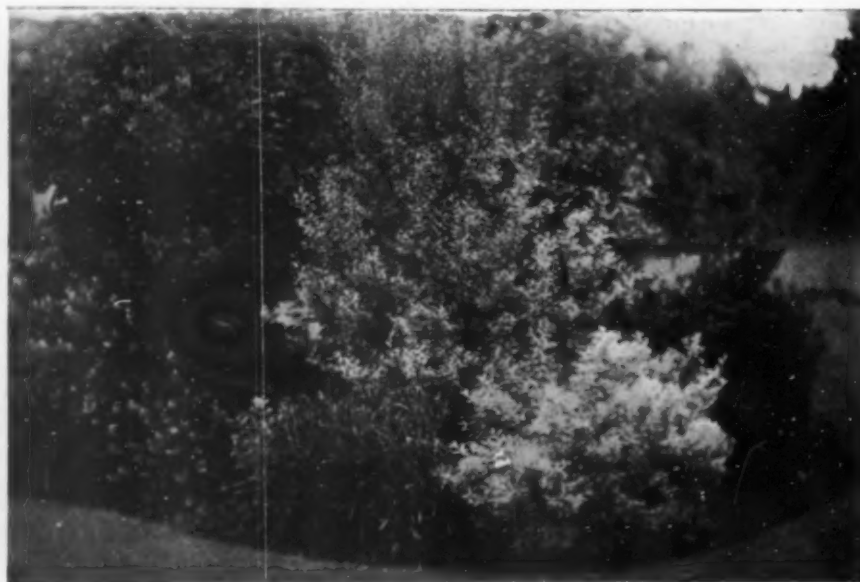
equal to those I have spoken of. But the kinds I have touched on are those which will be most likely to give the largest degree of satisfaction, under all conditions. I would advise the beginner in shrub-growing to not go outside the list, at present.

In planting shrubs, see that the ground is worked over until it is fine and mellow. Make it quite rich with old, decomposed cow-manure, if it is possible to obtain this fertilizer. If it is not available, use bone meal. The man of whom you buy it will tell you in what proportion to apply it to your soil.

Never dig a little hole in the ground and crowd the roots of your shrubs into it. Make it large enough to admit of spreading out their roots naturally. Cover them with fine soil, and press it down firmly about them, applying a pailful of water to each plant.

The impression prevails, to a considerable extent, that it is necessary to give all shrubs an annual pruning. Not so. When they have attained symmetrical shape, let them alone. If they out-grow it, cut away the rampant growth, and let that be the limit of your pruning. Of course, it will be well to go over the bushes and thin them out, if they get too thick, also to cut out weak or diseased growth. But this is not pruning in the sense of the term as it appeals to many amateurs. What some of them

have in mind is a shortening here, a cutting away there, and a general hacking and hewing, which, in the majority of cases is wholly unnecessary, and very harmful, not only to the health of the bushes but to their symmetrical appearance. Prune only so much as is absolutely necessary, and let the shrub do the rest.



AN ATTRACTIVE GROUPING OF SHRUBS

A Semi-Tropical Garden

By E. P. POWELL

I AM writing not far from the equatorial line of plant life, where one crosses from pines to palms. It is a wonderful land—just down through the heart of Florida; about one hundred miles long and fifty miles wide. It is the garden of the world. On one side of my home I look into a rich orange orchard; on the other side is a forest of pine—fifty feet to the first limbs. Behind my house I have an orchard of cherries, plums, pears, apples, apricots, and Japanese persimmons. I look across the lake at a yard of bananas and lemons, protected by boxing it is true, while guavas and grape fruit and lemons also stand in the shade of the basswoods and magnolias. Where else in the world is there such a combination? Kumquats make hedges, in sight of the holly and the hardy Tartarian honeysuckle. Loquats are in speaking distance of currants, raspberries and blackberries. Not far away I can find you a pineapple shed, and another shed for growing cucumbers under canvas. These sheds cost from six to eight hundred dollars an acre, but they pay at that.

So the North and the South shake hands just here in Central Florida; and while we are not quite able to grow the mangoes and some other of the most tender tropical fruits, without protection, we also cannot succeed with a few of the Northern fruits without equal care. The key in the latter case, as well as in the former, is mulching, and not too much stimulating into rapid and tender growth. Encourage cherries and apples and pears to grow slowly, but steadily, and keep the trees clean of suckers and of moss and all other parasites. Tropicals, even more than Northern fruits, need wind breaks; but curiously enough one of the best of all trees for this purpose is the camphor tree. The Government assures us that in less than five years we shall be manufacturing camphor for sale, while making cider from our home-grown apples in the same building. Right beside

the camphor, the live-oak is another superior wind-break. The native persimmon has some fine varieties, hardy as far north as Central New York; but here it is just as abundant as the oaks, in the pine openings. Most of these we graft to Japanese sorts, yet there is no question but that there is in our native persimmon, the possibility of vast improvement—making a much better fruit than we have imported. The Government also reports that agents, sent out by the Agricultural Department, have found a persimmon in Northern China, four inches in diameter, and hardy as far north as Boston—while equally well suited to Florida. We are growing the new American wonder lemon out of doors here; and it is a sight to be seen when in bloom. While the lemons weigh from one to two pounds each, we can grow them so freely as to make a marketable fruit of great value. I believe that this dwarf tree, with its huge and superb fruit, was originated not far from Philadelphia.

The Irish potato grows as readily as the sweet potato and here we plant it in January, if we wish to reach the Northern market just in time. Corn and cassava will divide between them other fields. It takes two hills of cassava to equal six of corn for horse feed. I can see one field of oats and another of barley from my windows; but Bermuda grass and beggar grass are far more than good rivals. The Northern grains are used more as stimulants, to make a perfect ration with the more Southern products. Burbank says that all weeds are only undeveloped plants of value, and that they will, all of them, come to have values in the future. This

beggar grass is an illustration; not long since a pest of the cotton growers, and hated, it was only recently found to be a magnificent fodder plant and hay-maker. About ten years ago the velvet bean was introduced as a flowering vine; it has developed into the greatest of all legumes for hay and fodder; the best



PINEAPPLES IN THE MAKING

House and Garden



IN AN ORANGE GROVE

to bring nitrogen into the soil, and increase the humus. If left alone, it will grow over fifty feet in a season; but it may be cut several times for hay, then used for pasturage and a cover crop, and finally be plowed under to fatten the soil. The vetches and cow peas must be added to these wonderful legumes, as they are found here in all their glory. Yet even these do not begin to cover the careful list that Nature has prepared for an up-to-date farmer, in this wonderful garden. Not a square foot of the most barren sand but may be made fat; only you must add one ingredient—common sense.

I am only touching the border of my garden. Why dig the clay of New England, and in winter eat up all that you have provided through the summer, while here, in January, we plow and plant, or dig our vegetables as we please? Many gardens are made in November, and from these we are now pulling our carrots and beets, and eating our cabbages. The first sowing of lettuce is in November, to be harvested in January. Another crop is immediately sowed, and is ready to be crated for the North in March. Celery follows the

lettuce, and is shipped in July. This truck gardening is, however, more appropriate to the border counties. The better part of what I have called the garden of Florida is given over to fruit growing, while in its gardens we find for market mainly melons, potatoes, carrots, and such vegetables as can be most easily shipped without damage. Our station master assures me that he ships carloads of melons annually, which "average over forty pounds to each melon." Here the bees are at work winter, as well as all summer; and the hens do not need special provision against zero weather. They are out, picking their grub, in February, with the thermometer at seventy, and in July when it is eighty.

The phase of this question which most interests thinking farmers is the possibility of doing seven months of farm work in the North, and afterward doing a profitable five months gardening or orcharding or truck growing here in Florida. This is already being done by so many that I am not in the least venturesome in saying that it will become a peculiar feature of American gardening, in the not distant future. The chief difficulty is in the fact that our railroads are not yet awake to the fact that it would be better for them to encourage this annual migration, with reasonable fares, rather than to prevent its development by demanding five cents a mile for passage. However, the lines of boats running from New York and Philadelphia, to Jacksonville and Brunswick and Savannah, are doing a much better thing, in giving fare, meals, and berths at about half the railroad fare alone.

The poetry of this life is, of course, a large factor. The Central part of the State, of which I have



LAKE VIRGINIA

A Sunflower Hedge



UNDER PALMS AND PINES

spoken, is unqualifiedly the most healthy section I have ever found; and I have lived in four or five of the States—East and West and Southwest. There is no malaria; there are no mosquitoes, and what pests there are can be easily mastered. The land is high and rolling, and in every hollow is a beautiful lake—from half a mile across to five or ten. Some of these are stocked with fish; and everywhere there is good hunting, within easy distance. The pine groves cover all the land that is not brought under tillage. These trees stand about like a Northern park, and we drive under them from village to village, and from orchard to orchard.

The *rosaceæ* family is almost as much at home here as in New York or Pennsylvania; but there are new sorts—not exactly new species, but very new developments of apples, pears, plums, cherries

and peaches, from the old Asiatic stocks. These new peaches and pears are not only unlike our old sorts in quality, but they constitute new classes, being developed from the old original Chinese stock, from which our Persian peaches and European pears began to develop two or three thousand years ago.

These new sorts are already crossing with the older sorts, so that there is hardly a conceivable end to the development. You may bring along your Bartlett pear, and here you can plant beside it the magnolia pear, and you will find that you have doubled the glory of your pear orchard. The angel peach, the honey peach, the Bidwell and the Waldo stand here ready to welcome, not all but many of those varieties which we have learned to admire and value from the Michigan and the Georgia orchards.

A Sunflower Hedge

IF you have an unsightly spot on your grounds, or you want to hide your vegetable garden, you will find a sunflower hedge a most excellent screen. The tall sunflowers known as giant-flowered are both graceful and profitable. The seeds can be sold to chicken fanciers for a good price.

If you plant two rows of seeds and thin out the plants to about two feet apart, alternating in the

rows, it will make a good foundation for a hedge. The plants need scarcely any care and reward one abundantly. Such a hedge in my garden was much admired with the great yellow disks turned toward the sun, besides yielding several bushels of nutritious seeds. In some parts of South Dakota, the Russians are so fond of these seeds that they are facetiously called "Russian peanuts."

J. V. ROACH.

Auguste Rodin

By MARION NALL

A cablegram dated Paris, Dec. 11th, 1908, announced the serious illness of Auguste Rodin. A few weeks later news was received of his complete recovery. These two news items aroused more general attention than they might have done a few years ago, for to-day even those who have not seen the work of this Master in his own land have come to realize something at least of his wonderful art, since the Metropolitan Museum of Art has had on exhibition "The Hand of God," which is one of the most characteristic examples of Rodin's work. Other pieces of his sculpture have also been exhibited in New York recently, and the following account of his life and work, written by one who knows him well, will be found of extreme interest. The very characteristic sketch made from life by Mr. Boardman Robinson which is here reproduced for the first time, assists largely in placing before us the individuality of the man.

THE EDITOR.

RODIN was born in Paris in 1840. He was of humble birth, son of a concierge (janitor). His whole life has been devoted to the study of his art. So earnestly did he enter into the study of anatomy and so keen his interest in the dissecting rooms of Paris, that he almost abandoned modeling for the practice of medicine.

So accurate and marvelous is this quality in his work that in the early part of his career he was accused of moulding from the human form; measures were taken and it was, of course, proven that this was not true. He is indisputably considered the greatest living sculptor, none greater since Donatello. In him one can trace the influence of the old Greeks. Everything is beautiful to Rodin; he represents life, vital life, in all its phases with a strength and force that is truly marvelous. He understood how, with great simplicity, to transmit to indifferent material, the sacred fire. His most important life work is the "Porte d'Enfer;" he has been working at it for twenty years. It is not completed yet. This work is being done in a studio supplied by the state, rue de l'Université, Paris.

One of his most remarkable works has just been purchased by the Metropolitan Museum of Art; "La Main de Dieu," it is called, and symbolizes human life. In the palm of a hand nestles two human forms, that of a man and a woman, exquisitely modeled.

Other famous works are the statue of Balzac first repudiated and then accepted by the French government, "Le Baiser," "Celle qui fut Heaulmière" in the Luxembourg, Paris, and perhaps one of his loveliest is "Le Printemps." But these are only a very few of

the great mass of work which he has accomplished; it is almost superhuman. He worked hard and reached with difficulty the world-wide renown he finally so proudly acquired.

Without at all disdaining the life about him, he feels the need of solitude. It is only in seclusion that his thoughts fully expand, and for this reason he has chosen for his workshops such places as a little old house of the eighteenth century, half buried in tall grass and trees on the Boulevard d'Italie, where he created "Les Bourgeois de Calais;" again a little house in Sèvres, hidden away from the gaze of the curious, where no one dared disturb him. This house once belonged to Scribe. In the upstairs rooms on every piece of furniture, bureau, table or chair were to be seen indications of Rodin's work, detached pieces or small groups, a head or a Greek urn.

At present he lives in a house in Meudon, not far from Paris, where he made all his studies of the famous Balzac statue and where he has a wonderful collection of his works; he calls it his museum.

An interesting anecdote is told of Rodin. One summer, several years ago, his friends and admirers gave him a fête champêtre, organized by the famous artist Taulon. They assembled in some woods in the outskirts of Paris, where Rodin was accustomed to wander, and with a good orchestra whiled away the time with song and dance. Miss Duncan, then not famous, was of the party, and carried away by the beauty of the scene and the exquisite melodies of Chopin, threw off her shoes and stockings and danced on the green grass under the trees and delighted Rodin and her audience. Those who have



AUGUSTE RODIN

Pencil sketch from life by Boardman Robinson

Auguste Rodin



"LE BAISER"



"LA MAIN DE DIEU"



"LE PRINTEMPS"

this season witnessed the classic performances of Miss Duncan can well understand the effect such a scene would produce upon an artistic nature like Rodin's. Amid environments so beautifully sylvan and conditions so entirely satisfying, intense admiration only could be evoked. The charm of it all has remained a delightful memory to those who saw it. Arthur Symons has written perhaps one of the most complete and interesting criticisms of Rodin's works, which are so great and so subtle that it takes a master mind and hand to describe them. Mr. Symons calls him the Wagner of Sculpture.

Wild Plants in Perennial Gardens

By ADELINE THOMSON

THERE is a certain charm and delicate beauty surrounding our American wild flowers, which is distinctively their own. On all the large estates and summer places, these plants are being naturalized by the thousands, lining closely their winding drives, artificial lakes or shady paths. They bring to one, not only the spirit of the woods, but the impression also, that they are alone of Nature's planting.

That these native plants hold an especial charm is demonstrated by the fact that all of our leading nurserymen now carry an immense stock to supply the market, propagating them entirely on their own grounds. This latter fact is especially commendable for it ensures the protection of these flowers of Nature in their native haunts.

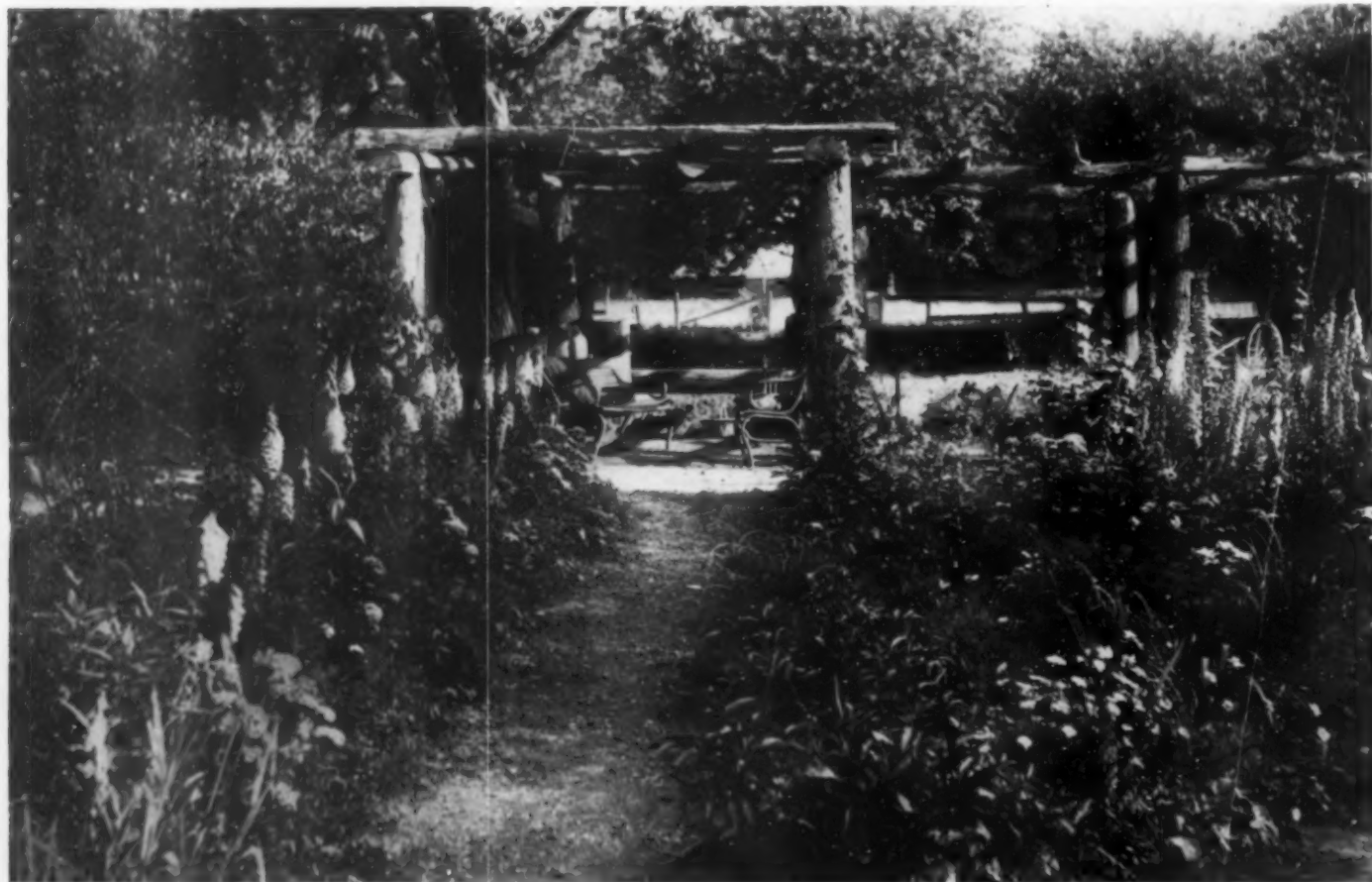
There are, however, a number of these wild plants which adapt themselves more readily to cultivation than others and produce striking color effects for the hardy border when they are used in connection with perennial plants. I have found several combinations which are exceedingly effective.

The grouping of wild spiderwort, or Job's tears,

as it is sometimes called, with that older combination of larkspurs and madonna lilies, is especially fine. The addition of the wild plant is a great improvement. The dazzling beauty of this planting can scarcely be imagined. The intense blue of the spiderwort is the exact counterpart of that of the larkspur. No artist could have matched his colors with so true an eye—a blue that is outrivalled only by the sky itself. These plants, too, are identical in height and in time of bloom, characteristics which make them ideal companions.

Spiderwort is one of our best known native plants. In early June the deep azure blue of the blossom makes it easily recognized along the roadsides or in among the tall grass of the fields. It is exceedingly hardy and transplants most readily.

The delicate lavender sweet william—or wild phlox—is another valuable addition to the perennial garden. A combination which invariably calls forth exclamations of delight from visitors to my own garden is the massing of this plant with white *Arabis albida* and perennial candytuft. The soft, delicate color tone of the lavender and white is especially



A garden where wild flowers and perennial plants grow in combination

Wild Plants in Perennial Gardens



Hepaticas, wild phlox, violets and a host of other flowers from the woods and fields grow here among the perennial plants

restful and harmonious. These plants, again, are identical in habits.

Sweet william is a great lover of shade. In its native haunts it thrives in the woods and among the thickets. It adapts itself, however, perfectly, to full sunshine in the garden and it improves greatly under cultivation. The flowering season of this plant is in early May, and at this time it is easily the glory of the garden,—a time when its more cultivated sisters are just beginning to put forth buds. Another valuable point in its favor is the length of its flowering season which is of several weeks' duration.

The familiar black-eyed susans of the prairie, make fine companion plants for perennial gallardias and Shasta daisies. In early July these plants break forth into a perfect riot of bloom. After a single year of cultivation the blossom becomes almost twice the size of those in the fields.

The last two weeks in July is the acknowledged dull season, in the perennial garden. The host of plants which have blossomed from the beginning of spring, are then using their every effort to develop seed.

Yellow coreopsis, gallardias and tall hollyhocks are almost alone in their glory. For this especial dull time in the garden, there is a beautiful plant of the woods—the starry campion. It supplies to it also that great harmonizer of all colors—white.

Long, graceful stems bear the fringed, gloxinia-like blossoms and masses of this plant among the golden coreopsis are extremely effective.

The cardinal flower or lobelia, which flourishes so luxuriantly in the low, marshy places of the woods and fields should be in every garden. It grows as rampantly in a dry sunny situation as in its cool, wet retreat of the wood. The plant is most hardy and prolific. The flowers are a deep, rich, velvety crimson and are borne on tall stately spikes, similar to those of the foxglove and larkspur.

Then, too, there are the myriad host of starry-eyed wild asters. These may be used in such a pleasing combination with perennial phlox. Bordering the garden paths, or driveways, or planted in great masses among the shrubbery, these truly beautiful plants of Nature, produce a wonderful effect.

Hepaticas, blood-root, shooting-stars, Jacob's-ladder, bluebells, dutchman's-breeches and liatris also thrive splendidly in the home garden, adapting themselves at once to their new surroundings.

There are countless other varieties of these wild plants, no doubt, which are worthy of cultivation for the woods and fields have been planted with a lavish hand, but the foregoing varieties have all been grown in my own home garden and have proved themselves to be all that they are represented.

The Small Flower Bed

How and what to plant to make a show from spring to fall. How to grow hardy plants cheaply. Combining hardy and tender plants with bulbs. The small cost of all. Early use of window boxes.

By L. J. DOOGUE

THERE are great possibilities in planting small beds if they are handled in the right way.

A small space, or a border of great length, can be made to yield a show of bloom from the very early spring until long after the black frosts in the fall, and it can be done at very little expense, which is the particularly attractive part of the proposition.

Small planting spaces about city homes have, unfortunately, never been regarded as anything more than makeshifts, that is, they have been looked upon as places without possibilities. Each season they have been filled with something, anything, in fact, to save them from being left empty. Under such treatment they showed no particularly attractive features, but great chances were lost by this neglect to make the unattractive attractive and incidentally to lengthen the season of flowers by several weeks.

The uppermost desire of every gardener, be he amateur or professional, is to secure the most constant and attractive display of flowers. Where this can be made in the same identical bed, something of a floral feat has been accomplished, and various the methods employed to encompass it.

To have a display from very early till very late in the year, necessitates the employment of bulbs, hardy plants and annuals in the same bed; merging one show into the other according to the time of flowering of the particular kinds, making the plan one of substitution and using successively the plants named above. The bulbs first, then the hardy plants and lastly the combination of the hardy plants and annuals, the latter coming at a time when something flowering is necessary in flowers to keep the bed from looking ragged.

As an example for illustration, let us take a border bed along the side of a house, about fifteen feet long and four or

five feet wide. I suggest this size as I have just such a bed near my house in which I have proved the proposition that I am making. What follows in this story is simply a recital of the work as done and the results of the season's planting. Unfortunately a very attractive series of pictures taken at varying periods, were destroyed, thus eliminating a convincing proof for doubters and visitors from Missouri.

Before telling the story let us plant this bed in a few different ways and then contrast them with the plan I am suggesting.

Planting with Hardy Plants.—Suppose this bed should be planted permanently with hardy plants, what would be the result? Most unsatisfactory, for the reason that because of its size there would be insufficient room to mass plants in numbers enough and varieties to perfect a succession of bloom through the season. Such a bed in the spring would look well and even well towards the summer it would be attractive, but after that the condition would be a ragged one, some parts of it being little better than a heap of weeds. In a large border, of course, this could be partially overcome, but it is the small bed that is under discussion at present.

Another Planting.—Another time let us use annuals, etc. This would mean that nothing could be safely put out of doors before the end of May, and it would also mean that any time after the tenth of

September it was liable to be cut down by the frost. This bed would be pretty while it lasted and when looking its best, would be destroyed.

Combination of Hardy and Tender.

—A combination of bulbs, hardy plants and annuals will give bloom in abundance from late in March until late in the fall. Such a suggestion will, without doubt, disturb many sensitive beings whose souls



THIS SMALL PLOT WAS TREATED AS SUGGESTED WITH HARDY AND TENDER PLANTS

The Small Flower Bed



THE SPIDER PLANT



THE QUEEN ALEXANDRA DAISY

are so delicately attuned to the harmony of this and that and several other things too numerous to enumerate, but the fact of the matter is that the combination of these plants is the proper caper for a small bed, and without this combination no satisfactory results can be arrived at. Some people claim to see beauty in a withered weed. Happy mortals!

To Work out the Combination.—Early in the fall pot up what hardy plants you have, digitalis, campanulas, *Lobelia cardinalis*, hollyhocks, *Arabis Alpina*,

Phlox subulata, phlox, *Viola pedata*. Store these in a frame for the winter, covering well. Fill the bed with tulips in October using, say white for center and pink for border. At the time you put in the tulips pot up hyacinths and narcissus and store these out of doors covered with ashes to the depth of several inches.

In the Spring.—Early in the spring, before the tulips have pushed much above the ground, take the covering off the hyacinths and put a sash over the frame. This will in the course of a short time force



A POTTED CANNA



HYACINTHS AND NARCISSUS



CAMPANULAS READY FOR BEDDING

them into flower. When sufficiently in bloom plunge them, in pots, between the tulips in the bed. Remove at the same time the covering from the narcissus and force them as was done with the hyacinths. Uncover the hardy plants. As soon as the hyacinths show signs of passing remove them and put the narcissus, already in flower, in their places. This gives the first show of hyacinths, the second of narcissus and the tulips coming shortly afterwards, the third, almost before the frost is gone.

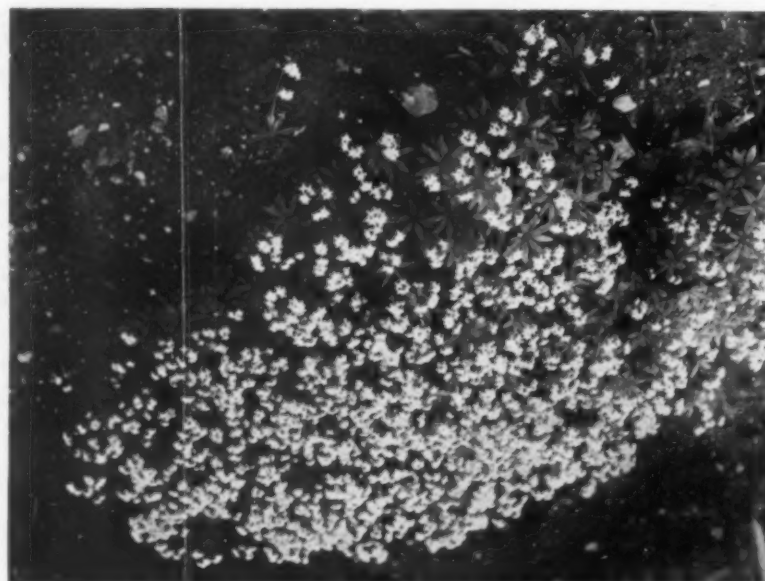
Starting the Annuals.—The empty bed where the bulbs were stored can be used at this time to start the annuals. Just spade it deep, work in a little old manure, work the ground to a fine and smooth surface on top and sow seeds thinly, covering lightly with sifted loam. Sow asters, plenty of white, snapdragons, French marigolds, African marigolds, a few, cosmos and phlox.

Using the Hardy Plants.—After the narcissus have been removed put *Arabis Alpina* between the tulips or *Phlox subulata*. *Arabis* will make a solid mass of creamy white that will completely cover the tulip leaves after the flowers have been removed and this gives the bulbs plenty of time to ripen before being taken out of the ground, a most important consideration for the tulip bulbs. The phlox is almost as effective.

At this period the campanulas, foxgloves and *Lobelia cardinalis* will be rushing to flower and must be used. With the foxgloves make as great a mass as possible in the bed and soak with water. Then work in afterwards whatever plants that are very



FOXGLOVES IN POTS PLANTED AMONG AZALEAS
LATER THEY ARE TAKEN OUT



A BED OF ASPERULA ODORATA LIKE THIS
COSTS TEN CENTS

forward, massing as much as possible, for any dotting about will not be effective. Put some plants of Queen Charlotte at the back of the bed, some cosmos, castor beans, spider plants out of pots at the back and also some of them in pots well towards the front. Those out of pots will grow tall while the others will flower well but very dwarf. Sweet alyssum with French marigolds for border with *Campanula carpat-ica* behind. A little *Salvia splendens*, plenty of white asters and an assortment of pompon chrysanthemums for late flowering.

This may sound like a hodgepodge and it may make some people wish that they were color blind, but whatever the opinions it is a fact that it means flowers and lots of them from first to last. Of course a little gray matter must be mixed with the work.

The Cost.—Hardy plants are expensive if bought in pots and would make the proposition of the small bed unattractive. On the other hand, if a stock is started from seed the expense is insignificant. Annuals can be grown easily and the seed is cheap. Bulbs are somewhat expensive, but with the tulips it is possible to keep up a new stock by propagating the offsets from the old bulbs. Propagation of hyacinths is more difficult. A cold frame is easily made and a sash or two, with care, will last for many years.

Window Boxes.—Window boxes can be given this same treatment and are very effective when so planted. If these are used pot enough tulips to fill them, also hyacinths and narcissus. Plant successively as in the bed. Don't put your bulbs in the box and leave them out all winter.

A Year in a Bulb and Perennial Bed

FLOWERS FROM APRIL UNTIL FROST

By FLORA LEWIS MARBLE

IF a new garden is being planned this spring, don't fail to make provision for the bulb beds which will, of course, not be planted until next fall. By locating them now where they will have the best of soil and drainage, and the greatest amount of sunshine, the results next year will abundantly repay the forethought.

If a permanent bulb bed is contemplated, one must be careful to choose bulbs that thrive best under the same conditions. For instance, poet narcissus demands a light, dry, thoroughly drained soil. It will not bloom in other situations.

Our bulb bed was to have a border of poet narcissus, so the bed was made considerably higher than the garden paths. The soil was rich and light, with a layer of sand about six inches below the surface where the narcissus bulbs were set. They were placed about four inches apart, and formed a circling border a foot wide. Outside of the

narcissus came a row of scillas set only four inches deep and as far apart. The center of the bed was planted with the great tulip, *Gesneriana*. These bulbs were set with four inches of soil over them. Sand was used freely close to all the bulbs to prevent any inclination to decay during an unusually wet season. Crocuses were tucked in an inch or so below the level of the soil everywhere, as they did not interfere with the other bulbs set lower. Now we considered the bed finished. This was done during the last week of October, and the bed covered lightly with leaves.

The next spring the question arose, what to do with the bed after the bulbs stopped blooming? The soil could not be disturbed by setting out bedding plants

of any size, for it was too thickly planted. After thinking the matter over we put in seeds of purple and white pansies and verbenas, and sowed seeds in spots to establish clumps of false dragon's head and hardy white carnations. The perennials are large clumps now, for the bed is four years old, and every year since the pansies and verbenas have self-sown because the top soil is never disturbed.

The following notes taken from my garden book for 1907 will show the progress for one year in this particular bulb bed:

April Sixth—Crocuses in bloom, brilliant blue and white. Scillas in bud. Tulips and narcissus well up. It is cold now, after the hot week of March. The early growth in the garden is almost stunted. Photographed crocuses today.

April Thirtieth—Crocuses still pretty. Scillas in full bloom.

May Eighth—Crocuses gone, except pretty leaves. Self-sown pansy

and verberna plants coming up everywhere. Hardy carnations showing green stalks. False dragon's head beginning to grow.

May Sixteenth—Narcissus in bloom. Seen across the lawn, it is like a great white crown in the center of the garden. Planted four seeds of bright yellow nasturtiums about bird's bath tub in center of bed.

May Thirty-first—In spite of the hot week in March, it has been a cold, late spring. Red tulips in bloom now, and narcissus still pretty.

June Fifth—Tulips in prime, forming a red center with green leaves of narcissus for border.

June Twelfth—Tulips gone. Pansies, verbenas, carnations beginning to bloom and cover bulbs.



A BED OF CROCUSES

House and Garden



NARCISSUS

July Tenth—A hail storm almost ruined the garden, cutting nasturtiums back to the ground.

August Seventh—Bed white with false dragon's head. Nasturtiums recovering from storm and blooming freely though they are still stubby. Took photograph today.

September First—Nasturtiums are clambering over bird's bath tub and trailing over center of bed. Carnations, pansies and verbenas are blooming freely as weather begins to be cooler.

The notes show that the blooming from April to frost is brought about from permanent bulbs or self-sown seeds, with the excep-

tion of the seeds of yellow nasturtiums planted in May. The bulbs of crocus, tulips and narcissus constituted the bulbous section, while scillas, pansies, verbenas and carnations supplied to the bed a continuous color display through their contribution of self-sown seeds. From these notes we see that the color scheme works out as follows:

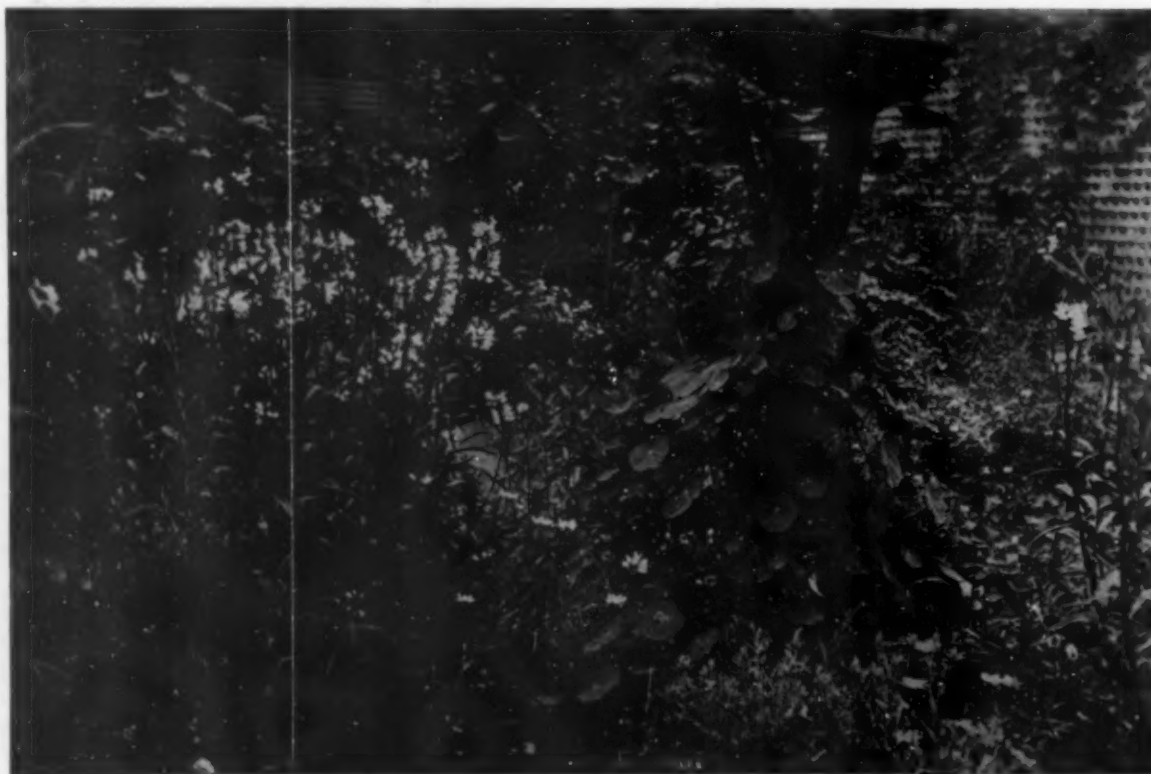
April, white and blue—crocuses and scillas.

May, June, white and red—Narcissus and tulips.

July, white and purple—pansies, verbenas and carnations.

August, white and yellow—nasturtiums and false dragon's heads.

September, to frost, yellow, purple, white—nasturtiums, pansies, verbenas and carnations.



NASTURTIUMS AND FALSE DRAGON'S HEAD

The Decorative Value of Fruit Trees

Genus *Prunus*

By W. R. GILBERT

THE economic importance of the fruit of various members of the genus *prunus* is so high that their decorative value is somewhat neglected. Most people who are interested in horticulture are acquainted with the merits of this or that variety of peach, plum, cherry, or apricot, but few appear to be aware of the large number of species and forms of *prunus* and allied genera that are available for the floral decoration of the garden. Here and there a few are used, such as the almond, purple-leaved plum, and the double-flowered cherry, but there are many more that might be grown in the same way, as they are every bit as hardy, and in some instances more beautiful than those named.

The genus *prunus* is divided into several large groups, such as *prunus* proper or the true plums, *Amygdalus* or almond, *Armeniaca* or apricot, *Cerasus* or cherry, *Padus* or bird cherry, and *Laurocerasus* or laurel. The first of these groups, the true plum, *P. cerasifera*, forms a large-headed tree and blossoms with the greatest freedom. Occasionally the flowers are followed by a fair crop of showy, scarlet fruit. A near relative of the cherry plum is *P. divaricata*, which differs in having yellow fruits. Both trees bloom during May. The wild sloe or black thorn (*P. spinosa*) is a pretty, spring-flowering bush, and there is in gardens a doubled-flowered variety of it, and another with purple leaves.

The almond group includes several very desirable trees and shrubs in addition to *P. Amygdalus*, the common almond. It forms a tree anything between ten feet and forty feet in height. It is very floriferous and never fails to bear a profusion of pretty rosy-lilac flowers early in the year. Closely allied to it is the Chinese pink flowered *P. Davidiana*, which blossoms very early, sometimes being in full bloom in early spring. There is a variety of it with white flowers which is quite as lovely. *P. jacquemontii* is a dwarf tree or shrub from Afghanistan, which bears small pink flowers in April and May. It is suitable to form a bed or group on a lawn in a large garden or park. *P. nana*, the "dwarf or Russian almond," grows only twelve or thirteen feet high and flowers with the greatest freedom. The type is rose-colored; there is also a variety with white flowers and another called *P. gessleriana*, which is bright red.

Prunus Persica, the peach, is one of the most beautiful of all spring flowering trees, and yet, although quite as hardy as the almond, it is not grown anything like so extensively. The flowers of the

type are single and pink, but there are numerous varieties with double white, pink and red blooms, some of which are one and one-half inches across. They all bloom early, and with exceptional freedom. As single specimens in shrubberies they are also very effective. They are to be obtained now in quantity from tree nurserymen, and we may yet hope to see them as shades of color forming a fine contrast.

In the apricot group there are some really good garden trees, the best being the double pink and white forms of *P. Mume*, the Japanese apricot; *P. tomentosa*, a dwarf species from China, conspicuous in early April, when it is covered with white, pink-tinted flowers; and *P. triloba*, also Chinese, with bright pink blossoms.

The single-flowered type is pretty, but it is quite overshadowed by the double-flowered variety, which has flowers about one inch across, quite double and of the most charming shade of pink. To have it at its best it is necessary to prune the flowering branches back to within an eye or two of their base as soon as the flowers are over, that is toward the end of May. It then forms long shoots which, the following spring, are clothed from base to tip with flowers. Grown against a wall the main branches only should be secured, the others being allowed to hang away from the support.

The cherry group contains a large number of beautiful flowering trees and shrubs. *P. acida*, a dwarf European species, is very floriferous, the flowers being pure white. It forms short jointed wood with many spurs, and blooms well when but two or three feet high; *globosa*, *dumosa*, *umbraculifera* and *marasca* are handsome, single-flowered forms of it and *ranunculiflora*, and *flore-pleno* doubled flowered; *semperflorens*, the All Saints' cherry, is another form of this species; it is peculiar in that it flowers throughout the greater part of summer. The native gean (*P. Avium*) is represented in gardens by a beautiful double-flowered tree of rapid growth, with first rate flowering qualities. A large tree of it bearing its countless pure white pendulous blossoms in May is a beautiful picture, especially when standing out on a lawn or with a setting of evergreens. Other distinct varieties of it are *asplenifolia*, with cut leaves; *Decumana*, with very large leaves; and *pendula*, with weeping branches.

The wild or Morello cherry, *P. Cerasus*, both single and double flowered forms, bloom very freely and are good garden trees. *P. Japonica* is best known by its free double-flowered varieties, one of which

has white, the other deep rose-colored flowers. They usually grow three to four feet high and form shapely bushes for which hard pruning every second year is necessary to insure good growth and plenty of bloom. *P. pendula*, the rose-bud cherry from Japan is said to attain a height of forty feet in that country. The branches are always pendulous, and in early May are clothed with deep rose-colored blossoms. *P. Pseudo-Cerasus* is one of the glories of the genus, and should be found in every garden. It is of vigorous habit forming long, rambling branches, sparingly clothed with branchlets but thickly studded with short spurs, from which a profusion of flowers is produced. These are single in the type, pink, and one and one-half to two inches across; but there are varieties with double flowers, which vary in color, and in size, some being as much as two and one-half inches in width. The most showy of these are James H. Veitch, with deep rose or red blossoms; *flore-pleno*, with rose flowers and *flore luteo pleno* with yellowish-white blossoms. *P. serrulata*, like the last mentioned species, is of Chinese origin, and, like it also, it deserves to be popular in gardens. In some respects these two species bear a striking resemblance to each other as both form long rambling branches thickly clothed with flower spurs, but whilst the flowers of *P. Pseudo-Cerasus* are more or less upright those of *P. serrulata* are spread out horizontally. These flowers are of the same size and are double white. A well-grown tree of *P. serrulata* never fails to win admiration, even from people who have no special knowledge of trees. *P. subhirtella*, one of the newer Japanese cherries, is a small growing tree which bears pretty, rose-colored flowers freely during May and June.

Prunus Padus, the bird cherry, is represented by numerous varieties, of which *flore-pleno*, with racemes six inches long of double white flowers and *Alberti*, an extremely free flowering tree, are the best. *P. Mahaleb*, the St. Lucie cherry, belongs to the same group. It forms a very large headed tree, bearing during May a profusion of small white flowers, when it is very ornamental. The variety with weeping branches, called *pendula*, is a striking tree; it should be given plenty of room when first planted, as it develops rapidly.

The cherry laurels, *P. laurocerasus*, include the common laurel, a really fine evergreen when allowed to develop freely, but it is too often spoiled by close cropping and mutilation. A bush of it twelve to eighteen feet high and twenty to thirty feet across is a really magnificent evergreen. There are many varieties, a few of the best being *camelliaefolia*, *colchica*, *latifolia*, *otinii*, and *rotundifolia*. The Portugal laurel, *P. Lusitanica*, enjoys the distinction of being one of the worst possible shrubs to transplant, young specimens one and one-half to two feet high being much more likely to succeed than those of larger dimensions. There are several varieties, the one called *myrtifolia*, with small and narrow leaves, being the most distinct. Both the cherry and Portugal laurels are handsome flowering bushes when they are allowed to grow naturally. It is not possible in these notes to do more than call attention to the most beautiful species and varieties. Intending planters would do well to pay an occasional visit to some of the nurseries where a specialty is made of prunuses and other hardy flowering trees and see for themselves what a wealth of material there is to select from for the beautifying of the garden in the spring.

An Economy in Suburban Building

IN these days every attention has to be given to all means of producing a given building most economically. Now besides the selection of materials, there is an opportunity of economy that is not apparent to every one.

The suburban contractor, when he receives a big bunch of plans and a specification as long as a dictionary, from a city architect whom he does not know, looks through the plans and bids "safe," that is, he does not bid as close as he would were he to receive the same thing from an architect with whom he has had favorable relations previously. He argues thus: "I am reasonably busy with work for people I know well, and this new structure is for people I do not know and under the supervision of an utter stranger. If I am given the contract at my figure, I surely will lose nothing, whereas if I am not awarded the contract, I am as well off as before."

If all the invited bidders are of the same mind, the bids will be ten to twenty-five per cent higher than need be.

Here then is one of the important duties of an architect who does suburban work: He must give the contractor, from whom he is inviting estimates, an opportunity to know and converse with him, clearing his mind of uncertainties, and make him feel at ease with the man under whose supervision six months or more of his work is to be carried on.

On this account it is incumbent on all architects who are searching for the most economical results for their clients that they give the contractor, whom they ask to bid, an opportunity of becoming acquainted before the bid has been made. This is a source of economy that is well to call to our readers attention, for there are few, except those with quite wide experience, who would fully realize its value.

Why Many Amateur Gardeners Fail

THE REASONS AND REMEDIES

BY NURSERYMEN AND SEEDSMEN

(Continued from the February Issue.)

SIMPLE RULES TO BE FOLLOWED BY AMATEURS IN PLANTING

Dear Sirs:—The majority of planters purchase nursery stock with the idea that all should grow, and there really is no reason why it should not, if the plants are good, the roots carefully packed so as not to dry out in transit, and ordinary precautions taken in preparing the soil, in the preparation of the plants, and also in the planting itself.

The first, most important requisite is that the ground be well prepared. That is, it must be trenched or spaded deep and well enriched. It is advisable to do this some time in advance of the receipt of the plants. As soon as the goods have been received they should be taken out of the package and in the case of trees, shrubs, hardy roses, and other hard wooded plants, should be "heeled in." That is, the plants laid down in a slanting position and the roots covered with earth. This will keep them in a fresh condition until ready to plant and they may be left this way for several days. It also has a tendency to revive any that may have become dried out by reason of being too long on the road. As a general thing, trees, etc., are sent from the nursery in the same condition as when taken from the nursery rows. The roots and tops are often bruised and broken to some extent which should be remedied by proper pruning, and in the case of fruit trees and some other things, the branches should be shortened or cut back.

In planting care should be taken to have the holes sufficiently large so that the roots can be spread out in their natural position and without crowding. The finest top soil should be used to place around the roots and in the case of small plants, this should be pressed in carefully with the hands. A mulch or covering of rough manure on top of the ground will be beneficial and help to retain moisture. If very dry weather should follow after the planting, it will be necessary to water the things occasionally. Many nurserymen now print in their catalogues—"Directions for planting" which if followed carefully will lead to satisfactory results. By the proper observance of a few simple rules, satisfactory results will usually be obtained, but it will also be at the expense of some labor and trouble.

ELLWANGER & BARRY,
Mount Hope Nurseries.

Rochester, N. Y.

THE USE OF VARIETIES WITHOUT REFERENCE TO ADAPTABILITY FOR PURPOSE OR LOCATION

Gentlemen:—Referring to your letter under date of the 7th, asking for suggestions as to why many owners of country places fail to get satisfactory results with their plantings, we would suggest one reason that has seemed to us to be responsible for very many unsatisfactory plantings. That is, the using of varieties without considering their adaptability for the purpose and location. A great majority of planters, when it comes to filling a problem, plant without considering carefully the effect, soil and location, simply using trees or shrubs that they have seen doing well on a friend's place.

We have known of blue spruce being placed in heavy, wet, clay soils where there was not one chance in a thousand for them to make satisfactory growth. We have seen English ivy planted under old trees where the soil was washed off, thin and dry, with no possible chance of the plants securing moisture, and the plantation made simply because English ivy had been seen making an excellent ground cover under a tree in a similar position, but in which they failed to note that preparation by a supply of top soil and careful watering had been used to supply the nourishment and moisture so necessary to establish the plants.

It is this lack of studying out the situation and the requirements of the plants that leads in such a large number of cases to unsatisfactory plantings. Very often, when it is left to the gardener, results are no better. If the gardener is a first-class, practical man, these problems are the first that appear to him and he considers them of first importance, and selects his planting material accordingly. On the other hand, there are a great number of men in charge of places who are not gardeners, but who, simply having the ability to cut the grass and trim flower beds, presume to select planting material for different problems with exactly the same results as the one who gives the subject little consideration. We would suggest that aside from purchasing the tree or shrub, he should consider first the purpose for which the plant is required, and second, the soil in which the plant must grow, and then either select plants suitable for such a location or renew the soil and by fertilization prepare such places to receive the plants.

Yours truly,

J. H. HUMPHREYS,
Andorra Nurseries.

Philadelphia, July 30, 1908.

MUCH NURSERY STOCK IS LOST BY LATE PLANTING

Dear Sirs:—We have your valued letter of the 1st to hand, asking for a statement explaining the causes of failure in transplanting nursery stock.

With experienced labor there is but little complaint about stock not growing; and nursery stock as a rule is not difficult to get to grow if conditions are at least half-way right. Yet many people do not have the least idea as to either the planting or the care of stock.

When it is received it must be borne in mind primarily that nursery stock is perishable and whenever exposed to the sun and wind it is losing vitality. It may not be exposed sufficiently to kill it outright, but the vitality is impaired just in proportion to the time and manner of exposure.

We believe that more stock is lost by late planting than any other one cause as nursery stock, to succeed, must be planted early in season when the ground is cool and full of moisture. It then becomes established and new root system formed, and when the dry hot weather comes on it is in position to take care of itself, as a proper circulation has already set in and the proper relation between root and top established.

The majority of people do not place their order for stock until the time of planting is at hand. This brings their order to the nursery at the very busiest time of the year, and some little delay is often necessary in order to get the shipment under way. Then there is the delay in transit; all of which could have been avoided if the order had been placed earlier in season. Too much importance cannot be placed on this point, and prospective buyers should be urged to place their order as early in season as they can determine what stock is wanted.

Another cause of failure is planting in soil not at all suitable for the stock. All small fruit plants should be planted on soil that was in some cultivated crop the year previous, such as corn, potatoes or other garden produce, as planting in newly broken sod is sure to result in failure, as the soil is full of insects which prey upon the newly set plants. The sod likewise cuts off capillary attraction and robs the plants of moisture, which is so essential for their growth at this early stage.

Trees and hardy shrubs, of course, may be planted in sod if large, ample holes are dug for the accommodation of the roots, and the soil kept well worked or by using a good heavy mulch about each tree or shrub planted. This holds the moisture and keeps the ground in the best possible condition. But, to crowd a tree into a small hole on a city lawn, filling in with broken sod and coarse dirt, is almost sure to result in failure; and we are sorry to say that this is the way that a large percentage of the trees are planted annually.

We advise cutting off all mangled roots, and

likewise any impaired branches as well as heading in the top to correspond with the root system, so that a perfect relation is established between the root and branch.

In planting trees we advise using a few gallons of water when the hole is about one half filled; this settles the dirt about the roots better than it can be done in any other way. Then filling in the remainder of the soil without wetting, as water thrown on the surface soil is inclined to cause the soil to bake, which results disastrously to the tree planted.

If the ground is not prepared when the stock arrives, it should be immediately heeled in the ground, being careful that the soil is brought in contact with all of the roots of the plants so as to keep out the air and to keep the plants from drying. Or the stock may be kept a few days in a cool, moist cellar in the package they were shipped in; for if the goods come from an experienced nurseryman they are so packed that the air is excluded, and sufficient moss used about the roots to keep them in good condition for a week or ten days.

Thousands of strawberry plants are lost annually by throwing water over the tops of the plants when they are received. This should not be done as this will rot the crowns of the plants in twenty-four hours. If they are to be wet at all the roots only should be dipped in water, being careful to keep the tops dry.

In planting all kinds of nursery stock it should not be exposed in the field and dropped ahead of the planter. Keep it carefully heeled in or protected, and plant immediately after removing from the ground or from the package in which it was shipped, as a few minutes' exposure to a hot drying wind is sufficient to kill such tender plants as strawberries, blackcap raspberries, blackberries, etc.

There are, of course, other causes of failure, but if above instructions are followed the loss will be reduced to a minimum. Very respectfully,

W. N. SCARFF.

New Carlisle, Ohio, July 9, 1908.

FAILURE OFTEN CAUSED BY ACTUAL NEGLECT

HOUSE AND GARDEN:—I believe that a very large majority of planters of roses, shrubs, bedding plants and other flowers have good success with their plants, but many do meet with failure which is quite often caused by actual neglect. Plants are often neglected by people who know what care they should have, and also by people who do not seem to realize that they require any care whatever after planting, and these are the ones who are most likely to attribute their failure to the nurseryman who sold them the plants.

Many failures are caused by planting too near large trees. In small yards it is sometimes almost impossible to plant far enough from shade trees. Many people think that if tender plants are placed

Why Many Amateur Gardeners Fail

on the south side of such trees or far enough away to avoid actual shade there will be no trouble and such planting is often attended by partial or fairly good success, but the only safe rule in such cases is to plant nothing nearer a tree than a distance equal to the height of the tree.

Many planters of roses make a serious mistake in the preparation of the soil, using quantities of sand, woods earth and other light material. Roses will not do well in such soil as they require a rather heavy clay loam and in no case should sand or any light material, except well-rotted manure, be used unless the soil is a very heavy clay. A small quantity of sand and woods earth is often beneficial to tender plants, other than roses, though if the soil has been properly enriched beforehand it is usually in a light friable condition which is all that is necessary. A mistake is often made in construction of beds for cannas, geraniums and other plants by raising them above the surrounding level; such beds are very hard to keep moist, and are often so dry that the plants will not do well, even in the best of soil.

Grass and weeds should never be allowed to grow nearer than two feet from any plant and the soil in this space should always be kept loose with the hoe. Neglect of this simple rule is very often the cause of failure.

W. R. GRAY.

Oakton, Fairfax Co., Va.

LARGELY OWING TO LACK OF PREPARATORY EXPERIENCE

Gentlemen:—From an extended observation I am confident that the comparatively few failures in garden building and landscape architecture are largely owing to the lack of preparatory experience by those undertaking this work. Because a man can build a dog house it does not follow that he can plan or construct a beautiful residence. And in gardening matters one may be most successful in business and abundantly able to own a country estate yet be wholly incompetent to effectively deal with the landscape and planting improvements. A florist or untrained gardener who produces sweet peas to perfection unless he be skilled in the gardening art generally, not infrequently makes an unattractive mess of attempting the location and planting of trees and hardy plants.

The descriptions in the catalogues of most nursery establishments are accurate and trustworthy. The recommendations equally reliable. This is especially the fact with the publications of established companies or concerns who have built up a prosperous and successful business. It could not be otherwise; for accuracy and reliability have been for a decade one of the most valuable assets any one in the nursery business could possess. In our own catalogues the greatest care possible is exercised to avoid both

exaggeration and technical errors. This rule we believe is now generally followed by responsible houses all over the country.

No catalogue or other printed matter can, however, supply the missing link between incompetency or inexperience, and the best results in gardening. The remedy for failure in these matters is not far to seek. Where the grounds of a new estate are to be laid out or important changes are desired in well-planted estates, it is always well to consult a landscape architect or specialist in such work. The degree of success is likely to be enhanced in choosing a man or firm where the artistic sense and practical qualities are united. The owner's wishes as to the style of landscape treatment can then be economically worked out and the chance of error or failure largely eliminated. Moreover in this way, and by a suitably made plan, the end can be seen from the beginning,—not only as to the plan of treatment but approximately the cost as well.

For smaller grounds and more simple planting the owner's desire for improvement can frequently be successfully carried out and at small cost by direct consultation with the nursery concern meriting his or her confidence. While our company does not make a business of preparing landscape plans, we are frequently consulted in such matters and undertake the furnishing of everything required for successful planting at reasonable cost.

Nor if undertaken in the right way is there any difficulty in obtaining faithful and competent gardeners to execute planting plans and take charge of suburban and country places for permanently successful results. During the past few years this country has developed a vast number of efficient, reliable men, who are thoroughly grounded in every principle of successful gardening, and capable of assuming entire charge of the most extensive landscape and garden developments. This is manifest from the perfect condition in which many fine country seats and public parks and smaller suburban places are now kept and the number of well-planted and well-cared-for country places and other attractive ornamental grounds is being rapidly augmented every year.

The registers of good gardeners now in use by some of the leading nursery establishments are a great convenience to those requiring skilled and reliable men. Several years ago we adopted here a system of personal reference inquiry, from which the record as to character and competency of any gardeners who make application to be placed on the register of men available, are thoroughly investigated. In this way men only who can "make good" are recommended.

In a word: if those contemplating lawn, garden, or glass construction improvements go about these matters in securing competent assistants as they do

if successful in other affairs, the day of failures will soon have passed, and the country will enter upon the most successful decade of landscape and garden embellishments yet known.

FREDERICK W. KELSEY, President,
American Nursery Company.
150 Broadway, New York.

SUGGESTIONS FOR PLANTING TREES AND SHRUBS

Gentlemen:—The one thing most often omitted by planters of trees, shrubs and vines, is the pruning or cutting back of the branches. Even when the purchaser comes to the nursery and buys a few trees or vines and is told about the necessity of cutting the branches to correspond with the necessary cutting back of the roots in digging, the nurseryman may find later that this buyer has not done as he was advised to do, and as a result some of the trees have died and he thinks the nurseryman should replace them, whereas, if he had cut back the branches as he had been told to do, he would not have lost a single tree, vine or shrub.

Particularly is this cutting back of branches necessary in transplanting peach trees and rose bushes. The experienced orchard planter of peach trees cuts off every branch close to the trunk and cuts back the top, leaving simply a stub two to three feet high. This severe pruning seems to the inexperienced man to be scarcely less than murderous, but it is the proper thing to do, the only thing in planting peach trees.

In transplanting the rose bush the branches should be cut back, leaving each one not over four inches to six inches long.

Another necessary suggestion for planting is, that the soil be made firm over the roots as fast as it is thrown in. There is scarcely any danger of making the earth too firm in transplanting but the last shovel of earth after the hole is nearly filled should be left loose to act as a mulch.

I have known inexperienced planters to place manure in contact with the roots in planting. Such treatment causes the death of many newly planted trees. The roots of many plants, trees and vines are often allowed to dry out, owing to exposure before planting. If nursery products are properly protected and properly planted not one in a hundred should die.

CHARLES A. GREEN.
Rochester, New York.

BEGINNERS IMPATIENT FOR RESULTS

Dear Sirs:—Replying to your inquiry why some fail in securing the best results with their flowers we wish to say: It is an easy task even for the beginner to be successful in growing flowers as well as the proper arrangement of them if a little study is given regarding the nature of the various plants to be grown and some judgment is used at the outstart. Invaluable

information on floriculture and landscape gardening can now be secured from the conservatories and nurserymen that advertise giving such information in their catalogues. Success is almost sure after having acquired some knowledge as to the preparation of soil, proper season to plant, selection of plants best adapted for the various locations. For instance, one must know roses require considerable sun and must not be planted under trees while with rhododendrons a location just the opposite is required. We believe there are more failures from planting in the wrong locations than from any other cause. Persons not having the proper location for rhododendrons or certain plants should not attempt to grow them, but in place of them select such plants as are recommended for the kind of a place they may have at their disposal for plants. Many also fail on account of attempting to grow too many untried plants or exotics rather than the good old standbys that ought to be grown more extensively because they are known to succeed under almost all conditions. Better results and finer effects will be had if more hardy plants and shrubbery is used, for with these beautiful foliage and blossoms may be had from early spring until even after frost. They do not require annual replacing but grow more attractive every year and when once established all expense as well as labor is practically at an end.

Some, and especially over-ambitious beginners, sometimes become impatient waiting for results, but it must be remembered that it took time to create the beautiful effects of Nature or the attractively planted parks. A little patience until hardy plants become well established is always repaid with an annual dividend in an abundance of the most interesting flowers Nature and culture has given us. If success does not come the first time, the beginners should not become discouraged. At the second attempt they will all be the wiser and will profit by the experience. There are always some difficulties encountered in bad weather or other things that are unavoidable. After disappointment of failure, success when gained, will be all the more enjoyed.

We trust that this information may be of some assistance and encourage those that have not entirely succeeded in their efforts to grow flowers.

Yours respectfully,

WAGNER PARK CONSERVATORIES.

Sidney, Ohio, July 27, 1908.

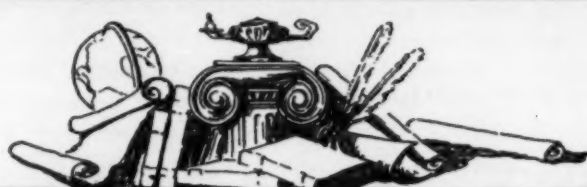
SELECTION OF WRONG VARIETIES AND IMPROPER CARE

Dear Sirs:—We have found that failure with nursery stock is frequently due to improper selection of varieties or to neglect and improper care.

It is true that sometimes the plants used may be

(Continued on page 3, Advertising Section.)

THE EDITOR'S TALKS AND CORRESPONDENCE



The Editor, Margaret Greenleaf, wishes to extend a personal invitation to all readers of *House and Garden* to send to the Correspondence Department, inquiries on any matter pertaining to house finishing and furnishing. Careful consideration is given each inquiry, the letter and answer being published in due time as matters of interest to other readers. Where an early reply is desired if a stamp and self-addressed envelope are enclosed, the answer will be sent. No charge whatever is made for any advice.

CORRESPONDENCE

FINISHING AND FURNISHING A BUNGALOW

I AM building a shingle bungalow, one and a half stories high, stained a dark red, trimmed in cream. Can *HOUSE AND GARDEN* suggest a pretty mantel for living-room? I wish to carry out somewhat the craftsman style throughout the house. The fireplace is to be large, and I want it all brick with just a pretty mantel shelf of wood or brick,—the style you consider the most artistic. I don't care for any of the manufactured goods on the market, with mirrors, etc.

Can you suggest pretty lighting fixtures for this room, parlor, and dining-room? I wish to have the lantern on newel post similar to the one shown in your October number of *HOUSE AND GARDEN*.

There is a very tiny den or nook opening out from the living-room. In here I wish to use the wrought iron lantern like cut. How can I use it if used with electricity? I have used it with the lamp. I would not want the wiring to show, and it would be too high to suspend it from the ceiling with the chain they send.

Please give me the name of furniture renovating material you recommend to a correspondent for brightening walnut furniture, the style of fifty years ago. Would this produce the same effect on the golden oak of this day? I have several pieces that show use and many scratches.

I have samples of paper you suggested for parlor, living-room, and dining-room. The parlor is a light green paper with the ivory *fleur de lis* figure and foliage, and is to have the ivory woodwork. I will use several pieces of green furniture in this room, the rest will be of mahogany, and the pictures framed in gold. What kind of curtains will be pretty in this room? I cannot afford very expensive ones.

You suggested green fish net and Arabian net for the living-room curtains, ecru net and green silk for the dining-room. Please tell me just how these curtains are to be made and hung.

Would something on the stencil style be prettier than these and less expensive? Is there any material

you can buy and make the curtains from, that will produce that effect? I could not stencil them myself.

Would any of the pretty effects in scrim be pretty for the leaded glass windows in the tiny den, provided the colors harmonized with the colors in the living-room? My hall upstairs and back hall downstairs are for use only. What would be a good floor covering for them? Do not want carpet or anything that will hold the dirt and dust when it is swept out of the other rooms. Would it be all right for me to put the inlaid linoleum in wood effects on them?

Are the vacuum cleaners satisfactory and will they do all that is claimed for them. Can you dust bric-a-brac, etc. with them? Would you advise one who has great trouble in getting servants to get one? What do you think of the — company?

Can your paper give me some design for a small summer house? It will be down below the terrace upon which the bungalow is built. In fact, it will be on the lowest part of the grounds.

Please quote me price on a sun-dial. The lighting fixtures, etc. I wish you to suggest must be of moderate cost.

Answer: A mantel shelf of wood like the standing woodwork of the room can be set above a brick mantel. We are sending you cuts showing an excellent selection of brick mantels. Some of these show the shelf; to others it may be added. We would suggest that you select the Roman brick showing the yellow tan color, as a mass of this color is easily reconciled with other furnishings.

Fixtures of smoked brass, which is dark in color and resembles Japanese bronze, would be effective throughout. For your living-room, side lights and plugs for table lights conveniently placed would give you the most attractive lighting. The squared globes of ground glass should be used on these lights. We are sending you cuts of fixtures.

The lantern shown on the newel post in the October number of *HOUSE AND GARDEN* to which you refer costs \$13.00. We are sending you the
(Continued on page 3, Advertising Section.)

IN THE CITIES' MARTS

[Addresses of the retail shops carrying the goods mentioned in this department, will be sent upon receipt of request enclosing a self-addressed and stamped envelope. Inquiries should be sent to the Special Service Bureau of HOUSE AND GARDEN, 345 Fifth Avenue, New York City.]

ONE of the New York shops is showing some beautiful individual breakfast sets in Royal Doulton. The set consists of a tray, two plates, cup and saucer, cereal dish, egg-cup, sugar and cream holders, and individual tea, coffee or chocolate pots. The designs are exquisite, those in little Dresden figures and clover designs being particularly attractive. The prices range from \$17.50 to \$25.00.

Jardinières are to be found in soft green unglazed pottery. These offer fine settings for ferns and range in size from small fern dishes to those holding a fourteen inch jar. A very good sized one can be purchased for \$4.00.

While on the subject of jardinières a word must be said about the large assortment of brass ones. These may be had in either the dull or bright finish. The bright finished ones are more serviceable.

Beautiful cut glass lamps may be purchased in either high or low models. Used in some dark corner of the room, these lamps give a very cheerful note to the furnishings.

A charming lamp shade seen in one of the shops was made of Japanese grass-cloth. Many of these show landscape design painted on in the free way that is so characteristic of Japanese art.

Another handsome shade was of green leaded glass. From the lower edge brown eyed Susans sprang in natural growth. The shade was mounted on a lamp of dull green metal, the combination being very beautiful.

The openwork wicker shades lined with silk are very much in favor. These range in price from \$3.00 to \$4.50. The large ones are very effective used in dining-rooms, where the art glass shade is barred on account of expense. It is, of course, better to use a shade of this character over electricity, but it is possible to use them over gas if the proper burner and mantel are adjusted.

Slender candlesticks in rock crystal glass are shown. The glass is beautifully clear and perfect and makes a dainty accessory for the table.

Vases in this rock crystal glass are also offered. Flat bowls for violets and tall slender vases for roses are found in sets of five. A large one for the center of the table and smaller ones for the corners furnish a charming table decoration.

The display of linens for the table is unusually attractive this spring. The breakfast sets consisting of a cloth and a dozen napkins each having a colored border are very tempting. One seasonable cloth has a border about ten inches deep, composed of green

lines both horizontal and vertical. At intervals appeared an orange dot, perhaps an inch across. The borders appeared on a smaller scale on the napkins. This set complete is \$15.00. Borders of this character may be found in a variety of colors.

Some very attractive pillow slips are shown in the white embroidery. Some have a scalloped edge, others a hemstitched hem while above this may be a scroll of embroidery or a wreath encircling a monogram. Others have monograms placed in the center of the slip. Sheet shams come to match these slips. Sheets also come with embroidered tops. Others show a hemstitched hem and below this three inch band of inserted needle work. Some of the new Marseilles counterpanes show a cluster of flowers in color so placed that they come at each corner of the bed. They may be obtained in colors to harmonize with the scheme of the room.

Many beautiful blankets are shown this spring. They are, of course, found in all weights and suited to all pocket books. Very pretty ones are shown in white with an all over pattern of scrolls in dainty color. The large checkerboard patterns are also very popular.

Each succeeding year finds the shops offering more examples of Japanese art. In one of the shops some beautiful, high, four-fold screens of green silk, embroidered in chrysanthemums, storks and other typical Japanese subjects are offered at \$65.00.

For the hospitable woman whose table cannot accommodate all guests, the nest of tables helps to solve the problem. One handsome nest of four is of mahogany showing a narrow inlay of satin wood on the top of each.

Manufacturers of furniture are now making bedroom sets of hazel. The wood is left in the natural color and given a soft rubbed finish, the effect is very similar to birch. Where it is necessary to economize on bedroom furnishings, one should seek furniture of this character as it is artistic in design and inexpensive in price. The suite complete is \$220.00.

An inexpensive material offered for inside draperies is Russian crash. This fabric is very well suited for stenciling purposes. The stencil patterns and colors can now be purchased ready for application. With them comes full directions for applying the colors. One lovely design is a peacock in which the blues and greens can be beautifully blended. Floral patterns suitable for bedrooms are offered in a variety of designs. A great number of animal designs especially adapted for the nursery are also found in stock. These stencils may be applied to the walls as friezes and the scheme carried out in the curtains.

Candle shades giving a very real effect of leaded glass can be purchased for \$1.00 a pair. These are made of paper and can be found in a variety of colors.

THE GARDEN

Suggestions, Queries and Answers

JOHN W. HALL

SEED of the summer variety of carnations should be sown early in March in a hot frame. Transplant into the bed early in May. The bed should be of a good loamy soil and the plants should be set from twelve to eighteen inches apart. For the best results the bed should be fully exposed to the sun. Be sure to pinch out the top of the plant at the time of transplanting. During growth keep the bed well weeded.

In the make-up of the garden native wild flowers and ferns should be given consideration. As a general proposition they are easy to transplant and should find place in the beds, among the shrubbery and borders. If you will consult the catalogue of any responsible nurseryman you will find many plants listed at high prices, under botanical names, which are known as wild flowers and which grow in most sections of the country. It would be well to try any variety of wild flower which may be found growing wild in any given locality as it would be certain to thrive in that climate and soil.

The *Gaultheria procumbens* (checkerberry, winter-green) makes a fine ground covering for the rhododendron bed. When well established its evergreen leaves look well and constitute a beautiful green mat.

The common blue violet is one of the best to grow in quantity. It is equally at its proper place in any part of the garden. Its propagation is easy, either from the root or from seed.

The false Solomon's seal is useful either for massing in the border or to be used as a cut-flower. When cut and placed in water it remains fresh for several days.

Conditions must necessarily control the selection of a list of the best roses for any individual garden. Where the temperature rarely falls below ten degrees variation of a few degrees is of little consequence in growing the hybrid perpetual class. With teas, hybrid teas, Noisettes, and Bourbons it is different. These will not endure long continued exposure to below zero weather.

Where the winters are severe the hybrid perpetual class is the only rose with which it is worth while to consume space. Where the winters are moderately mild such as are usual in Eastern New York, Pennsylvania and New Jersey the hybrid teas do quite well, live out doors all winter with little protection, and bloom profusely in summer. This is a very popular rose for amateurs in garden work. It is not unreasonable to count on cutting roses from it from May to November. But not all hybrid teas are

continuous bloomers, notably the Gloire Lyonnaise and Her Majesty.

Any responsible nurseryman will furnish catalogue giving names of roses in all classes together with description of each individual rose. By all means keep your roses by name. There is much pleasure in this method, yet there are but few, where any variety is grown, do this. For fear of losing the labels it is a good plan to make a record with a chart of each bed at the time of planting out. By this means more intimate knowledge of the habits, growth and appearance of every rose can be had.

Now is the time when the seed of plants named below should be sown in hot beds, the plants to be transplanted when warm weather sets in:

Alyssum, sweet; aster; begonia, fibrous; canna; carnation, Marguerite; celosia, cockscomb; chrysanthemum, annual; coleus; cornflower; datura, trumpet flower; dianthus, pinks; euphorbia; gladiolus; helianthus, annuals; heliotrope; ipomoea, morning glory; Japanese iris; Maurandia; mimulus, monkey flower; nasturtium; oxalis; petunia; *Phlox Drummondii*; Polyantha rose; scabiosa, mourning bride; stock; sunflower; torenia; verbena, and others which will be found mentioned in the catalogues of the season.

Mignonette seed should now be sown in small pots. Put some half dozen seed to the pot and thin to two or three plants when up. When the third leaf has formed transfer to cold frame for flowering in June. If the plants are held in the pots until about the middle of May and then set in the open, flowers will be had in July. For later blooming sow the seed in beds or borders during the last days in May.

The poppy bed is very attractive in any garden. About the best treatment of the poppy is to sow the seed broadcast in the shrubbery and among the herbaceous plants during May. It is not necessary to cover the seed; the rains will take them into the soil. This method will give bloom all during the summer months. Earlier bloom can be had but it is doubtful if the results warrant the effort. The Shirley (mixed single) is the best variety for early bloom. The seed should now be sown in the hot bed and the plants removed to the open in May.

Tuberous begonias can be started now in pots for bedding purposes. A three-inch pot is sufficiently large for each bulb. Proper soil for the bulbs is made of equal parts of good loam, sand, and pulverized sheep-manure or shredded cow-manure. The bulb should be placed in the pot on edge so that the water will drain off, thus preventing the bulb from rotting. Place the pots in a box and fill in between them with sand. Set the box in a bright sunny place where it will be protected from the wind. Water about every other day but do not keep them soaked. About the middle of May they will be in condition to transplant to the bed.

House and Garden

GROWING WATER LILIES FROM SEED

Can you tell me how to grow water lilies from the seed? I have examined several catalogues issued by seedsmen, but while the water lily seed are listed, I have been unable to find directions for propagating them.

H. W. B.

Lancaster, Pa.

It is an easy matter to grow water lilies from the seed and it can be done in any garden. Get fresh seed and sow out of doors in either natural or artificial ponds in March, not later than April 15th. The water should be six or eight inches deep on a good soil bottom. The location of the pond should be sunny yet protected. Press the seed into the soil about a quarter of an inch. The seed may be sown in boxes and the boxes sunk in the water. The seed will germinate in the warm days of spring and early summer. Where there is neither natural nor artificial pond in the garden heavy, large tubs may be made to give good results. Fill the tub two-thirds with good soil and water and plant as indicated for the pond.

SOD FOR A TERRACE

I have a terrace in my front yard on which I have twice failed to get a solid, smooth sod as it is constantly washed off by the rains. Can you suggest any means by which I can accomplish that in which I have failed?

H. E. C.

Niagara, N. Y.

Your difficulty is a common one, but it can be overcome. Measure the terrace carefully to determine the surface dimensions. Then for each square rod use one pound of approved lawn grass seed thoroughly mixed with six cubic feet of good dry loam to which add ten or fifteen pounds of pulverized sheep-manure. Place this mixture in a vat and add water stirring until you have brought the whole to the consistency of a mason's mortar. Having previously made the terrace perfectly smooth and firmed by rolling and watering (sprinkling) cover the surface with the mortar. While this method entails some labor and patience it appears to be the only way by which an even velvety sod can be had and maintained on very steep terraces.

THE SEASON FOR PLANTING ASTERS

When should asters be planted, and what are the best varieties for early and late blooming?

Dayton, Ohio.

H. W. J.

It is assumed that the annual aster is referred to as distinguished from the hardy aster. Of the former variety the Victoria and Comet strain are the best and the seed should be sown in March. Prick them into flats and put into cold frame about the end of April. By this means blooms should be had by the first of June. Semple's giant is a good aster for the

main blooming in August and September. For September and October blooming the ostrich plume is well adapted. Annual asters are much used by florists for cut-flowers.

There are some rare varieties of hardy asters being offered by the nurserymen that can be had from fifteen to twenty-five cents each. They are among the showiest of late blooming hardy plants coming to their best after most hardy plants have been exhausted.

FAILURE WITH SWEET PEAS

I made a complete failure with sweet peas last year. Can you tell me why, and how I may succeed with them this year?

Danville, Va.

NELLIE V. B.

It is impossible to say why you failed with sweet peas last year as you do not state the conditions under which your trial was made. Every gardener should have little difficulty in succeeding with this exquisite flower.

It is best to prepare and thoroughly fertilize the ground in the fall of the year. Then as soon as the surface dries off in the spring the seed can be planted without re-digging the ground. But if that was not done in the fall it should be done as soon as the frost is out of the ground. In the locality of Danville, doubtless the ground will be fit to work by the first of March. Put the soil in good condition, working in a liberal supply of well rotted or pulverized manure. Get the seed into the ground at the very earliest opportunity. The vine is naturally quite hardy and slight freezes after the seed are planted will do no harm. To secure the earliest germination, plant the seed about two inches deep covering to a level with rich fine soil. As growth develops the earth can be gradually worked to the plants until they are hilled about four inches.

Be sure to plant enough seed. Some of them will not germinate and it is better to thin them out than not to have a good stand. An ounce of seed to sixteen feet of row space is sufficient. If the plants are left too thick they will grow up weak and slender. Before the vines are too high, when they are from four to six inches in height, give them support. Use brush or poultry wire to which they will readily and naturally take hold. Keep the plants well cultivated by constantly raking the surface of the soil. Blooming may be prolonged by keeping the blooms cut off, but in doing this disturb the vines as little as possible.

The matter of variety as it affects colors is one of personal choice. However the dark or brown skinned seed, indicating the darker colors of the flowers, are better for the earliest planting. The white skinned seed indicate white or light shades of colors in the flowers. They are more tender than the darker shades and do not germinate so well while the soil is still damp and cold.

WHY MANY AMATEUR GARDENERS FAIL

(Continued from page 106.)

lacking in vitality. Sometimes they may have been carelessly dug, poorly packed or subjected to undue exposure while out of the ground and again they may have been improperly planted. While these are all causes that may account for individual losses, they are not the most frequent causes of failure.

One very frequent reason that we find for plants doing unsatisfactorily is due to the selection of wrong varieties for the place and purpose for which they are intended. The owner has somewhere admired a handsome specimen and without any thought or regard of the fitness of the plant to his requirements, obtains one. It fails and he wonders why. The reason may be that the plant he so much admired is not hardy in his locality; it may have required shade and he gave it sun; it may have needed dry clayey soil and he gave it moist loamy earth. These and kindred causes are frequent reasons for failure.

Probably the most common cause lies in the treatment the plant receives. Up to and during the planting there is no lack of interest and no pains that will help the success of the planting are spared. Soon, however, the planting becomes a care; weeding and cultivation are too often neglected; dry periods come and quantities of the young stock dies or suffers for want of watering.

The full penalty for neglect to give new plantings their proper care is not always apparent the first year; for it may be so stunted that even though they may live they will never give the pleasing results the owner so eagerly longs for and confidently expected when his planting was done.

THE WM. H. MOON CO.,
Glenwood Nurseries.

Morrisville, Pa.

THE EDITOR'S TALKS AND CORRESPONDENCE

(Continued from page 107.)

address of a firm from whom you can obtain this.

The wrought iron lantern like the cut you sent can be wired for electricity. You should consult your electrician in regard to this. It would be very easy to drop the wire holding the bulb through the top of this lantern.

"Standard" Baths and Lavatories

because of their lasting service, minimize the cost of future maintenance. The installation of these splendid sanitary fixtures means that the first investment in your bathroom equipment is your final one.

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Which Do You Do In Your House— PACK DIRT IN? OR LIFT IT OUT?

When you use broom or carpet-sweeper, you scatter a large part of the dirt over a wider area, to be rehandled again and again; but that is not all of the evil.

Another large part of the dirt you work deep down into the carpet, there to decompose and putrify, to become the breeding place of germs and insects and to fill the house with musty and sour odors.

With such primitive implements, you simply can't help it; for that is their **constant tendency**, the absolutely necessary result of the **downward pressure** exerted by their every stroke.

Every time you use broom or carpet-sweeper, your every effort drives dirt down into the carpet deeper and deeper, and steadily adds new layers, until the fabric is **packed**.

And that is why you have to renovate.

It is true that the Vacuum System of cleaning is the only absolutely dustless system; but a large part of its remarkable efficiency is due to the fact that its **constant tendency is exactly opposite** to that of broom and carpet-sweeper.

Whereas broom and carpet-sweeper pack in the dirt even more solidly, the Ideal Vacuum Cleaner **lifts out**, by its suction force, more and more dirt from lower and lower depths. This it does constantly and always.

In other words, Ideal Vacuum Cleaning removes all the dirt that has been ground into the fabric as well as that which lies loosely on the surface, undoing with every application the evil of broom and carpet-sweeper.

And that is why the Ideal Vacuum Cleaner renovates every time it cleans.

The Ideal Vacuum Cleaner (FULLY PROTECTED BY PATENTS)

Operated by
Hand

"It Eats Up the Dirt"

Or Electric
Motor

The IDEAL VACUUM CLEANER is the great Vacuum Cleaning principle brought to its ideal state of economy and efficiency and made practical and possible for all. Weighing only 20 pounds, it is easily carried about. Operated either by hand or little motor connected with any electric light fixture, it requires neither skill nor strength. Compared with sweeping it is no work at all.

There in your home the IDEAL VACUUM CLEANER stands working for you, raising absolutely no dust, scarcely making a sound. And yet, under the magic of its work, carpets, rugs, curtains, upholstery, etc., are made clean, wholesome, and sweet **through and through**. Mysterious odors disappear, the breeding places of pests are removed, the destruction of fabrics is arrested, and the causes of disease are banished.

So tremendous is the saving effected by the IDEAL VACUUM CLEANER—in money, time, labor, health and strength—that it quickly pays for itself many times over. It is absurd to think that you cannot afford its small price. **How can you afford to be without it? Try it and you will be ashamed of the conditions you have been living in.**

Every machine is guaranteed.

Send to-day for our Free Illustrated Booklet. It tells a remarkable story that will mean a new era in your home.

The American Vacuum Cleaner Company,

225 Fifth Avenue. • New York City.



For your parlor we note you will use the light green paper with the ivory or yellow *fleur de lis* design. This will be very harmonious with the ivory wood-work.

For curtains in this room we would suggest *point d'esprit* used next the glass, these to be made with three inch frills down the front edge and across the lower edges. They may be caught back on either side or hang straight, as you desire. They must be run on small brass rods set close to the glass without heading, using a small casing at the top. Over-draperies of pale yellow silk, showing a slight figure the same coloring as the *fleur de lis*, would finish these attractively. These curtains should be made to hang straight, outlining the window on either side, without heading at the top and reach only to the sill. We are sending you samples from which to make a selection.

We will be glad to send you accurate directions, illustrated by sketches, of the correct way to make and hang your curtains, if you will send us a sketch of the windows, showing their relative positions, height from the floor, width, etc.

Stencil can be effectively used on curtains of linen crash, voile, scrim, or even cheese-cloth. We are sending you the address of a firm who manufacture the stencil designs and colors and who will supply you with full directions for their application. You will not find it difficult to do this work yourself.

For your leaded glass windows in the den, we would advise either the ecru net or scrim without figure, as the leaded panes will provide sufficient design.

We would advise you to finish the floors of your upstairs and back hall with a durable floor varnish,—one that can be washed and does not require constant polishing. We will send you the name of the material we would advocate and feel sure this will give you better satisfaction than the linoleum.

A few rugs made from Brussels carpeting or the rag style carpeting would be adequate.

The cleaning system to which you refer is an excellent one. We will take pleasure in looking up the special company to whom you refer and advise you later.

We have asked several firms to send you cuts and prices of sun-dials.

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Kiln dried and pulverized. No weeds or bad odors. Helps nature hustle. For garden, lawn, trees, shrubs, fruits and house plants.

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Both of these shrubs are difficult to transplant, and should be purchased in the spring as pot plants, then set where they are to grow, and well heeled in, watering and shading the first year or longer, until well established. At the North it is well to set the plants where they will receive the protection of a wall or building, the south or east side being preferable.—*Park's Floral Magazine*.

THE FLEET HOMEWARD BOUND

THE Prudential Insurance Company is issuing an artistically beautiful picture of the American battleship fleet steaming away from Gibraltar, homeward bound. The picture is in colors and gives a splendid idea of the beauty and power of the American warships. The scene presents the Connecticut, flying the flag of Rear Admiral C. S. Sperry, leading the first division of the fleet past the Rock of Gibraltar. It will inspire even the veriest landlubber who doesn't know a belaying pin from a marlinspike.

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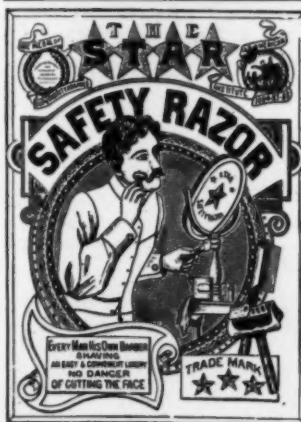
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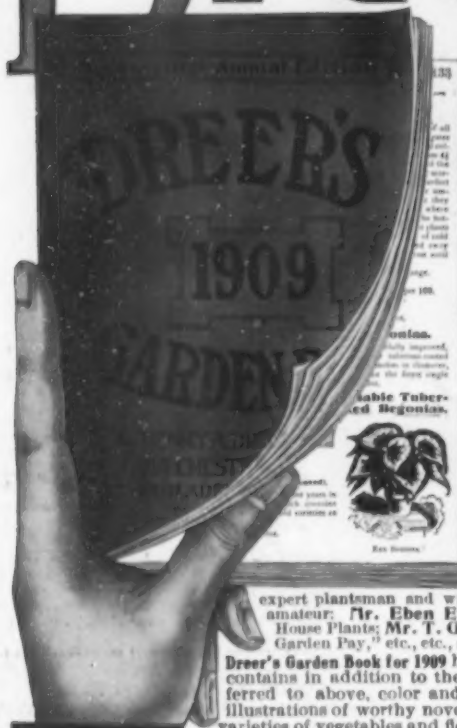
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so much as its resemblance to the trademark of the Prudential Insurance Company. This was my feeling when I first saw Gibraltar four years ago, and it remains my feeling after having last seen it four weeks ago. The eye seeks the bold familiar legend and one suffers a certain disappointment in its absence."

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SUPPRESSING CITY STREET DUST

IN a paper before the American Society of Municipal Improvements in 1906, T. Chalkey Hatton stated that careful investigation in a number of cities showed that, in each of these where accurate figures were obtainable, street sweeping by hand was cheaper than by machine.

This statement, although contrary to the general belief at that time, aroused little discussion and received less general notice than might have been expected. In its report the New York refuse and street cleaning commission arrived at the same conclusion with respect to New York; hand sweeping being estimated to cost 28.1 cents per 1,000 square yards, as compared with 31.7 cents by machine sweeping, neither of these including fixed expenses nor removal by carts. Hatton's figures were 75.3 by machine, 24.5 by hand and 31.8 by flushing, these being the averages of thirteen cities. Even if these figures be accepted there remains the considerable advantage attached to machine sweeping that cleaning large areas at night is more practicable by it than by hand sweeping.

Perhaps the most interesting part of this report is the recommendation, with reasons therefore, that flushing at night be adopted as the standard method of

House and Garden

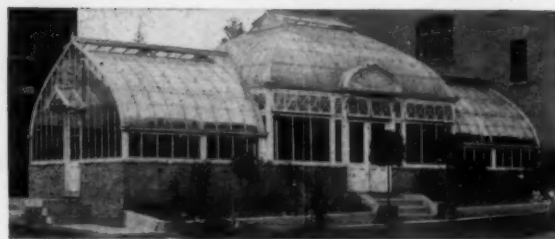
street cleaning in New York, accompanied by patrol hand sweeping during the day. This, they believe, is the only way in which the fine dirt which is scattered by the wind can be removed from the streets.

In this connection the effect of modern ideas concerning sanitation and disease prevention in various and unanticipated ways is interesting to note. Mosquitoes have ever been recognized nuisances, but any proposition to exterminate them was ridiculed as visionary until their agency in spreading yellow fever, malaria and possibly other diseases was recognized. The chances of their extermination in several States now appear favorable. Dust has long been an almost intolerable but unsuppressed nuisance in our cities, but now that it is recognized as a bearer of tuberculosis germs it seems probable that city life will be largely relieved of the almost universal dust nuisance.

It does not follow, of course, that the recommendations for New York are equally applicable elsewhere. Nor is flushing possible on all the streets of that city. It can be employed only on such pavements as are not disintegrated by water jets, which bars macadam and similar roads.—*Municipal Journal and Engineer.*

TREE PLANTING

NATIONAL Forester Pinchot spoke at the New England Conference of Governors recently on the "Cultivation of Forest Trees." He said that there are at least two and a half million acres in New England which could be devoted to forest planting. The earliest work in forest planting was in 1780, when a successful attempt was made to raise ship timber. Between 1820 and 1850 there were probably 10,000 acres of pine planted in Massachusetts. The purposes of this planting have been very definite, and older plantations—many of which have been harvested—show that the undertaking has been practicable and profitable. Not including old plantations that have been cut, approximately 25,200 acres of forest have been planted in New England. It is estimated that 5,000,000 board feet could be harvested to-day; 200,000,000 feet is a conservative estimate of what may be cut in twenty-five or thirty years. From trees planted in 1908 it is safe to estimate



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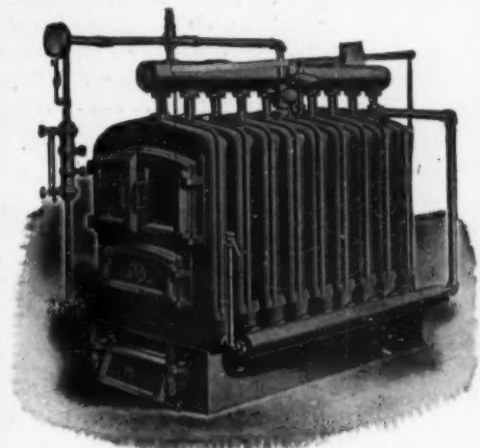
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a product of 60,000,000 feet when marketable. If the 2,500,000 acres fit for forest planting, and not fit for much of anything else, were all planted, the final product would be fifty billion feet, worth many million dollars. With such a report on the outlook for profit, it would seem that young men of this generation will miss a great opportunity if they do not act on the suggestion of starting a forest planting on some of the cheap lands of the Eastern States. Twenty-five years to wait for a crop seems a long time, but it is soon past. To get a crop and its returns a beginning must be made.

The investment at first is small and the care of a forest plantation, including taxes and interest, is quite inexpensive. Look at the waste places on nearly all farms and estimate what fine returns could now be secured, if only a few years ago some one had planted some little trees or seeds. A little attention at the right times may be required in the enterprise of forest planting which could be easily spared from other regular occupations. Old men would not handle the profit, but young men would realize a sure competency.—*The Country Gentleman*.

NEW FOWLS AND DUCKS

SOME time within the past few years we have written of the Ancona fowl, the new variety of Leghorns, a fowl with broken white and black plumage much like the Houdan. The origin of the Ancona has been shrouded in more or less obscurity. Within the past six months some English poultrymen have made a thorough investigation as to the origin of this variety of the Mediterranean family, which shows that this black-and-white mottled Mediterranean came from Northern Italy.

Correspondence with the consul at Cherbourg tells that the Ancona originated through the crossing of one pure Black Italian fowl, known as the Valdado, with the barn-door mottled fowl of the district. We imagine from this that the pure Black Leghorn from Italy was introduced into Germany, crossed with the mottled, egg-producing fowl of that locality, and the result was the production of the Ancona as we now have it. The facts most interesting are the changes made in plumage marking, and the information that a rose-combed

variety of the Ancona family has been produced having the same type and characteristics as the single-combed specimens.

The color of the Ancona as now demanded is: Beak, yellow with dark shadings—a complete yellow beak undesirable; eyes, orange red; comb, face and wattles, bright red; face absolutely free from white; ear-lobes, white; shanks, yellow-mottled—the evenner the mottles the better. Plumage the more evenly V-mottled throughout with beetle-green and white the better, provided the ground color is beetle-green. In other words, the white markings should be V-shaped, even, distinct and clear. Some of the most attractive fowls shown in recent years at the Crystal Palace Show have been the beautifully marked Anconas.

Another kind of Mediterranean is the Exchequer, recently produced in Scotland. These were introduced a year ago in England. They are said to be of great beauty and splendid laying qualities—in fact, the best winter-laying Leghorns yet produced. Their plumage is a broken black and white,—in other words, the body color white with V-shaped black markings at the end of the feathers. The appearance of the fowls show a white Ancona with black markings, that has the size, shape and general make-up of the Minorca.

Investigation shows that the new Khaki ducks resemble the Buff Orpington ducks in many ways, except that they retain considerable of the Rouen characteristics, having been produced through the crossing of Rouen and Indian Runner ducks. The Khaki duck, the Buff Orpington and the laying strain of Indian Runner, produced in Australia, have been heralded as the wonders of the world. There is no doubting the fact that the Buff Orpington makes a good general-purpose duck. Undoubtedly the Khaki will prove fully equal to the other variety. The Indian Runner seems to be the most bred of all these. Undoubtedly many of the ducks seen in this country and called Indian Runner are of the Khaki tribe, showing, as they do, the indisputable markings of the Rouen females and often the greenish head of the males. The pure Indian Runner duck should not have a single mark or blemish in its feathers; it should be pure fawn and

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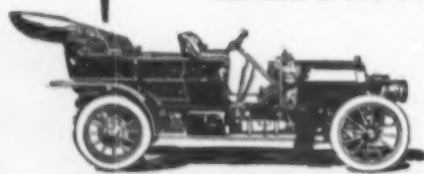
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white, with no stripes, lacing or penciling on the plumage; it should be pure, clean, unmixed fawn where the fawn occurs, and white where the plumage is white. The Indian Runner has a strikingly upright appearance. The Buff Orpington, Khaki and Rouen ducks have the downward, lean-forward carriage that furnishes a large amount of breast meat, producing the finest roasting ducks.

Leghorns also are receiving unusual attention on the other side. The Leghorns as grown in England are one and one-half to two pounds heavier than they are in this country. It is said that they do not produce as many eggs as do the smaller Leghorns of America. Australia has the same type of Leghorn. The records, as shown by the yearly tests in Australia, prove conclusively that the large-sized English type of Leghorn produces as many eggs as any other fowl yet placed in competition for a yearly demonstration.

It has been demonstrated beyond peradventure that Brahmas can be bred, fed and trained into producing almost 200 eggs a hen in a year. Plymouth Rocks and Wyandottes have done equally well.

Leghorns of the American type, the English and the Australian type, have all produced an equal number of eggs in well-authenticated tests. Orpingtons and Langshans have come into line, a few of them with equally good egg records, proving beyond question that breed or variety, size or weight, has very little to do with the matter in comparison to selection, mating and feeding. —*The Country Gentleman.*

A GOOD HOT-BED

TO make a hot-bed select a protected site with a southern exposure. Excavate the soil to the depth of a foot, the place being well drained, and free from incoming water. Line the inside with boards, and extend the frame about a foot above in front, and two feet at the rear. Into this put well-mixed manure from the horse-stable, till within a few inches of the top in front, treading it firmly and watering it till fairly moistened; then put on a layer of soil. Now cover the frame with a sash, with the glass lapped so as to turn the water, the sash sloping toward the south or east, and so

arranged that it can be lifted for ventilation. After standing for a few days, until the rank heat from the manure decreases, put on an additional layer of sifted soil, such as woods earth, that will not bake when moistened. Level and press this firmly, then sow the seeds, and after placing a piece of cheese-cloth over the soil, water over the cloth with a fine rose until the soil is moderately saturated. Place the sash on, and if cold, cloudy days or severe nights come, throw a mat or old carpet over. If the sun shines brightly ventilate or shade, or both. Avoid too much heat inside, and avoid watering too liberally, to prevent damping off. Sometimes big fungous plants (toadstools) will push up and spoil the bed. To prevent this put some old wire mosquito netting in the unsifted soil, say an inch above the manure. Start your seeds about the time the early red-flowering maple buds swell and begin to show their red color.—*Park's Floral Magazine.*

ITEMS FROM AUTOMOBILE TOPICS

"The American people are too poor to build good roads, but in the course of a few years they pay the price of a good road several times over in repair of their vehicles," a wealthy Milwaukee man is quoted as saying.

Acid can be prevented from leaking out of the vents of accumulators by various forms of valve vents and by care in properly fixing the accumulator in the car. The acid can also be made unspillable by making it into a jelly with silicate of soda, but this reduces the capacity in time.

The Zust car of the New York-Paris race was burned between London and Folkestone, following a *panne*. After being towed to Bromley Station, it caught fire while the gasoline tank was being emptied, and, through a resulting explosion, which injured the mechanic so badly that he had to be sent to the hospital, was damaged beyond repair.

Moving the steering wheel while the car is at rest tends to unduly strain the joints between the wheel and the front road wheels. Of course, there may be times when it is difficult to avoid moving the steering gear while the car is at rest, especially when turning in narrow roads;

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WEBS FRESH FROM THE LOOMS
METAL PARTS HEAVY NICKEL PLATE
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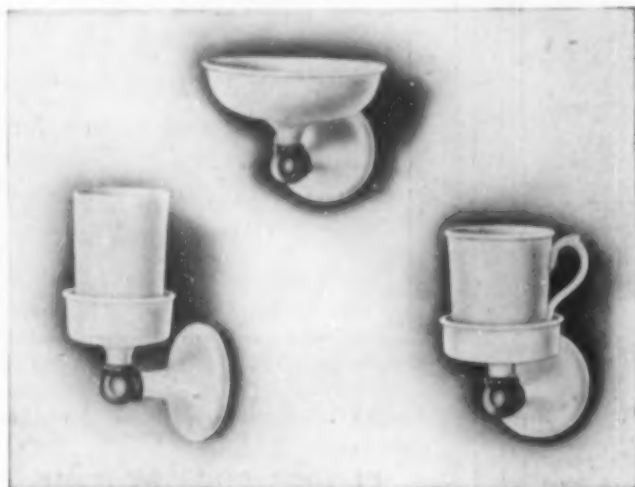


Plate 1610-K

Plate 1620-K

Plate 1615-K

PRICES:—No. 1610-K, China Bracket, China Receptor, China Tooth Brush Vase with heavy Nickel Plated Brass connection, complete..... \$3.00
No. 1615-K, China Bracket with China Receptor and China Drinking Cup with heavy Nickel Plated Brass connection, complete..... 3.00
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They are also reasonable in price and are absolutely the most sanitary fixtures made.

but as far as possible the rule should be adhered to, of never forcing round the steering until the road wheels are moving.

FAIRY LILY

THIS is the common name for *Amaryllis Atamasco*, which has long, narrow leaves, and bears an exquisite, tubular flower upon a stem six or seven inches high. They stand erect and are of a rose-pink with yellow center. The bulbs are about the size of a small paper-white narcissus, and a row of them set in the garden will show a fine lot of pretty flowers throughout the summer and autumn. They are also excellent as window flowers when potted in the fall or winter. Their culture is simple, and the most inexperienced gardener succeeds with them. In the South they can remain in the ground from season to season, but at the North the bulbs must be lifted, dried and stored away as you would store gladioli bulbs.—*Park's Floral Guide*.

CARING FOR HOUSE FERNS

FERNS generally do well in north windows, as they want plenty of light and air, but do not require the direct rays of the sun. In their natural condition they usually grow in the shade, in spongy, well-drained and well-fertilized soil (leaf mold), which is always supplied with sufficient moisture. Imitate the natural conditions as nearly as possible, and you will have more success with your indoor gardening.—*Farm and Home*.

PLAN FOREST CONSERVATION

AT a conference of forty experts representing Michigan, Wisconsin and Minnesota, recently held in Madison, Wis., resolutions were adopted for procuring uniform legislation for forest conservation in the three states. The plan provides for compulsory burning of debris within a year after timber has been cut, for state forest patrol during dry periods, for fire wardens and a special tax on land benefited to defray expense of protection. A law will also be asked for prosecution of persons guilty of negligently setting forest fires in forest districts during dry periods. The rate of taxation will be about two cents per



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acre of land benefited. Members of forestry commission and State foresters of three States attended the conference. Charles W. Garfield of Grand Rapids, Mich., was elected president.—*Orange Judd Farmer*.

THE BOSTON IVY

THE Kansas City Star, speaking of the *Ampelopsis Veitchii*, often called "Boston ivy," notes that the ancestral vine is growing in a corner of the National Botanic Garden at Washington, D. C. Supt. Wm. R. Smith obtained it fifty years ago as a small cutting from Slough, Buckinghamshire, England.

Packages of its seed are sent out from year to year under frank of the congressmen to their constituents. It is estimated that four million of these packages have been sent out in the past half century. Dissemination of the seed is now in charge of Assistant Superintendent John Clark. — *The Country Gentleman*.

PASTEURIZING MILK

IN order to keep bacteria out of milk, keep the dirt out, say the writers. "The dirt content of different samples of milk usually increases quite uniformly with the increase in the number of bacteria, or, in other words, that the dirtiest milk is usually highest in germs. Consequently, the germ content of milk may be used as an indication of the care used in its production."

For killing bacteria, heat is the only agency permissible, as any substance which will destroy all of the germs present in milk will destroy the usefulness of the milk as food. Sterilization, which means heating milk to such a temperature that all germs and spores (seeds) are destroyed, is seldom employed on account of the high temperature required and the fact that milk so treated has a boiled or cooked taste and is changed in color, due to the burning of the milk sugar. Pasteurization means heating to such a temperature, usually about 158 degrees F., that most of the germs including disease germs, are destroyed.

The milk is afterwards cooled rapidly. Such a process insures milk practically free from germs, and at the same time gives milk which is palatable and digesti-

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—made with unerring machinery and backed up by a reputation of 35 years standing.

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ble. This method of killing bacteria is now followed quite extensively in many places, and is probably the safest way to treat the milk as ordinarily supplied for household use.

Sanitary or certified milk is to be preferred, but in many cases the price of such milk makes it prohibitive for the ordinary household.—*Farm Press*.

POTTING SOIL

WHEN begonias and geraniums are grown in stiff, tenacious soil the drainage is liable to clog, causing the leaves to drop and the plants to assume a sickly appearance. To avoid this use potting soil made up of half-rotted sods, manure and sharp sand, about equal parts. Such soil will be porous and with a layer of charcoal or potsherds at the bottom of the pots, covered with a little sphagnum moss before filling in the soil, you will be assured of good drainage, which will overcome many evils that result from stagnant soil. The compost heap should be prepared in summer. All refuse leaves and sods and seedless weeds should be added to it, together with the scrapings of walks. After lying in a heap for a few weeks you will be surprised at the loose, rich material you have for potting use and wonder that you were not previously aware of its value.—*Park's Floral Magazine*.

DO TREES INCREASE THE RAINFALL

THE opinion is very prevalent that the relation is close between the presence or absence of trees and rainfall. It may be that such is the fact, but the evidence is not so clear on the whole on this question as could be desired. Take, for instance, the story told by the weather records kept at Bismarck, N. D. For the ten years commencing with and including 1875, the annual precipitation was six inches more than it was during the ten years following. During the first period almost none of the soil had been broken up. During the second period, quite a proportion had been broken up. The trees in the locality were about the same as during the first period. During the third period the trees had increased through the planting of groves and yet the average increase in the rainfall was only six inches.

During the first period referred to, the lakes in the Dakotas were filled to overflowing. The water in Devil's lake at

House and Garden

that time came up to the site of the present town. The water in the lake bed is now at least five miles from the town. Is it not easily supposable that a period may come again when the rainfall will again be as great as it was in the ten-year period commencing with 1875. If this were to happen, doubtless Devil's lake would fill its banks again.

The same line of reasoning may be applied to Minnesota. In 1894 and one or two of the years following, the weather was so dry that many of the shallow lakes went dry. On every hand the statements were made that dry seasons had come because the Minnesota forests were being cut away. But what happened? During seasons following these lakes refilled. The present season the greatest flood took place in the Minnesota and Mississippi rivers that has occurred for many a day. It is well to look for further data with reference to the relation between forests and rainfall.

—Orange Judd Farmer.

POINSETTIA

POINSETTIA can be readily grown from cuttings taken with a heel or portion of the old wood. It also starts well from seeds sown in a soil of loam and leaf-mould, covering a half inch deep, the box or pot kept in a rather warm place and moderately watered until germination takes place. The seeds are usually about three weeks in starting.—*Park's Floral Guide.*

GIFTS TO THE METROPOLITAN MUSEUM OF ART

THE Frederick Cooper Hewitt bequest of \$1,500,000 to the Metropolitan Museum of Art which is also made the residuary legatee, ranks second only to the Rogers donation. It was equally unexpected, for while he was known as a collector of paintings of the Barbizon and contemporary modern schools, his interest in New York's art museum had been as undemonstrative as that of the wealthy locomotive manufacturer.

The income from the Rogers fund is restricted to the purchase of new acquisitions. The exact conditions of the Hewitt bequest have not been published, but presumably the income will be used for the same purpose. With the regular revenues from all these millions at their



A Garden of Hardy Flowers Three Months After We Planted It.
WRITE FOR OUR BOOK PLANTS AND PLANS FOR BEAUTIFUL SURROUNDINGS
It is full of invaluable information, illustrations of flowers and beautiful lawns. It shows how the modest as well as the most extensive grounds can easily be made charming and attractive. There is nothing more pleasing and delightful to cultured taste than artistic and properly planted grounds. We grow and import all of the choicest hardy plants, shrubs, trees, box and bay trees for creating beautiful landscape effects in formal or natural landscape gardening. Write now, lest you forget. It is free.
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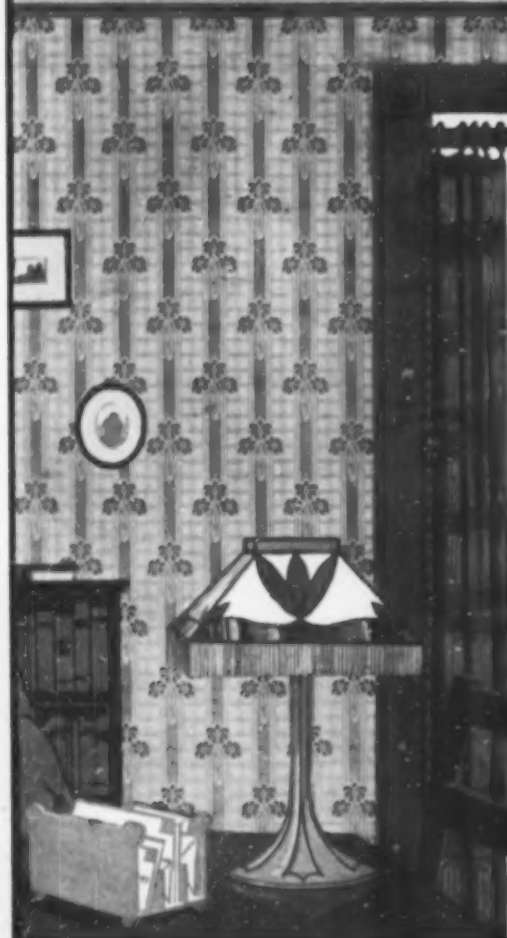
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Its use is an investment that saves expense. It will end forever your lubrication troubles, and add to your pleasure and the life of your car.

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disposal the trustees will be most advantageously situated in extending the various collections along lines where they are most lacking. The great progress made in this direction during the last two years under Sir Casper Purdon Clarke's management is familiar to those accustomed to visiting the rooms where the new acquisitions are temporarily exhibited and following the monthly bulletins.

At the same time never before have private collectors done so much toward enriching the galleries either with paintings such as George A. Hearn's gifts, or carvings, tapestries and ecclesiastical art works such as J. Pierpont Morgan's many additions. The good fortune of the museum in being provided with a large supply of ready money for purchases has rather encouraged than checked the flow of private donations.

This rapid growth in the museum's accumulation of valuable works has been accompanied by a steady increase in popular interest. The annual attendance is now almost 1,000,000 visitors. Special attractions such as the Saint-Gaudens memorial exhibition and the Hoentschel collection now on view have had much to do with stimulating the kind of public support which is the best reward individual benefactors like Mr. Rogers and Mr. Hewitt could have desired.—*Exchange.*

USE SAWDUST IN MORTAR

SAWDUST is now sometimes used in mortar, where it forms an excellent substitute for sand. In some localities it is impossible to obtain good, clear, sharp sand suitable for use in the composition of mortar. The latter has the advantage of being lighter, and renders the mortar not only easier for the laborers to carry, but, being only one-half the weight of that mixed with sand, is much better for ceiling, as it is less apt to fall off. Mortar made of quicklime and sawdust in place of sand, and mixed with a proper proportion of cement, makes an excellent mortar for brick or stone work. Sawdust enters largely into the patent plasters.

By the use of these new inventions in plaster rapid building is greatly facilitated, as there is no waiting for mortar to season; the composition, being all

(Continued on page 18.)



House & Garden for April

AN OLD-FASHIONED HOUSE

THERE is always a fascination about the century-old farmhouse. In almost all of them may be found some unique treatment of design or detail. One such on the shores of Cape Cod has been restored and enlarged to meet new conditions by Harry B. Russell, Architect, who describes the methods employed in remodeling so as to preserve the original exterior outlines of the building and retain the quaintness of its several rooms. The photographs of the interior suggest the proper environment for old mahogany and antique china, while those of the garden hint at beds of sweet william and mignonne and rows of the stately hollyhocks.

A REPORTER'S INTERVIEW

Mr. Tudor Jenks tells in verse of the assignment of a reporter to "See what Taraxacums have to say" and in a bright way tells of these "scions of an ancient race," the Dent de Lions, of their aerial voyage from a far off Land of Clover to the pleasant harbor in the lee of the Old Stone Wall. The cheerfulness of the story which he makes them relate is but a reflex of the smiling happiness these bright flowers shed in the early springtime.

SEACOAST GARDENS

Wind-swept and wave-beaten points are often the most picturesque adjuncts of seaside estates. How to make these rocky points blossom, is not easy. Our contributor's experience is wide and the suggestions may be relied upon.

EARLY POISONOUS WILD FLOWERS

The first of a series of short sketches on Poisonous Plants and Wild Flowers will appear in the April issue. Annie Oakes Huntington, who contributes this series, is a recognized authority on this and kindred subjects. The series will form a valuable adjunct to the libraries of all those persons who love to get close to nature.

INEXPENSIVE LITTLE HOUSES

Southern California has developed a unique form of investment for persons owning properties in that section. Helen Lukens Gaut enters into an analysis of it and presents the money-making possibilities of the practice very seductively. Climatic conditions make the form of house construction described possible and the influx of visitors keeps the demand always in advance of the supply.

GENEALOGIES FOUND IN A GARDEN

Strange relationships exist between many plants, shrubs and trees of our gardens. Marie von Tschudi traces some curious "family trees" of nature's social fabric.

BUYING TREES

Mr. L. J. Doogue gives some very practical advice upon the selection of trees. Of the kind *not* to buy he gives warning. He tells also the proper quality to purchase, the price to pay, how to plant and care for them.

THE PERFUME GARDEN

If the eye fails to appreciate the color combinations of a flower garden their fragrance can scarcely fail to charm and fascinate. Evelyn Prince Cahoon gives a list of flowers the odors of which are most agreeable and which will appeal to the most sensitive nerves.

THE WAR AGAINST UGLINESS

In the work of beautifying surroundings, by a municipality, a corporation or a private individual, plant life furnishes the most readily available means for the purpose, producing the finest effects with least expenditure of time, labor or money. Eva Ryman-Gaillard discusses the subject with much intelligence and illustrates her text with interesting photographs.

A NATIONAL APPLE EXHIBITION

A unique exhibit of *apples* with entries not only from nearly every State in the Union, but from England, British Columbia, Japan and Norway, was recently held at Spokane, Washington. It is probably the first time that carload lots of fruit were entered in competition. Mr. August Wolf writes of the salient features, and photographs are reproduced, showing some of the prize exhibits.

APPEARANCE OF THE CAR

Fred D. Taylor gives some good advice relative to the care, handling and embellishing of an automobile.

THE ROSE—ITS CARE AND CULTURE

Under the above caption Mr. Eben E. Rexford gives valuable and timely advice to amateur growers of this most noble flower. His explicit directions are so worded that success must follow their complete observance.

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The colors are permanent, and do not rub off; they give that artistic soft velvety effect.

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Send us an outline of your rooms, whether they are apartment, dwelling, office or church, and we will send you a correct color scheme free. Give the trim of your woodwork—the kind of a building and the number of windows as well as the dimensions of the rooms. Whatever the building, whether public or private, large or small, Alabastine will give a better colored wall at a less expense for maintenance than any other material.

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Send to-day for free wall and ceiling designs done in Alabastine and for color card and name of dealer in your town.

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prepared, has only to be mixed with water, when it is ready for use. There is also no delay in waiting for the plaster to dry, as it dries immediately and soon becomes as hard as stone; the plasterer can, therefore, be directly followed by the inside finishers.

Previous to the introduction of the new varieties of plaster came improvements in the styles of lathing, and there are now many excellent kinds of metal lathing upon the market, each laying claim to some special advantage over all others.

With the new styles of plaster and metal lathing and by encasing floor beams and posts in fireproof cement, and filling all interstices between walls and floors with "mineral wool," it is possible to-day to make even a frame house practically fireproof; particularly if in addition to other precautions the roof be of slate or metal, preferably the latter, as slate is apt to crack and break if subjected to intense heat.

The above should be taken with several grains of salt. Perhaps there are places where it can be used advantageously. It is lighter, but, take it all around, old-fashioned mortar of good lime and absolutely clean sand, mixed in proper proportions and tempered with age, is a first-class mixture.—*Western Architect and Builder.*

"OLD DRURY"

THE rebuilding of Drury Lane Theater after the fire was recently completed. The new stage, which is said to have cost £20,000, is 100 feet wide, 100 feet deep and 100 feet high—nearly half as large again as the old structure. The Drury Lane floor has used up 10,000 feet of teak, specially imported from Burmah. The new roof is twenty feet higher than its predecessor, and is constructed of steel trusses ten feet high and ninety feet long. A glass roof surmounting the "grid" avoids the necessity of artificial light for the day work. The old timber roof has stood for a century, and was as sound at the end as at the beginning. An improved electric lighting installation gives an illumination equal to 150,000 candle power. Fly galleries, from which the scenery is worked, have a total length of 150 feet, and are constructed of steel. The limelight galleries are nearly 200 feet long.—*Canadian Architect.*

TRANSPLANTING TREES AT NIGHT

IT has long been known that budding trees, when transplanted in the evening, are more likely to thrive than those moved in the daytime, says "The Garden." A French expert has gone a step further and claims that distinctly beneficial results follow the transplanting in the dead of night.

Budding trees or plants of any kind in leaf are better set in the evening than at any other hour of the day, because there is less transpiration in darkness than in light; and if given water when transplanted there is some recovery from the check, which always follows a transplanting, before daylight returns. Vegetable growers are aware of this as well as florists, and all who have to do with transplanting seedlings while in their growing state. This is why the shading of plants is called for. The greater the light, the greater the loss of moisture, hence the utility of transplanting in the evening allowing of some recuperation of the plants during the time of darkness.

As to the "expert's" hour of midnight for the work, the hour of sunset would be the choice of those who have had to do with such things. Such work done then, with plenty of water given to the plants, would be the very best time of the day for the operation.—*Florists' Exchange.*

JAPANESE CARPENTERING

NEARLY all the customs and methods of the Western world are reversed by the Chinese. This is a matter of world-wide notoriety, and has been the cause of no end of wonder and mild amusement. Few, however, understand that the same peculiarity, though to a less marked extent, is found in the Japanese, something scarcely to be expected when one remembers the remarkable advancement scored by them during the past half century.

The modes pursued by the Japanese carpenter are being practically illustrated at the Commercial Museum, in Philadelphia, where a Jap has been installed, and attracts much attention by the peculiar manner in which he employs the plane, ax, adze and other ordinary carpenter's tools. His methods are those universally employed by his countrymen, who, for the most part, work with tools that reverse the operation of those employed in this country and Europe. He draws a plane toward

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him instead of pushing it from him, chips upward instead of downward with an axe, and uses a saw by drawing it towards him. He does remarkably good work and quite as rapidly as though employing our methods. He has had many arguments with American carpenters, stoutly maintaining that his modes are natural, correct and effective. Recently he was forced to secure some new tools, and, there being none of Japanese make for sale in this country, was compelled to purchase those made in Philadelphia, a city famous for its saws.

Our saws are the best in the world—so we say and think—but not for the Jap, who could do nothing with them. He, however, demonstrated that those of his nation are not, as is generally believed, mere imitations, intimating that the Japanese possessed no powers of invention. He adapted the saws to Oriental modes by removing the handles and attaching them to the other end of the blade, and went cheerfully to work, drawing the saw towards him. With this change made, he willingly conceded that American saws were a fairly good substitute for those made in Japan.—*American Contractor*.

GROWING LILACS FOR FORCING

THE French and German florists grow lilacs extensively for forcing into bloom in winter. Formerly the Germans imported their stock from France, but finding they could grow the plants just as well, they turned their attention to the work, and now grow their own, as well as many plants for export. The plants are placed in forcing houses the latter part of November to bloom during the holidays. One German florist makes a specialty of forcing lilacs, and annually flowers over 100,000 plants. — *Park's Floral Guide*.

WOOD STILL PRINCIPAL MATERIAL USED IN BUILDING

GREAT as the advance in fire-proof construction has been during the last ten years, there has been no let up in the use of lumber, and both architects and builders find themselves so dependent on wood to-day that they are compelled to admit that the forests of the country are likely to be the chief source of building material for many years to come.

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In towns and small cities wood is usually the predominating building material, and it is safe to say that if the statistics had included figures for all places of whatever size, the percentage of wooden construction would have been much greater. These figures, as a rule, are only for the corporate limits, and the suburbs of these cities have each very large amounts to be added. The cost, also, is relatively higher in these cities than in towns nearer the base of the supply.—*Government Report.*

A VERY good illustration of waste is the pall of black smoke which overhangs Montreal, which is a disgrace to modern civilization; there is no necessity for it, and the coal should be burned under such conditions that there would be no smoke, and then we should get the heat without all that waste.

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McCLURE'S FOR APRIL



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CLEVELAND'S OPINIONS OF MEN

By GEORGE F. PARKER

In this article are set forth at length Cleveland's opinions of some of his great contemporaries, among them:

**J. PIERPONT MORGAN
THEODORE ROOSEVELT
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**JAMES J. HILL
THOMAS F. BAYARD
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Cleveland's account of his conference with J. P. Morgan in reference to the Government's bond issue is a strikingly forceful and dramatic picture—a vivid glimpse of unwritten history.

YOUNG CLEVELAND AS A TEACHER IN THE BLIND INSTITUTE

A letter from Fanny Crosby, the



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J. PIERPONT MORGAN

blind hymn-writer, describes her acquaintance with Cleveland, when, as a boy of seventeen, he became one of her fellow teachers in the New York Institution for the Blind.

GROVER CLEVELAND AS A LAWYER

An estimate by Wilson S. Bissell, Cleveland's former law partner in Buffalo.

Some years ago Professor Chandler, of London, took up the question and estimated that in the smoke that overhung London there were something like fifty tons of solid carbon and 250 tons of carbon in the form of various gases, and said a smoke committee had investigated the matter, establishing the actual value of the waste at \$10,000,000, which, with the expense and damage resulting from the nuisance, brought the total waste to some \$20,000,000, and, in a lesser degree we have the same thing to contend with here. (Dr. Harrington, McGill University, lecturing on "Waste.")—Contract Record, Toronto, Canada.

We all believe that "black smoke is waste," and also "that coal should be burned under such conditions that there would be no smoke." But give us a reasonable method, that the ordinary man can run and that will justify itself on economic lines.—*Western Architect and Builder*.

MORE AND BETTER FARM TOOLS

It is now being generally admitted that the best solution of the help problem is the use of more and better farm machinery. A good tool greatly increases the amount of work which a man can do, and the interest on the investment in these tools, as well as cost of deterioration and repairs, is often less than the cost of an extra hand.—*New England Homestead*.

JAPANESE CEMENT

A JAPANESE company is promoting the use of volcanic ash in combination with Portland cement, especially for construction of work in salt water. The advantages claimed for this volcanic ash are that in combination with Portland cement it gives a greater tensile strength than cement mortar alone. It is also claimed that the mortar is denser than cement mortar, and does not permit the percolation of water, thus obviating the injurious action of sea water salts. This density gives it a superior quality for construction of water reservoirs and reinforced concrete for the protection of iron from oxidation.

If the Japanese cement has the advantages claimed for it, it is a valuable asset. It seems to have properties that will fill a long-felt want in the lines of cement.—*Western Architect and Builder*.

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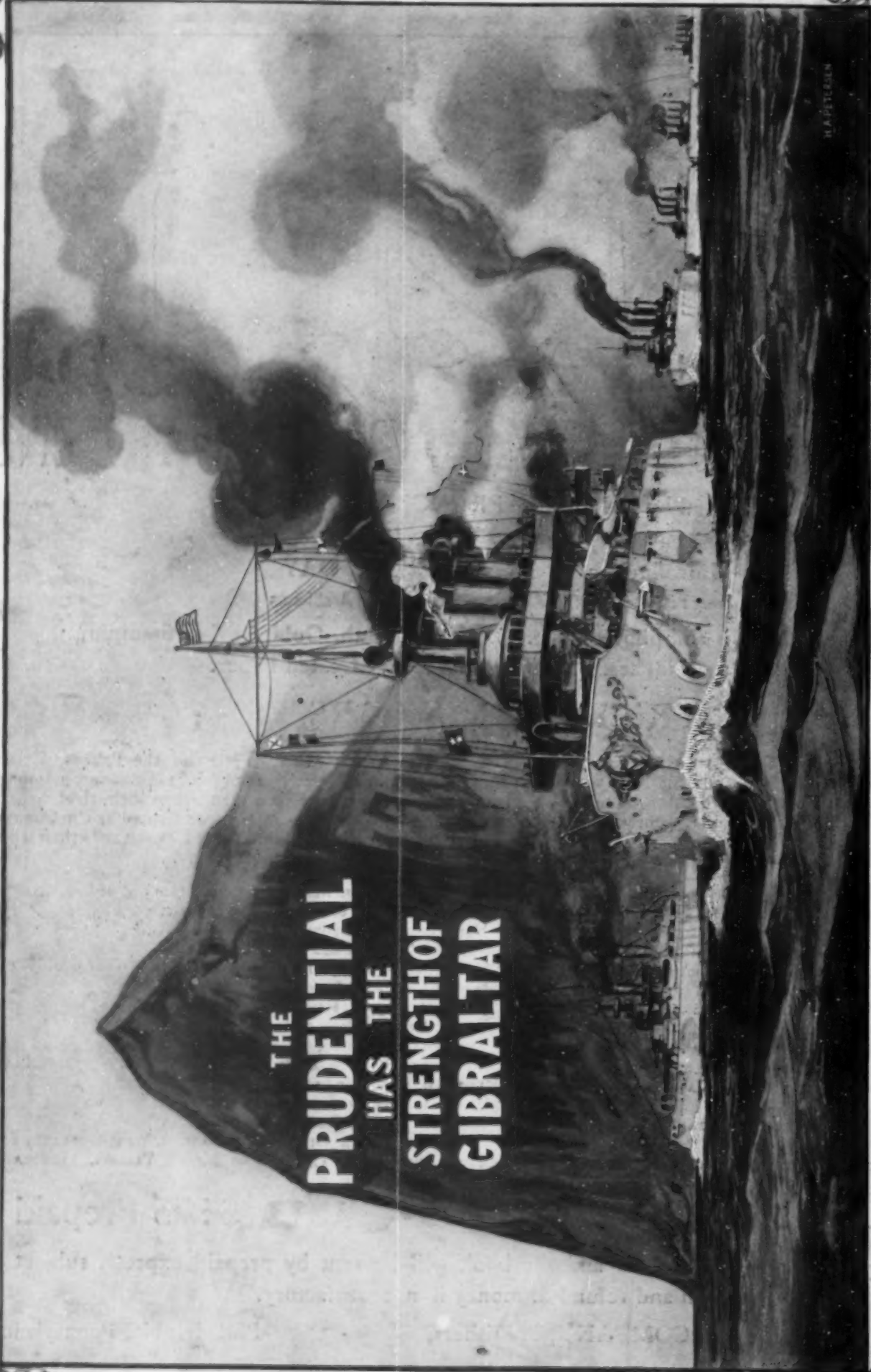
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