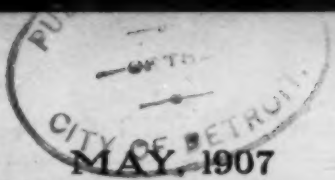


Some American and English Gardens
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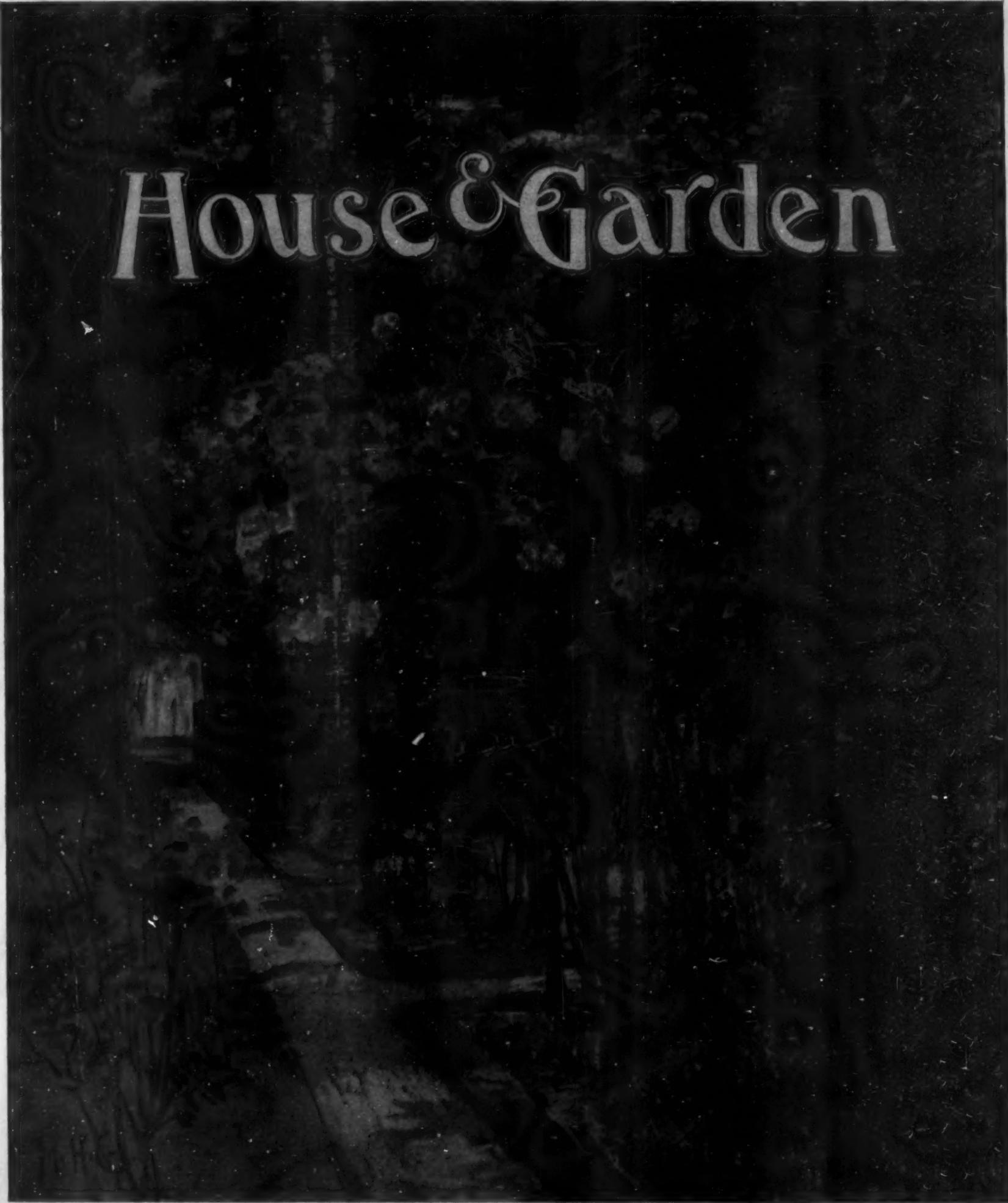
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Vol. XI

No. 5

House & Garden



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House and Garden

NOTES AND REVIEWS

MARKET PRICE FOR HORSERADISH SEED

Luther Burbank, the Plant Wizard of the West, Needs it in his Business, but the Supply is far Under even this Extremely Modest Demand

LUTHER Burbank, the plant wizard of the Golden West, has offered \$1,000 to any man who will bring him an ounce of horseradish seed. This remarkable offer was made while Mr. Burbank was delivering a lecture on plant evolution at the Stanford University at San Francisco, Cal. He said he had spent ten years in fruitless effort to cultivate the seed.

Inquiry among some of the New York florists and plant breeders disclosed the fact that horseradish seed is an unknown quantity. Like the egg and the chick, nobody seems to know which started first, the root or the germ.

Hundreds of tons of horseradish are devoured every year by New Yorkers, and hardly one out of the countless many who use it as a relish know that if some unseen force would suddenly destroy all the horseradishes there would be no more horseradish sauce.

Mr. Burbank has spent considerable time and money in trying to cultivate the seed. He has succeeded in growing blue roses and producing apples of peculiar color and taste, with one-half red and sweet, and the other half yellow and sour, and many other strange feats in plant development, but vulgarly speaking, he is "up against it" in trying to get at the primitive source of the horseradish.

There are many hundreds of acres around New York City where horseradish is grown for market consumption. The roots are planted between the rows of cabbage or beets, as a rule, and there are two crops every season—in the early summer and late fall. The root was first brought to this country from England, where it is a native, and where it

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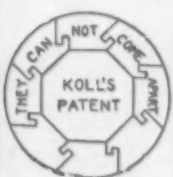
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was used hundreds of years ago in stimulating the digestion of a long line of kings and queens.

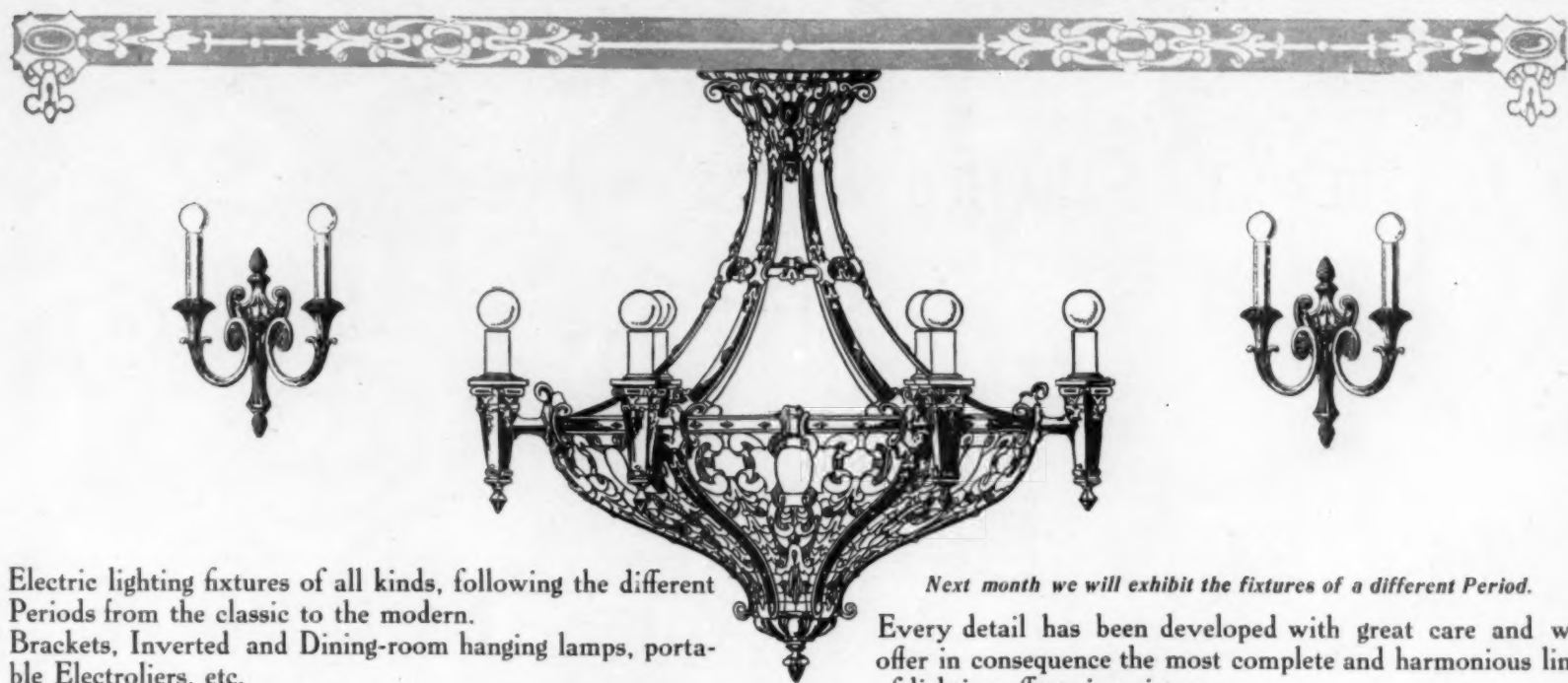
The form of propagation is simple enough when it is known. When the root has grown to its marketable size it is pulled from the ground. The main root is filled with small roots and these are taken off for the purpose of planting. These rootlets are tied up in sets and stored away in sand for future use. Care has to be taken, however, to cut a notch in the top of the rootlets so they will not be planted upside down. One farmer forgot to do this once upon a time, it is said, and he spent all summer looking for his horseradishes. Investigation revealed that they had all grown the other way.

Mr. Burbank will not give up his efforts to cultivate the seed, and some day the world may be amazed to hear that the wizard has touched his wand to the radish and caused seed to fall. Of course the world may be just as startled to learn that there never was any horseradish seed, but the \$1,000 is waiting the man who will produce it and produce it quick.—*New York World*.

AN ENTIRE ROMAN HOUSE DUG UP

ROME is really an inexhaustible mine to the lover of antiquity. Almost every day, new discoveries are announced while almost any spot repays excavation. Lately, in Via della Sette Sale, near the Colosseum, and next to the ruins of the Baths of Titus, while digging was being carried on at some foundations, there came to light, at the depth of twenty-six feet, an entire Roman house with black and white mosaic floors, and with some remains of the subdued polychrome decoration for which the house of Livia on the Palatine is celebrated. The walls are frescoed with garlands of flowers, with cocks in the center. It seems to be the remains of a residence of the *Præfectus urbis*, the situation of which corresponds to the locality in which the ruins have been discovered. Almost at the same time, in the vicinity of the Piazza della Carrette, near the Roman Forum, there have been unearthed, sixteen feet deep, some private baths of considerable extent, with passages paved with large pieces of basalt, similar to those of the antique Via Sacra. — *London Daily News*.

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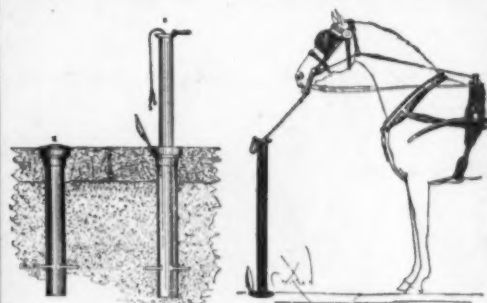
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"ASHLAND"

THE leading article in the June Number of HOUSE AND GARDEN is from the pen of Mary Hodges. The writer deals delightfully with her subject, "ASHLAND PAST AND PRESENT," once the home of Kentucky's greatest statesman, Henry Clay, and now occupied by his direct descendants. The views of the house, as it was in the days of Mr. Clay and as it is at the present time, are extremely interesting, for to-day as in the long past, "Ashland" stands as a type of all that is best in a Kentucky blue-grass estate and home.

PLANTING AND CARE OF THE ROSE

There are few house gardens where the rose is not in pronounced evidence. Mr. John W. Hall sets forth in a brief way very explicit instructions upon their planting and care. The detail entered into by him makes success certain, if his suggestions are observed.

FURNISHING HOUSES OF MODERATE COST

The June number will contain the first of the promised series, "SUITABLE AND CHARACTERISTIC FURNISHING OF HOUSES OF MODERATE COST."

This article by Kate Greenleaf Locke deals with "FURNISHING AND DECORATING HOUSES OF MODERATE COST IN AMERICA." It will be found full of suggestions to the man or woman who is determining upon the style of architecture for the new home and the suitable decoration and furnishing of it on moderate lines.

The French House will be treated of in the July issue by one entirely familiar with the subject, and fully illustrated.

This to be followed in the succeeding number by an account of the actual fitting up of a quaint English cottage by an English lady. This will be found full of clever and attractive ideas practically executed.

SOME COUNTRY CLUBS ABOUT BOSTON

THE COUNTRY CLUBS about Boston are entertainingly talked of and illustrated in the article by Livingston Wright. The fact that Boston may claim the first Country Club in America is brought out in this article.

GARDEN PLANS

The proper placement and selection of the trees and shrubs around the detached house in the suburban town, with reference to their flowering succession, habits of growth and general characteristics, are outlined by Elizabeth H. Fairley. She presents typical plans, with lists of varieties, and schedules of the number and cost of plants to complete the schemes as laid out, which will prove useful to the home-builder who is entering upon that feature of his investment.

THE PICTURE QUALITY IN ENGLISH COTTAGES

"THE PICTURE QUALITY IN ENGLISH COTTAGES" is delightfully written of by Millicent Olmsted. The fascination of it fills one with the desire to traverse the charmingly described lanes and by-ways. The reproductions of photographs accompanying, fully illustrate the subject.

THE POSSIBILITY OF THE PLASTER CAST

"THE POSSIBILITY OF THE PLASTER CAST AS A DECORATIVE FACTOR" is interestingly handled by George B. Mitchell in a paper under that title. How to stain and finish in wax, what colors to choose for the widely differing subjects is told with practical directions for application. The uses to which Mr. Mitchell has put the quaint little gargoyles in making them seem to be a part of the wood finish of his home is an idea as new as it is clever.

QUAINT HOUSES OF THE SOUTH

Close upon the banks of the James River in that section of the country where the earliest Colonial history was made, stands the famous mansion of "WESTOVER" the manor house of the estate of Colonel Byrd.

This old house, planned and built early in the eighteenth century, is a charming example of the architecture of the period. The lines are simple, the proportions well balanced and the detail refined and dignified.

Mr. Day Allen Willey in his description of the estate weaves in such historical facts as form an inseparable part of its existence, and supplies illustrations which prove that our forebears enjoyed quite as many of the luxuries of life at that early period as the majority of us do at the present time.

THE SMALL HOUSE WHICH IS GOOD

To the above series Mr. A. G. Richardson of Boston, Mass., contributes a most pleasing description of a new Colonial House he has recently completed in Salem, Mass., the home of much that has claim to relationship with the early New England Colonial period. The opportunities for comparison are therefore plentiful and his design does not suffer by such a test.

Mr. George T. Pearson of Philadelphia, Pa., shows a charming cottage built in a New Jersey village. The "home feeling" seems to be written all over it and the plans indicate a house designed for refined comfort.

MY JULY GARDEN

Under the above title May Ellis Nichols describes a garden venture, where late planting under ordinary conditions would certainly have spelled failure. By overcoming the existing drawbacks and bringing intelligence into the situation, her success was pronounced.

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House and Garden

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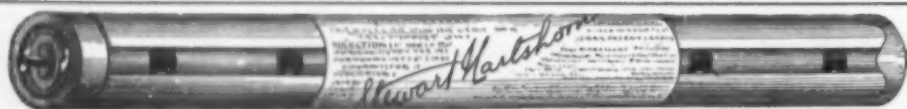
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THE SMALLEST CHURCH IN ENGLAND

WHILE abroad, Rev. Dr. Lyman Abbot visited the smallest church in England, at Nast Dale Head. And the parson's wife gave him some facts about the church which Dr. Abbot labels "important if true," such as that the age of the church is unknown; that its endowment fund is two shillings and a bottle of wine and a loaf of bread for the communion, which carries back the age of the church, she opines, to the year 1000 at least; that the entire population of the parish is fifty-two, men, women and children, and the average attendance fifty-two; that the vicar's wife is organist and bell-ringer, and sweeps and dusts and performs in general all the Levitical functions of the temple, which is 42 x 16 feet in size; that the vicar's salary—stipend, they call it—is £65 (\$325), paid out of the missionary funds of the Established Church; that the previous vicars have been drinking men and no honor to their cloth; and that the total contributions of the worshippers in the parish amounted, for the three years of the present vicar's charge, to less than two shillings.—*New York Tribune.*

WORKMEN AS CONTRACTORS

A SYSTEM of public work that has much to commend it is that of "Co-operative Contract" in vogue in New Zealand. Under that system a public work is divided into small sections by the engineer in charge, and an estimate is made of its cost. Each section is then let out to a group of workmen, who do the work under a foreman of their own choosing, but who receives no more than his fellows. They obtain the full profit which would otherwise go to professional contractors, and they share the payment equally. Each worker is interested in seeing that his companions do their full amount of work and the sooner the job is performed the greater the return for a day's work. If any tools are needed which the men do not own, the Government supplies them at a moderate rental. The adoption of this system should provide a method whereby direct employment by the Government would be consistent with a full return for the money expended, giving to the community an advantage in the economical execution of public enterprises.—*Review of Reviews.*

House and Garden

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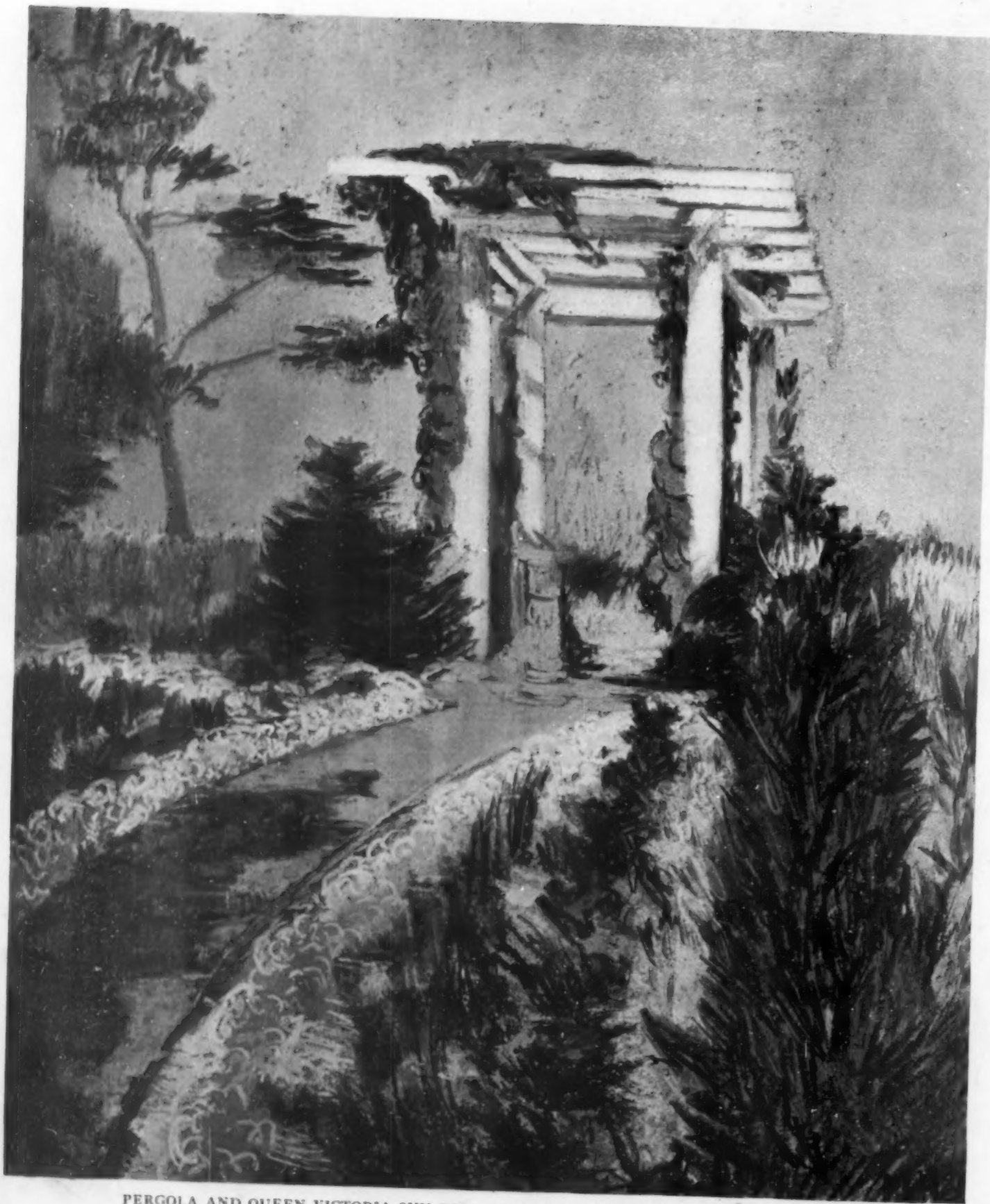
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PERGOLA AND QUEEN VICTORIA SUN-DIAL—GARDEN OF MRS. T. J. EMERY, NEWPORT

House and Garden

VOL. XI

MAY, 1907

No. 5

Some American and English Gardens

THE IMPRESSIONS OF AN ENGLISHWOMAN

ILLUSTRATIONS FROM "GARDEN PORTRAITS" BY MARY H. CARLISLE

IT seemed to the writer after a summer spent at Newport, Rhode Island, that the question of a good succession of flowering plants was the most difficult one to handle in American gardens. The Newport climate is moist for the States, and lawns are prevalent and are of almost as vivid

a green as those in the Emerald Isle. Hydrangeas do wonderfully well for the same reason, but if you comment on it, almost any resident of the place will say, "you should see my garden in June when the roses are out," and are apparently astounded when you mildly suggest that the garden should be lovely



THE ASTER WALK—GARDEN OF T. M. DAVIS, ESQ., NEWPORT

House and Garden

at every stage until the frost comes. The gardeners are often Scotch and this leads to rather a similarity of design and it is really only when the possessor knows about plants and tries experiments for him or herself that the garden carries out the English idea of being beautiful at every season. To the English mind, the fact that everything grows with such marvellous rapidity, seems a perfect delight until it is discovered that the rapidity in growth has the drawback of rapidity of maturing, as for instance, a border of Michaelmas

of *nymphæa*, from the lovely large Nile lotus to the little common wild water-lily, was entirely designed by the owner. Every stone and rock in the making of this miniature garden was placed in position at the owner's direction. She told me that her great difficulty was preventing the rocks from being overgrown; she was always pulling up and cutting out, the luxuriance of growth was so tremendous. This lady has a good gardener yet she finds it necessary to keep a daily eye on everything; dead branches of trees to be lopped off and the wounds cauterized or



THE WILD GARDEN OF MRS. C. B. ALEXANDER, TUXEDO PARK

daisies which in England would under ordinary climatic conditions remain in perfect beauty for three weeks or a month, here, is over in a week. This, of course, makes the question of proper succession much more difficult than in the older country. Also, the same rapid growth here makes an herbaceous border a hard thing to cope with as everything grows so big and it is not easy to keep things in flower near the soil; they seem to want to rush up to the sun. The most successful gardens as I have said are those in which the owner really worked. One was a rock garden with a small pond, which, in spite of its tiny size shows a variety

the fatal damp frost would mean a dead tree in the winter. This garden was rather near the sea and therefore the plants in it had to be guarded from the salt mists.

Another delightful though not a large garden is the joy of a husband and wife. Both work in it with their hands, although keeping a staff of gardeners, for, as the wife told me, every day during the rapid growth of summer, there is much that she can do herself. It was on account of their real love for their garden, that this small spot was a series of pictures all through the summer. I saw it from July to the end of October and during all that time

Some American and English Gardens



ROCK AND WATER GARDEN OF MAJOR GIBBS, NEWPORT

there was a constant succession of colour; after the roses came a mass of Dubarry pink hollyhocks behind an avenue of juniper yews, alternating with bay trees in boxes; these faced two larger borders

filled with phloxes of the right tones of pinky reds (this matter of colours no professional gardener seems able really to grasp) and white and yellow coreopsis mingled with the deep brownish red of the

House and Garden

dear old-fashioned bee-balm of Shakespeare's day. In this case a border of dwarf pink and white begonias keeps the bloom near the ground and heliotrope, or to use the old-fashioned English name "cherry pie," coming next prevented the straggling coreopsis and other growing things from breaking the formal line; later the hollyhocks were succeeded by golden glow and scarlet salvias in rather dangerous proximity, as in this case the white daisy planted to act as a buffer and break the crudity of colour failed to appear punctually. In October, masses of pink and white Japanese anemones, growing six feet high, came to again brighten the garden and these, owing to mild weather, lasted until the end of the month.

Another garden on a point of land jutting out into the sea and exposed to all the winds of heaven had never grown a thing until a relative of the owner suggested taking it in hand and it stood a beautiful proof of the ingenuity of a woman in overcoming the elements. This patient gardener planted rows of firs; as these grew they became wind-screens and on the weather side of these she grew practically everything that her neighbors in less exposed situations had produced. Winding grass paths were used here with great effect and the unexpected glimpses of colors against the dark green of the firs made delightful pictures. In England nothing would have grown so near firs, owing to lack of sufficient sunlight. The Italian garden lends itself admirably to Newport scenery as the formal borders of yews and box being so prominent a feature of the design,

possess the great advantage of looking well until late in the year. From the amateur's point of view, however, the garden growing the old-fashioned flowers is the most pleasant. There are few of these in Newport and the border where one can cut and come again exists in only a few gardens, but the resident tells the visitor that the idea is to keep the

grounds surrounding the houses as park-like as possible, and certainly there is a large assortment of trees of beautiful shape, and the hydrangeas are the great feature of the place. They are most wonderful in size, colour and variety, ranging from the lovely single Japanese, a very tender bush treated with the greatest care by the few happy possessors, through the heavy blue and pink to the *Hydrangea paniculata* which here grows into a young tree and turns from a lovely creamy white into a delicious blush rose colour, ending in a deep crimson when the frost touches it. The grass borders to the roads, which in England would be left to run wild, are here often mown and watered by the owner of the adjoining property and to the stranger the notices asking one not to ride on these shaven borders seems



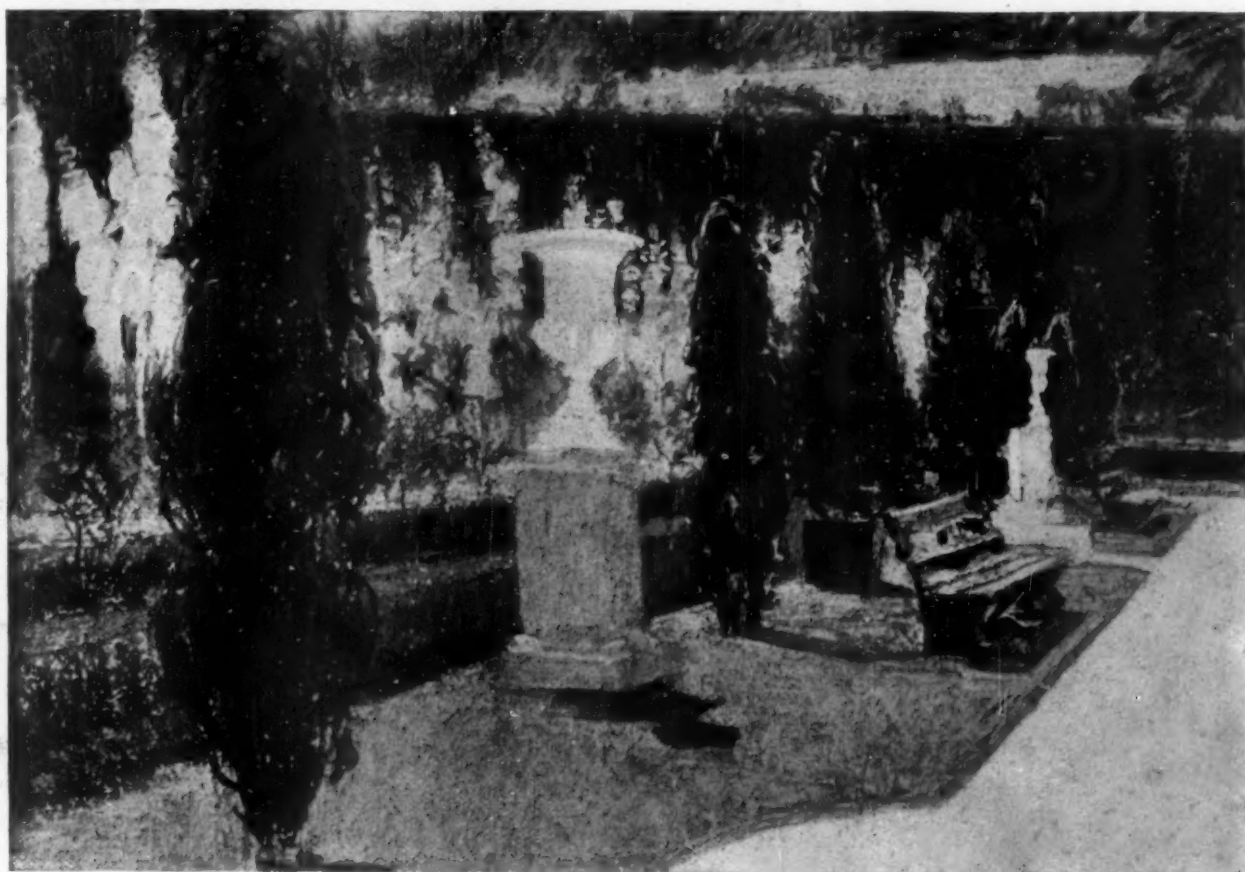
POPLAR WALK—GARDEN OF SPENCER TRASK, ESQ., SARATOGA

quaint, but on the whole the quantity of lawns and lovely growing trees, and tell it not in Gath!—the climate—of Newport suggest the older country more than any other place visited by the writer in this country.

One of the interesting small gardens of England is that of the late Augustus Hare. This is at St. Leonards on Sea, Sussex, England, but it lies back



FOUNTAIN AT "THE ELMS"—GARDEN OF E. J. BERWIND, ESQ., NEWPORT



THE YEW WALK—GARDEN OF DE LANCEY KANE, ESQ., NEWPORT

House and Garden

from the sea of which only a glimpse is caught over parks and the town. Mr. Hare was a bachelor and fond of all kinds of gardens. As he grew old and infirm he was unable to leave the house very much and he devised a miniature Italian garden which he could see and enjoy from his study window. It was built on a terrace sixty feet in length and twenty-five in width and consisted of yellow pebble paths, in the center of these stood a small, rather high fountain of carved stone, grey with age. The water from this overflowed into a larger basin raised a foot from the ground. In the basin were placed a few favorite water plants set in baskets so that they could be easily lifted and weeded. There were six beds for flowers, each surrounded by a coping of grey stone eight inches in height and varying slightly in proportion, but keeping to straight lines; contrary to the usual idea of Italian gardens these beds were a mass of colour, but only dwarf plants were used with the exception of Madonna lilies

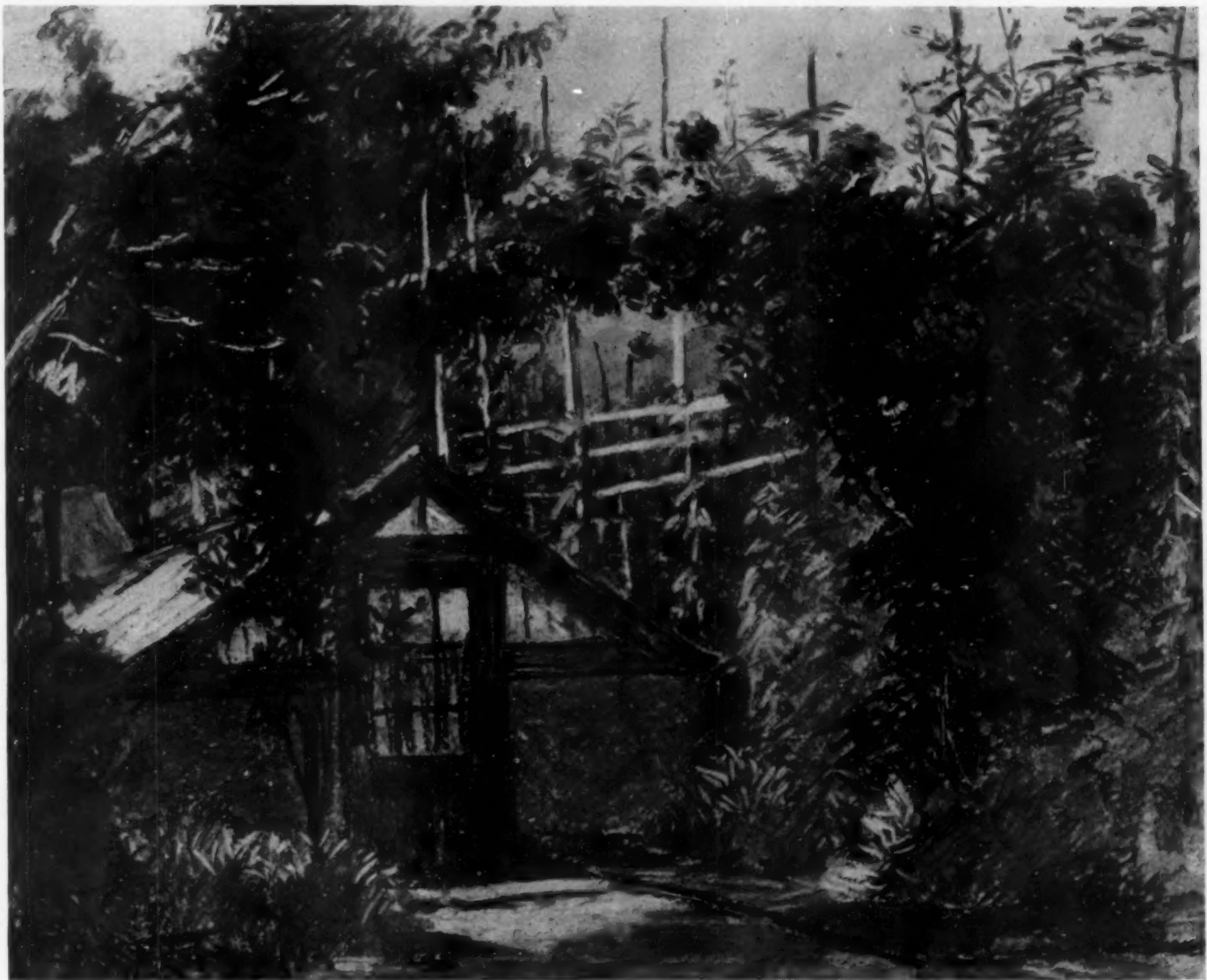
which, planted in clumps and deliciously fragrant, gave the white note so necessary and beautiful. At the corners of the beds, to give the dark accent of colour, also characteristic of these gardens, were planted small conical juniper yews and box bushes against the low balustrade of the terrace, the colour effect of this was most beautiful. The garden faced south and was the pet of its owner, who was so often unable to go beyond its small borders. He had brought all the stone pieces from Italy at different intervals and there were charming memories connected with each fragment of old coping and each small bust or figure. From the center of the south side a flight of twelve stone steps, wide and easy, and graduating outwards, led into the park. These steps had been quarried and carved on the estate and were in keeping, except in colour, with the old carving of the terrace itself.

From the west end of this sunny spot one wandered down into the Elizabethan garden; this was a great



FOXGLOVES—GARDEN OF MRS. HERBERT PELL, TUXEDO PARK

Some American and English Gardens



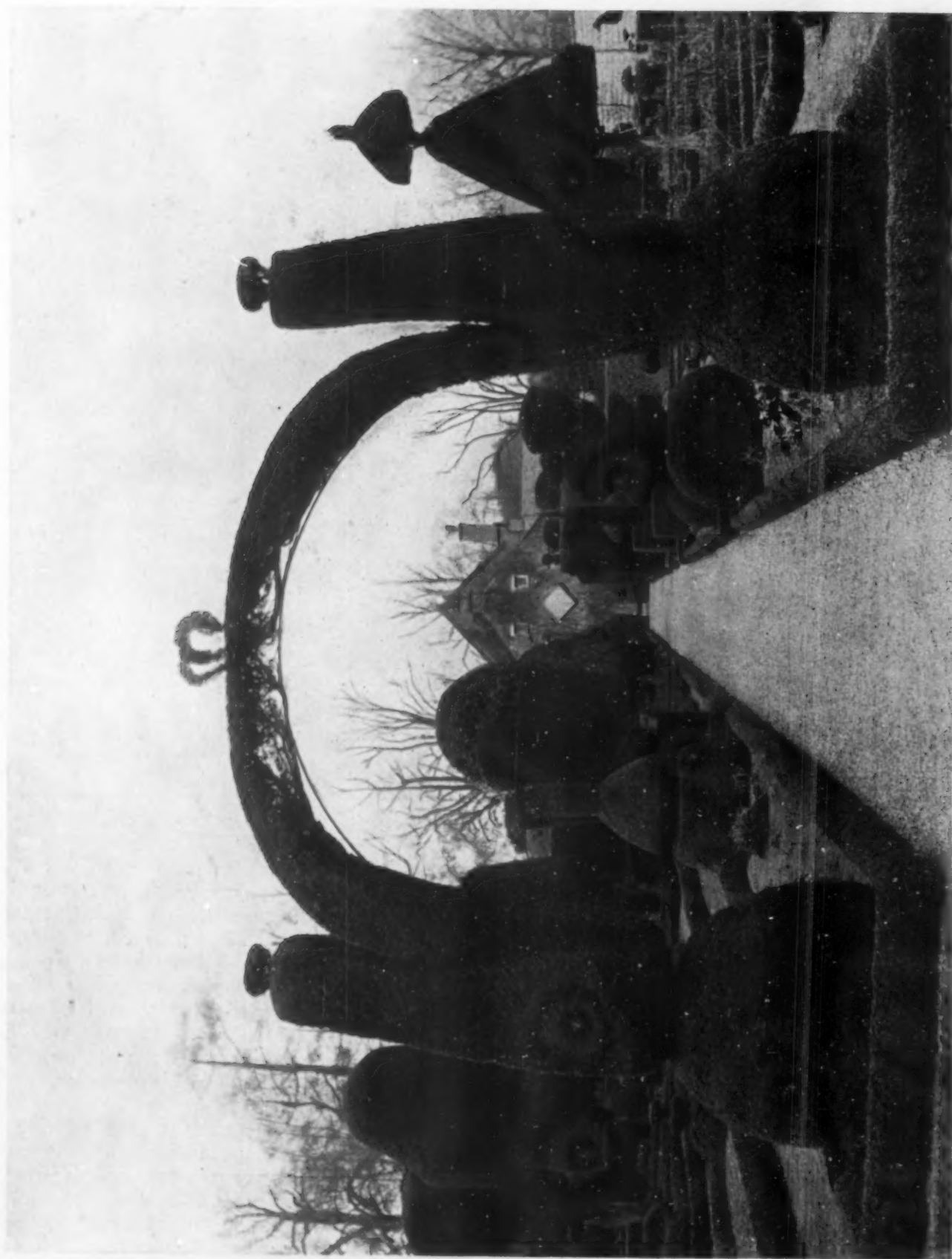
CRIMSON RAMBLER ROSES—GARDEN OF MRS. JAMES L. KERNOCHAN, NEWPORT

contrast and consisted of narrow winding paths under shady trees leading to a tiny pond. The borders here were entirely herbaceous and quite without formality except that some effort was made to keep the smaller plants near the edges of the paths. Here grew every herb known in the time of Queen Bess.

This was essentially a period when the use of herbs was considered a necessity and new ones were constantly being brought to the country. This little garden was an especial delight on a very hot day when the plants seemed to be pouring forth their scents and the drowsy bees lingered among the clumps of lavender and blue borage, and small rays of sunlight filtered through the green branches of the old apple and pear trees which made the shade in this old-fashioned place. It was interesting to find one's favorite among the many scented things, the insistent clove-pink, with ragged petals, the most conspicuous, then rosemary, rue, bee-balm, fennel, and borage, this latter planted in the sunniest spots.

There was not much colour in this garden and one realized that in the way of flower culture we have learnt much since the seventeenth century, but the quiet green and blues, with here and there the dull red of the bee-balm, were very peaceful and it was a favorite retreat of many visitors to the house and an ideal spot in which to laze away a morning with a book. Mr. Hare was very fond of birds and in spite of the protests of his gardener encouraged them to build in his grounds by every means in his power.

It is not fancy that a garden shows the individuality of the owner. One can tell at once if the place is used and enjoyed by the possessor or if it is left to others. We all know the chill experienced on entering a room which is opened on formal occasions only. The same feeling is quite as definite with gardens. There must be something more intimate, a daily knowledge, a feeling of regret at leaving, of joy on returning, to make the garden a joy forever.



LEVENS HALL—MAIN WALK FROM THE BARRISTER'S WIG

LEVENS HALL

AN OLD-WORLD GARDEN

By EDWARD THOMAS

IN the southern edge of the Western Marches, whose condition in the Middle Ages has been so graphically described by Crockett in his "Raiders" and "Men of the Moss Hagg," stands Levens Hall celebrated far and wide for its notable gardens. The river Kent flows past the Hall and through the park and five miles higher up the river is Kendal, a quaint old border town famous as the home of Kendal green in which Robin Hood and his men were clad. In Kendal castle was born Catherine Parr, the last wife of Henry VIII. Eight miles beyond Kendal is Windermere, a famous summer resort of the lake district; twenty miles to the south lies the city of Lancaster, whose history dates from the time of the Roman occupation. Forty miles beyond Lancaster is Liverpool. Though the face of the country has been much changed in the course of centuries, the neighborhood of Levens Hall is so picturesque and romantic that it

is still well worth a visit. The Hall itself forms an important link with the past for portions of the building clearly date from Saxon times, though the first recorded mention of it is found in the Domesday Book of William the Conqueror. This portion of the building, which forms the nucleus of the later structure, was at that time probably a small pele or stronghold against the Scottish raiders. Remodeled at various times its present form dates from the time of Elizabeth. The gardens are more recent, having been laid out in the year 1701 by Beaumont, the court gardener, who designed those at Hampton Court as well.

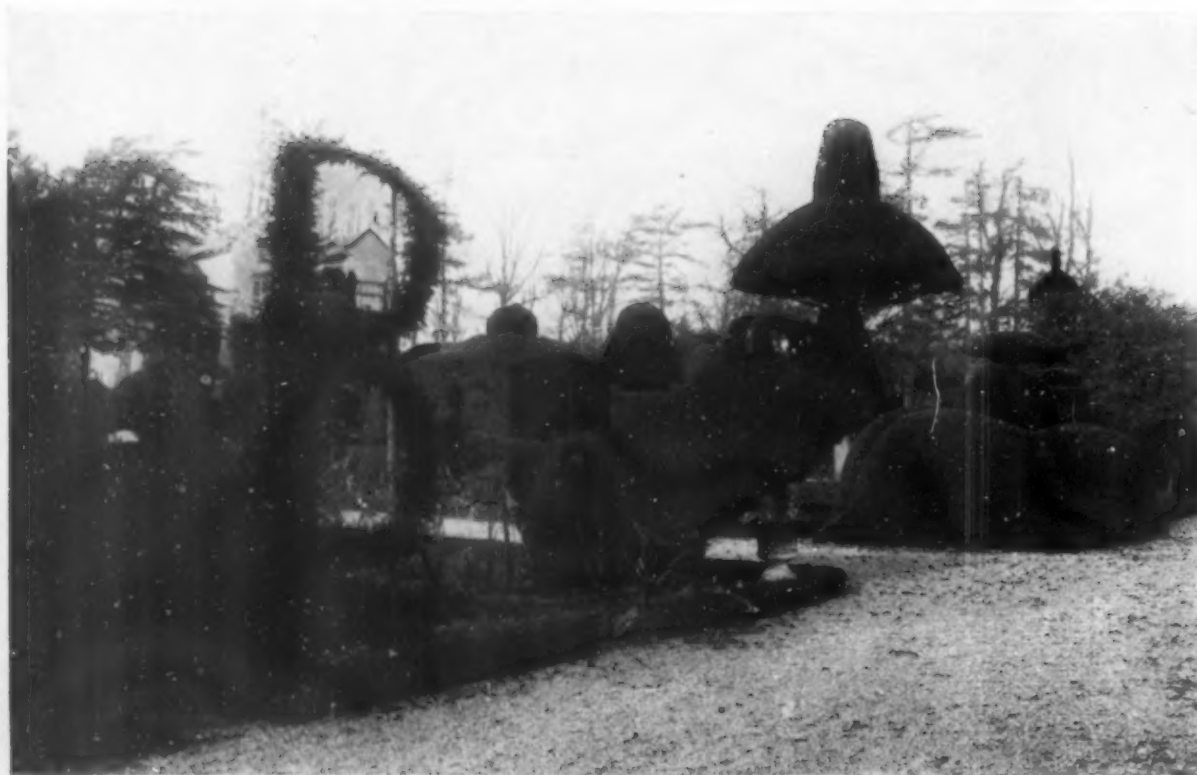
The gardens at Levens are beyond question the finest surviving example of the topiary work which became so fashionable in Europe with the spread of learning, first introduced at Florence by the Medici family in the early years of the sixteenth century. The fashion spread rapidly through Western Europe



THE BOX AND YEW GARDENS



THE WALK SEPARATING THE ORCHARD AND THE TOPIARY GARDEN



THE BAGOT "B" A MODERN EXAMPLE

Levens Hall



THE HOUSE FROM THE GARDEN

and soon the best examples equaled, if they did not surpass, the famous garden of Pliny of which we have a minute description by the hand of that celebrated author, and in imitation of which these topiary gardens were designed. The accompanying illustrations will give a far better idea of the effect of this work in general, and of the Levens Gardens in particular, than can any amount of description however detailed. The various trees are usually surrounded by flowers set out in neat beds with an edge of clipped box for the border. Walking along the well-kept gravel paths, the visitor first notices among the more striking forms a peacock of box only slightly larger than life, again a lion with a crown on his head, and further along a figure of the king also crowned. In another corner stands the queen with her arms akimbo, while near by is a colossal helmet and an umbrella. Sometimes the paths pass beneath box archways. Opening vistas are forms interesting for their picturesque fantasy rather than because they are copies of any natural objects. To many visitors the "judge's wig" is most amusing; a graphic though gigantic copy of the official, and to American eyes, half grotesque, wig worn by the English judges while on the bench. This particular wig stands some six feet high beside the walk, and many a cup of afternoon tea has been served under its shelter, even in rainy weather, for the thick interlacing branches of

the clipped yew afford ample protection from the wet. Tradition has laid here the scene of many a courtship, but, unfortunately, there are two concealed entrances from the back, which, if the legend may be believed, have more than once caused serious interruption by an eavesdropper. The dark foliage of the yew, unfortunately, makes it difficult to bring out the best characteristics of this popular piece of scenic gardening. Beyond the topiary gardens are the fruit gardens and bowling-green, both enclosed by thick hedges of clipped beech more than twelve feet high and so dense that they afford as much shelter and protection as a stone wall. The bowling-green is especially attractive with its splendid turf and high smooth walls of green. From here a path across the grass leads between high walls of greenery to a circular space, itself sheltered with hedges, from which smaller walks radiate in all directions.

To the visiting foreigner, the house is of exceeding interest. One tower has on it a clock with a single hand to tell the time, and within are rich windows, tapestries, embossed leather and other decorations from every period of English art, all combined together to make a very harmonious effect well worthy of careful study. On the stable wall is an ancient sun-dial, and against high stone walls are everywhere trained fruit trees or roses after the English fashion. The gardens contain about seven

House and Garden

acres and have nine miles of box hedges along the beds. In the seclusion there is a most delightful feeling of restfulness and shelter from the turmoil without.

Just a few steps up the main road from Levens gate is Levens bridge, a survival of the old days when all traffic was carried on by pack-horses. Those who will take the trouble to walk along the bank below the bridge can easily see where the width has been more than doubled to accommodate the wagons of to-day, though to an American eye it still seems far too narrow. Above and below the bridge on both sides of the road stretches Levens park, one of the oldest deer parks in England, enclosed in a yew fence, dating certainly since 1360 and still preserving its original limits. In it there are beautiful stretches of woodland, and green pastures, a combination so unusual.

The gardens harmonize well with the Hall, the interior of which is extremely interesting. The carved woodwork is very elaborate, the south drawing-room in particular being exceedingly rich. Three of Lely's best portraits hang in the house, the entrance hall has a fine collection of armor and one of the rooms is hung with some splendid pieces of tapestry after the Italian manner. Taken altogether, Levens represents the best attainments of domestic life among the well-to-do English. The letter "B" noticed in one of the photographs of the garden is the initial of Captain Bagot, the owner of Levens park whose courteous attention in throwing open his grounds to the people of the neighborhood is most heartily appreciated, not only by them, but by all travelers as well.

We are indebted to Mr. Hogg, photographer, for the photographs which are here reproduced.

THE SUBURBAN GARDEN

By JOHN W. HALL

NOTHING can produce a more bountiful source of quiet pleasure to the suburban dweller than a little garden. The suburban home is usually built upon a plot ranging in size from one-half to an acre. In either instance there is ample space for a home garden where practically all the lighter vegetables can be grown in sufficient quantities for the use of a family of ordinary size. Besides supplying the table with absolutely fresh vegetables, gathered while crisp with the morning dew, an hour, in the late afternoon, spent among the plants by the business or professional man is more conducive to health and real enjoyment than most any other diversion.

Supposing that there is available for garden purposes on the suburban home lot the quarter or the half of an acre, the question of primary importance as how best to prepare and make it, on an economical and practical basis, is presented.

The size and place of the garden having been determined, it should be enclosed with a fence made of wire netting and of sufficient height to prevent depredation by chickens or otherwise.

HOW TO PREPARE THE GROUND

The soil should be broken fine as deep as the plant roots may be expected to grow. This is from fifteen to twenty inches, and more effective results are obtained by spading than by plowing on a limited area. The earth is left fine, loose, and

mellow far down, so the tender roots may grow through it freely. It then holds moisture and lies close to the roots, so as to supply them readily with food. After the ground is thoroughly broken it should be fertilized and harrowed or rolled. Where the harrow or roller is not at hand, good work can be done with a heavy rake. Let the soil be well prepared before planting; neglect of this will be felt all through the season. After the plants are growing it is too late to attempt to work the ground beneath them. It is also of the greatest importance that in preparing the soil it should be in proper condition to be worked. What the proper condition is can be easily determined by squeezing a little of the soil in the hand. If it makes a ball, and sticks to the hand, it is too wet; if it breaks hard, it is too dry. To work well it should crumble easily and finely, and leave very little dirt on the hands.

FERTILIZING

Too much care cannot be given to the supply of the necessary plant food, of which the chief essentials are nitrogen, phosphoric acid and potash. Any fertilizer used to supply these elements should be thoroughly distributed through all the soil to be reached by the roots of the plants, and this distribution must be made before planting. Turning and re-turning the ground, and harrowing or raking, are useful for this purpose. There is no rule by which a wise selection of fertilizer can be made. It is often

The Suburban Garden

found that a sandy soil is deficient in the essentials of plant food; that a clayey soil contains them in abundance, and a limestone soil is likely to contain a considerable proportion of phosphoric acid. Therefore, what is a good fertilizer on a given soil for one crop may be very unsatisfactory for another; the matter of fertilization must after all be very largely a matter of experience from observing results.

As a general rule lime may be applied to a soil with good results. It corrects acidity, makes clay soil more friable and holds sand closer together. Nor is it possible to go far wrong in the application of humus, a name applied to any thoroughly rotted vegetable or animal matter. Humus forms the richness of nearly all good land, and rarely is there too much of it. In close-grained, sticky soils, which have a tendency to bake, the humus produces a looser texture and a better balance in the retention of moisture. On a loose and leachy soil it brings the grains closer together and promotes chemical activity and at the same time supplies plant food.

Leaves, garden refuse, and barnyard manure made into a compost and allowed to decay make good humus. Wood ashes are a common and ready source of potash, and in addition improve the mechanical condition of most soils. The lime in them tends to correct sourness and to promote the important chemical process of nitrification. Ashes are usually found to render light, sandy soils more moist. Cotton-hull ashes are also very useful, furnishing potash and phosphoric acid. In the use of commercial fertilizers care must be taken that a wrong use is not made of them. Chemical fertilizers may be applied much nearer the time at which they are to be used by the plant. A French authority says for deep rooted plants, fertilizers should be put on before breaking the ground; for shallow rooted plants, after breaking.

SEED AND TIME OF PLANTING

The ground prepared and fertilized, then comes the selection of seed and planting.

It is usually considered enough to buy seed of some reputable dealer and depend upon him for quality. But it is so important to have good seed, and mistakes are so easy, that careful examination of the seed some time before planting is advisable. Large, heavy seeds produce stronger plants than do small, light seed. It is a mistake to plant old seed.

The time for planting in any locality is only known by experience, if early vegetables in the open air are sought. The blooming of the peach is assigned as a time for seeds that will germinate in a cold soil and resist a slight frost. Among these are peas, spinach, and onion. When the oak leaf breaks from the bud is suggested for beets, turnips, corn and tomato.

Seeds that thrive only in warmer soil, as beans, cucumber, cantaloupe, watermelon, squash, and okra, may be planted when the blackberry is in bloom. The planting must be made, of course, with due consideration of the date when the vegetable is expected to be ready for use, and if a continuous supply is desired through the season, several plantings at different dates must be made. These are known as successional plantings.

MAKING THE ROWS

Wheel tools will be found of great advantage in cultivation and for this reason the rows should be long and continuous. If enough of one kind of vegetable to make a row across the garden is not wanted, several kinds may be put in the same row.

Let the rows run east and west when practicable, so as to obtain the best sun effects. A line should be used to keep the rows straight and parallel to each other. But little extra time will be consumed in using the line and the better results, aside from the appearance, will more than repay the additional trouble.

CONDITION OF THE SOIL

The soil should be moist when the seed are put in. The earth should be firmed above the seed by patting it lightly with a hoe. This is to make sure that the soil is brought close against the seed. Small, weak seeds must not be put in ground that is not thoroughly prepared. It is well to sow some large seed of vigorous growth, such as radish or turnip, with celery and other small, weak seeds. The added seed come up, breaking any crust which may have formed. The radish or turnips must be pulled out as soon as the other plants appear. Sow the seed much thicker than the plants can be successfully grown and when the first true leaves appear, thin to the proper distance and avoid loosening the roots of plants that are left.

DEPTH OF PLANTING

The depth of cover depends upon the size and strength of the seed, its habits of germination and early growth, the soil, and the season of planting. Planting too deep is frequently a cause of failure to come up. Warmth, air and moisture are necessary to germination. In the early spring moisture is usually abundant, while warmth is lacking. The soil is warmest near the surface, hence the cover should be shallower than in summer, when warmth is abundant and moisture is lacking in the surface soil. Weak seeds should have less cover than vigorous seeds. As a general rule the depth of planting is indicated on the original package by the seedsman, and it is safe to follow his directions in that respect.

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TRANSPLANTING

Plants from the hotbed or cold frame should be transplanted soon after the formation of the first true leaves. The ground into which the plants are to be set should be in the best of condition and the weather cloudy. The earth should be pressed closely about the roots of the plants in their new place. In removing plants from place to place preserve as near unbroken as possible the mass of dirt about the roots. If the leaves of the young plants are clipped off about half-way back from the tips, the evaporation from them will be lessened that much and the roots will have an opportunity to establish connection with the soil and secure ample moisture before the full demand from the leaves is renewed. By this process the plants' chances for living will be materially increased.

CULTIVATION

The chief purposes of cultivation are to keep down the weeds and to maintain in the soil a supply of air and moisture favorable to plant growth. The moisture in the soil about a vigorous plant is rapidly carried away by evaporation from the leaves. As long as the ground contains an ordinary water supply for several feet below the surface a steady flow of moisture goes upward through the minute spaces between the soil grains. The upper layers of soil are kept from becoming dry by this flow. But when the rainfall is scant the moisture in the lower soil also becomes exhausted and the plant curls up and dwindles. The gardener must provide against the occurrence of this condition. It is not enough to remedy it; he must prevent it. One of the most efficient means is a mulch, which is most conveniently made of the surface soil.

TIME FOR THE SOIL MULCH

Usually as soon as a rain is over the atmosphere is free of moisture, and evaporation from the soil sets in. The water that has just soaked in comes up through the little pores between the soil grains and passes off from the surface of the soil into the air.

The gardener's aim with the mulch is to save this moisture and send it through his plants. If the little pipes or tubes formed by the pores of the soil are broken, the flow through them is checked and evaporation from the ground is much lessened. It is only necessary then in order to save the moisture for the plants, to break up the surface of the soil with a rake or other implement.

It is a serious mistake to suppose that so long as the surface remains moist the soil below is well

supplied with water. A damp surface may mean only that moisture is rapidly evaporating into the air. As often as the surface becomes solid it should be stirred with a rake or hoe. As a rain or even a shower compacts the soil at the surface, the common notion that it renders raking or shallow plowing less necessary is precisely contrary to the fact. It is then especially that the surface should be broken. The same is true after irrigation. The raking or plowing should be done as soon as the soil will not cake when squeezed in the hand.

IRRIGATION

Frequently dry weather continues so long that it is impossible to preserve sufficient moisture by tillage or any sort of mulching. It then becomes necessary to water the garden. Where there is connection with city water works the supply is ample and easily reached. In other locations various forms of cisterns and reservoirs are employed.

In watering, the earth should be thoroughly wet, so that the moisture will get to the lower and outer roots of the plants. In order to check evaporation after sprinkling, the surface should be broken as soon as dry enough to work. The watering should be repeated when it is evident, upon careful watching, that more moisture is necessary. It must be remembered that the small, active roots, which take up moisture and plant food, are most numerous at the extremities of the large roots and at a distance from the stem.

The water must be so given as to reach these small roots. Water at any time when the plants need it, and water thoroughly. It may be well to keep in mind, however, that in the spring the best results are obtained by watering in the middle of the day, because the mornings and evenings are cool; in the summer, at evening because the days are hot and a great part of the water given would be evaporated immediately.

CONCLUSION

There doesn't appear to be any reason why the suburban dweller should not have a home garden affording at once both healthful exercise and profit. An instance is in mind where a quarter acre garden in a suburb of Washington City was made to supply a family of six persons with fresh vegetables all through the season, and in addition to which was sold to neighbors, at current market prices, vegetables to the approximate amount of sixty dollars. The amount received from the sales alone more than doubled the cost of the work hired done, the fertilizers, and seed used in making the garden.

Greek Motives in Historic Doorways

By MYRTLE HYDE DARLING

GREEK architectural details have been scattered widely through modern house-building. We are so accustomed to the Greek form that a difficulty arises in realizing its presence. The Greek methods in use in our period date from the later eighteenth century, and were not known to be copied before then. While their art was free and spontaneous, modern copies are generally formal, rigid, and correct. Some old New England cities and towns have many dwellings which show some motive from the Greek as decoration. Style is character, and while the people of the Middle Ages never thought of it as such in adapting the beautiful and simple lines of their columns and temples, they had one, the purest and most interesting type of architecture, which now enters in modified form into the Colonial, (or eighteenth century Renaissance) and modern Colonial buildings. The most interesting survivals of Greek detail are seen in the old dwelling-houses in the Eastern States, where the Grecian influence is often limited to the treatment of a porch, a doorway, or a façade. The buildings of these times were honest and intelligent, and the classic detail well adapted to use in wood, because of its simplicity, beauty and power.

There seems to be in the ordinary modern house as little character, real character, in the entrance and doorway, as there is beauty in that feature of the human face, the nose. Most doorways are ugly things at best, and a really

beautiful entrance is rare. There was once a precise New England lady who asserted she could place any family by the look of its hallway, and if most of us are to be judged by our doorways, we should be found sadly lacking, at least in good taste.

In the quaint old city of Salem, Massachusetts, are some of the most fascinating doorways, all of them doubly interesting in that they belong to houses of historic association and ownership. That of the Cabot-Endicott house, erected in 1745, shows a remnant of the surmounting gable-roof form of the Greek temple, underlaid with carving, and the depressed or simulated Doric column. This is the earliest of the Greek designs. The shaft of the columns had no base but rose directly from the smooth pavement or stylobate, and the Doric capital was plain. The glass in the door is protected by extraordinarily beautiful wrought iron panels. Some of the romantic historic points of interest connected with the house is that of the famous Cabot garden of Colonial days, and its collection of seven hundred varieties of tulips, when a grand reception was held to exhibit the flowers in bloom. Later it was owned by the Honorable William Endicott, Secretary of War during the Cleveland administration, a descendant of that stern Puritan, Governor Endicott. In this house was born Mary Endicott, who married the Right Honorable Joseph Chamberlain. The house has now passed into other



PICKMAN-LORING-EMERTON HOUSE, SALEM, MASS.
Erected 1818



SHREVE HOUSE—ERECTED 1814
Doorway Considered One of the Best Architectural Effects in Salem



PICKMAN-SHREVE-LITTLE HOUSE—ERECTED 1814
One of the Finest Architectural Doorways in Salem

House and Garden

hands, but the doorway is preserved in its pristine condition. The mansion known as the Pickman-Loring-Emerton house is a brick structure of typical form, but possessing much exquisite detail. It was

formerly owned by Mr. George B. Loring. It was built in 1818, and remodeled by Little & Brown, architects, in 1885. The detail of the pillars is Ionic.

The Ionic order lengthens the shaft, and possesses some degree of ornament, yet preserves much simplicity. The volutes, or double scrolls of the capital, are said to have been copied from ringlets of hair, or perhaps from the horns of Jupiter Ammon. The cornice shows a row of dentils or square teeth. The designs of the leaded glass lights on each side and above the door, and in the beautiful depressed window over the door, are the most exquisite patterns known in modern house building. So far their effect has never been equaled. This house, like the

Cabot-Endicott-Low house, is

on Essex Street, the main thoroughfare running through the length of the city.

Chestnut Street in Salem shows some of the most delightful and stately houses, and amongst its beautiful doorways are two especially noteworthy, known

as the Shreve doorways. That of Dr. O. B. Shreve, built in 1814, shows exquisite Corinthian columns, and is classed among the best architectural effects there. The Corinthian is the lightest and most highly

decorated of the Greek patterns. The base of the column resembles the Ionic, but is more complicated. The capital is shaped like an inverted bell, covered on the outside by two rows of acanthus leaves, and above them, eight small volutes. It is said to have been suggested to the mind of Callicmachus, the celebrated sculptor, by seeing a basket covered with a tile and overgrown with the leaves of the acanthus. Under the cornices were a row of oblong projections bearing a leaf, or scroll, called modillions. Like the Emerton house, this has a depressed window above the doorway, with Corinthian column details. The other Shreve doorway, belonging to what is known as the Pickman-Shreve-Little house, which was built of brick laid in Flemish



CABOT-ENDICOTT-LOW HOUSE—ERECTED 1745

bond, in 1814, also shows Corinthian columns. The glass lights about the door are in simple, beautiful and impressive Colonial design. The small decorative columns on each side of the front door and the window above are very dainty and interesting.

The Small House Which is Good

I. A HOUSE ON A SIXTY FOOT LOT

W. P. R. PEMBER, ARCHITECT

IN very many of our American cities the beauty of the residential sections is marred by the huddling together of the houses on narrow lots, 30 feet, 35 feet, 40 feet wide. While this condition is undesirable, in many cases it seems unavoidable owing to inflation of land values and so must be accepted as a condition of city building.

In a dwelling of this class the difficulties of the problem are doubled by the fact that light can be relied on only from the front and rear, as rooms lighted from the sides with neighbors but a few feet away are at best in a sort of semi-darkness and certainly lack every element of privacy. It is the object of this article to show that a house can be built economically on a lot 60 feet wide and 150 feet deep, taking the maximum advantage of both front and rear light and securing airiness, convenience and privacy to the occupant. In brief, to accomplish this end a house has been designed that gives to all the living-rooms of the house either a back or a front exposure and does not allow the kitchen, pantry and sheds to monopolize all the rear light, often the best attainable in the house. There are no important windows in either side in any of the larger rooms.

The house is located well back from the street and about centrally between the side lines of the lot. A straight path leads from the sidewalk to the entrance porch in the corner between the main house and the kitchen wing and from it one steps into a commodious vestibule. On the left is a passage leading to the kitchen, also to a toilet and to the cellar stairs. This passage allows the maid to answer the door directly without passing through any other room.

From the vestibule also opens the hall. To the left is the staircase, to the right the living-room and ahead is a glimpse across the veranda and right down the garden.

The living-room is large and comfortable, with windows on the sides affording cross ventilation and coolness in summer. A generous fireplace is opposite the entrance, flanked on either side by built-in bookcases. Towards the street is a convenient window seat, while on the garden side a French window opens from the room out to the veranda.

Across from the living-room is the dining-room, also large and airy, with bay windows for flowers at one end and a French window opening onto the veranda. On one side of the fireplace is a built-in china closet, on the other a door leads through the

pantry to the kitchen. The range, sink and table are all compactly arranged; while a nook of the kitchen with a casement window opening towards the street affords cross ventilation and a pleasant sitting place for the maid—a place seldom found in houses where there is no servants' room down-stairs. Connected with the kitchen is a rear hall containing space for a refrigerator and leading to a lattice enclosed rear porch. On the opposite side access is also gained to the stairs, thus avoiding the expense of second stair.

Up-stairs are four bedrooms, bath and dressing-room, all with ample closets and two of the rooms with fireplaces. On the third floor are two servants' rooms and ample storage.

The veranda is an intimate part of the house, connecting for summer use dining-room, hall, and living-room and forming an outdoor sitting and dining-room for summer; the table may be set here and meals served through the dining-room.

From the veranda stretches the garden joined to the house by a low terrace. This garden is designed to make the rear portion of the lot appear at its very largest. The central feature is a long simple panel of turf centering on the veranda and entirely surrounded by a panel walk. To right and left of the panel are generous flower borders for annuals and perennials, while at the end is a simple pergola with plastered posts and hewn beams supporting a trellis for grapes, clematis, wistaria, etc. This pergola is semicircular in plan and surrounds a simple little pool for *aquatica*. Backing up the flower borders and the pergola is a border of hardy shrubs, massed to give pleasing effects in bloom and foliage and interspersed with a row of *Bolleana* poplars or Norway maples, which form a background to the garden and cut off the unpleasant features of neighboring backyards without giving undue shade. Space is arranged at the side for a bed for cut flowers and a laundry yard, and at the extreme rear for vegetables and cold frames.

The house is designed to be executed in a warm gray plaster with all trim painted white, the roof of shingles stained a dark moss green, all chimneys plastered on the brick, blinds painted a dark olive green.

In the interior all finish is very simple: of white wood painted, the floors of No. 1 maple, stairs of oak with cherry rail, simple brick and tile fireplaces and hearths.

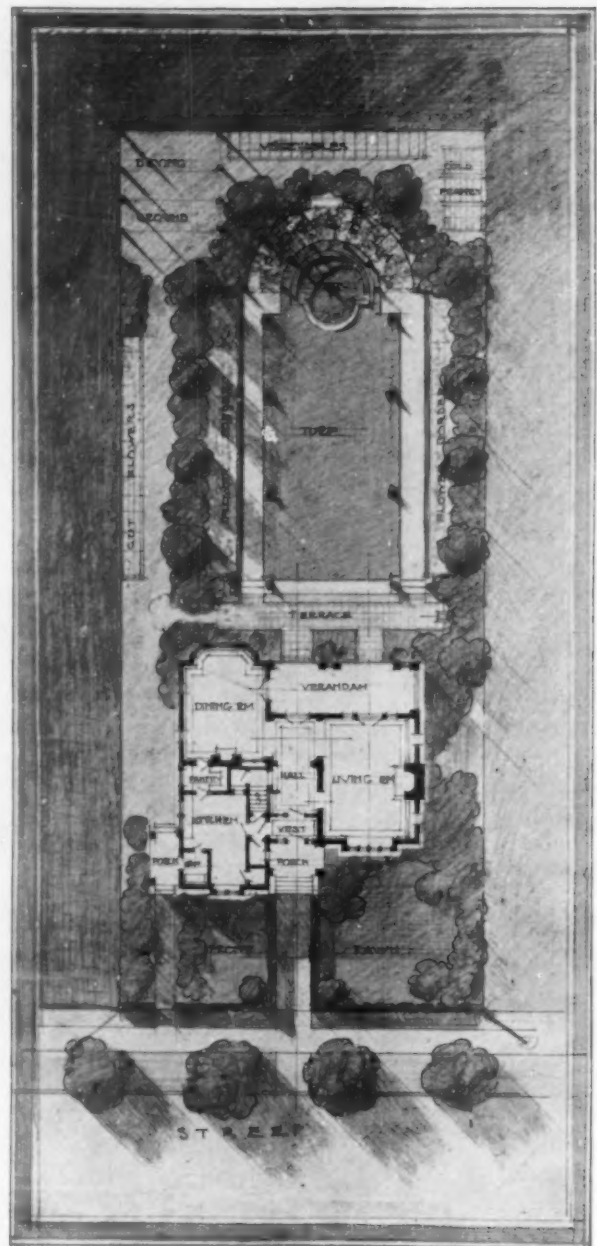
House and Garden



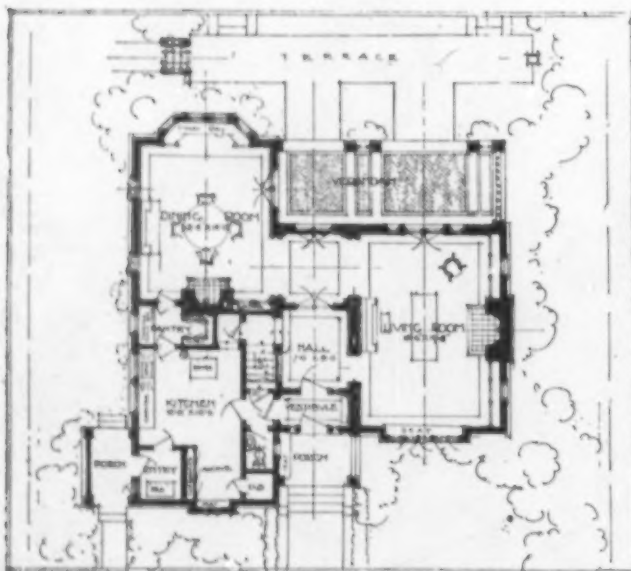
FRONT PERSPECTIVE



REAR PERSPECTIVE

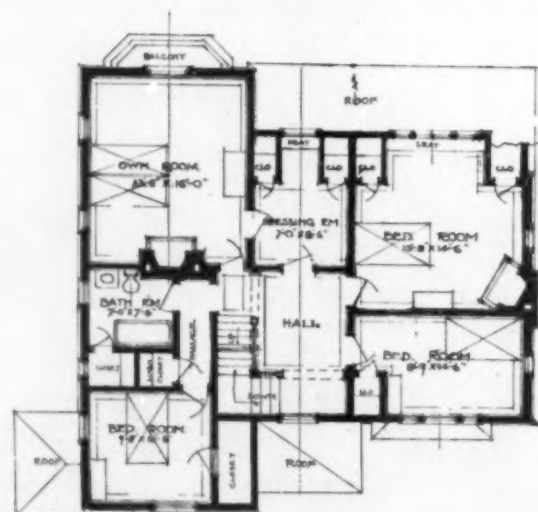


PLOT PLAN



First Floor Plan

A HOUSE ON A SIXTY FOOT LOT

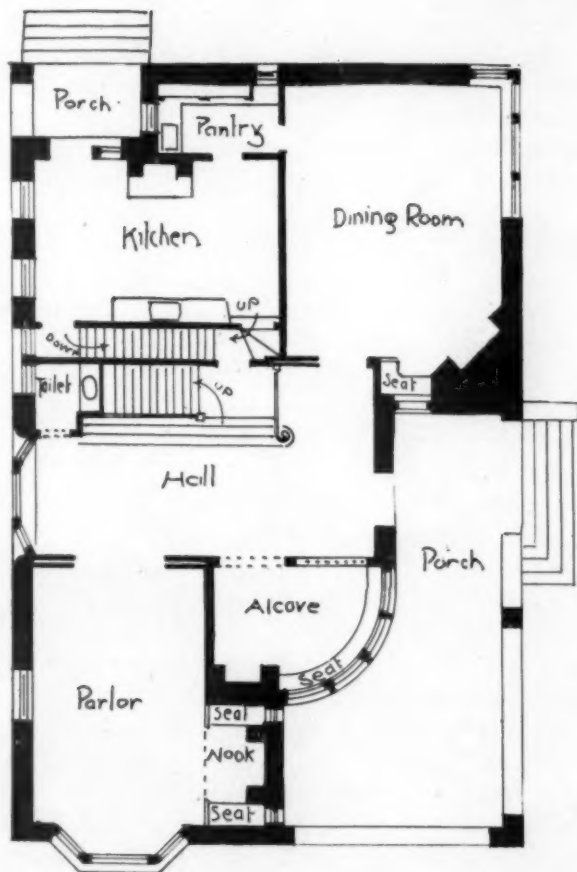


Second Floor Plan

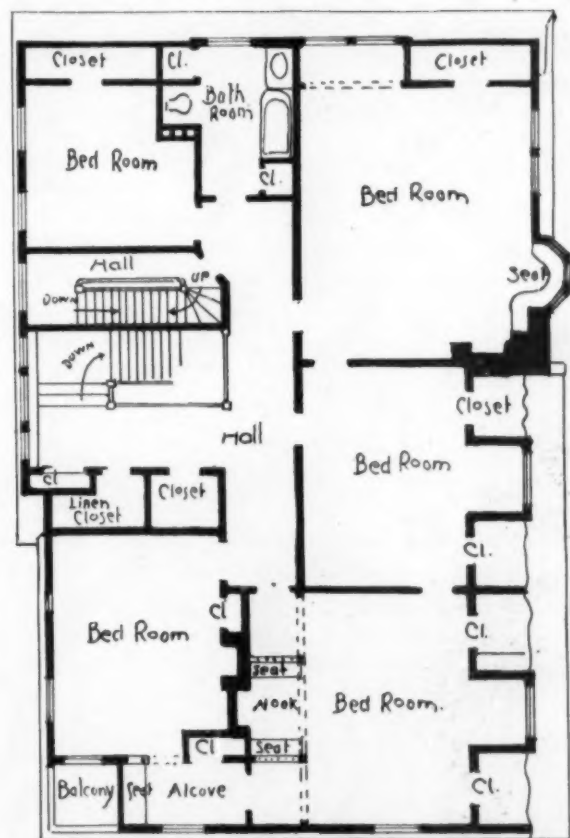
The Small House Which is Good



A HOUSE WITH INDIVIDUALITY
E. G. W. DIETRICH, *Architect*



FIRST FLOOR PLAN



SECOND FLOOR PLAN

House and Garden

The following is an estimate of the cost of the house on a sixty foot lot:

Excavation.....	\$62 40
Foundation.....	277 50
Cement floor.....	30 00
Cut stone.....	82 00
Brick pavement(veranda).....	31 20
Frame.....	854 00
Boarding.....	316 50
Shingles.....	45 00
Exterior plaster.....	560 00
Frames, sash and exterior finish.....	635 00
Glazing.....	50 00
Flashing.....	75 00
Interior plaster.....	310 00
Brick work.....	265 00
Flue linings.....	46 00
Inside finish.....	410 00
Floors.....	260 00
Painting.....	210 00
Hardware.....	320 00
Plumbing.....	260 00
Heating.....	310 00

\$5409 60

Garden:

Plowing and clearing.....	\$10 00
Rough grading.....	20 00
Good soil and manure.....	87 50
Spreading soil and manure.....	24 00
Seeding, rolling, raking.....	50 00
Sodding borders.....	10 00
Shrubs.....	45 00
Hedge around front of lot.....	12 00
Perennials for flower borders.....	20 00
Trees.....	30 00
Shipping and planting stock.....	25 00

\$333 50

Walks, etc.:

Cinders (6 inches deep).....	\$ 6 00
Gravel (4 inches deep).....	8 80
Spading and rolling.....	2 50
Granolithic.....	26 50

43 80

Pool:

Excavation.....	\$ 5 00
Concrete foundations.....	33 00
Cement basin.....	20 00
Coping.....	50 00
Plumbing.....	25 00

133 00

Steps to terrace:

Excavation and brick work.....	\$20 00
Foundation.....	16 50

36 50

Trellis at end of terrace:

15 00

Pergola:

Excavation and foundation.....	\$6 00
Carpentry.....	75 00
Plaster.....	20 00
Stain.....	10 00

111 00

\$672 80

Total house.....

\$5409 60

Total garden.....

672 80

\$6082 40

II. A House With Individuality

E. G. W. DIETRICH, ARCHITECT

A HOUSE possessing in emphatic measure charming individuality is the residence of Mr. W. H. Clark at Jamestown, N. Y.

The Dutch Colonial style has been followed with marked success. The first story is laid up with a gray sandstone of coursed ashlar, while the gables and second story are shingled, and stained. The setting of the house among trees and beautiful lawns completes a very satisfying picture.

Reference to the plans will show on the first floor: a central hall, large and airy, with a delightful inglenook and fireplace. Wide low seats are built in under the windows in the arc of the bay. The parlor and dining-room, each with generous fireplaces and built-in seats, are located on either side of the central hall and give the effect of even greater spaciousness when opened up.

The kitchen department and butler's pantry are complete in all respects.

The wood finish in the central hall and stairway is painted white except the hand rail which is of mahogany.

The floors throughout the house are of hard woods, finished natural, on which well-selected rugs are used.

On the second floor five sleeping rooms and bath are provided, also linen closet and housemaid's closet. Additional space is available in the attic for servants' rooms and storage.

In the decoration of the rooms the architect has used simple color effects in harmonious shades.

In the rugs and hangings a certain freshness of tone has been secured, with broad spaces of wall surfaces of colors, best suited for displaying pictures with proper effect. There has been no effort in this house to elaborate the decorations, but on the contrary, natural wood finishes have been applied—producing in the woodwork beautiful tones of color, harmonizing with the color scheme of walls and furnishings.

Extreme care and good taste have been displayed in the selection of the furniture and each piece seems as if made for the place it occupies and to be particularly happy in fulfilling the use for which it was intended.

We have all heard of the artist who obtained his best effects by erasures. So in this instance it seems that a process of elimination had been inaugurated at the outset by restricting any desire for that which was not truly and consistently artistic.

The household gods are few, but very choice, and make no demand for a troop of slaves to labor in their service.

What to Do With the Walls

SOME HINTS ON INTERIOR DECORATION

By LEILA MECHLIN

ONE of the most vexing questions of interior decoration is what to do with the walls—how to treat them, what to put on them. The prevailing impression seems to be that they are racks upon which pictures and all manner of flat objects can be hung, either as a matter of convenience or for the purpose of exhibition; but this is all wrong. Walls are primarily the background of the room and should be treated accordingly. They must be considered a part of a single composition, not as an independent unit. They should supplement the furnishings but never intrude upon them. As in a picture the background should never be most noticeable, so in a room the walls should never be conspicuous. If one is furnishing as well as decorating, the problem is comparatively simple, for then a scheme of color can be determined upon and carried out with consistency, but in the other event it is sometimes necessary to call a compromise. There are certain hard and fast rules, however, which will be found applicable to all conditions, chief among which is the axiom of simplicity—the common use of plain, low-toned colors. For north rooms with little or no sunshine warm tints should be employed, the varying shades of pink and red, of buff and yellow; whereas, in south rooms, flooded with light, cool colors, such as blues, greens and grays, are best suited. These must be selected with reference to the woodwork. It is as incongruous to combine red wall covering with cherry or mahogany doors and window frames, as to trim a crimson gown with terra-cotta velvet; and yet this is something which few decorators seem to comprehend, though one, who was reasoned with once, was known to declare that he himself did prefer "armony to contrast."

As to the kinds of wall covering there is an endless variety, from silk tapestry down to fifteen cent paper. Japanese grass-cloth, decorative linen crash and burlap are being much used to-day and in many cases with excellent effect, and common calcimine, or water-color wash, is not to be despised. These, unless the ceilings are high, can be put on without a border, being finished by a moulding like the standing woodwork, the ceiling tint being carried to this mould. Cartridge paper of course is good, and some excellent effects can be produced with two-toned papers. Figured patterns are not bad for bedrooms, but great care should be exercised in the choice of these; spotted devices should be eschewed and con-

ventional rather than naturalistic arrangements chosen. A very awful effect in wall covering is a paper simulating a bright colored tapestry, hanging in folds. It was a clever imitation and the result is, that upon inspection the entire room takes on an undulating motion which in time proves very disconcerting. Small bedrooms papered with large flaring peony, chrysanthemum and rose designs are also apt to prove extremely annoying. These sometimes in combination with plain papers, used as a deep border, have been made effective in rooms remittently occupied; such, for example, as a guest's chamber, but even they conflict with the use of pictures or other decorations.

An interesting effect is produced by the use of a plain paper with a cut-out, figured border. A charming bedroom, for instance, was made by placing as a finish to pearl gray walls a festooned border, a foot in width, of roses and green-gray garlands cut out along the lower margin. A dining-room in another tasteful home gave equally pleasing effect in green walls with a foliage border treated after the same manner.

Rooms with little furniture, or for use on gala occasions, will stand more elaborate decoration than living-rooms, commonly well filled; and likewise the choice and arrangement of pictures should be made with a view to their environment making qualities.

All pictures to be agreeable companions should have a decorative motive; they should adapt themselves or be adaptable to the general scheme of decoration and not be individually insistent. This is a day when pictures—good pictures—can be had very cheaply; when excellent reproductions of the world's masterpieces are within the reach of the most humble. These in photographs and half-tone prints, neatly framed and tastefully hung, are infinitely preferable to the more costly, highly colored, commercial products. It is reported that millionaire Blank paid \$75,000 for a painting by Rembrandt; that Tompkins, the railroad magnate, purchased a Romney for two thirds that sum; but it is not noted that John Smith, the lumber dealer, bought a clever little landscape by a local painter, which will bring him lasting pleasure, for \$75; or that architect Jones was lucky enough to possess himself of an admirable little water-color, made by a brother artist, during his summer holiday, for a crisp twenty dollar note. Rembrandts and Rubens and Romneys are undoubtedly enviable possessions, but the present

House and Garden

day painters produce much work which is, through its merit, very satisfactory to live with. Good things are not always the most expensive; a twenty dollar water-color may be as good of its kind as a thousand dollar oil; just as a piece of lawn is as commendable as the same length of silk or velvet. It is not the price but the intrinsic merit, and its suitability to its surroundings.

A picture to be a lasting pleasure should have something more than superficial charm. It should be something more than a copy; it should not always tell the same story, or repeat its story with too much insistence. A rabbit and a game bag on a barn door, so lifelike that the eye at first is deceived, will grow very tiresome unless it has something more than its realism to commend it; as will also a ballet girl gracefully balanced on the tip of a dainty foot. Alma Tadema is said to have grown so weary of one of his own paintings once, that he invited his friends to his studio and induced them to jump through it, himself leading the way; and there are many pictures which after considerable acquaintance give rise to the same inclination. A landscape true to nature, atmospheric, luminous, low-toned or colorful will, however, wear well, as will also a portrait, or a genre wherein the values are successfully sustained and the pigment made subservient to the thought, or theme. As one would not care to remain long in the room with a self-playing musical instrument, or an endless talker, neither does one ceaselessly enjoy flagrant color, or extravagant technique.

But very different pictures are suitable for different rooms. One excellent arrangement that I call to mind was in a home where high keyed, decorative water-colors were placed in the drawing-room; etchings in the music-room; and rich, colorful oils in library and living-rooms. If pictures are hung at all in a hallway, they should be of a much more formal order than those in other parts of the house—architectural compositions, decorative schemes and the like.

A wall should never be overcrowded with pictures. Too many are worse so far as general effect goes than too few. Each should be given a fair space and as good a light as possible. This matter of space is often most vexing as nothing is more awkward than an unbalanced arrangement—a heavy picture in a small space. There was a time when everything came in pairs; when the mantel had a vase at each end; an identical frame on either side. That was overdoing the balance principle; but at present the pendulum has swung too far the other way, and many walls and mantels look as though the pictures

and ornaments had been thrown at them indiscriminately. As always there is a happy medium, but it must be discovered by the householders' own judgment and sense of proportion.

The framing of pictures is another all important question, and one too often overlooked. While a conspicuous frame is exceedingly objectionable, a handsome and appropriate one greatly adds to the charm of a meritorious work. Gilt is good, but it should be of a subdued tone rather than freshly shining. Wood for etchings and engravings is very suitable and more durable than gilt. A picture should never be overweighted by its frame, and even for a large oil painting a four inch moulding is usually sufficient. For small works one or two inches will be found enough. Water-colors are sometimes framed without mats, but in most cases a border of gold, gray or green adds to their attractiveness. Etchings and engravings should almost invariably be matted in white. Plain frames are in better taste than ornate ones and at the same time less costly; and flat ones commonly more effective than those that flare. So also the pictures should be hung from eye screws near the top of the frame and not allowed to swing sharply forward, though a slight slant is not always objectionable.

There are other things besides pictures which make excellent wall decorations, such for example as Japanese embroideries, pieces of tapestry, decorative pieces of china, plaster casts, and mosaics. Mirrors may be used but only where a vista is to be specially desired, and never where they will continually confront the occupants of the room with their own reflections. The Japanese keep, customarily, their pictures in cases, and display upon the walls of a room but one at a time and the idea in the abstract is not a bad one. Familiarity not only sometimes "breeds contempt" but often produces psychic blindness. We rarely note those things which continually surround us, and for this reason a change is often profitable as well as pleasant. An old picture in a new light is often a fresh revelation of merit. This is, of course, most applicable to living-rooms, and to those who possess many pictures.

The danger of overcrowding the walls is always to be regarded; the possibility of forming unbalanced and inharmonious arrangements ever to be feared. Remembering, however, the background theory, conforming the walls and their decorations to a single scheme, and restricting the choice to simple, substantial colors, materials and objects, even these will be readily avoided, and the most difficult problems prove easily solved.

The Japanese Tree Lilac

(*Syringa Japonica*)

By W. C. EGAN

IN the nomenclature of our gardens many confusing names appear, and often many plants of varied genera bear the same common name.

The name daisy is applied to over eleven distinct plants, all of different genera, but all bearing a daisy-like flower.

The queerest mix up, however, in common names is that the well-known mock orange (*Philadelphus coronarius*) has for one of its common names the word *syringa*, which in reality is the botanical name

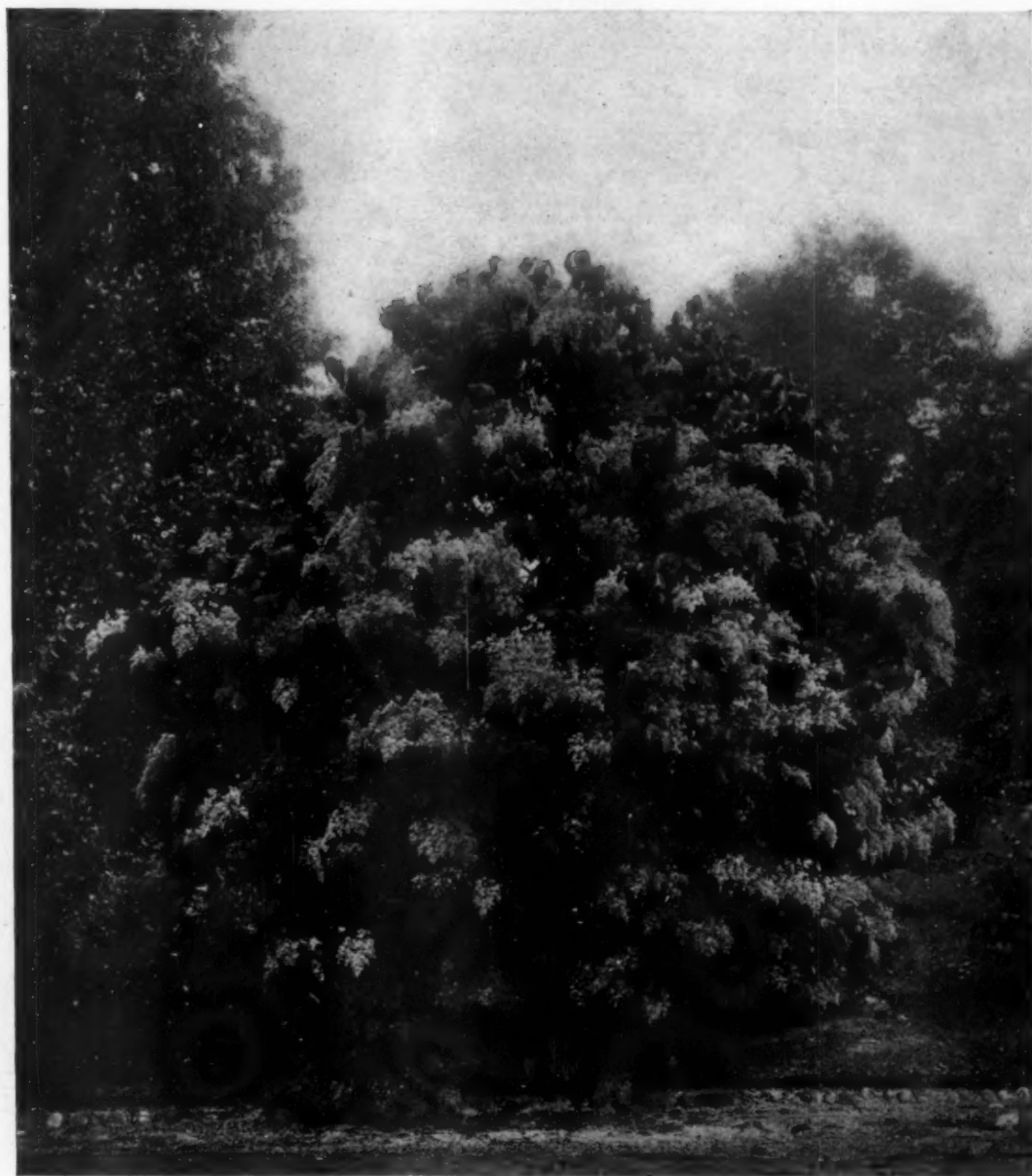
of the lilac. It is also singular, when one takes into consideration the world-wide cultivation of the lilac since it was introduced to cultivation from Hungary and Persia in 1597, that it possesses so few common names. Where the word lilac sprang from, or what it means, I have been unable to ascertain, but the one additional name, pipe tree, comes from the fact that its long straight stems filled with medulla are easily converted into pipe stems, in fact the generic term *syringa* means a pipe.

Up to within a comparatively few years we had to content ourselves with the old-fashioned lilac, *Syringa vulgaris*, and the Persian form; but of late many new forms of *Syringa vulgaris*, in various tints, have appeared, as well as many new species.

One of the best of the latter is *Syringa Japonica*, the Japanese tree lilac.

The common lilac may be grown in tree form by proper manipulation, but this species grows naturally, forming a low spreading tree eventually reaching a height of thirty feet, bearing in late summer creamy white panicles often a foot long and as broad.

In buying new varieties of the common form get them "on their own roots," as then the natural increase by suckers will be true to name. They are often grafted on the common lilac or the privet.



THE JAPANESE TREE LILAC

An Up-to-Date Nursery

LATEST PRODUCTS AND METHODS OF RAISING SHRUBS AND FLOWERING PLANTS

By G. BERTRAND MITCHELL

THE traveler who has journeyed at this season of the year along the old brick paved road which winds itself from Leyden to Haarlem, will never forget the gorgeous stretches of hyacinths, tulips, anemones, crocuses and lilies that line the roadway on either side. These fields, really nothing more than countless small enclosed gardens, are the famous nurseries of Holland, where, centuries ago, capitalists and merchants traded in bulbs and plants, making and losing fortunes in a single day.

Yet, within eight miles of New York's City Hall, across the North River, on the New Jersey side, one single firm has to-day almost as great an area devoted to the cultivation of shrubs and flowering plants.

Characteristic of American enterprise, this vast business, established only as many years as it is miles

distant from the metropolis, has grown as rapidly, aye, far more rapidly, than many a wonderful plant which the casual visitor may notice here, that has been nurtured and forced by modern methods of cultivation. These nurseries lie along the historic old Plank Road and are at all times of the year an objective point for excursionists and local visitors.

From the first day of its incorporation it has been the policy of this concern to have, not an output for the spring and summer alone, but for the four seasons of the year. "We plan for 365 days in the year, barring Sundays if you will," said one of the men. "This enables us to employ our experienced gardeners with no possibility of their being laid off for lack of business and in consequence not to be found when needed on some unexpected order, one



TRAINED LINDEN TREES

An Up-to-Date Nursery



A MAGNIFICENT COLLECTION OF BAY TREES

of the great detriments to many of our competing nurseries."

The main entrance from the street leads up a broad flight of steps to a wide avenue that is lined with shapely linden trees whose branches grow close to a latticed frame work, and form two unbroken rows of green as perfectly aligned as the ranks of a regiment on dress parade.

Each of these unusual trees, imported from a European nursery, has been so pruned and trained that its limbs evenly balance, and bear a striking resemblance to the seven branched candelabra of the Hebrews.

Between the tree trunks to the left one catches glimpses of long lines of dwarf evergreens and other choice ornamental stock, while to the right extend parallel rows of plants in blossom, and shade and fruit trees.

At the end of the avenue are the office buildings. A graveled roadway leads past numerous storehouses where several trucks are unloading a consignment of tall shrubs, all with their roots and leaves carefully wrapped, and which have been lightered around to the nearest dock from some trans-Atlantic steamship.

A modest farmhouse that nestles under a gigantic weeping willow at the turn of the road, seems to belie the actual age of this establishment.

The broad, green velvety lawn in front with its semi-formal arrangement, with potted bay trees of round

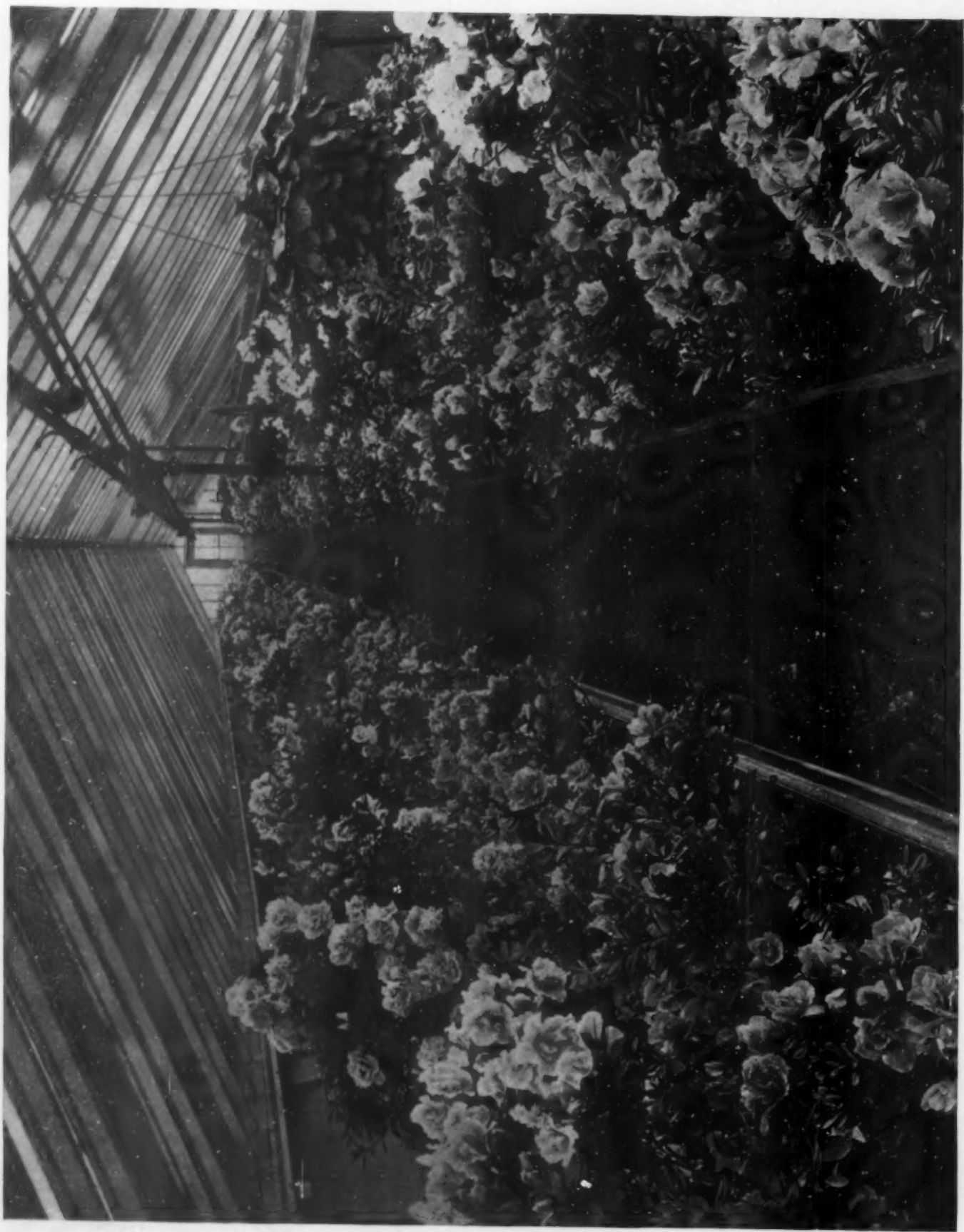
and pyramidal shape, causes one to feel that it is the growth of a century at least.

Of course the house and willow tree stood here long before the nurseries were opened, and the line of beautiful pyramidal bays that extends on the other side toward a grove in the rear, has long since passed the age of voting. These trees, which are thirty years old and until recently owed their allegiance to Holland, are worth three hundred dollars a pair, an attendant tells you.

Not far distant are many long rows of the standard bay tree, a semi-hardy plant, graceful in shape, rich green in color, now used extensively for house decoration in the winter and for formal and Italian garden features through the warmer months.

This magnificent collection of 1500 trees includes some of the largest specimens that have ever been imported. The smaller trees, worth in the market ten years ago about \$100 apiece, may today—because of the immense shipments received by this concern—be purchased for about one-tenth of that price.

In marked contrast to many American business concerns, one encounters here only courteous and obliging employees. The managers encourage inspection by visitors and are ready to give full and complete information about the care and growth of the various plants. There are no secrets to be carefully guarded from the public and those owning



A HOTHOUSE FILLED WITH AZALEAS

An Up-to-Date Nursery

even the smallest plots of land, can learn here much that may be utilized.

"Very little care, if any, is needed for hardy herbaceous plants," a gardener explains. "By these we mean such plants as may be allowed to remain permanently in the open ground. Of course the foliage dies down each fall, but comes forth again each spring. A fairly good soil to begin with, occasional enrichings, a little cultivation to eradicate the weeds, the cutting down of the old dead tops and a slight covering for a few of the varieties in choice collections are all that is necessary.

"Naturally some judgment is required in the planning of effective borders or beds. The low growing varieties should be selected for planting near the edge and the taller sorts graded up toward the center or back. One may also increase the stocks in various groups and beds by lifting up the plants and dividing the roots."

To get at the master minds of this institution, one is ushered through a series of offices, arranged for the corps of assistants, stenographers, topographical draftsmen, and landscape gardeners, to the private office, a room far from being small in actual proportions, and yet with desks, tables and shelves so piled with papers and correspondence as to suggest the editorial rooms of a city newspaper on the night of a close election.

The senior member, small in stature, swarthy of skin, active, keen, alert, traces a long line of ancestors devoted to Dutch horticulture. The junior partner,

in direct contrast, stalwart, broad shouldered, of florid complexion, sandy hair and moustache, remembers with pride a youth spent on a great English estate of which his father was superintendent.

We are told by horticulturists that the grafting, or hybridization of heterogeneous plant life, produces more perfect specimens, choicer fruits, and more hardy varieties. Even the most unenlightened layman realizes the effect of this grafting or union of Teuton and Anglo-Saxon intellect. Photographs hanging on the office walls show great quantities of shrubs, plants and trees which adorn the beautiful country places of Newport, Tuxedo, Lakewood and elsewhere, telling graphically of the estimation in which these experts are held by many of the leading financiers, professional and business men of the country. One group of six photographs shows several hundred magnificent bay trees alone, that have been purchased for the approaches of the National Capitol.

Under the guidance of the junior partner, we first visit the evergreen section, conceded to be the most magnificent collection ever made in America. This section, devoted to hardy evergreens and conifers, comprises many acres of land. It is astonishing to note the number of shades of green among the 150 varieties planted here: golden, bronze, bright tones, dull tones, blue greens, gray greens, orange greens, and greens so dark as to seem almost black. Beautiful specimens of the hemlock, juniper, cypress,



PYRAMIDAL BAY TREES FOURTEEN FEET HIGH

House and Garden

English yew, retinospora, a Japanese cedar, the thuya or arbor-vitæ, and hosts of others too numerous to mention. We are told that the Japanese dwarf evergreen is one of the most valuable decorative plants, because it can be used where others would grow too large in a few years, and so destroy the original effect planned when they were set out.

Amongst the conifer family are varieties of the Abies, (both spruce and hemlock,) the Picea, or silver firs, and the pines, several of the latter being of the dwarf variety, while others are broad and compact. All these trees are constantly trimmed and are transplanted several times a year.

A collection of 3,500 beautiful Colorado blue spruce trees, demands attention as much for their remarkable grayish blue green color as for their healthy appearance and thrifty growth. These are worth from two and a half to twenty-five dollars apiece, according to their size and perfection.

Next we visit the rhododendrons, classed under large leaf and hardy evergreen shrubs, so our guide informs us. In a delightfully romantic spot, beneath a beautiful grove of stately trees that covers several acres, are planted thousands of these plants, both of the hybrid or English and the maximum or American varieties, their flowers varying from pure white to delicate pink.

Thousands of the hybrid variety are imported each year and these rhododendrons, both foreign and domestic, are shipped by the carload to every part of the United States.

Two entire hothouses, 165 x 25 feet in dimensions, were given up to "tender" azaleas, for the Christmas and Easter trade, thirty-five thousand plants in all, forced by artificial methods to flower at the proper time. A loss of some 1,500 plants, that were accidentally killed by frost during the holiday season, enough to cripple many another concern, scarcely affected the output of this place.

One may procure many varieties of the hardy azalea: the *Azalea amæna*, a superb low growing evergreen shrub, with foliage of a bronze tint and flowers that blossom in a bright rosy purple mass in May; the exquisite *Azalea mollis*, a Chinese hybrid, which can be forced for an indoor plant; the *Baccharis halimifolia*, which grows well at the seashore and in salt marshes, giving forth white fluffy clusters of seed vessels and lasting from September until after frost; and several Japanese dwarf plants, notably the *Azalea amæna* of the scarlet variety, the *Indica alba* with its pure white flower, the *Indica rosea* and the *Indica rosea, flore pleno*, the latter a double flowered form. All are the product of years of careful nurture and are unexcelled for border decoration.

The hothouses devoted to ferns and palms now invite inspection. Here are thousands of beautiful tropical plants. As we enter, the frail stalks of the palms gently sway and the clusters of long leaves rustle softly in the current of air caused by the opened door. Of these, the Kentia and the Phœnix or date palm are most used for decoration, the latter being especially adapted for lawns as it is not affected by the sun of the northern latitudes. But if the palms suggest tropical islands and azure skies, how much more suggestive is the next enclosure filled to overflowing with orange trees! Now it is the sense of smell as well as vision that wafts one to the Indies and the Florida Keys. White waxy blossoms and ripe golden fruit make the air heavy with their perfume. These are all of the dwarf variety. Another year and all these several thousands of trees will be replaced by an entirely new shipment.

At the entrance to one storehouse, a group of truckmen are loading their teams with an immense consignment of the kalmia, or mountain laurel, each plant about five feet high, the leaves broad, glossy green. These, all of native growth, will be used for lawns, and probably associated with the rhododendrons in some decorative scheme. It is somewhat too early for their flowering season, but by June they will be covered with large, wonderfully tinted clusters of blossoms. Several carloads of these plants at from five to seven dollars apiece suggest a problem in multiplication that will run into several figures.

From the small holly trees, still laden with their scarlet berries, we go to the boxwoods. There is a greatly increased demand for this old-fashioned shrub



Pink Azalea



English Laurel

An Up-to-Date Nursery

brought over first by the early Dutch settlers. It is claimed that it was introduced in some way from Japan into Europe centuries ago. Of twenty-five varieties in stock, only three have been so perfected as to be practical for commercial purposes. These are planted in imported wicker baskets, that when dug up encase and protect the roots.

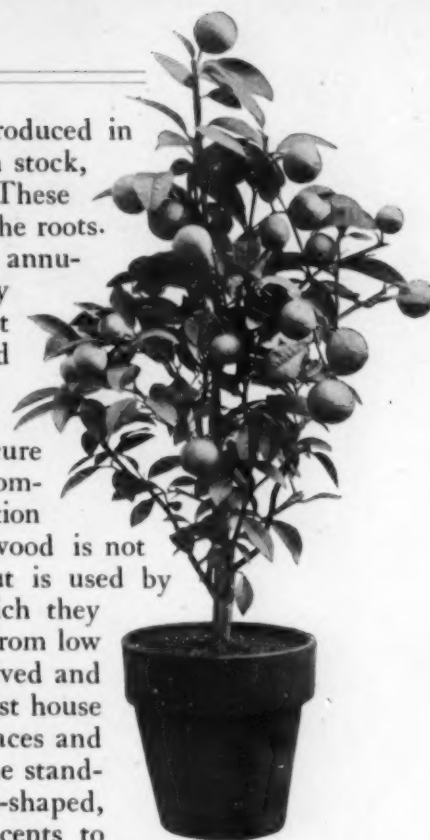
But here let us take a glance at the cooper shop, from which are turned out annually many thousand strong wooden tubs. Every fine plant, especially of the bay tree variety, that is sent away to grace the vestibules and dining-rooms of great city hotels, or the approaches or salons of a beautiful residence, is carefully potted in an iron-bound tub of plain or ornamental shape, and made from the heart of cypress. These are then painted a dark green or red. The management here believe that it is as essential to have a shrub properly potted as to procure an appropriate frame for a good picture. They decry what they claim is very commonly done, even where the surroundings are costly and luxurious, the utilization for this purpose of butter tubs and cut-down whiskey barrels. The boxwood is not only a factor employed here in the decorative scheme of a formal garden, but is used by landscape gardeners in the reproductions of old-fashioned gardens for which they find a constantly increasing demand. The different species vary in size from low

bushes to medium sized trees. All boxwoods are long lived and may be used for grouping, edging walks, planting against house foundations, for hedges, and in tubs to be placed on terraces and porches. Like the bay tree, we find them in the standard, pyramid and bush form, as well as globe-shaped, and they may be purchased from twenty-five cents to fifteen dollars apiece, according to size and condition.

Dwarf Orange Tree



Oriental Spruce



Close at hand are several acres devoted to old-fashioned flowers. One may see here just such a scene as one's memory holds of childhood days on some old farm or estate. A straggling patch of phlox, next, tall hollyhocks, tiger lilies, white lilies, clove pinks, then a bed of peonies, rows of geraniums, asters, pansies, lilies-of-the-valley and many other old and new varieties of the hardy perennials. With a slight knowledge of plants and their requirements, here is material for the humblest plot of land.

How often we see in the arrangement of flower beds in the cottage garden a total disregard for color harmony, an assemblage of plants placed together haphazard, or if there is any apparent intention, it is the arrangement of the most violent contrasts! And yet competent, helpful advice may be had for the mere asking.

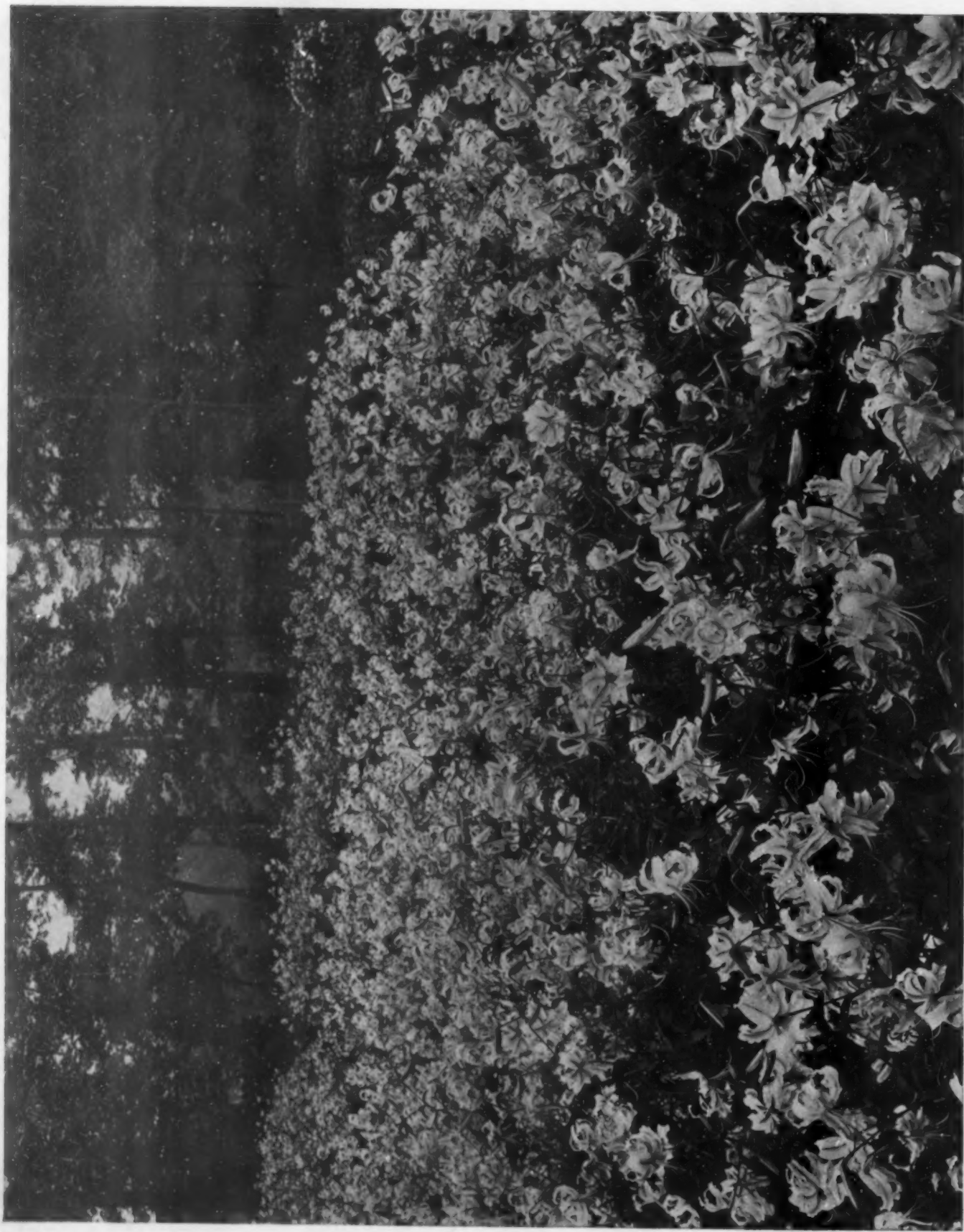
Undoubtedly, the most beautiful sight that meets one's vision here is an immense stretch of white lilies in full bloom, a dazzling field of white, offset by the dense green of the woodland background. Certainly, Bermuda could never have offered a greater inducement to the seeker of natural beauty than her fields of lilies. Since the great scourge that has practically destroyed this pride of the Western isles, these nurseries send out from their hothouses for the Easter trade countless numbers of this exquisite plant. Other varieties there are here of many sorts and colors, and sold in bulb form or potted plant to be used as a shrub border, for a wild garden, or for interior decoration.

But what shall we say about the great section devoted to roses? At every short turn we have come upon new storehouses, new hothouses, new sections planted with almost every plant that is grown.

Roses, in hybrid perpetuals, hybrid teas, Bengal, Polyantha and climbing varieties are seen by the tens of thousands. During the spring season, more than 100,000 bushes of every known variety are sent out. Each year 100 new species, or hybrids, are produced here or are received from sources the world over.

Ninety-five per cent of these roses are handled in a dormant condition, but for the accommodation of those who have waited until too late to set out dormant plants, several thousand are potted and placed in the hothouses as early as the middle of January. These will be disposed of to retail customers principally after the first or middle of May. The rose gardeners claim that large quantities of the roses shipped away in a perfectly healthy condition are destroyed through unintentional negligence of course, but the blame falls on the nurserymen. The trouble comes from the fact that the roots which are extremely sensitive to exposure to the air, have been allowed to become dry and shriveled at the stem.

The packing moss should be retained about the roots, and kept moist until such time as one is prepared to plant, and then one plant exposed at a time and dipped in water just before it is put in the



A FIELD OF WHITE LILIES

An Up-to-Date Nursery

ground. One form of rose bush particularly strikes the visitor as being worthy of mention, a product of the experimental departments here. It is the standard or rose tree. Of the hybrid, there are 100 varieties alone.

Originally, rose trees were grafted on the English briar, but were extremely susceptible to frost. The standard rose is grafted on the *Rosa rugosa* and cinnamon stalk, is cut back to four or five eyes, and is perpetual.

Trained linden trees were mentioned as forming the decorative feature of the shaded avenue through which we entered from the street. The trees we find in stock, trained specially for forming arched avenues, natural pergolas, gateways or formal garden effects, the idea being introduced and copied from old European estates. No extra skill seems to be necessary in keeping them in the original shape. The trained fruit trees, however, form the great bulk of the unusual output. One remembers with delight the curious little gardens in France and Belgium, where the most luscious apples, plums and pears were grown on trees which were outstretched so closely to the white plastered stone walls, with their red tile copings, that it seemed as if their limbs must have been flattened out by some gigantic press.

Plucked for the *premier déjeuner* by a rosy cheeked maid, the fruit from these quaint gardens, where every tree had been so planted that the sun's warm rays could reach every twig and leaf, was far finer in flower, far sweeter to the taste than the fruit procured in the village market. This arrangement called a *cordon* can be seen here as well as the *palmette* horizontal and *palmette* double branched forms of pear and apple trees.

Then, too, for limited space, here is the globe, dwarf and the pyramidal form. Apples, apricots, cherries, figs, nectarines, plums, quinces, peach trees in pots for forcing, in fact every kind of fruit that can be grown. Of the pears, there are varieties, which bear fruit, a variety for each month of the year.

Passing down a rustic bridle path, lined with evergreens and many plants in bloom, we come upon a long line of laborers, who, under the guidance of superintendents, are cultivating long rows of various plants. From here we see on the western limits of the nursery grounds, the attractive roomy residences, side by side, of the firm members, surrounded by evergreens and plants that have been nurtured by their own hands. Pleasant indeed to live amidst one's life-work, especially when it is the sort that brings one so close to nature.

Neither time nor space can be given to visiting and enumerating the other beds of plants or the hothouses where the less hardy varieties are confined.

One can but imagine the chromatic display when the great beds of peonies bloom forth in all their glory.

There are also the beds of hardy iris of which the *Iris Kämpferi* is considered the most beautiful of all the summer flowering plants, the beds of stately golden glow, hybrid pansies, chrysanthemums for the late fall, and the poppies of which there are alone twenty varieties.

Outside of the trained fruit and shade trees already mentioned, the importation of which amounts to many thousand dollars a year, there are fifteen acres devoted to common shade trees. These are allowed to grow until the trunks are from two to three and a half inches in diameter. They undergo several transplantings when they are carefully pruned so as to cause more fibrous roots to break out, thus ensuring their future success when planted amid new scenes and new surroundings.



Standard Bay Tree



BLUE SPRUCE IN NURSERY ROWS

House and Garden

In conclusion, let us say that what most impresses the visitor at these nurseries is the great care displayed in the handling of all the shrubs and plants. Every shrub dug has a ball of earth, to which the roots are attached. Of the two orders that we noted being made up for shipment, one was for Southern Louisiana and the other for California. One would naturally wonder what condition live plants would be in after days spent in transportation.

"When these consignments are received," said the junior partner, "all these shrubs will be found to be in perfect condition, but no time should be lost in unpacking, unless they arrive in a wind storm. In that case they should be covered from the wind until it moderates so as not to let the roots dry out. At the time they are planted the dimension of the hole dug should be from three to four times larger than the ball, and eight inches to a foot deeper, so as to allow the soil for a foot around the plant to be loosened or cultivated.

"If the soil is poor, clay or well decayed manure should be used, mixed about one to four, in proportion with the soil replaced.

Fresh or half decomposed fertilizer will impair the vitality of the plant. Where the ground is dry, a space about six inches deep and filled with water should be



THE STANDARD OR TREE ROSE

allowed to remain until the following day, when the remaining soil can be filled in. When planting, do not forget the importance of pressing the soil down firmly around the ball of earth so that the plant will be solid in the ground and not easily blown over by any sudden wind. One should also spray the trees every evening until the roots begin to work, which will be indicated by a new growth on the tops of every branch.

"The individual beauty and perfection of form of each evergreen may be maintained by a slight clipping early in the spring before the new growth commences.

"The junipers, retinosporas, and the arbor-vitæ require a heavier trimming which can be done with absolute safety

as late as early summer.

"During protracted periods of drought a slight spraying of the surface will not be sufficient to retain the freshness of transplanted shrubs, there must then be a thorough soaking of the roots.

"We are able to plant successfully any of our productions in this line in mid-summer or during the winter months, and it is a curious fact, too, that a garden sheltered by evergreens will produce vegetables two weeks earlier than an open field. But if the simple rules just given are carried out, we are sure of satisfactory results," he concluded as we walked back to the main offices.



The Garden in the Temporary Home

By IDA D. BENNETT

WHILE the hardy perennial garden is admirable in itself and appeals to us along the lines of utility and sentiment, it loses its peculiar attractiveness when viewed from the standpoint of the temporary dweller in a summer home whose future movements may be uncertain. Naturally, when confronted by the possibility of change one hesitates to invest largely of money, time or strength in a garden which requires more than the present year to come to its best estate and which another summer may see sadly divorced from our interests.

Under these circumstances one seeks for those plants which yield quick returns and pass with the passing of summer. Fortunately, the floral calendar is rich in flowers suitable for the temporary home and includes both annuals, which come into bloom from spring sown seeds early in the summer, and those bulbs which may be started either in the house or open ground and planted out when danger of frost is past and lifted again in the fall and stored for future planting, either in the same garden or in some distant home. And so much beauty is possible from a garden arranged from these sources that one need not regret the more permanent forms of gardens.

For effective sub-tropical gardening there is nothing better than the canna, tritoma and ricinus. These give both color and foliage effect and are of the easiest culture. The ricinus, of which there are many varieties with rich colored leaves, should be started in the house by planting seed in pots placed in a warm, sunny window early in April and transplanting to the open ground when all danger of frost is past. Cannas, too, may be easily grown from seed if the precaution is taken to sand-paper the seed on one side until the white shows and then soak in hot water for twenty-four hours before sowing; treated thus they will germinate in about three days, while unsandpapered and unsoaked they will remain in the ground two or three weeks before germination takes place.

Seeds of the best of the large flowered orchid varieties may now be obtained of most seedsmen and these with the tall ornamental kinds will give excellent results for so small a sum that one may leave them in the ground with a clear conscience when frost or moving time comes, a thing we hesitate to do with the high priced florist's stock.

Beautiful dahlias may be grown from seed and will give better results than plants grown from tubers, blooming much earlier and more freely as a general

thing. Seeds of most of the best varieties may now be procured of the seedsmen including the show and cactus dahlias, but for cut flowers the single ones are far more effective.

It is a question if there is a more popular bedding plant than the scarlet salvia; this, also, is an easily grown plant, coming quickly from seed and blooming from early in July until cut down by frost. It combines beautifully with the *Nicotiana sylvestris* and *N. affinis*, and a bed composed of these is a sight worth seeing. *Nicotiana sylvestris* grows some six feet high, has great tropical looking leaves and is crowned all summer and long after the early frosts with a wealth of snow white flowers which, unlike *N. affinis*, remain open all day. It should be grown in the center of a bed of scarlet salvia and the salvias may have a border of *Arctotis grandis*, another thrifty annual with daisy-like flowers of white with a blue eye, which stands much frost and is a sure and persistent bloomer.

The dwarf *Phlox Drummondii* are admirable for bordering beds of other flowers and if the seeds are kept off will bloom as persistently as those already cited. They should be sown early in hotbed or window-box and set out when large enough to handle, setting the plants four or six inches apart each way.

These are the more ornamental of the annuals or those plants which may be grown as annuals and may be given a conspicuous place on the lawn if desired and will be effective from early summer to late fall. They each require practically the same culture, good soil, well enriched with old manure, which should be kept well cultivated and free from weeds and given an abundance of water during the growing season.

Among the summer flowering bulbs the gladioli will always be one of the most popular. Its cheapness, freedom of bloom and ease of culture are attributes that appeal to the amateur gardener. Of late years the size and color of the flowers have been greatly improved and immense blossoms, five and six inches in diameter, are by no means uncommon, and strange, weird shades of gray, blue and smoke are mingled with the scarlets and pinks and reds so long familiar. Their culture is the simplest,—good soil and an occasional watering is about all they require. If the bulbs are planted deep enough, about nine inches, the plants will require no staking.

There is a long list of bulbous plants not usually seen in the summer garden that should be extensively cultivated. Among these the most beautiful by far is the snowy *Ismene* with its curiously fringed petals,

House and Garden

green throat and delightful fragrance. It is easily grown by starting the bulbs in pots of soil in March or April and planting out in the open ground late in May or early in June; they come into flower very soon after planting out and challenge the admiration of all who behold them.

Tigridias are other worthy summer flowering bulbous plants of curious shape and striking colors. They should be planted in masses for best effect and the large flowered California hybrids will be a good selection and cost somewhat less than the named sorts; these, too, should be started indoors and planted out when the weather is warm, or if the ground is warm enough they may be planted at once in the open ground.

Then there are many flowering bulbs of the great amaryllis family, among them *Amaryllis Formosissima*, and the Belladonna lily, *Amaryllis Belladonna*, and the various zephyranthes or fairy lilies. *Milla biflora*, *Bessera elegans* and *Cooperia Drummondii* are charming bulbs for summer planting. They should be planted in quantities, and may be used to border beds of the larger bulbs.

Vines will be needed for the temporary garden and those of quick growth should be selected. For this purpose there is nothing better than the *Cobaea scandens*; this is a rapid grower, quickly producing a dense mass of foliage, which from early summer until late fall is covered with its beautiful gloxinia-like flowers of various shades of mauve. The flowers, when first opened, are a greenish white but change from day to day from delicate shades of lavender through all the shades of purple and deepest wine, the commingling of shades on the vines at one time producing a beautiful effect.

Another desirable vine for immediate effect is the lophospermum. This also makes a quick and vigorous growth; the foliage is not as fine as that of the *Cobaea scandens*, being somewhat coarse and fuzzy, but it is a good and effective vine and is covered with large, gloxinia-like flowers of a soft rose color. It blooms very freely and its culture is easy. Start seed in hotbed or flat and transplant when all danger of frost is passed. The *cobaea* is also raised from seed, the seed requiring rather more care as they decay easily and for this reason they should be placed on edge when planting them; they require two weeks or more to germinate, but grow on rapidly when once up. The tips of the leaf sprays are supplied with tendrils which cling to any object with

which they come in contact, making them self-supporting and for this reason may be grown on rough stone or brick walls or on dead trees. They like a warm situation and plenty of water, but will do well in almost any position.

The wild cucumber is valuable for quick effects and will grow in any position and with any treatment. The Japanese morning-glory at its best is a joy to the flower lover. To really enjoy it, it should be planted on the west side of the house that the blooms may remain open as long as possible. It must have abundance of water during its blooming season; this is imperative if the blooms are to be of fine size. I do not know of any vine or plants the quality of whose flowers depends so greatly upon the water supply as do these. Let them be only moderately moist and the flowers will be little better than the common morning-glory, but soak them in water and liquid manure night and day and the plant will reward you with blossoms five and six inches in diameter and of colors that are marvelous.

Of course, one will wish for pansies and asters and sweet peas, stock and verbenas and all the common garden treasures which may be achieved in one short summer. Roses, too, may not be unattainable now that so many teas and hybrid teas suitable for summer bedding are offered by the florists at so reasonable a price. I have found that the small mail order sizes really respond more readily to culture in the open ground the first summer than the older plants and they may be planted with confidence by the dweller in the temporary home.

Where the yard space or absence of any yard at all makes futile the idea of an outdoor garden, the window and porch box affords opportunity for no small amount of plant culture and one may gratify his taste for many of the low growing summer annuals, verbenas, phlox, ageratums, candytuft, antirrhinums, geraniums, fuchsias, ferns, begonias, tea roses and a host of other plants too numerous to mention. Nasturtiums, Alleghania vine, maurandia, thunbergias, wild cucumber and many other annual vines, as well as the more ornamental greenhouse vines, may be grown here, and the Japanese morning-glory will often prove at its best when entrusted to the intensive culture of the window-box. The *Cobaea scandens* when grown in the window-garden, if given a string or netting to run on, will quickly climb to the second story window and blossom every step of the way.

Talks About Hardy Perennials

IV. THE THREE-LOBED CONE-FLOWER

By W. C. EGAN

THE common Black-eyed-Susan, *Rudbeckia hirta*, of our fields, is far surpassed as a garden plant by *Rudbeckia triloba*, the three-lobed cone-flower. I know of but one common name applied to it, not a very elegant one at that, viz: "nigger heads." It is a biennial, but self-sows itself freely. Seed sown in June produce stronger plants than those found around the parent. It is one of my favorites, not only on account of its decorative and lasting qualities when cut, but I consider it one of the most cheerful appearing flowers in the garden. A few moments' view of the group will cure the worst case of blues extant.

Last summer when decorating for an entertainment at the Exmoor Golf Club I took up a well-developed plant, roots and all, and placed the roots in a tub of water, where it remained over an hour. Then a hose was played upon the roots to rinse off the soil and it was carried in an open surrey to the club house, some three quarters of a mile distant, where sun and wind is apt to induce a plant to wilt, and then placed in water in a vase. Not a leaf wilted and it remained in good condition for a week. No human hand could have arranged the

flower as Dame Nature had and the bouquet was extremely graceful and imposing.

Canterbury bells and the annual asters may be taken up when in bloom, potted, set in the shade and away from drafts for a day or so, and remain in good condition, but this was my first experience in freeing the roots from soil and immersing them in water.

In full sun, and room to develop, this *Rudbeckia* makes a very symmetrical plant three to four feet tall and about three wide, carrying thousands of blooms, each held well to view. The flower is somewhat smaller than that of the Black-eyed-Susan, but vastly more numerous, the ray-florets, being eight in number, are a rich deep yellow and the disk a blackish purple. It is one of the most accommodating plants I know of, growing almost anywhere. It may be used to advantage under standard shrubs, or any open place in the shrubbery, even if there is overhanging foliage, provided, however, that there is head room for them. They are splendid as a border to a large bed of hybrid delphiniums, as the latter will tower over them when in bloom, and be hidden by the *Rudbeckias* when cut down after flowering.

Just ten years ago, *Rudbeckia Golden Glow* made



"RUDBECKIA TRILOBA"



"CORONILLA VARIA"

its debut, and marked an epoch in plant introduction. It is a double form of *R. laciniata*. There is probably no plant so universally grown, both here and abroad, and when one stops to think that the millions of plants now in cultivation are the offshoots of a single plant all produced within a decade he is apt to be dumfounded.

In all probability the original plant appeared on the prairies west of Chicago, was observed and transplanted to some plant-lover's garden. And while its beauties were appreciated the importance of the find was not. Once in a while nature changes its usual method of procedure and produces what would be called a "freak" in animals and termed a "sport" in plants, being a departure from the type.

In the cone flowers, as also in the sun-flower and many of the composites, the ray-florets are what produce the dominating tone of color, but the true flowers, those being perfect and capable of reproduction, are minute and are situated in the Rudbeckias in the cone. The golden glow is a case where the true flowers in the cone have been changed into ray-florets, and hence a double flower, generally not capable of producing seed.

An authentic history from the time of discovery to its introduction to the public does not exist.

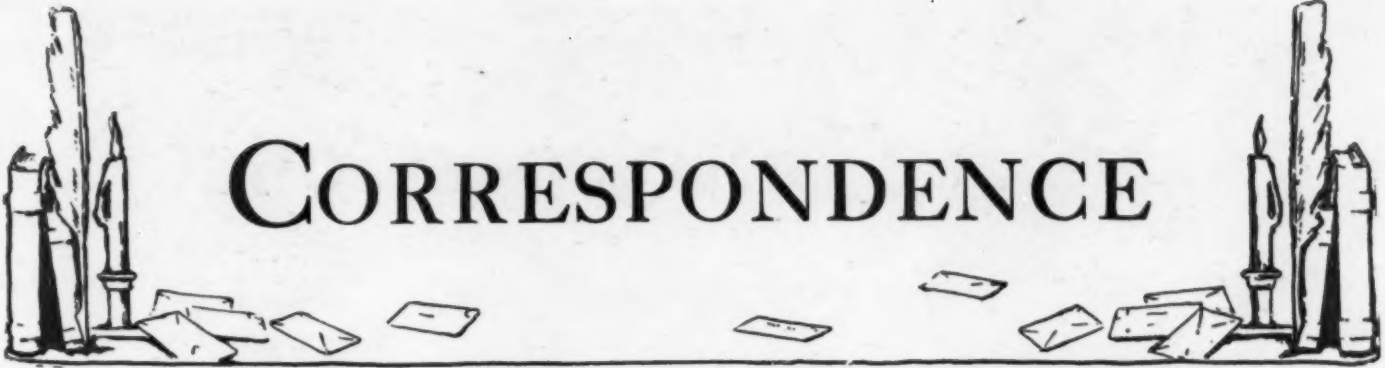
In "Gardening," April 15, 1895, Mr. William Falconer, then its editor, under the heading "A New Double Sun-flower," calls attention to it, saying, "It is a new double sun-flower, or rather a Rudbeckia — whence it came no one knows." The florist having it stated that "somebody sent it, but who sent it or where it came from we haven't the least recollection." The following spring, 1896, it was sent out as a novelty under the name of golden glow. In the fall of 1895 Mr. James Jensen, superintendent of one of the West Side Parks at Chicago, sent me three plants

saying that they were a double form of *Rudbeckia laciniata* that he had found growing in a German garden on the west side. I heeled them in over winter.

In the spring John Lewis Childs brought out his novelty, golden glow. I obtained three plants from him, and being satisfied these plants and those sent me by Mr. Jensen were identical in species, I planted the six in one group and in the September 15, 1896, issue of "Gardening" I illustrated the group and as a prophecy said: "I imagine this flower will become as popular as the dahlia sun-flower (*Helianthus multiflorus plenus*). This Rudbeckia likes good soil and plenty of moisture and should be taken up and replanted every second year.

The Rosy-Flowered Crown Vetch

THE illustration shows a group of this rampant, hardy trailer, *Coronilla varia*, that has been growing in a most trying situation for over ten years and been replanted but once. Immediately behind the bed is a deep ravine, which, in addition to the fact that the bed is full of the feeding roots of neighboring trees, causes the situation to be an unusually dry one. It is seldom artificially watered. The flowers and foliage are handsome, the flowers being pink and white in umbels containing from sixteen to twenty flowers of pea-shaped form, arranged in the manner of a crown. It is a long bloomer, especially in half shade, my plants being in bloom from June almost to frost. It is a good ground cover for hard, dry situations where hardly anything else would grow, but is too rampant a grower to place among the general run of perennials.



REDECORATING A COUNTRY HOUSE

Mrs. W. W. G., writes: This spring we are to move into an old-fashioned country house to be entirely redecorated and so appeal to you for assistance in ideas. The ceilings are all very low, will hardly permit of any frieze work, although I feel I must have it in the dining-room which is a very long room facing south and west with a large southern bay window; the furniture is of the Mission and can use either a red or green rug. Would this mean either red or green paper and what color stain for wood finish? Would like plate shelf and very narrow strip for paneling. Hall is nine feet wide and extends from front to rear doors; have grass furniture and think plain green cartridge paper with woodwork painted white; have plain green carpet for hall and stairs; hall extends through center of house. Living-room faces west and north with four windows; furniture all mahogany. I have old rose velour draperies I would like to use, colors of rug in harmony with same. How would old rose cartridge or figured paper do with either mahogany finish wood or painted plain white, or what do you suggest? Den or library with a great many books. This room faces north and east, has two or three windows, furniture of leather and Mission, with rugs; floors all to be stained a dark mahogany. This room has a double doorway to the living-room with tapestry lining of velour drapery facing this room; what do you think of plain green cartridge paper? We have many Christy, Remington, etc., pictures for this room and hall and think they look better hung over the plain red or green papers. Any ideas or suggestions you may give me through your paper would be very much appreciated I assure you.

Answer: There are many possibilities for good treatment in the old-fashioned country house you describe. To begin with I would advise your using an ivory enamel for the finish of woodwork throughout. You will find it quite a simple matter to have an effective frieze and yet keep an unbroken wall surface, making your angle mold serve as picture rail. Taking your rooms as you give them in your letter, I would say in regard to the dining-room that you would obtain an excellent effect by using the stag frieze about your upper wall, covering the lower wall with the soft green cartridge paper or with paper showing a two-tone stripe. This will harmonize well with the ivory woodwork and also be in keeping with your rug as described. Since your ceilings are very low, your plate shelf could be set at the joining of frieze and wall covering. For your hall I would suggest a tan paper showing two tones in stripe effect. Here you will not require any effect of frieze. The woodwork to be treated with the ivory white enamel. Your green carpet for stair and hall will look well with the paper suggested. For your living-room facing west and north, I would suggest an English paper, showing a large conventional design in poppies in pale shades of old rose and green leaves. This paper cuts out admirably giving an attractive edge, which can lap over the paper on lower wall. For this lower wall, I recommend a soft green paper of solid color. This will make a good setting for your mahogany furniture and harmonize with your drapery and rugs. The price of the English block paper is eighty cents per roll of eight yards; the lower wall-paper is fifty cents per roll

of eight yards. For the library it would be perhaps an attractive variety to stain the standing woodwork. You have not mentioned, however, the character of the wood, therefore I am unable to suggest a definite treatment. If this is cleansed of its present finish I would suggest that you treat it with a rich brown stain, finished with a dull surface. Cover your wall with yellow tan paper, choosing a shade to harmonize with the hall covering. Since the room is of northern and eastern exposure this will be preferable to the green you suggest. The ceiling tint should be of the yellow. This scheme of decoration will make a good setting for the Mission furniture. I would advise you against staining your floors mahogany, as it is quite impossible to get good service from a floor so treated. A rich brown stain would be preferable, finished with a good floor finish. If you had mentioned the coloring of your tapestry, I could have helped you more advantageously in the decoration of this room. You will find that the yellow-tan background will be effective for your Christy and Remington pictures. These should be framed in flat, dark wood frames, matching the finish of the woodwork, if you use a stain here. However, even if the woodwork is of white, these frames must be dark.

FIXTURES AND HARDWARE

B. says: In planning my house, I feel that the fixtures and hardware are a very important part of the decorative scheme. Will you furnish me with some information in regard to where I can send for cuts and prices? I live in a small town and am out of line with this sort of thing.

Answer: If you will send a self-addressed envelope, I will forward you the name and addresses of firms who will supply you with information that you desire. You are quite right in your thought that fixtures and hardware are important items in the decorative scheme of a room.

JAPANESE FURNISHINGS

Mrs. L. of New Orleans, writes: I always read your answers and enjoy them; they have helped me out of many problems, so I come to you personally with some questions. First, would you send me the address of the firms carrying the Japanese furnishings and where could I get a soft cover for a Japanese couch; it has puzzled me so much to know what kind of material to use?

My living-room and dining-room are papered in the shade of yellow I enclose and the furniture I have is all old Mission in the weathered oak, and I want to ask you about the color of my curtains. My dining-room has one window on the side, and three leaded high windows at the end with china closet built below; now I have some pretty cream curtain material (see sample enclosed) which I had thought of using and appliqueing brown designs on the hem in Arts and Crafts figures (could you tell me where I could get any, or of what material to use) and then at the high windows use peacock blue in raw silk. My living-room has a casement window, a side window and a double front door with two

(Continued on page 20, Advertising Section)



Garden Correspondence

CONDUCTED BY W. C. EGAN

VINES FOR TABLE DECORATION

I spend my summers in the country and often give entertainments to my friends. As I am a lover of flowers and grow quite a quantity, I find pleasure in decorating the table and rooms myself with material from my garden, but I often find occasions where some vines would be of great help. Would you kindly give me a list of those most suitable for the purpose, and their special requirements, if any.

I. C. H.

If you are willing to go to a little trouble in preparing the proper trellis or frame on which to grow it, you will find the cinnamon vine, *Dioscorea batatas*, one of the most useful vines to be found for the purpose, that can be grown out-of-doors in a northern climate. The tubers are inexpensive and may be obtained of any seedsman. The vines will grow from fifteen to eighteen feet and in order to obtain "good strings" the tubers should be planted eighteen inches to two feet apart. Discarded telephone poles, long enough to allow cross-bars placed say twenty feet high, should be set firmly in the ground. Plant the tubers in a line immediately under the bars and run a strong, but thin string from each plant to the cross-bar. The string may be fastened at the ground end to a forked peg, brick, or an old piece of gas-pipe may be laid along the row and take all the strings. Young vines, while not growing as tall as older ones, are best as they are more symmetrical and the foliage glossier, the older ones throwing out laterals and producing seed. The flowers, which are sweet scented, are inconspicuous.

It is the lustrous, heart-shaped foliage that is attractive. When wanted, cut the vine at the bottom, and with a knife fastened to a long pole cut the string above the vine. The vine hides all the string except near the top where it is readily removed. It is good, if there is time for the vine to dry off before wanted, to lay it on the grass and sprinkle it, as wetting closes the evaporating valves on the under sides of the leaves and thus lessens the tendency to wilt. I have known this vine to remain fresh for two days after being cut, although its stems were not in water. A situation where there is a strong draft, such as the opening to a chimney will wilt plants more quickly than when placed in corners of a room. It is a good plan to keep the room darkened after being decorated, until wanted, as the evaporating pores above referred to close in the dark and the natural moisture is somewhat retained.

Melothria punctata, a tuberous plant, easily grown from seed in a hotbed will grow fifteen or more feet in a season if well watered, and may be grown in a similar manner as above described, but a very effective way is to grow it for a special decoration where a canopy, table cover, or a starry green curtain is desired. Take an old fish-net twelve feet square and fasten it to a wooden frame set up against a wall or house, the object being to cause each leaf and flower to turn one way for light. Plant the vines one foot apart in rich, rather light soil and if an occasional dose of manure water is given it so much the better. During the summer numerous sweet scented, minute star shaped flowers appear in charming confusion. This is the time to use it, cut the vine at the bottom and the string

or net at the sides and top and you can take out a handsome green rug, curtain, or canopy. This will last in fair condition for two days at least. If used as a canopy over a table, it can be fastened to the chandelier at the center and at each corner fasten a cinnamon vine and carry them to the corners of the room. The flowers will look like small stars and their scent fill the room. It is a singular thing that plants raised from seed, produce seed, while those raised from cuttings do not, at least do not during the season of growth allowed in northern climates.

The flowering sprays of most of the Polygonums, especially *Polygonum multiflorum*, are fine if used within a few hours of cutting, but it is well to remove their foliage and depend upon some other green. Branches of *Hamamelis Virginiana*, the common witch-hazel, is splendid to use for decorative purposes and to furnish green for the Polygonums, *Clematis paniculata*, or any plant where it is best to defoliate it. Any time after the leaves are well matured, say from the first of August on, especially when cut from open spaces, the foliage of the witch-hazel will stand without wilting a long time. Its flat, spreading manner of growth makes it an admirable plant for decorative purposes, as it will lie flat against a wall and not look stiff.

Asparagus verticillatus, is a hardy climbing form attaining a height of twelve to fifteen feet and while not as slender and graceful as the tender greenhouse forms, may be used to advantage. It keeps in good condition for a week after being cut. I have two plants growing side by side which form a curtain four by twelve feet, very decorative when in berry.

A SCREEN FOR UNSIGHTLY BUILDINGS

How can I hide some unsightly outbuildings from a lawn view? A narrow roadway passes within ten feet of them, thus preventing the use of ordinary trees and I do not care for vines.

M. F. A.

Populus Bolleana, a variety from Turkestan of *Populus alba*, may be grown in the ten feet allowed and not intrude upon the roadway. It is a rapid grower, fastigate in habit, being an improvement upon the Lombardy poplar, which it somewhat resembles. For a shield, plant them six feet apart.

A HARDY ROSE FOR CUTTING

What rose can I plant that is fairly hardy that will give me plenty of bloom for cutting?

W.

The rather dwarf Bourbon rose "Hermosa," a bright pink, will bloom all summer long, and while it lacks fragrance, is considered one of the best bedding roses in cultivation.

While reasonably hardy, it is best, if your winters are severe, to grow them in rows in a situation where, about the middle of November, they may be bent over, tied down, and earth ridged over them. They will winter safely, but should be cut back severely in the spring.

House and Garden

NOTES AND REVIEWS

MY GARDEN RECORD

UNDOUBTEDLY one learns more from his experience in working his own ground and watering his own plants than from reading of many books devoted to such subjects.

But it is hard to remember from one season to another just what was successful and why it was found to be so; what experimental treatment (culture, fertilizer, fungicide) was satisfactory and what was otherwise.

"My Garden Record,"* just issued, is intended to be a help to the memory and supplies a form in which to record the successes and failures of the past. It should meet with popular favor.

TRANSPLANTING RHODODENDRONS

F. MAUDE SMITH

THERE is no reason why any person who has the opportunity should not transplant rhododendrons from their mountain strongholds to his or her own lawn. Yet, those who dwell near the mountains wherein flourish these splendid members of the heath family and most magnificent of our native shrubs, are the first to inform would-be "transplanters" that it cannot be done. This is unfortunate since there are many who have the opportunity (every year in many instances), if not the ability, to collect these splendid shrubs. And it is all the more deplorable when it deters such persons as depend upon economical means for planting their grounds. Of course when a landscape gardener is given carte blanche no instructions are necessary.

Even such persons as live within sight of the mountainsides upon which these flourish, and on which they form gloriously rosy visions in June and July (that is the time in the Pennsylvania Alleghanies) never think of transplanting them.

They have tried it, and they have failed. Therefore it cannot be done. Such was the invariable attitude, till officials of the University of Pennsylvania, Philadelphia, approached various persons with an idea of collecting directly these plants for the Botanic Garden and campus. Naturally the idea was scouted. All that had been tried in vain over and over again, yet, the

rhododendrons were transplanted from the regions round Tamaqua, and they all lived. Who that has visited Hamilton Walk or the Botanic Garden of the University of Pennsylvania will forget the rich evergreen masses that are even healthier now than when planted, or rather transplanted, seven years ago.

Here is the secret—disturb none of the roots. Simply set the rhododendron on the well prepared surface. Do not "plant it."

The average person makes the mistake of digging deep and taking up a weighty mass of soil, more or less globe-shaped (some experts have actually advised this), quite ignorant of the fact that the broad-spreading roots of the rhododendron do not penetrate far into the ground. For the first move the "transplanter" goes around the plant with a garden fork, and then feels for the roots. Once the tip ends are located, the soil that holds them is loosened up with the fingers. After going all around the roots of the plant thus, the same cautious tactics are persevered in until the whole network has been freed from Mother Earth. The entire mass must be moved with as little disturbance of the roots as possible.

Little preparation is required for their future home. The ground should be dug up, then pressed down, and over, and raked when it is ready to receive the homesick mountaineer, which should be placed carefully on the prepared surface—not sunk into a hole. The edges of the mass only should be covered with earth, and that slightly.

The time to transplant rhododendrons is the moment the frost leaves the ground. As a rule, in the Tamaqua region, this is in the third or fourth week in April. Though that is "the" time, such transplanting has been successfully accomplished up to the third week of May. The fact that the rhododendron is in bud matters not. It is nearly always in bud or blossom, as the buds that will burst into bloom in June are set in the preceding August.

PROFITS ON VEGETABLES UNDER GLASS

GREENHOUSE work, particularly when confined to vegetable raising, is a good deal of a mystery to the uninitiated. The fancy prices which hothouse fruits always bring naturally

The Front Door

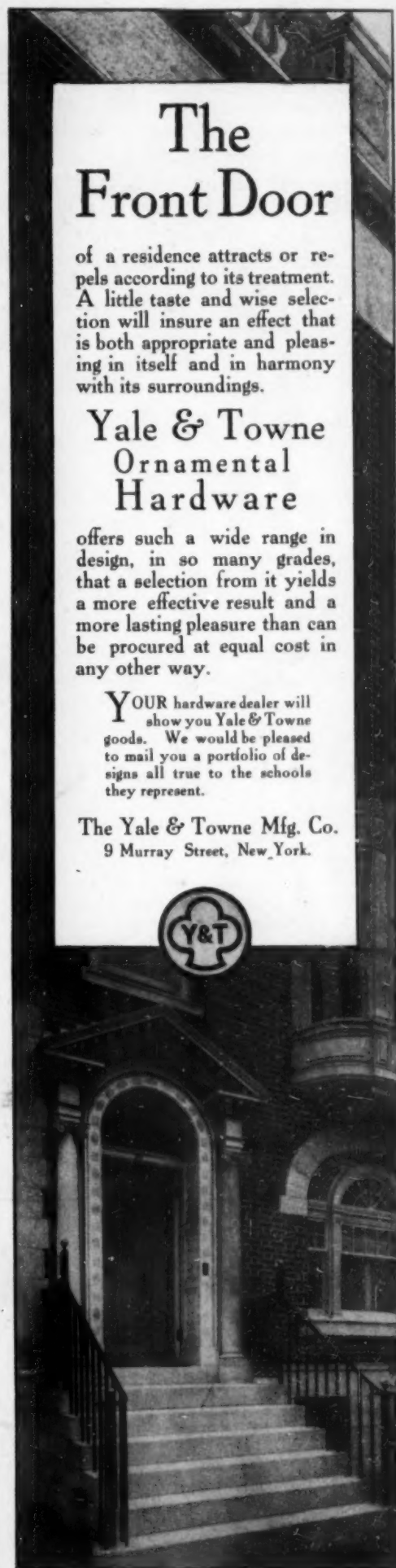
of a residence attracts or repels according to its treatment. A little taste and wise selection will insure an effect that is both appropriate and pleasing in itself and in harmony with its surroundings.

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suggest large profits. The cost of maintaining a greenhouse, providing for its heating and care, consume a large proportion of the gross returns.

Just what can be accomplished with one or two crops which, however, are not the most profitable, has been disclosed by the state horticulturist of New Jersey. This authority vouches for the correctness of the figures given below. He places the cost of maintaining a greenhouse 100 feet by twenty feet about \$300 a year. When planted in tomatoes the average marketable yield of fruit, based on an experience of some six years, has been about thirty-two ounces per square foot. This fruit, coming on the market at a time when supplies cannot be brought from the South, and are not available from outdoor crops, brings a very good price, some of it higher and some of it lower, but averaging, say twenty-four cents a pound. Carrying the calculation through on this basis, shows a net profit for a house having 2,000 square feet of about \$428 per annum.—*Florists' Exchange.*

CORRESPONDENCE

(Continued from Page 209)

JAPANESE FURNISHINGS

plain glass panels; what would you use in this room? I have enough of the curtain material for this room also; would you carry out the brown in this room, as they open into each other?

Answer: I regret that the great number of letters ahead of yours has prevented sending you the required information earlier.

Your rooms, as described, sound very attractive and I thoroughly concur with your ideas. If you will write the firms whose addresses I send, they will furnish you with prices and cuts of Japanese furniture. For the couch cover in your room I would recommend a cotton velvet. While this is not Japanese, the color is excellent and would harmonise with the furnishing of your room. Since the Japanese do not use couches at all, there could be no objection to this further inconsistency. Wherever Japanese furnishing is adapted to our homes, it is necessary to modify it to make it livable. The paper shows good color, and I would suggest that the scrim curtains be worked with dull blue and brown wool in cross stitch, choosing some very conventional design. The work should be rapid and will be much more decorative than the stencil could be. This for your dining-room. Over-draperies of raw silk in a shade of dull greenish blue in preference to the peacock blue, may be used. These curtains should be hung on either side of the window trim, outlining the scrim draperies. At your small upper window, the silk could be used alone. All curtains should extend to the sill only and should be run by a casing on small brass rods.

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House and Garden

I send you sample of the velveteen I recommend, also sample of arras cloth which is very decorative and much used in Arts and Crafts furnishings. My own choice, however, would be for the velveteen.

For your living-room use the scrim curtains decorated with the wool embroidery with overdraperies of the linen taffeta, of which I send you sample. This is very artistic, showing quaint conventional design on a self colored ground, the design being in shades of rose, blue, yellow-tan (matching your wall covering) and brown. This will make an excellent setting for your Mission oak furniture. Use the scrim curtains without the embroidery at the glass panels of your front door. Run these on small brass rods set at top and bottom of window and draw tautly in place. The price of the linen taffeta is \$2.35 per yard, fifty inches wide.

I am very glad indeed to give you the suggestions and forward you the requested addresses.

DECORATING A RECEPTION-ROOM

Mrs. W. J. P. of Nebraska, writes: I am a new subscriber, having received my first copy of your magazine yesterday. I am sure I am going to enjoy it immensely, and am writing for your help the first thing. I send a stamped, self-addressed envelope, asking a personal reply. We want you to tell us how to decorate our reception-room. It really is two rooms, a hall and a reception-room, but they are only separated by eight-inch pillars, so we want to decorate them alike. The reception-room has two windows facing east, and one south, all three on the porch; it is a room about fourteen feet square, the hall is on the north of this room, the library opens from this room (that is from reception-room) with big folding doors on the west.

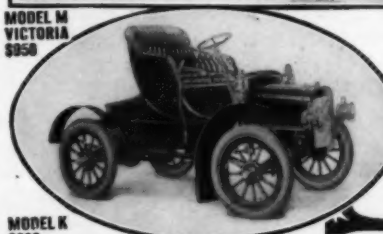
The library is decorated in dark green and browns, dark green predominating; in all the other rooms on the first floor either dark green or brown predominates and they all have cream moire ceilings. The hall is about six and one-half feet wide including staircase which is three and one-half feet wide; so you see the hall is not wide, the stairway starts with two steps facing south, then a landing; over this landing is a small ground-glass window; then the steps go to the west to another landing then turn south. The newels are all perfectly round, six-inch post; I think they are a trifle larger at bottom than top; they set on square bases; at top of stairs is a column which runs to the ceiling from second floor; this column is exactly like those between hall and reception-room. The staircase is all paneled, as is also the wall by the stairs, all the way up, it is paneled in rectangles. The west end of hall is also paneled, the piano will set there; above the stairs on the north is a large window eight and one-half feet by about seven and one-half composed of three windows; this is as near as I can picture them; the doors are in the east end of hall and are the old-fashioned double doors.

The woodwork, posts, panels, floors are all in yellow pine, but of very pretty grain. We do not want to stain or change the woodwork or floors; the furniture for these two rooms is all mahogany, with the exception of one Verne-Martin chair. The electric fixtures in these rooms consist of a large chandelier of brush brass; it is a large ball from which droops six opalescent balls,—a side wall light in brush brass over the piano, a newel

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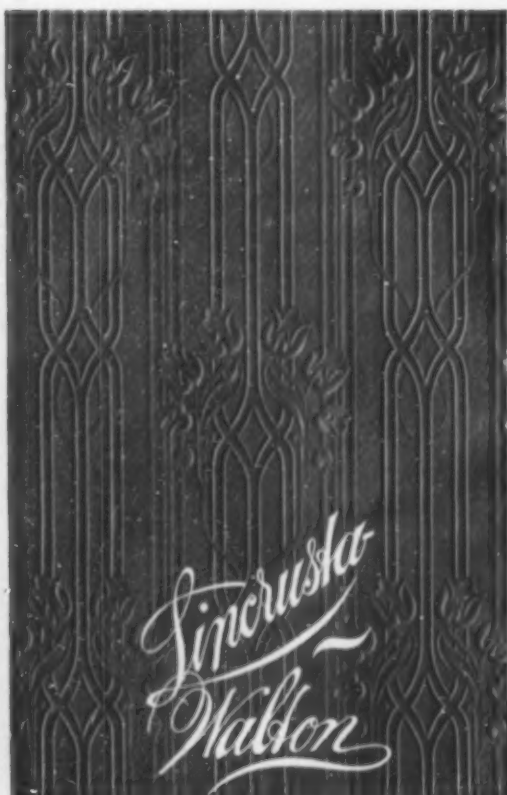
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light which is a statue in bronze with a vine twined about it, studded with small frosted lights. Now please give me an entire scheme of decorating; lace curtains, over-draperies, rugs, upholstering, and most especially I am anxious to know how to decorate the walls. Would you advise cove ceilings? We are thinking quite seriously of using relief paper, perhaps in panels with the tinted decorative cloth. I had thought of a color scheme of cream and gold with a suggestion of delicate green. I will be so grateful if you will plan it all out for me. We desire to have these rooms form a dainty reception-room, as we have a library, sitting-room and den, for ordinary uses.

Answer: Your letter has been given careful consideration, and bearing in mind the browns and greens you have used, I feel that your best choice would be a very soft yellow grass-cloth for the hall wall covering, with the formal green drawing-room paper showing conventional design with small yellow roses and bow knots. This is an English paper and particularly attractive so used. I am sending for window draperies to be used over lace or white net curtains at your reception room windows, Yame Mai silk. The price of this is \$2.50 per yard, thirty-two inches wide. The green mohair velour is suggested for door curtains or furniture covering, if you require such. Price of this is \$4.50 per yard, fifty inches wide. You will find the yellow tones of these wall coverings will harmonize with the yellow pine, and I think you will like it better than the covering you suggest as this relief work is rather out of date. I regret that I have been unable to give this earlier attention.

FURNISHING A NEW HOUSE

Mr. F. of Tifton, Ga., writes: As a subscriber to HOUSE AND GARDEN I would like some information regarding the furnishing of a new house; you will find a pencil sketch, in the rough, showing the rooms to be furnished. House fronts west, long living-room across the front with dining-room back of it on north side; the two rooms will be connected by sliding glass doors, floors continuous from one room to the other and of hard wood oiled; both rooms will have brick mantels, red in living-room, buff in dining-room, chimney in living-room will show to ceiling; living-room to be used for combination library, sitting-room and music-room. Living-room has paneled wainscot two feet high with beamed ceiling and an imaginary division with columns in center; dining-room has six foot paneled wainscot with plate rack at top and four folding glass doors opening on to side porch which will be enclosed with screen in summer and glass in winter. Our idea is to furnish both rooms with "Crafters" inlaid Mission furniture and have window seats made by the same people to match; wainscot beamed ceiling and all woodwork to be finished dark green dull Mission finish. Would like your ideas regarding this way of furnishing also wall finish, electric light fixtures, rugs, curtains, etc. Will be very glad to hear from you if you can consistently go into detail.

Answer: The rooms you describe are interesting and will allow of most attractive treatment. I am sending you some samples of wall covering and drapery materials which I would recommend for use, also the ceiling tint. For your woodwork,

I recommend a green stain such as shown on the panel I send. The scheme embodied will make an excellent setting for the "Crafters" furniture, which you desire to use. For the living-room I recommend the light golden brown Japanese grass-cloth, door curtains and upholstery material to be of the tapestry which shows conventional figures in tans, greens, old red, and dull blue. This will harmonize with the red brick of your fireplace. For window draperies, the dull green raw silk is recommended. These curtains should be run on small brass rods by a casing at the top and hang straight, reaching only to the window sill. The same window treatment is recommended for the dining-room windows, save that golden brown raw silk be used here. The wall from wainscot to ceiling line to be covered with the trellis pattern paper showing soft green leaves against golden bronze ground. The ceiling tint is attached. Plain golden brown velour should be used for the door curtain.

For electric light fixtures, I would recommend the bronze finish, showing greenish shades. The rugs to be two-tone Saxony or Wilton. You could, however, use Oriental rugs of soft rich colors if you desire.

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It remains closed until the air, which is displaced in the radiator by the steam admitted, passes down through the return main and reaches the valve, increasing the pressure and opening the valve.

House and Garden

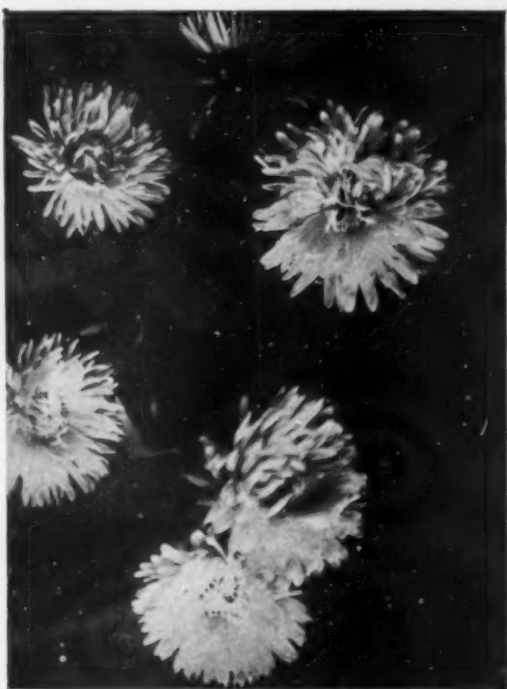
It remains open long enough to equalize the pressure between the two pipes and then closes.

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I. M. ANGELL

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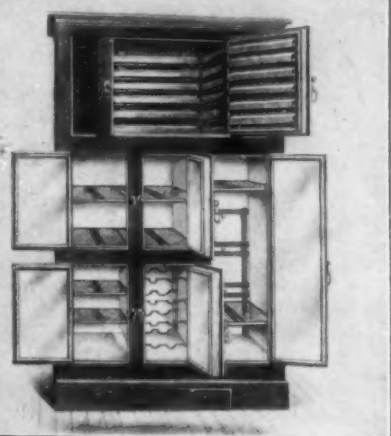
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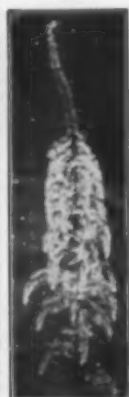
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answer the requirements, as it permits lodgments in its pores for the microbes. The sediment and all the microbes that the unfiltered water yields necessarily remain on top of the sand in the filters. It is in the economical and certain removal of this impure matter that the chief excellence of this great plant lies. The process of cleansing the sand is not unlike that operative in hydraulic mining. Thousands of fine, powerful jets of water are applied directly to the place where the impurities are located. At the same time the sand is washed by forcing the water upward through the bed of sand, instead of allowing the water to penetrate from the top to the bottom. Each separate particle of the filter's contents is turned around and ground until it has practically been scoured. Then, when all the impure matter has been collected and floats in the water at the top of the sand used for filtration purposes, it is forced back into the river again through a drain that is constructed especially for that purpose. The success of the Davenport plant is regarded as a solution of the water-supply question for nearly all Western cities.—*New York Evening Post.*

A GLANCE AT THE DECORATIVE QUALITY IN GLASS

THE origin of glass-making is shrouded in mystery. Egypt, as usual in artistic research, furnishes us with the earliest positive evidence of its practice—in representations on monuments, dating back over 4,000 years, of glass bottles containing red wine; while paintings in tombs picture a process of glass-blowing remarkably like the method used to-day. And the oldest glass left to us is Egyptian, of a dusky green color, in a very good state of preservation, probably due to the dryness of the climate.

The next in date is the greenish glass found at Nineveh, and supposed to date back to 722 B. C. It is curious to note that even in these early examples we find an appreciation of the decorative value of the material, since the glass found at Nineveh is described as bearing lions and other characters, and again also the names of the rulers at that time. But more plentiful and accessible to us who live on this outer edge of the art world is the glass found at Pompeii and

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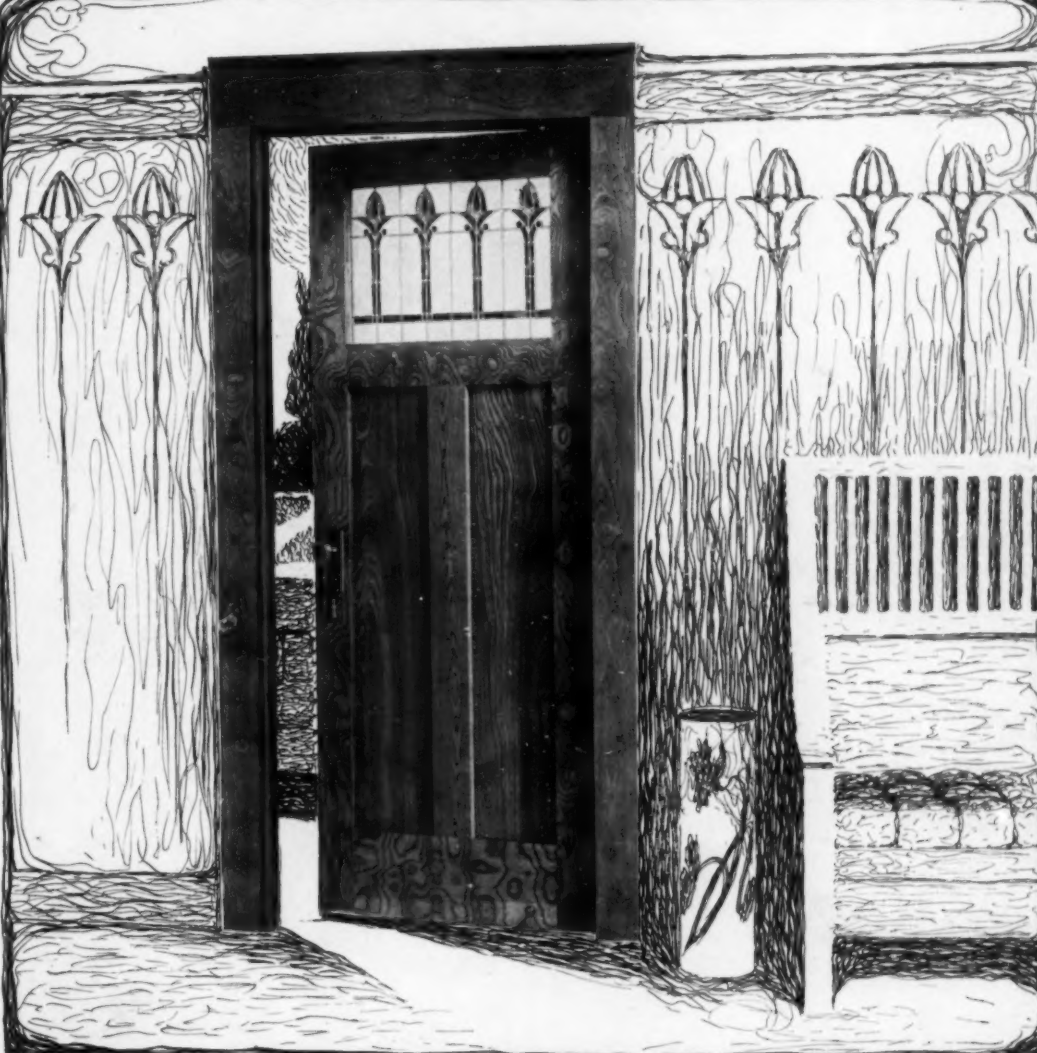


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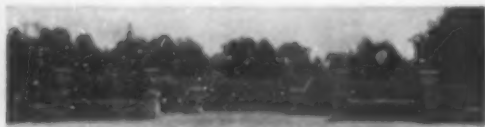
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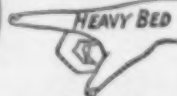


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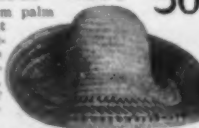
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at Herculaneum, in Roman and Cypriot tombs. Before these splendid specimens of iridescence we stand in baffled wonder, conscious of the utter failure of language to describe their beauty.

And yet all their charm is but decay; it is the song of the dying swan, the glow of a closing day, the falling of the autumn leaf, the passing away of a lovely spirit. Much controversy as to the method of obtaining such effects, and much bewailing a "lost art," was caused on the first discovery of these iridescent vessels, until it was proved beyond a doubt that their peculiar property was really the prismatic breaking of the light by minute scales on the surface of the glass caused by the action of time and the elements. This is a fact which any one can establish for himself by dipping a specimen in water, when the spaces between the scales will be filled and the iridescence will disappear, to return when the water has evaporated.

Another form of decorative glass, of Roman make, was the so-called mosaic cane. The Romans had many colors of glass, and in these canes many colored threads of glass were tied together so as to make a design in their end view or sectional face, when welded together by heat. These canes were then broken into slices, which were fused with other glass into vessels of various forms. The canes were made of large threads, and by drawing them out the mosaic could be reduced in fineness to any degree.

Still another method of decoration was the cameo glass, usually a figure cut out of white glass, with a blue ground all or partly exposed. Of this the celebrated Barberini or Portland vase is the most noted example existing, a style which evidently suggested the modern "Wedgwood" ware in pottery; in fact, Wedgwood was commissioned to reproduce the Portland vase. Many smaller pieces and fragments in this method are to be seen in museums, and are even now being discovered. Enameled glass was also well known among the Romans but more especially among a few of the Eastern nations. Still, Oriental specimens are extremely rare—which reminds one that to the present day the Eastern people in general have hardly anything to show in glass work.

[From an Address by Mr. Otto Heinigke before the Rembrandt Club of Brooklyn.]

House and Garden

AMERICAN LOVE OF HOME

APROPOS of the peripatetic habits of the well-to-do American, "an Idler" tells the following stories in the "New York Evening Post":

"I was taken through a very large and handsome residence lately, with the thoroughness that only the owner of a new house has the cruelty to inflict on his defenceless victims. One is not allowed to pass a closet or an electric-bell without having its particular use and convenience explained, is forced to look up coal-slides and down air-shafts, and every secret place, from the cellar to the fire-escape, is revealed to him. I noticed that a certain arrangement of the rooms seemed to repeat itself on each floor, and even several times on a floor.

"I remarked this to my host. 'You notice it,' he said, with a blush of pride, 'it is my wife's idea. The truth is, my daughters are of a marrying age, and my sons are starting out for themselves, and as this house is a great deal too big for us two old people to live in alone, we have planned it so that at any time it can be changed into an apartment house, at a nominal expense. It is even wired, and plumbed with that in view.'

"This answer positively took my breath away. I looked at my host in amazement. It was hard to believe that a man past middle age, who after years of the hardest toil could afford to put half a million into a house for himself and his children, and store it with costly and beautiful things, could have the courage to look so far into the future as to see all his work undone, his home turned into another use, and himself and his wife afloat in the world without a roof over their wealthy old heads. Surely this was the 'Spirit of the Age' in its purest expression, the more strikingly so that he seemed to feel rather pride than anything else in his ingenious combination. He liked the city well enough now, but nothing proved to him that he would like it in ten years. He and his wife had lived in twenty cities since they began their brave fight with fortune, far away in a little Eastern town. They had since changed their skin with each ascending rung of the ladder of success, and beyond a faded daguerreotype of two of 'the children' and a few modest pieces of jewelry stored away with the wedding-ring, it is doubtful if they

Going to Build

Buy or repair a house?

Remember this:

(renew) your roof. And you have nothing to show for the money spent except perhaps cracked ceilings, cracked walls, damaged furniture, sickness, heart-burnings, inconvenience and annoyance.

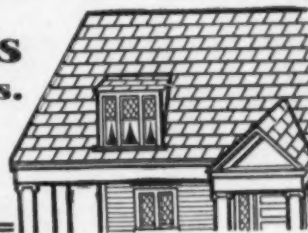
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outlive the building without paint or repairs.

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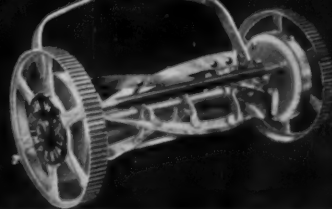
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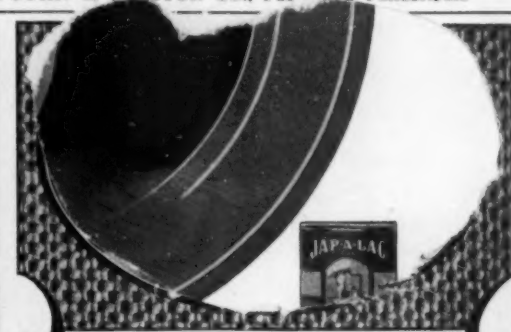
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have been easily cleaned every day since—for SANITAS is the washable wall covering. It has become incidental to the housemaid's work to quickly clean every soiled spot—to wipe away all dust and dirt. This Spring the walls are as good as new.

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REFUSE

IMITATIONS.

owned a single object belonging to their early life.

"Another case occurs to me. Near the village where I pass my summers there lived an elderly, childless couple on a splendid estate, combining everything a fastidious taste could demand. One fine morning this place was sold, the important library divided between the village and their native city, the furniture sold or given away, even the bric-a-brac; everything went, and at the end the things no one wanted were made into a bonfire and burned. A neighbor, asking why all this was being done, was told by the lady, 'We are tired of it all, and have decided to be Bohemians for the rest of our lives.'

This couple are now wandering about Europe, and half-a-dozen trunks contain their belongings."

NARROW GROWING HEDGE PLANTS

THERE are times when something of a deciduous or evergreen nature and of a narrow growth is wanted for screening or division purposes and where there is no room for anything that spreads. Should it be an evergreen that is wanted there is a choice between the American and the Chinese arbor-vitæ, the *Euonymus Japonicus* and, perhaps, some of the retinispors. For the Northern States all are hardy excepting the euonymus, which cannot be depended on where winters are severe. It does well in the States South of Pennsylvania; and the Chinese arbor-vitæ, although quite hardy in the Middle States, does much better South than North.

When something of a deciduous nature is in mind there is nothing better than the good old althæa, the rose of Sharon, as it is called, but the tamarisk is also a very good shrub to use.

For tall, slender growth, nothing equals the American arbor-vitæ and this can be recommended with confidence. It will grow in a narrow space, requiring only head room, and its height may be circumscribed if necessary by heading back the plants. It still leads all other sorts for use in the way described. The Chinese arbor-vitæ is also good, but it does not make such a bushy growth as the other.

In the way of making height and requiring but little room for side growth, the althæa is a counterpart of the arbor-

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House and Garden



THE COLONIAL HALL

Being one of a series of little talks on Interior Decoration of especial interest to readers of HOUSE AND GARDEN

THE hall shown here, while wholly Colonial in design and treatment, is entirely suitable to embody in a house of modified Colonial style.

The standing woodwork has been treated with *Ivory Eggshel-White Enamel*, which harmoniously combines with the birch hand rail and treads of the stair which have been stained with one coat of Chicago Varnish Company *Mahogany Stain*. The treatment here has been one coat of stain, one coat of *Orange Shellac*, and one coat of *Eggshel-Lac*. In this case, the last coat has been lightly rubbed to give the effect of the rubbed wax finish used in the old Colonial houses.

In the old days labor was cheap, and a semi-weekly waxing and rubbing of mahogany was part of the routine of the housework. In these present days of the strenuous life, there is no time for this, and gladly the housewife welcomes the finish for woodwork and furniture which, once properly applied, requires no further care other than the regular cleaning. *Eggshel-Lac* does not spot with water, and is a durable and beautiful finish.

The *Ivory Eggshel* and *Eggshel-White Enamel* have been fully discussed in a previous paper. Sample panels showing *Mahogany stain* and *Eggshel-Lac* finish on birch will be sent upon request, together with sample panel showing *Ivory Eggshel-White Enamel*.

The walls in this hall are covered with paper of true Colonial design in two tones of yellow. Yellow raw silk over-draperies hang at the windows, reaching only to the sill; next the glass, white net curtains are set. The ceiling is ivory white, matching the woodwork.

A bedroom will be the topic for next month, and should prove very interesting.

It will be noticed that each month we are endeavoring to give our readers some good, practical information. These "Little Talks" by Margaret Greenleaf, the Consulting Decorator, must necessarily be somewhat brief, so arrangements have been made whereby anyone wishing to obtain suggestions for the decoration of their homes or special rooms may receive same by writing to Miss Greenleaf, at 32 Vesey Street, New York, and she will, without charge of any kind, work out a plan for you, giving full details of just what you should do, sending samples of the various wood finishes, papers and draperies.

Write to-day for copy of "The Home Ideal," by Margaret Greenleaf, also wood panel showing floor finish. Send ten cents to cover postage.

CHICAGO VARNISH COMPANY,

31 Dearborn Avenue, Chicago.

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vitæ. These can be set out of various colors one color after the other in regular order, but see to it that they are all equally good growers as there are some varieties that do not keep pace with others in growth and when used the uniformity of the hedge is broken. The very late period in spring that the althæa bursts into leaf is a great advantage to those who wish to plant it late.—*Joseph Meehan, in Florists' Exchange.*

JAPANESE MORNING-GLORIES AS HOUSE PLANTS

CLARENCE M. WEED

COMPARATIVELY few annual plants can be brought into blossom successfully from seed sown in pots or window-boxes. Of these few the Japanese or Imperial morning-glories are among the most interesting and beautiful as well as among the easiest to grow. As is well known these are the most attractive of all the morning-glories. They were introduced from Japan a few years ago and have become popular for outdoor planting on account of their ease of culture and the size and beauty of their blossoms. The latter vary greatly in their form and color and are among the most gorgeous of all garden flowers.

The commonest reason for failure with these flowers is due to the fact that the outer covering of the seed is very hard. In order to insure germination a corner of the seed-coat should be notched with a file that the moisture of the soil may get access to the interior and enable the miniature seedling to break through the surrounding wall. I have found it worth while to notch the seeds and then place them in a shallow dish holding a little water. As fast as the seeds became swollen I took them out and planted them.

For growing these plants indoors window-boxes have some advantages over single flower pots. They hold the moisture better, are more even in temperature and give more room for root growths in proportion to the space occupied. I have had good success in growing them in zinc window-boxes, containing good garden soil, about four inches deep and five inches wide, the box running the length of a good sized window. The seeds were planted about four inches apart and came up quickly. The plants were vigorous and began



Japanese Imperial Morning-Glory

blossoming within a few weeks, when only six or eight inches high. They continued to grow and blossom throughout the spring making a very attractive display.

The only pests that attacked them were the ever-present plant-lice or greenflies. These may be discouraged by frequent sprayings with some insecticide, soap-suds or some tobacco solution, such as may be obtained at the florists' shops.

THE MESA ENCANTADA

F. W. HODGE, of the Bureau of Ethnology, Smithsonian Institution, has recently returned from an expedition to the Enchanted Mesa of New Mexico, which has excited the interest of scientists and the daring of exploring parties. It was brought into prominence a few months ago by the expedition of Professor William Libbey, of Princeton University, who took rope-throwing mortars, huge kites, balloons, and tons of apparatus to scale this hitherto inaccessible table-land.

Professor Libbey reported no evidences of early occupancy. Mr. Hodge's explorations have brought different results, however, for after scaling the mesa he spent some time on the summit, found a number of fragments of pottery, shell bracelets, and stone axes, establishing conclusively that the top of the mesa was at one time inhabited.

Mr. Hodge was sent by the Bureau of Ethnology to examine a series of ruins in Western New Mexico and to attend the "snake dance" of the Moki Indians. This done, he was directed to proceed to the Mesa Encantada and scale its precipitous walls in any way he saw fit.

He procured an extension ladder

House and Garden

comprising six sections of six feet each, together with an ample supply of rope, and proceeded to the mesa on September 3d, accompanied by Major George H. Pradt, Deputy United States Surveyor at Laguna, New Mexico, who is familiar with that section, A. C. Vroman of Pasadena, Cal., who acted as photographer of the expedition, Mr. H. C. Hayt of Chicago, and two Laguna Indians.

The mesa was determined to be 431 feet from the western plain to the top of the highest pinnacle above the cleft, and the talus at the base of the cleft 224 feet above the plain. The climb was without any serious difficulty, until the party reached a great sand stone. The ladders were hauled section by section to this point by means of the ropes, then fitted together and raised against the cliff. Mr. Hodge ascended to the top and climbing over the slope immediately above succeeded in lashing the top of the ladder to a huge boulder that had fallen from above and lodged on the terrace some twenty feet from the summit. The ladder was then ascended by the remainder of the party and the top easily reached. The ascent to the summit took exactly two hours and a quarter.

The explorers had not been on the summit of the mesa five minutes before Major Pradt picked up a fragment of ancient pottery.

During the afternoon and the next day Mr. Hodge examined the ground critically, while Major Pradt made a survey of the mesa and Mr. Vroman secured a number of photographs. Two potsherds, two stone axes (broken), a fragment of a shell bracelet, and a stone arrow-point were the chief evidences of former occupancy found on the narrow storm-swept crest; but abundant potsherds, etc., were found in the talus swept down from the summit. All vestiges of the ancient trail ascending the talus and continued thence to the summit by hand and footholds in the solid rock have been obliterated, but some traces of the holes remain. This verification of an Indian tradition notable for inherent evidence of accuracy is peculiarly gratifying to the students of anthropology.

Professor Libbey's ladder was discovered still lashed in place above the cleft.

Mr. Hodge's researches will arouse



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great interest among American ethnologists and archaeologists, inasmuch as they are said to show that Indian tradition should not be dismissed as 'merely mythical after only casual exploration.—*New York Times*.

LANDSCAPE GARDENERS

W. C. EGAN

THERE has been considerable discussion lately in some of the horticultural trade papers about a proceeding that may be of interest to your readers.

It appears that last spring a gentleman who had built a house in a suburban village was called upon by a man claiming to be a landscape gardener. This man offered to plan and lay out the grounds free of charge, provided the owner bought the material from him, he claiming that he could buy at wholesale prices and that the difference between and what the owner would have to pay compensated him for his trouble. He agreed to furnish plans and a list, which he did, the list embracing 350 plants. In the meantime the owner called in a friend who was familiar with laying out plans and requested him to furnish a list of what would be required to properly plant the place. This was done and the list included only forty plants. Fortunately, he was in time to prevent this pseudo landscape gardener from cluttering up the grounds with an undue number of shrubs. The scheme was readily apparent—the more plants he could force upon his unsuspecting customer, the larger his commissions.

The art of landscape gardening is obtainable only after a long and expensive preparation and is as much of an art as that of medicine, architecture or any in the list, and the ability to conceive and prepare plans is as much a part of that art as the diagnosis of a case of illness is to the physician and no landscape gardener of any reputation would any sooner think of donating that part of his services than a physician would agree to diagnose a case free of charge if you would pay him to prescribe for it. There are tricks in all trades and rogues in all professions and one should be on the lookout for them. The art of landscaping requires a special training and the more naturally fitted the man is for the calling the more proficient he becomes. Some men are born artists,

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Each member should have an especial pride and interest in the article which describes his own club and should have a copy to preserve it. The first club illustrated in this series was the Germantown Cricket Club, Philadelphia, March, 1907. Subscribe for the year and obtain the entire series. Yearly subscription \$3; single number 25 cents.

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and if they follow the profession and augment their natural abilities with due study they become the artists of history and so it is with those who paint with the colors of the shrubs and trees.

On most all places and all of any size, the services of a landscape gardener is as necessary as that of the architect, for the laying out of the grounds should be right at the start. Changes afterwards cause unnecessary cost and loss of time.

A man may be a good carpenter but a poor architect. So, also, a man may be a good gardener but not a landscape one. It is sometimes well to call in the services of a landscape gardener even before the purchase of a site, as there may be a choice of location offered, both of equal attraction, as far as the owner can see, but one capable of making the more attractive home and at less expense in the grading and preparation. The skilled landscape gardener can tell at a glance the capabilities of a place and often save the purchaser a considerable sum of money.

The same care however must be observed in choosing your adviser as in selecting an architect.

While avoiding the would-be landscape gardener who offers his services free beware, also, of the itinerant tree peddlers who go to nurseries and buy the left overs, the culls that reputable nurserymen would not sell to their customers. These are packed in bundles and shipped to several points along a railroad. The peddler then visits these stations and engages a laborer to dig holes and by plausible arguments induces his victims to buy his discarded stock at fancy prices, he agreeing to plant them "for nothing."

I know one instance where a lady was sold a crippled maiden-hair tree for fifteen dollars. She could have obtained a healthy specimen from any reputable nurseryman and planted it at a cost less than three dollars. Choose the most available nurserymen of reputation and buy of them. They will give you what is right as it is to their interest to do so.

A late blooming perennial plant of great value is the *Helianthus Maximiliana*. It makes a strong stock like a hollyhock, clothed with yellow flowers. It blooms in October.

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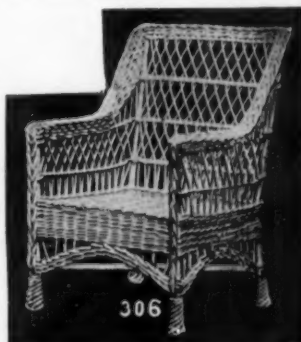
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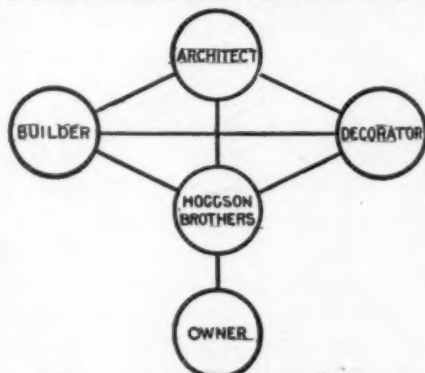
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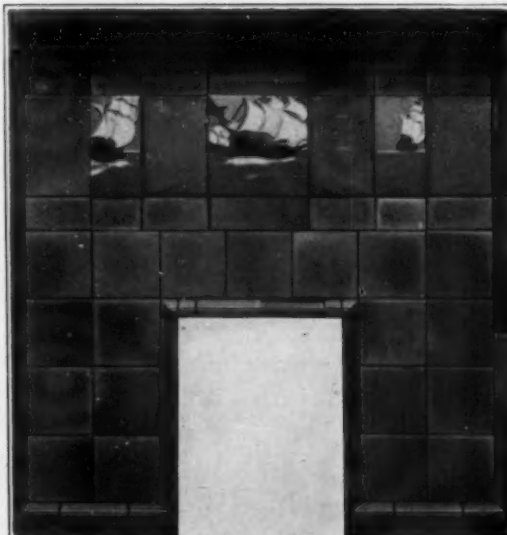
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ENTERTAINING BY THE PRESIDENT

UP to the present time our Presidents have been content to be modest gentlemen, entirely democratic in their manners and methods of life and in no degree aping those to which the rulers of European countries have been wonted. This is partly due to personal characteristics but still more to the laws and traditions directly established by the early holders of the office. It seems, now, that we may look for a change in presidential behavior, not because of the "expansion" that is going on but because of the elimination of one of the obstacles which lay in the way of our early Presidents and by its existence gave being, in part, to the tradition which prevented them from visiting foreign countries during their term of office. It was of course very doubtful what sort of a welcome would be accorded to a President of the United States who should attempt to visit a foreign potentate, and it was not felt proper that our chief magistrate should be subjected to such affront to his real power and dignity as would be implied in having to yield the *pas* to some petty German princeling at any court or public function. No laws of etiquette had been established in the foreign courts and so our Presidents have remained at home. Now, however, the matter has been definitely settled. The Czar has received the President of the French Republic as a ruler of the first class with all due honor, and the Pope, in his even more particular court, has extended like welcome to the president of one of the South American republics. The ice therefore is broken, and we may before long see our Presidents taking part in person in some important gathering where the rulers of the world are met in council. But we are as a people nothing if not hospitable, and if a President once consents to play the part of guest he must hold himself ready to act the host with grace and dignity; and how can he do this when the nation has no place wherein its honored guest can be properly housed and entertained? To send him to a hotel and have his bills paid by the Treasurer of the United States is all that could be done now, and this course would be rather more democratic than properly dignified. It would seem not improper that the Government should now provide at Washington a building, suitable in size and character,

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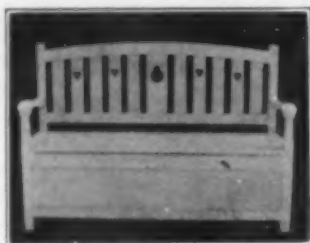
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of which a certain portion could be placed at the disposal of any one who visits the city as the nation's guest. As visitors of this class of the highest rank are rare, it would not perhaps be advisable to erect a building solely for this purpose, since it would generally stand tenantless, but it seems to us that a building could be easily arranged to give accommodation in palatial suites in its upper portion—a small suite for a distinguished civilian, a more generous series of rooms for a well-known noble or prince traveling *incognito*, while the whole establishment could be placed at the service of a chief magistrate should such a personage ever visit Washington. Meanwhile and at all times the lower story could be arranged in suites of offices and assigned to the various foreign embassies for the transaction of their official business. It would be quite a feature of the decoration of the city to encounter a grand building whose dozen or two of individual doorways were distinguished by the blazons and banners of the nations whose ambassadorial offices could be found therein.—*American Architect and Building News*.

MOUNDS OF MYSTERY

The Legacy Left by the Ancient Tribes of New Mexico

A PUZZLING enigma for scientists is the "hundred mile city of the dead," with its haunted ruins, peopled with skeletons. Much has been written of the cliff dwellers; vast volumes have been compiled concerning the ancient tribes of Anahuac, the Toltecs, the vanished descendants of "the fair god" of ancient Mexico, and all the long gone tribes of the great Southwest have had their place in fictitious and historic narrative. But who has heard of the mysterious "lost Atlantis" of New Mexico, the vanished people of the mound, whose tribes were once as the autumn leaves and who perished—not individually, but as a race—at one fell swoop, as from the avenging wrath of God?

The attention of the archæologist has been centered upon the hazy history of the cliff dwellers, upon their homes and their habits, forgetting that there exists in peculiar proximity a field of more attractive mystery. The cliff dwellers have drawn our attention because they



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left us their homes. The vanished race of Socorro county, N. M., has failed to interest us for the reason that it left us nothing—nothing, not even a wall intact or a ruin unplundered. Yet stay! Have you ever been along the Tule Rosa in the wild piñon clad regions of the San Francisco mountains? Are you familiar with that “hundred mile city of the dead,” so strangely like the lost city of Quivera, yet far, far larger and more wonderful? Have you ever entered the great excavation of the prehistoric pueblo to the south of Luna, east of the barren peaks of the Elk mountains?

The *ruinas encantadas* or “haunted ruins,” as we would call them in English, are but a few miles north of San Francisco, not the San Francisco of California, but the San Francisco of Socorro county, N. M., a Mexican and Indian pueblo older than the quaint village of Acoma, “the citadel of the clouds,” which was young when the Spanish priests and explorers first ventured into that desert wilderness, to be slaughtered as they attempted the daring ascent to the summit of the great Acoma mesa.

The pueblo of San Francisco was crumbling into decay when Acoma—so called “oldest city in America”—was young and flourishing with the blanket weaving hosts of the Aztec. Her quaint adobe “house of penates” was fast disintegrating when Montezuma in his youth looked down in all his pride and semi-savage hauteur from the gorgeous but barbaric palace of Chapultepec. So say the people of the present pueblo, whose generations have lived and perished within its narrow boundaries.

The “haunted ruins,” they tell us, are peopled yet with grim and ghostly gods of other days and with specters that still stride threateningly along the subterranean corridors. But we of to-day are too enlightened to accept this savage superstition, so we will look at the *ruinas encantadas* only as they are. There is but little left of them.

In 1867 the first white man, whose name was Smith, ventured into the forbidding fastnesses of the land of Tule Rosa.

Smith, then in the prime of life, arrived at Magdalena in quest of newer fields of gold—in quest of fortune, pleasure and adventure. A Yankee in every sense, there was no danger in the wilds

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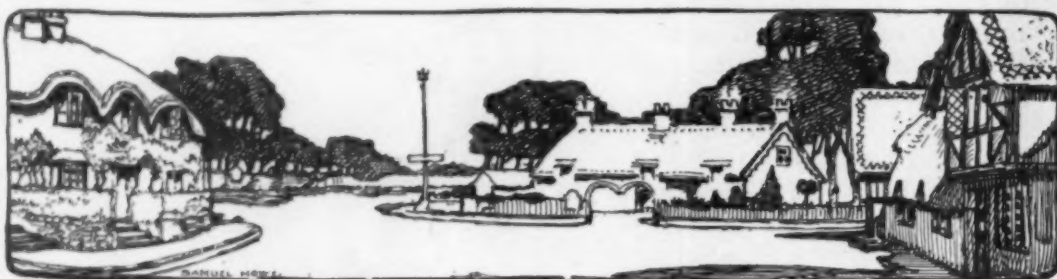
of the "hundred mile city of the dead" which Smith would fear. Geronimo nor the Apache Kid was yet in his reign of terror, but the Apaches were out for blood, and the country was a formidable one. But Smith pressed on. A hundred miles beyond the village of Magdalena, beyond the famous Horse springs, later the scene of two never-to-be-forgotten massacres—beyond the old, historic Turkey mountain and the land of piñons, where the silvery Tule Rosa winds and has wound its way for centuries untold—this valiant pioneer of the West ventured with his burro train and trusty knife and rifle.

Smith, whom the author had the pleasure of meeting shortly before his death, was by nature intended as an archæologist, for his love of the rare and curious, the mysterious and antique, was directly responsible for his final determination to reside in that land of ruins and relics. Until the day of his death he never left the "hundred mile city of the dead," but remained for over thirty years to explore its mounds and caverns.

To the tireless efforts of this sturdy pioneer the Smithsonian Institution owes some of its most valuable New Mexican antiquities. It was he who excavated the *ruinas encantadas*; he who first brought to light the many mysteries of its grim and ghostly grottoes.

Shortly before Smith died he took me through an excavated mound not far from the "Mound of Mystery." In its several apartments, arranged on crude piñon-limb shelves, I viewed hundreds of the relics and skulls of the vanished people. There were arrows, quoits, beads, meal grinders, bowls, burned and figured pottery, strange shapes of earthenware, stone tablets covered with indecipherable hieroglyphics, implements of agriculture, a great granite plow, ducks, birds, earthen penates and weird idols, bones, skulls, vases and countless little trinkets whose names I could not guess. There were lumps of copper, zinc, iron and lead, all of which possessed no tangible shape, but which revealed the knowledge of minerals that had been acquired by the vanished people.

The "Mound of Mystery" is undoubtedly all that its name implies. No explorer of that land of ruins, no archæologist familiar with the "hundred



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mile city," has ever been able satisfactorily to explain its secrets. But it is a mound rich in antiquities.

Externally, before its excavation, the "Mound of Mystery" appeared but a huge pile of rocks and debris not different from the thousands of other crumbled abodes of the prehistoric people. But the spade and pick of the explorer brought forth developments of a startling nature.

There are many apartments and narrow corridors in the "Mound of Mystery." The latter are less than five feet wide; the former are spacious and paved thoroughly with cement. This cement, strange as it may seem, is of a quality not surpassed by modern manufacturers. Despite the countless ages that have elapsed since the occupants of that house of death met their tragic end, the floor paving and the walls are still practically intact. Blocks of the cement which I tested show it to be almost of adamant hardness.

In one of the larger rooms of the haunted ruins, or "Mound of Mystery," as Smith designated it, were found over seventy human skeletons—men, women and three infants. Most of these skeletons were unearthed in sitting postures, leaning against the walls, as if their death had been simultaneous and the "blighting breath of God" had smitten them as they sat—instantly, inexorably, thoroughly. One body, crouched in a corner, was strangely decorated. A large earthen bowl covered the head, as a skullcap. Across the thigh bones rested another, but a smaller one. In this bowl were many stringless, colorless bone beads. Here, there, everywhere, upon the floor, lay thousands of bones, taken one at a time from the mass of sand and rock that had filled the chambers. Their weapons, their utensils, their gods, all, everything, still lay about the premises, covered by the wreckage of the roof and the drifting sands from the desert edge.

The "Mound of Mystery" is not the only one in Socorro county which contains such things, but is more rife with treasures than the rest. Scarcely a mound in all that "hundred mile city of the dead" is without its skull, its pottery or penates. But the "Mound of Mystery" is like a palace among huts, a great labyrinth of grottoes among the lesser cells.



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An examination of the skulls in the *ruinas encantadas* shows that if they were Indians they were far from like the Indians of to-day. The flat forehead, the prominent nose, the narrow vertebrae and other Indian characteristics are not to be found in the skulls as they exist in this one big catacomb. The forehead is rounded, the temples full, the cheeks low and receding, the chin square, the nose small. Who, then, were the strange inhabitants of that ruin? Can it be that they were related to the Toltecs—those enlightened predecessors of the hosts of Montezuma—and that it was from this land that Anahuac first was populated?

History tells us that the tribes of Chichimec "came down from the North," and it is known that to the North went the victim gatherers for the sacrifices of Huitzilopochtli. From the North, too, according to Prescott, came Quetzalcoatl and the later Aztecs.

The mystery of the haunted ruin can never be positively dispelled. Neither will we ever know the cause of the terrible and far sweeping death that came so simultaneously upon that people of the "hundred mile city" of Socorro county.

Scientists still speculate. Archaeologists are offering us many and conflicting explanations, but the "Mound of Mystery" still stands there, grim with its grinning skulls and ancient, storyless relics—its grottoes somber with its gloom and stillness of the centuries—its walls frowning down upon the silvery waters of the Tule Rosa, at the edge of the sandy desert waste, like a sphinx of the great Southwest Sahara.—*San Francisco Chronicle*.

CHEMICAL PERFUMES

PROF. R. K. DUNCAN gives an account of the natural and the artificial production of perfumes for commerce in Harper's Magazine. It includes, also, a description of the chemical production of natural perfumes. An extract of coal tar produces at one-tenth the cost a substance which is identical, physically and chemically, with the essential constituent of oil of bitter almonds. The essence of wintergreen is methyl salicylate. The essence of coumarin, which is the basis of the delicate and tenacious odor of "new-mown hay," is derived from the

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"deer-tongue," an herb flourishing in Virginia, Florida, and Carolina; but it is also produced chemically in Germany. Vanilla is got out of benzoin, asafœtida, beet-sugar, asparagus, pine resin, and a score of other substances, including potato peel, and it is extracted from oil of cloves. Veritable camphor and natural nicotine are chemically produced.

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Yet there has been an enormous extension of violet cultivation, Prof. Duncan says, since the advent of the chemical equivalent of that perfume, and in no single case has a "synthetic" perfume injured the market of the natural product.

The reason is, first, that most of the "synthetic" oils are themselves derived from plant sources; moreover, they require blending in greater or less degree with the distilled natural perfumes, which contain minute substances that are of value. Then, with cheapened cost of production, there is a widened and more profitable market. The annual flower harvest in the village of Grasse, near Cannes, illustrates the vast proportions of the business of raising natural perfumes. About 900,000 pounds of violets, 35,000 pounds of jonquils, 3,300,000 pounds of roses, 4,500,000 pounds of orange flowers, 1,320,000 pounds of jasmine, 176,000 pounds of lavender, and prodigious quantities of thyme, myrtle, rosemary, aspic, red geranium, and cassia-flowers, aid in swelling the total of twelve billion pounds of flowers annually gathered for distillation in the neighborhood of this town. Something like five billion jasmine flowers are each year picked by hand near Grasse; of distilled rose



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TOOLS OF THE ANCIENT EGYPTIANS

A TWO years' study of Gizeh has convinced Flinders Petrie that the Egyptian stone-workers of 4,000 years ago had a surprising acquaintance with what have been considered modern tools. Among the many tools used by the Pyramid builders were both solid and tubular drills, and straight and circular saws. The drills, like those of to-day, were set with jewels (probably corundum, as the diamond was very scarce,) and even lathe tools had such cutting edges. So remarkable was the quality of the tubular drills and the skill of the workmen that the cutting marks in hard granite gave no indication of wear of the tool, while a cut of a tenth of an inch was made in the hardest rock at each revolution, and a hole through both the hardest and softest material was bored perfectly smooth and uniform throughout. Of the material and method of making the tools nothing is known.—*Invention.*

MOVING A TALL CHIMNEY

A TALL steel chimney-stack of the Meriden Curtain-Fixing Company, at Meriden, Conn., which had been thrown nearly a foot out of plumb by the settlement of its base, was recently not only restored to a vertical position but removed bodily a distance of fifteen feet horizontally. The stack was of riveted steel three-eighths of an inch thick, and 100 feet high. It stood sixteen feet above the ground, on a pair of seventy-two inch horizontal boilers with an eight inch wall between them, under the center of the stack. In planning for the straightening and removal, ten braces were first riveted to the base-plate and the stack and the boiler which had settled was blocked on four jack-screws. Two pairs of steel girders, twenty-eight feet long, were placed underneath the base-plate and the stack was brought to a vertical position by jacks under each end of the girders. The girders extended from a wall about two feet outside of the boilers to a new brick foundation, five and one-half feet square and sixteen feet high, the intermediate distance being filled-in with

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false work to prevent springing while the stack was passing. Two yellow pine shoes, five and one-half feet long were inserted between them and the base-plate of the stack. The top of each shoe was bevelled at the ends in a peculiar manner. At one side of each end the bevel began eighteen inches from the end and on the other side twenty-four inches, so that when the two shoes were properly arranged they could take bearing only under the edge of the stack and strains on the thin outer edges of the base-plate were thus avoided. Iron brackets were clamped to the tops of the girders to serve as reaction pieces, and jack-screws were set horizontally between them and the ends of the wooden shoes and base-plate to push the stack along on the girders, which were lubricated with oil and soft soap. Each jack was worked by two men, who advanced the stack one-eighth of an inch at every stroke and moved it to the new position in three hours. The guys that were already attached to the stack were considered too weak to be relied on and no use was made of them in the moving, the base being kept so level that the stack was never more than six inches out of plumb. The work of removal was accomplished by five men in two days.—*Providence Journal*.

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IN the principal corn-growing regions of the United States, as a rule only the grain is harvested, the stalks being left in the field to be eaten by live stock, or raked and burned. It is estimated that in this way nearly one-half the food value of the corn plant is wasted.

The United States Department of Agriculture, has just issued Bulletin 173, "The evolution of corn-harvesting machinery," by C. J. Zintheo. This bulletin describes the various machines which have been developed for harvesting the corn plant and preparing it for stock feed. It gives statements of cost, the length of service which may be expected under ordinary conditions, and the work which can be done with the various machines.

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**HISTORICAL "OLD RED HOUSE" BUILT
ONE HUNDRED AND SEVENTY
YEARS AGO, TO BE A MUSEUM**

Structure that has stood since 1735, after
Remarkable Life in the Colton Family,
may be given to Longmeadow.
Long Life of Owners

FOR 171 years the "Old Red House" has remained in the Colton family of Longmeadow, Massachusetts, a reminder not only of Revolutionary days but of events forty years previous to that time. Now the house has been sold to T. W. Leete, a prominent business man of Springfield, but who lives in Longmeadow, having purchased it to preserve it for the town. It is very likely that it will eventually become a museum for the town and that interesting mementoes several centuries old will be given to start a historical collection. Just what Mr. Leete's plans are have not been made public, but it is very likely that the Historical Society will be given rooms in the old house.

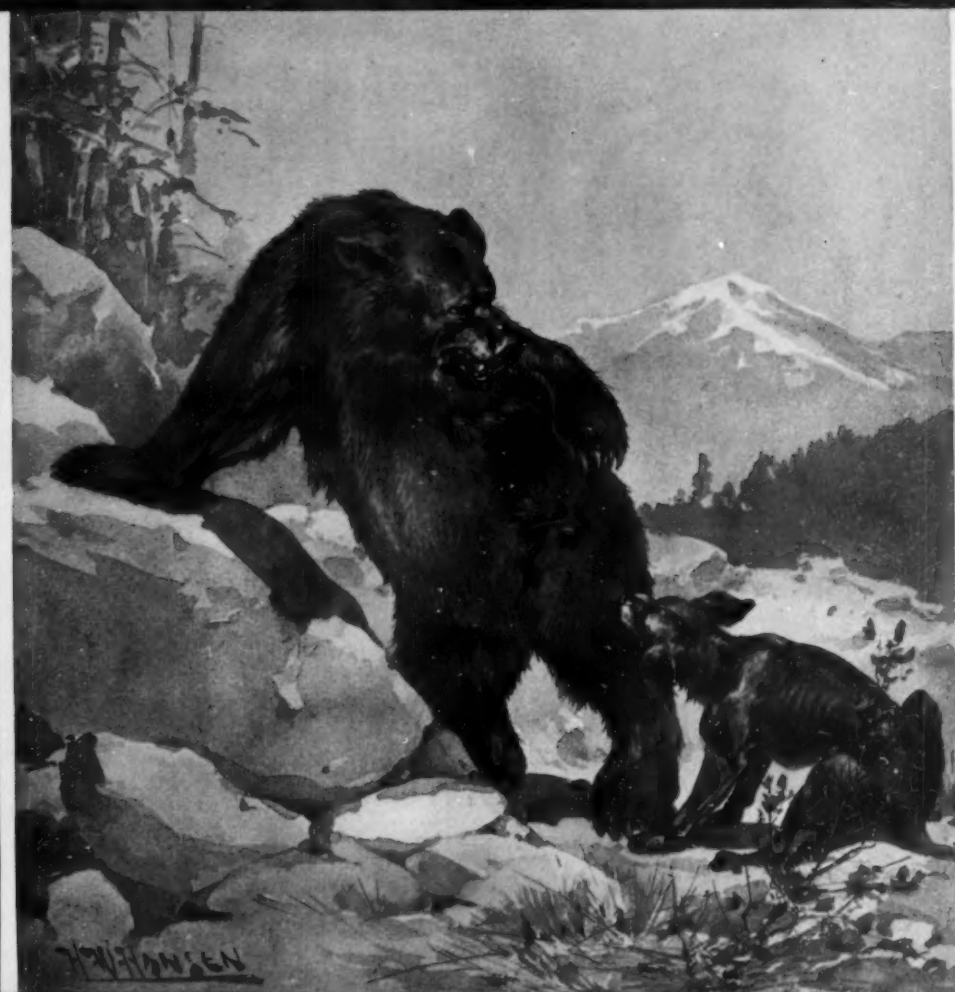
The house is the oldest in town preserved in its entirety. There are several other houses with small sections which antedate the "Old Red House," but these houses have been so changed and added to that they can hardly be classed with the Colton homestead.

The "Old Red House" was built by Captain Simon Colton in 1735. He was a prominent man in the affairs of the place and was a soldier in the French and Indian wars that preceded the Revolution. He kept the house as a tavern before and during the Revolution, and the old tin lantern, perforated with holes, which Captain Colton swung nightly from the elm tree overshadowing the house to direct the travellers is still in existence and highly prized.

Captain Colton lived in the house sixty-one years, dying in 1796. He left the property to his fourth son, Major Luther Colton, who was also a man of importance in the community and had served in the revolutionary war. The Major was married twice, his second wife being a widow, Mrs. Mehitable Deming, of Wethersfield, Conn. She was a remarkable woman, and after Major Colton died, in 1803, she lived on in the house for fifty-three years, dying at the age of ninety-three. She was known as "the Widow Major."

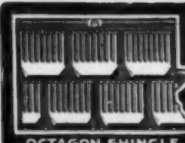
A granddaughter, Mrs. Elizabeth Parker Colton, cared for "the Widow

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Major" for many years, and after the latter died stayed in the house until her own death in 1898, having lived in the house seventy-five years. Captain Simon B. Parker, a direct descendant, has lived in the house for sixty years and still occupies a portion of it. He was one of the heirs who sold it to Mr. Leete.

Eight years ago Captain Parker put the house in good repair. He painted it the original color, according to a board found in the house, and kept all the original features, only adding a veranda on the south side. The old elm which has guarded the house since it was first built is thought to be not less than four hundred years old.—*New York Herald*.

DISCOVERIES AT TREVES

THE excavations that have been going on for months past on a plot of ground belonging to Herr Schabb, a manufacturer at Treves, have resulted in the discovery of a Roman private house, which will excite the interest of antiquaries almost as much as the famous public buildings at Augusta Trevirorum. The front of the house lies parallel with the principal street of the old Roman city. A number of blocks which served as pedestals for the wooden or stone pillars of a portico still remain. The entrance is distinctly recognizable between two buttresses and an immense heap of stones. A long entrance hall running right through the house, from front to back, is intersected by another corridor, so that the gigantic building is divided into four parts. Side corridors lead into the rooms. Of these the marble tessellated bath-rooms for hot and cold water and warm air lie side by side, and deserve special mention. The two latter were supplied with warm air through subterranean passages. The escape of the smoke was effected by means of hollow tiles laid on one another. The southwestern rooms have cellars under them. In a light court in the same part of the house there is a well-preserved window, the first ever found in a Roman building. The most interesting thing, however, is the magnificent and richly colored mosaic floor, a rarity of the first order. Experts assign the building to the first half of the fourth century, when Augusta Trevirorum attained the zenith of its splendor under Constantine and his sons.—*Berlin Despatch to London Standard*.



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BRAZIL'S JUNGLES

THE jungles of Central America and Brazil are masses of vegetation so dense that it is practically impossible to penetrate them. Swain and his party when crossing the isthmus of Darien labored hard with their hatchets and machetes the whole of one day and achieved but half a mile. In many parts of Central America the undergrowth renews itself so rapidly that it is almost impossible to keep a road open through it. In one instance in Honduras a road sixteen feet wide was made by engineers and laborers through a jungle, the underbrush and vines being cut away even with the ground. Two weeks later, returning to complete the work by laying stones on the roadbed, they could not find the road, vines having completely filled the vacant space.

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