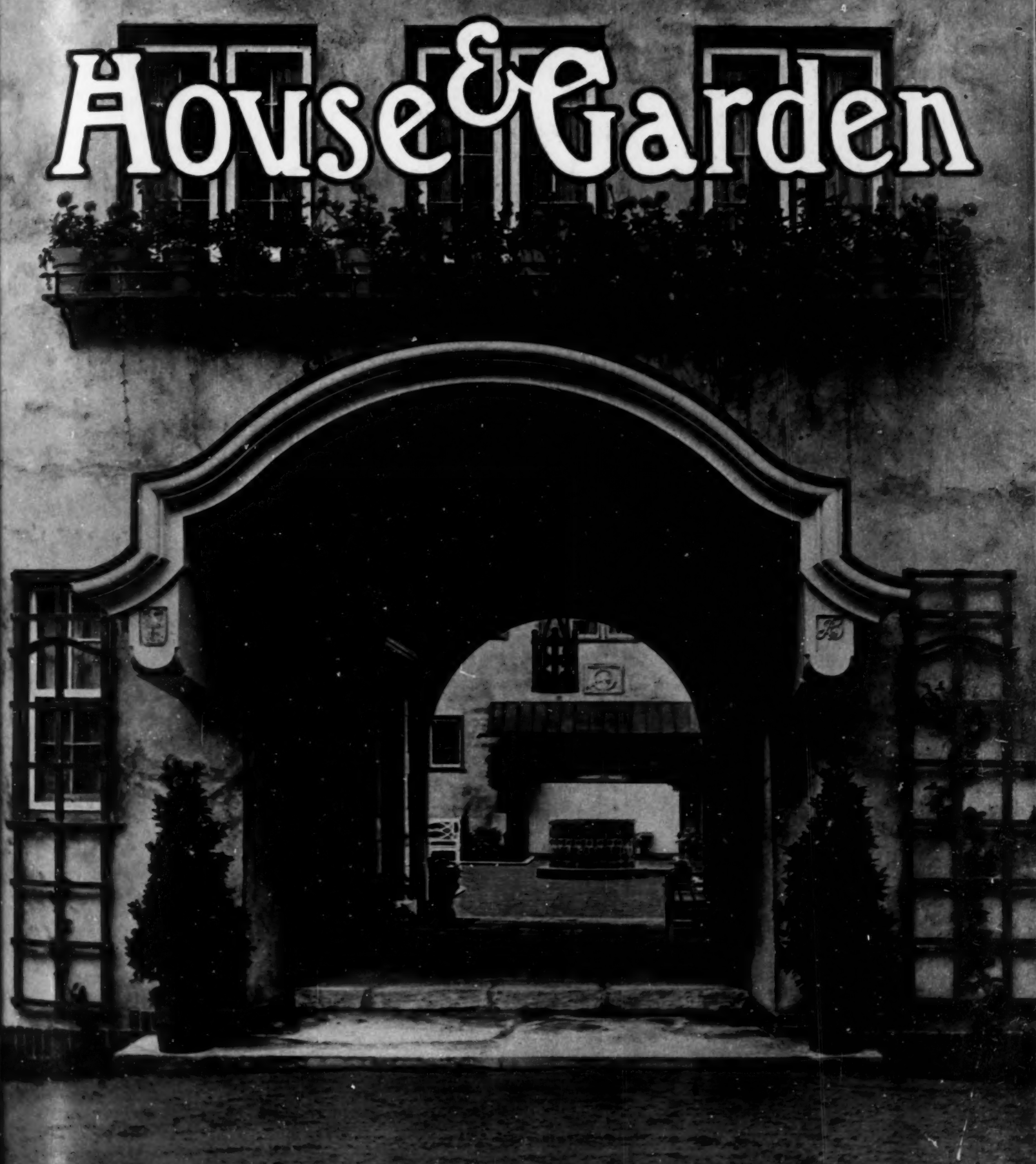


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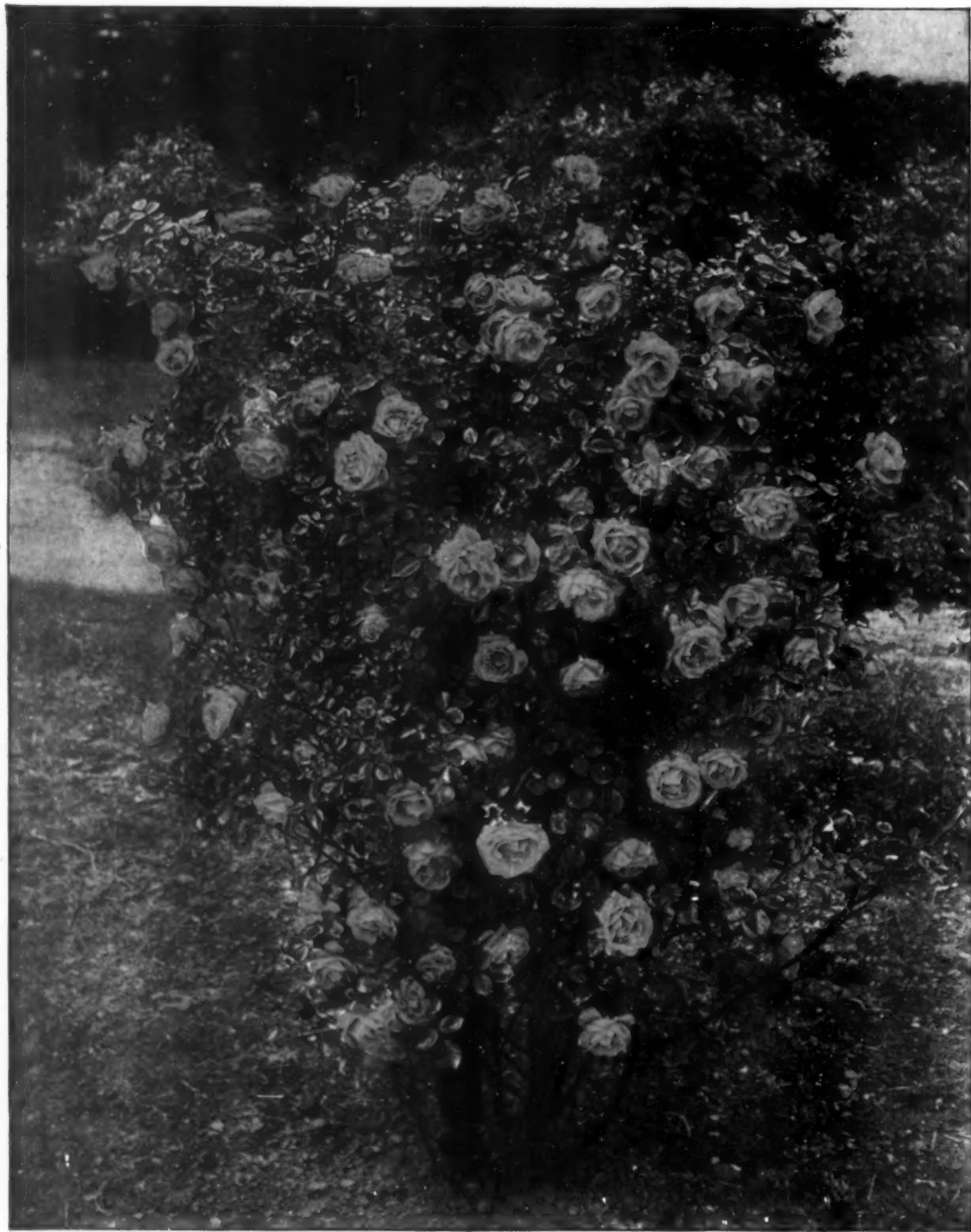
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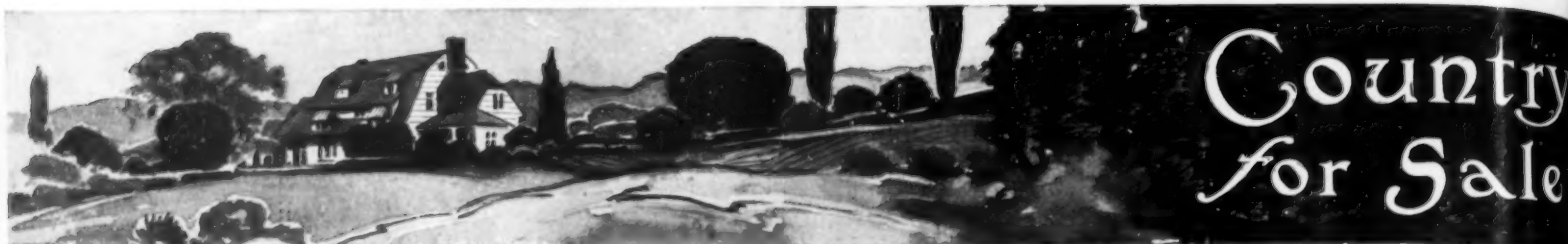
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Travel

Alfalfa for Poultry

THOSE living in a village or on a suburban place, who must confine hens in yards, have difficulty in providing suitable green food for them, and without a cheap source of green food, hens kept in confinement are less profitable than those which have the run of a grass range. If one can easily supply hens with green food, which has so large a protein content, that the grain ration can be considerably reduced, the net profit will be greater. Fowls are kept in better health, and have stronger vitality when supplied with green food all the year.

I have kept a large flock of hens on my village place for several years. I am now



While one crop of alfalfa is growing the hens can be turned out to eat another

satisfied that the best crop to grow for them, that provides a succulent food in summer, is alfalfa. A plot of alfalfa, well established, a rod or two square, will furnish a flock of 50 fowls with green food all summer. Good rich garden soil, that is drained, is just the place for the alfalfa bed. If one is doubtful about growing alfalfa, he can grow it in drills, if the conditions are made right.

Early in the spring when the soil has dried out so it crumbles in the hand, plow or spade up the plot for alfalfa, and if it is not rich enough to grow a large crop of corn, work in and mix well with the soil, stable manure or high grade commercial fertilizers.

The clover family, of which alfalfa is a member, requires lime as a food, and more than most soils contain, so it is a safe thing to do to apply lime to the alfalfa bed before sowing the alfalfa. If one can buy ground lime, he can sow it over the bed as he would his fertilizer, but if stone lime is used it must be put in small piles and slacked by covering with soil, afterward spreading it with a shovel. One ton to the acre is about right, if one cares to figure it for a small plot, but there is not much danger of getting on too much. The lime should be applied early in the spring, either before or after the manure, as no harm will come, unless lime and manure are brought in close contact in the same pile. Wood ashes can be used in place of lime, as they are one-third lime, but a considerable quantity is needed.

Work the plot over every few days, so as to get it in good tilth, and destroy the first crop of weeds. The last of May or



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the first of June, the plot is ready for sowing. The early sowing of alfalfa is not always necessary but it is safer where the summers are short, as the roots get down deeper before winter. In well prepared soil, alfalfa sown in June or July, generally winters well, and in latitudes south of New York, late sowing is quite safe. Sow at the rate of 30 pounds of seed per acre, if broadcasted, and with it a thin seeding of barley for nursecrop.

For those who wish to grow alfalfa in weedy soil, or wish to study the plant, and learn its requirements, I advise the sowing of it in drills. Make the bed just as you would for onions. Rake off the surface finely, and sow quite thickly in drills eighteen inches apart, and cover the seed one-quarter of an inch deep. Work the space



Alfalfa under netting, through which the hens may pick

between the rows with a wheel hoe, and keep the bed clean. With this plan, all vacancies are filled easily by sowing more seed and extra fertilizers can be applied between the rows as needed. It is well to place a mulch of coarse manure between the rows early in winter.

A small crop will be cut the first year, thereafter four crops a year for many years. The green alfalfa can be cut in short lengths with shears or a clover cutter and placed in slatted boxes, or if one has two or three plots, the hens can be turned out to eat one down while the others are growing, as shown above. When the fowls get accustomed to the alfalfa they will eat it as readily as grain.

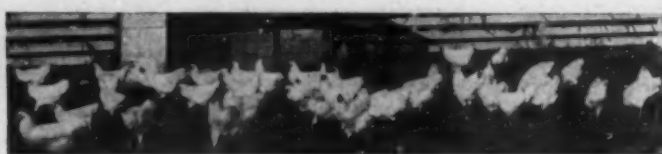
One method I have worked out is to sow a bed of alfalfa in the hen yard, cover the bed with wire netting, and let the hens pick the alfalfa through the wire netting. The bed needs some care to keep the alfalfa clipped, and two beds are better, so one can grow while the other is being eaten off.

One fact I have demonstrated with both the cows and hens. After one has obtained the largest production possible with all other foods, the production can be much increased by supplementing them with alfalfa, and I have discovered that the cured alfalfa or alfalfa hay will take the place of alfalfa meal in winter for poultry.

W. H. JENKINS

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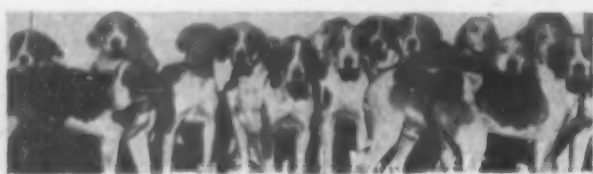
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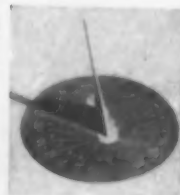
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been advised that plaster will draw moisture. The house is 16 x 40 x 8 with a peaked roof, small window in each end of attic; also two ventilators through the roof.

Would you plaster the entire house or only the walls, leaving the ceiling lathed and the upper part filled with straw during cold weather, or would you plaster the entire inside? We have six windows on south side, three on north side on an alleyway. I believe the new plaster is as hard as flint. I want a house that I can keep perfectly clean. Thanking you,

W. M. R.

Fresh-plastered walls will exude moisture until they have dried. After this condition has righted itself. I do not see why your walls should draw moisture any more than the walls of a dwelling.

I suppose you have space between the outside wall covering and the lath that you purpose to plaster, and this air space together with the proper inside ventilation obviates any tendency to sweating after the moisture used in the making has evaporated.

Beware of leaks. Careless outside workmanship would result in damage to your plastered wall, causing it to drop.

Aside from its appearance and the smooth surface, the plastered ceiling has no advantage over the loft packed with straw in winter and empty in summer. Indeed, in summer this empty loft would have a distinct advantage in cooling the room below, for possibly your roof ventilators will not prove adequate under all conditions. I found such to be the case in a hen-house about half the size of yours with one ventilator in the center of its peaked roof.

The difficulty with the overhead ventilator is that while it relieves the room of heated air, the cooler air near the floor does not become so heated and escape with its impurities. If, ultimately, you find this to be the case, you can insure fresh air by fitting muslin covered frames to at least two of your south windows, using them instead of glass.

The "Mad Dog" Superstition

ONE generally expects to find superstition a thing of the past in these enlightened days, but popular ideas in regard to dog diseases are still at the witchcraft stage. How many harmless dogs have been killed because some hysterical persons thought they were mad! Many believe that the bite or snap of even a healthy dog will bring on hydrophobia if the dog should get the rabies some time afterward, so insist on the death of the animal. Such ideas are as ridiculous as they are groundless. Comparatively recent scientific investigation has proved that the saliva is virulent from six to eight days before the animal develops symptoms of rabies, so that if the dog remains healthy for ten days after the bite no danger need be feared, even if he should get the disease during the next few weeks. With the modern Pasteur treatment and an intelli-

gent attitude toward the "mad dog" many of the dire results can be eliminated.

The case is much the same whenever a dog has fits. It is at once thought a case of rabies and very often the innocent animal killed. There is as much ground for prescribing the same treatment to epileptic patients, for these diseases are quite similar. Although fits are very familiar to most dog owners, they are none the less dangerous. In puppies they are called convulsions and result in a condition very like that seen in the infantile sickness of the same name. Rest and quiet will do more for the animal's recovery than anything else. Cover him with a blanket when the attack first seizes him and carry him as gently as possible to some darkened room or cellar where he can be made comfortable. The presence of direct sunlight is irritating and retards recovery. It is of prime importance to use as little force as possible—simply be at hand to see that he does not injure himself. As soon as the dog has calmed down and is relaxed enough to swallow, administer from 2 to 20 grains (according to maturity) of bromide of potassium in a little camphor water. Repeat three times a day for a few days and keep on a milk diet. Keep him away from all excitement or petting and the trouble will be of no serious account.

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After removing the forms for the utensils, grind off any irregularities and make the surface perfectly smooth. Keep the concrete damp for about two weeks and then give it a thorough washing and allow it to dry. These preparations complete, mix up a solution of 1 part sodium silicate, 40 per cent. Baume, with 4 to 6 parts water—total, five to seven parts. (A dense surface does not need as high a proportion of chemicals as a porous one.) Apply this water glass solution with a brush and after four hours, but not more than twenty-four, wash the surface with clear water and again let the surface dry. Then again wash the surface, and repeat this process until three or four coats have been put on. It will then be found that the sodium silicate (water glass) has penetrated the pores of the cement and formed a chemical combination with it which makes a hard insoluble surface $\frac{1}{8}$ to $\frac{1}{2}$ inch deep, according to the density of the concrete. The excess particles washed off the surface by the clear water, permit the solution to combine with the alkalies of the composition by a more thorough penetration. Concrete so treated receives a waterproof surface, insoluble, hard and impervious, which is perfectly sanitary and adaptable to numberless uses.

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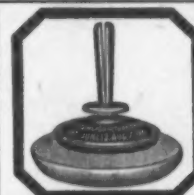
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(Signed) Isaac N. Seligman.

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(Signed) William H. Staake.

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HENRY H. SAYLOR, EDITOR

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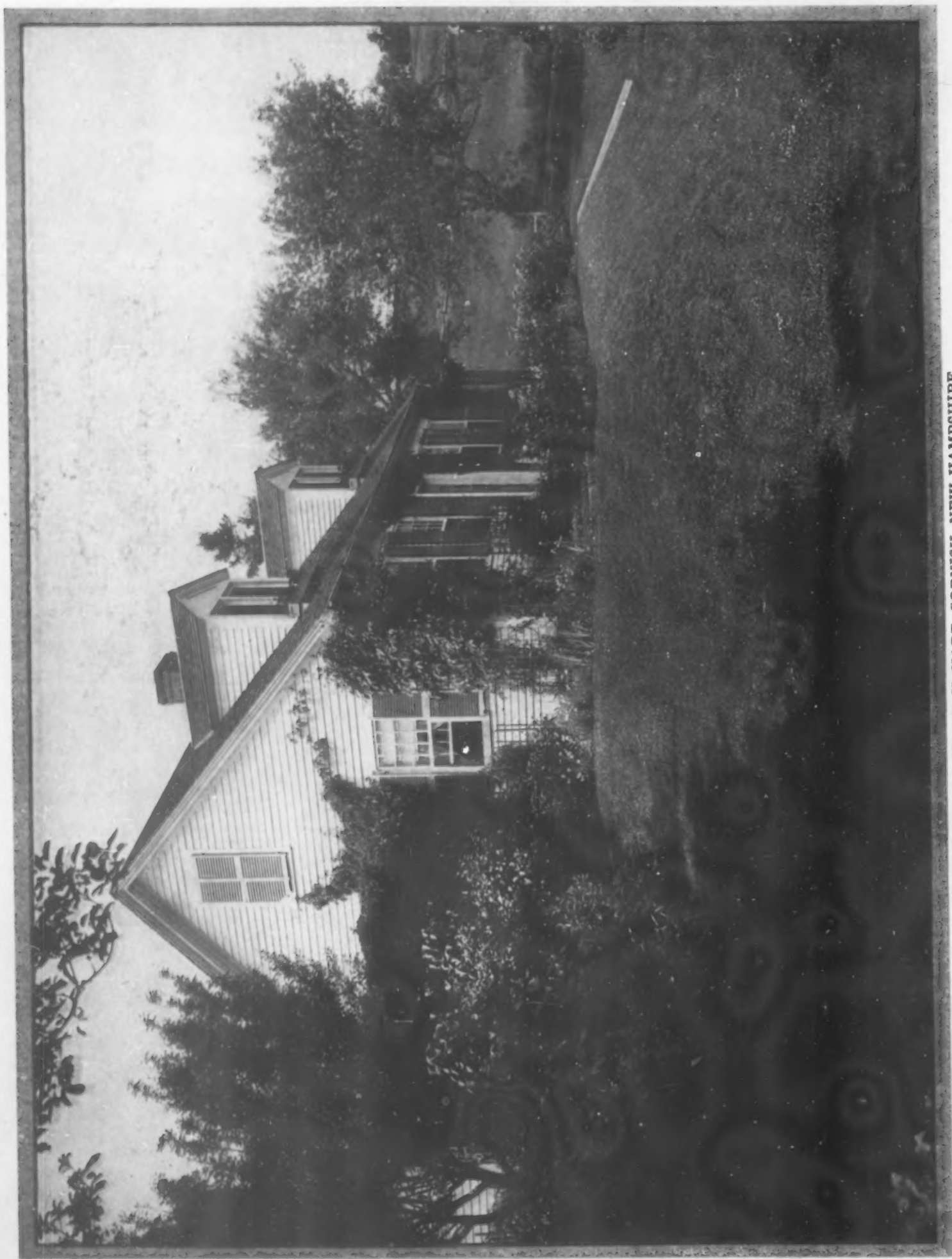
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THE HOME OF MR. W. H. HART, CORNISH, NEW HAMPSHIRE

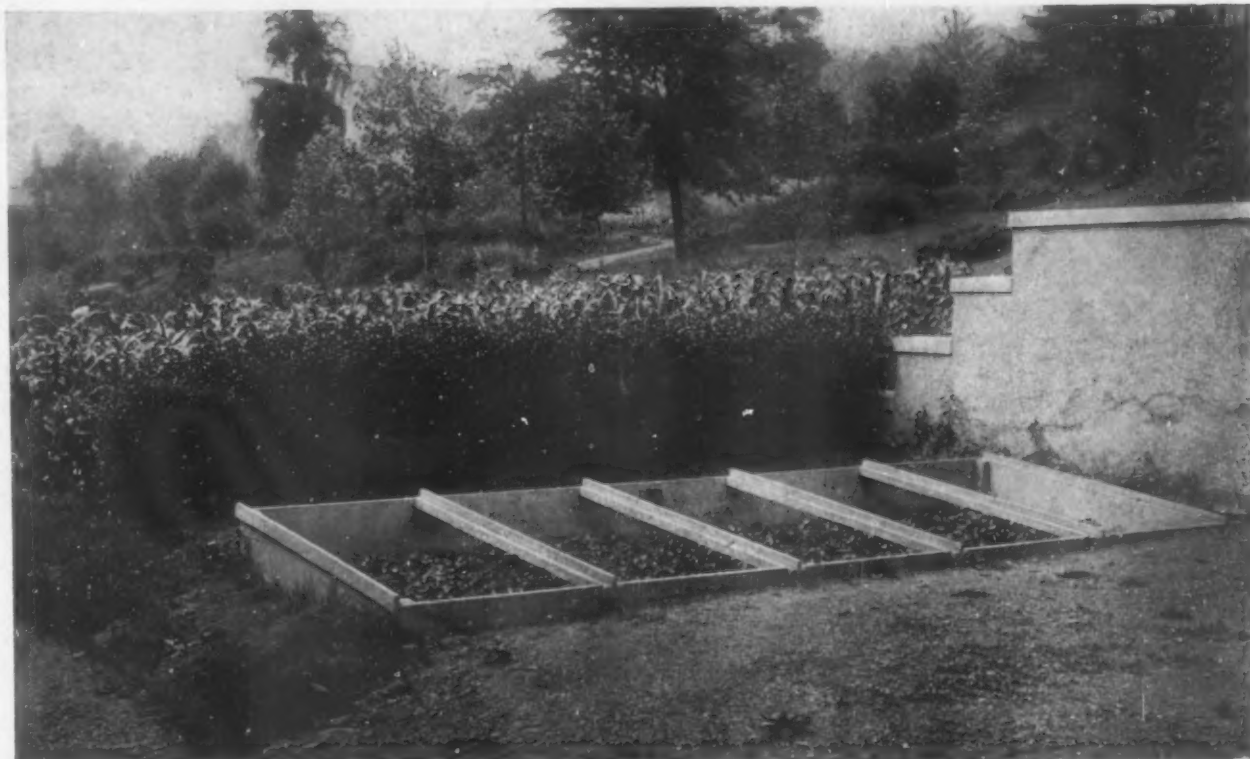
Mr. Hart has added to the list one more striking example of the possibilities that lie in old farmhouses. With very slight alterations and a particularly well thought out planting scheme, he has transformed this century-old house into a most attractive country home

House & Garden

VOLUME XIX

March, 1911

NUMBER 3



Whether your place is one of several acres, or merely a plot 50 x 150 feet, you should have a hotbed or a coldframe to gain a month on summer every year and to carry over through the winter tender plants that cannot survive exposure

Hotbeds and Coldframes: What They Are and What They Will Do

BY C. H. MILLER

Photographs by the author and others

NO garden is complete without a hotbed. It not only furnishes an outlet for your pent-up energies when the March sun feels good on the back of your neck and you long to get out and dig in the soil, but by means of hotbeds and coldframes the bearing season of your garden may be extended several months. You can raise an abundance of flowers from seeds at very little cost and with reasonable assurance of having them succeed when the warm weather comes and they are set out in the open, and the tiresome two months' wait after the seedman's catalogue arrives and before anything can be planted, is reduced to immediate action. By means of a few glass sash, the winter of our discontent is made glorious summer. As Kipling says:

"The cure for this ill is not to sit still
Or frowst with a book by the fire
But to take a large hoe and a shovel also
And dig till you gently perspire."

But enough of the poetry of hotbeds: What are the facts? With a hotbed you can have garden stuff two months ahead of your neighbor who plants in the open. With a coldframe, you can beat him by one month. Think of sweet corn by June 30th, and cosmos that really blooms before the frost nips it.

It is always a problem for the amateur gardener to know when to plant his seeds. A safer rule than any arbitrary calendar date is this: When the peach and plum trees blossom, the average temperature is 45 degrees in the shade, and the seeds that will germinate at this temperature are beets, carrots, cabbage, cauliflower, lettuce, parsley, onions, radishes and spinach. You must however, wait for the apple trees to blossom, showing that the average temperature is 60 degrees in the shade, before you can be sure that corn, melons, egg-plants, tomatoes, beans, cucumbers and peppers will sprout.

For these more tender things the hotbed is used. By starting



You can knock together a plank frame, buy two or three sash and plant a lot of flower and vegetable seeds now, that will bring plants into bearing and bloom ahead of your neighbor's



Transplanting seedlings from the flats in which they were started to a coldframe, in which they may be "hardened off," and later transplanted to the open

the seeds early we can have large stocky plants to set out just when our neighbor may be planting his seeds. Every day that we gain over him will count on the other end of the season when bearing time comes.

The difference between a hotbed and a coldframe is this: Coldframes are warmed only by the sun; hotbeds are artificially heated by the fermentation of an under layer of fresh stable manure mixed with leaves. The frames themselves are practically the same structurally, except that usually a coldframe simply rests on the surface of the ground and may be moved from place to place, while a hotbed is a more permanent structure, with a subframe extending into the ground to keep the heat in and the cold, moles, vermin and other things out.

The makers of greenhouses and sash have made it very simple for anyone to have a coldframe. They are shipped, "knocked down," and can be set up and nailed together with very little trouble. The sash for coldframes and hotbeds cost about \$3.50 each, and the frame itself can either be made at home by anyone who is handy with tools, or it can be bought quite reasonably—a frame for two sash costing \$7.50, with \$1.50 extra to be added for each additional sash. The standard size of hotbed sash has by convention come to be three feet by six, although of course any size of sash may be used.

The frame for hotbeds should be located to face the south or southeast, with a building or fence on the north to shelter it from the cold winds.

While a coldframe may be moved from place to place, it is better to decide upon a permanent location and to build it so that it may also be used as a hotbed if we desire. In this case the subframe will make it impracticable to move it after it is once set up. The sides of coldframes are usually of wood but they may also

be made of brick or concrete. The latter is very satisfactory and of course will never rot away. In making a concrete hotbed, first dig a pit or trench about three feet deep and of the proper size to hold the sash. As the entire interior of the hotbed will have to be excavated to a depth of three feet to put in the layer of green manure, all the excavating may as well be done at this time. To make the sides, wooden forms will be necessary. The usual method is to use rough hemlock, 1 x 10 in. A 12-foot board will cut to advantage in making the inside form and a 14-foot board for the outside.

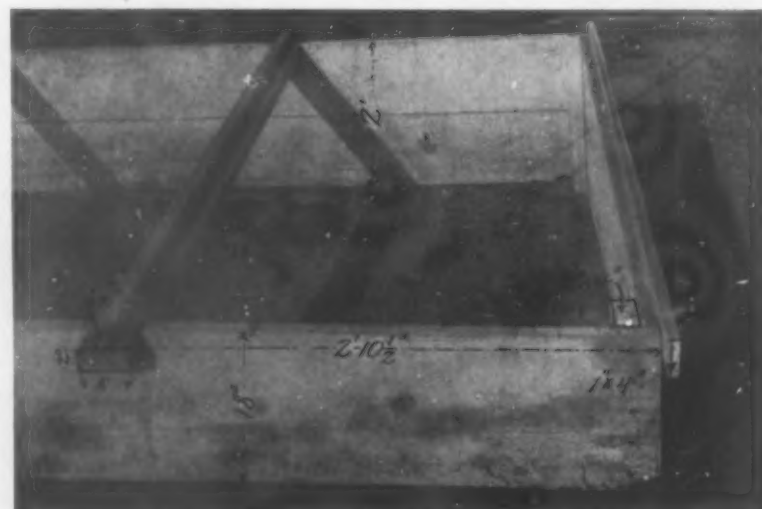
The usual method for working in concrete should be followed, making a mixture of one part of Portland cement to three parts of sand. Fill up the form with an aggregate of broken stone or cinders and "grout" it with liquid cement mixture. The board form above ground should be carefully made to insure a neat job, and a slope should be provided, making the frame say a foot above ground in the front and eighteen inches in the back. The corners of the frame should be reinforced with pieces of old wire or angle irons imbedded in the concrete.

For the hotbed, you will dig out a pit at least three feet deep. Into this a layer of fresh stable manure and leaves is placed which, however, has previously been thoroughly mixed and left outside in a heap to work off its surplus heat. The temperature of fresh manure that is fermenting will sometimes run up to 120 degrees, which of course is much too hot for growing plants. For this reason it is well to allow the mixture of manure and leaves to cool for several days. After a time a temperature of about 90 degrees can be maintained with very little difficulty.

The manure must be thoroughly packed as it is placed in the pit by tramping on it, adding manure until you have a depth of two feet or more. The packing is very important. When the required depth is obtained, put on a nine-inch layer of finely pulverized soil which is raked smooth and leveled with a board.



If you build a permanent structure to support the sash you can use it in the early spring as a hotbed and throughout the winter as a coldframe



The figures show the sizes of the various parts and their proper relation for a frame to hold the standard 3 x 6 ft. sash



Probably the most economical and serviceable structure is one made of concrete. With some boards, cement and sand, you can make one yourself

It is well to have a cheap thermometer in the hotbed to keep track of the temperature.

You are now ready to plant. There is such a difference of opinion as to the care of hotbeds and coldframes that only the most general directions can be given. It may be said that the object of both is to duplicate by artificial

means the warm temperature of summer, when the weather outside is really freezing. In the latitude of New York we can plant our hotbeds in February but it is not safe to start a coldframe before the end of March.

It is idle to deny that hotbeds require care. At night the sash must be covered with mats to keep out the cold and in the morning these must be removed to admit the sunlight. Ventilation is also important.

Here are some of the ways in which a hotbed or coldframe will be most useful:

To start seeds of plants and flowers months before they could be planted out-of-doors. This in itself would be no great advantage if the season of bloom were simply moved forward a few weeks, ending that much sooner. In many cases, however, it means that you will get bloom where otherwise there might be none—with cosmos, petunias, verbenas, ageratum, stocks, and many others.

To winter the plants that freezing weather would kill, such as tender hydrangeas, geraniums, tea roses and various bedding plants.

To force such plants as asparagus or rhubarb to bear while the ground outside is still frozen.

To take care of seedlings that have been started in greenhouses or indoors in window-boxes.

To have green vegetables all winter, such as chard, parsley, lettuce, and spinach. And to start vegetable seeds a month or two before they can be planted in the open.

In order to avoid the necessity of using mats or shutters to



Another use for your frame is to plant in August seeds of perennials which, with care, will grow large enough to be transplanted to their permanent quarters in the fall, to bloom next year



The compost of leaves and fresh horse manure, before going into the bed, must be turned over several times at intervals of a few days, in order to work off the surplus heat

protect the glass sash at night, some of the builders manufacture double-light sash in which an air space between the two pieces of glass acts as an insulator, keeping the cold out and the heat in. The advantage of this kind of sash is that mats are not necessary.

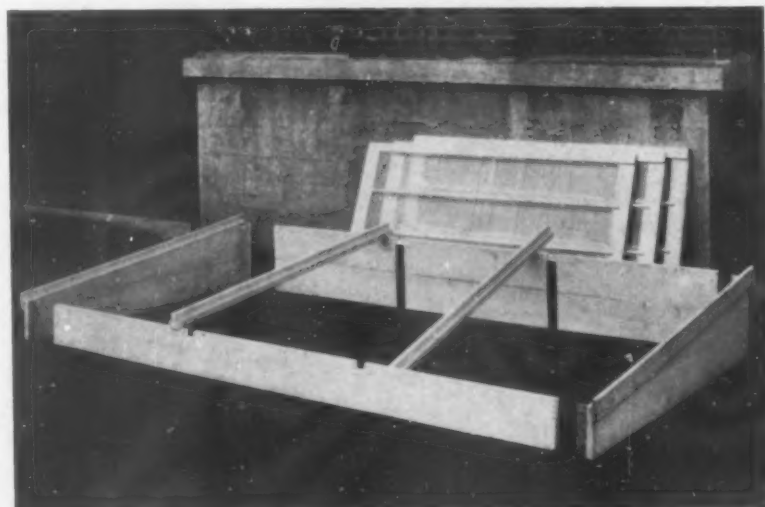
To prepare a coldframe, first spade up the soil to a depth of a foot, working it over and over until all the lumps are broken up and it is fine and mellow. Some well rotted manure should be worked through the soil to make it rich.

Where a coldframe is used to grow vegetables that will ultimately be planted in the open ground, to avoid the danger of disturbing the roots in transplanting, it is well to plant the seeds in small paper flowerpots, berry-boxes or even small paper boxes. The seedsmen will supply paper pots that can easily be taken apart.

A very convenient type of coldframe that is similar in its use to the bell-glasses of the French gardener is the so-called "melon frame." It is much smaller than the regulation coldframe and may readily be moved from place to place. Melon frames may be set about through the garden wherever we ultimately intend to have hills of melons, squash or cucumbers and the seeds forced in the very place where they will ultimately grow, without the necessity of transplanting. By the use of one of these frames a neighbor of mine has had ripe cucumbers by July 4th, yet the old rule is not to plant cucumber seed until June 20th.

Growing plants need not only sunlight but also air. A plant that has been growing in the warm, moist atmosphere of a hotbed would, if suddenly moved to the open ground where the temperature may be twenty degrees lower, soon wither and die. For this reason a hardening process must be followed by raising the

(Continued on page 194)



If you are not enough of a carpenter to build the frame yourself you can buy one in this "knock-down" form and readily put it together



Most people have great difficulty in picturing to themselves the appearance of a home before it is built. A model, built to scale, will solve the problem, and prevent disappointment with the finished building

The Small Model as an Aid in Building a Home

MADE OF CARDBOARD, SANDPAPER, CELLULOID, SPONGES, BIRD-GRAVEL AND WHAT-NOT—IT SHOWS A HOME-BUILDER WHAT HIS HOME WILL REALLY BE LIKE

BY LAWRENCE VISSCHER BOYD, A. A. I. A.

WHEN an architect has designed the plans and elevations of his client's house, his troubles have just begun. Nearly every client—or his wife—thinks he or she can read plans perfectly, and after doing so knows exactly how the house will look when completed. But reading plans is not easy. In fact, to the average layman a plan is about as intelligible as Greek or Sanscrit, so it



Rough-cast stucco walls are well represented by sandpaper. The roof is of overlapping layers of thin cardboard

is no wonder that when the work is actually in progress, the owner "didn't know it was going to look like that," or his wife, "cannot understand why there isn't a bay-window in the den instead of a casement."

Of course it is the architect's business to please, but it takes the proverbial patience of Job to handle the man who, in the first place, doesn't know exactly what



The trees are made of small pieces of sponge, dyed green and placed upon twigs



Grass may be sown, ready cut, by scattering it upon cardboard covered with glue

he wants, who cannot get the picture of the house in his mind's eye, and who changes his mind with every suggestion made by his admiring (or otherwise) friends.

While working upon a prize competition for a small country house, I became impressed with the possibilities of the model as a valuable adjunct to the regular plans. I had been somewhat puzzled as to the treatment of a garden scheme. I was not quite sure how it would look, myself. So for my own satisfaction I set about having a cardboard model made of the house and grounds. Some of the accompanying photographs show the result. The appearance of this miniature dwelling is very realistic. No one

would suppose that the hedges and trees were made of sponges stained green; that the trailing vines on the house, the various vegetables and choice flowering plants were odds and ends, glued into place, trimmed to shape, and colored to represent geraniums, crimson ramblers, or other flowers. Gravel, such as you purchase for your canary bird, furnishes walks wonderfully natural in appearance. The grass is sprinkled (ready grown) on a glue-wet board, and only needs to be "mowed" in places to present a



Windows are made of celluloid sheets, upon which white ink lines represent the divisions between the panes



It is only by the aid of a complete model that the building site, as a whole, may be visualized — gardens, lawn, shrubbery groups, trees and walks

been going over the plans. She says that she cannot understand plans at all. She wants to see what the house will really look like when finished." Suddenly a happy thought me. "Well, then we'll show her," I said, "we'll make her a model of the house and grounds as they would appear in reality."

That day the model was started. From the scale drawings the house was built, the grounds laid out, until at the end of a few weeks it stood, a perfect miniature of the structure I saw so well

smooth, even surface.

A case in point that should establish beyond a doubt the value of the model house, may prove interesting. Not long ago a man for whom I was designing a twenty - thousand - dollar house came into my office. He seemed greatly upset.

"Mr. Boyd," said he, "I'm in a quandary. My wife has an idea that the house won't suit." I was surprised. The drawings for his house were nearing completion. I had worked out with infinite pains a plan and elevation that I knew to be good, one which I felt sure was what he desired. I could not understand the reason for his wife's attitude, and told him so.

"I'm sorry," he said, "but she has



It is difficult to know, without a complete model, whether your tennis court will have the disadvantage of being too near the kitchen porch, or whether this latter may be effectively screened off

in my mind. Then my clients were sent for. The result was more gratifying than I had dared to hope. They were astonished, enthusiastic. From every side they viewed it. Nothing escaped their notice, from the tiny chimney pots to the benches in the formal garden. Then the woman turned to me and held out her hand. "Oh, it's charming," she said, "though I had no idea it was that kind of a house. Why, it's just what I want."

Needless to say, the house was built according to the original idea, to the satisfaction of all concerned, and stands today a testimonial to the use of the model in architecture.

The models here illustrated are of houses designed by the writer, which have been built. They were worked up from scale drawings, one-fourth inch to the foot, so that windows, doors, porch posts, chimneys, pergolas, etc., are in perfect proportion. As one walks from front to rear, from right to left, the question of "How will it look?" is completely answered. There stands the house with its red tile roofs, brown half-timber panels, and walls of light buff—representing plaster against a background of green lawn and trees, complete in every detail, from transparent windows to the smallest bit of shrubbery.



After you have set about making a model for the essentials, it will be surprising if you do not find yourself simulating every tiny detail



In order to prevent warping, it is better to use a base made up of cardboard layers glued together, rather than a single board

While the models illustrated show the work carefully carried out, they do not speak of the failures encountered in getting these results. The first experiments were made by using white pine wood as a base for these models, from which sides of cardboard were built up. The windows were of paper, while the roofs were worked out of colored cardboard. This experiment proved that wood of any kind was not serviceable, as it warped and cracked according to exposure to heat and cold. Wood was abandoned, and the base was then built of layers of cardboard, glued together and put under a press. This made an excellent base for the building, and was not affected by changes in temperature. Paper for windows was also abandoned; in its place was substituted celluloid, upon which white drawing ink outlined the muntins forming the divisions in the windows. Instead of cardboard in a sheet, laid off with lines to indicate the roof material, the roof was made of strips cut out of thin cardboard, colored to represent either shingles, slate or tile. These were laid overlapping each other, so as to show the proper exposure to the weather. The perpendicular lines, however, were indicated in ink. This effect

(Continued on page 178)



This model was made to show the exact effect of a proposed alteration to an existing building. The change is in the rear bay, which was rebuilt to give a small outdoor sleeping-porch

Choosing a Site for the Garden

THE ESSENTIALS IN EXPOSURE, CHARACTER OF SOIL AND DRAINAGE CONDITIONS THAT WILL, WITH REASONABLE CARE IN CULTIVATION, INSURE SUCCESS IN YOUR GARDEN THIS YEAR

BY M. ROBERTS CONOVER

Photographs by the author and others

OF all the important matters pertaining to the home surroundings, the choice of the garden spot ranks first, and in order that subsequent preparation be timely, this vital question should be decided early in the year.

Friable soil and good drainage, convenience, adequate size, sunlight, and shelter from bleak winds, are essential to the garden's success.

The first and main consideration is soil. The kinds of vegetables required of a garden are many and the drain upon the soil so exhaustive that its consistency must be such that the young plants easily find their nourishment. Clay is too stiff and sand holds little fertility. Favorable soil is a composition of several kinds. If you mix sand, clay and leaf-mould together in nearly equal proportions, you will gain some idea of the consistency of your garden loam.

If the ground is new to you and you are a novice at judging soils, you had better get some advice upon the subject. The experienced gardener or farmer cannot tell you just how much it will yield, but he knows clay from sand and he knows good loam. If he tells you the soil needs draining, and you can form moist handfuls of it into balls that hold tenaciously together, turn away from it. It will bake in dry weather and be soggy and unworkable in rainy spells. Drain it if you want to, but plant your garden somewhere else.

On the other hand, light, sandy soil,

extending down a foot or so, with a substratum of more sand, lacks the necessary fertility for a successful garden. But if it is a loam with sand, clay and other matter in such proportions that

it works mealy under the tools, and if it has a porous, rather sandy substratum, you have earth of the right consistency for a fine garden. The outcome depends upon generous manuring, wise planting and right cultivation.

Where there is a substratum of stiff clay and the location is low, recourse must be had to artificial drainage in order to carry off the surplus water.

As a source of supply, the garden should be near the kitchen and large enough to supply the family's needs. It is folly, however, to plan for larger space than one can work—it will be overgrown and neglected by mid-summer. A garden requires frequent cultivation and wise supervision, but it need not demand more than an hour's work each morning, if one has the necessary tools and is thorough. Enthusiasm is half the battle, and grows with achievement. A garden space forty feet long and forty feet wide kept a family of five persons supplied with lettuce, beans, peas, beets, carrots, potatoes, radishes, parsley, cabbage, summer squash, egg-plant, and other vegetables, all summer and fall without much attention to second crops. It would have done more with closer planning. A smaller garden, carefully tended, will give surprising



If the soil, after rain, compresses into a pasty compact mass, turn to another spot for your garden site



If the compressed ball of earth crumbles apart in the hands when released it is good garden loam



Don't make your garden too big; a 40 x 40 ft. area kept five people well supplied, without much attention to second crops



If you have a hedge or other wind-break to the north, keep a path between it and the edge of the garden

results. But one should remember that the more intensively the ground is worked, the heavier must be its store of plant food.

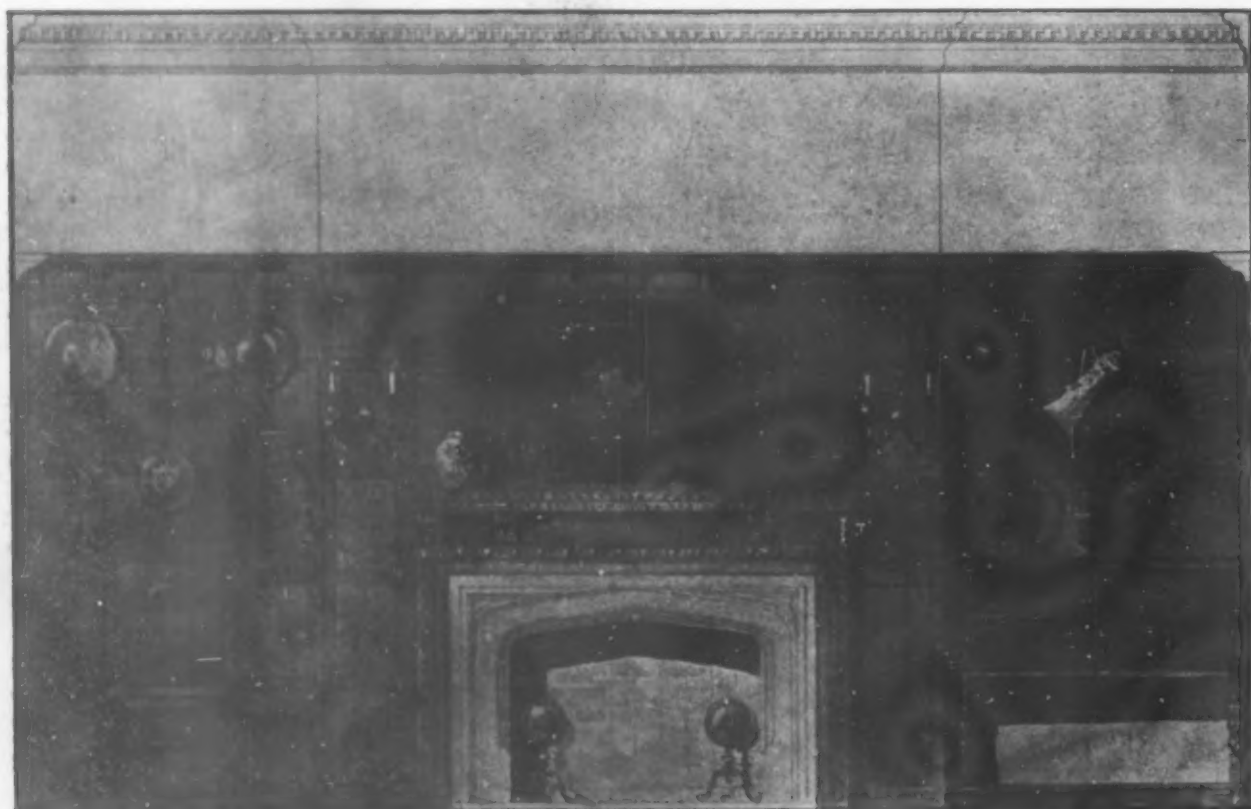
The garden will be useful for a longer season if it has a southern exposure and a good wind-break on the north and west. For warmth, there is nothing to compare with an arbor vitae hedge. It is advisable to plant this far enough away to prevent the roots from drawing upon the garden area. In my own garden, vegetables are grown two feet from such a hedge with good results. Here potatoes, radishes and peas were planted by March 22, in 1909 and 1910, and lettuce, spinach, carrots, early turnips and parsley by the 28th.

After the garden site has been chosen, and its extent decided

upon, the ground should be spread with manure which is allowed to lie on the surface until time to plow. Half a ton or a one-horse load of well rotted compost or cleanings from the poultry house will make a garden area of sixteen hundred square feet very productive. The cleanings from the hennery promote the greatest yield, but the rotted manure enables the garden to better withstand dry weather. Judging from results obtained the past two years, it is well to use equal parts of each manure. The compost, being slower to decompose, supplies the late growing vegetables, while hen manure is sooner available as an aid to the earlier maturing vegetables. This adaptation of treatment to the individual requirements of different plants counts greatly for your success.

Designing the Dining-room by Itself

SUGGESTIONS FOR THE ARCHITECTURAL TREATMENT, THE CONSISTENT FURNISHING AND THE BEST WORKING ARRANGEMENT OF THE USUAL SIZE ROOM



A mellow brown oak wainscot, Caen stone fireplace and sand-finished, dull golden wall above, help to make this Flemish dining-room a welcome change from Colonial or English

WE have a habit, generally, of making the dining-room either English or Colonial in style, I suppose for the reason that we have so many good types of furniture in these two styles that their use makes it easier to obtain an attractive dining-room. The room of Flemish character is probably more unusual and I have, therefore, chosen to offer a design in this style.

The room is 15 x 16 feet in size, opening from a broad hall from which it is shut off with glass doors. The morning sun, a very essential feature in any dining-room, is obtained through the eastern window and through the southern windows in the summer, while the after-glow of the summer sunset comes through the west window, thus insuring a pleasant dining-room at all times. There is nothing so cheerless as a breakfast-room which is cut off from the sun in the winter, by being isolated in the north or northeastern part of the house; it continually exerts a

BY A. RAYMOND ELLIS

Illustrations by the Author

depressing influence on the family at meals.

The dining-room is adjoined by the serving-room, which connects with the kitchen, affording a quick and direct line of service.

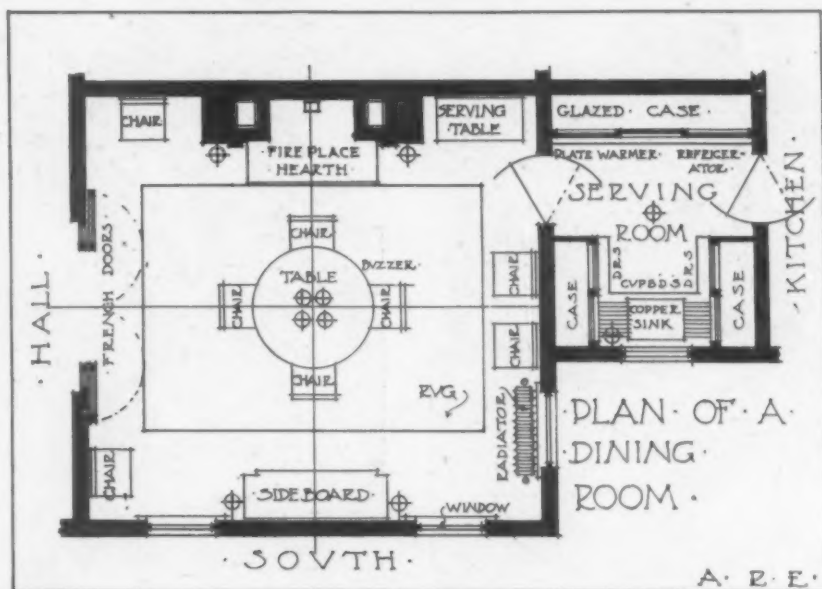
It is suggested that the room be wainscoted in oak to a height of seven feet, with rectangular panels formed by very flat rails and stiles, without any panel moldings. A wide plate-rail forms the cap of the wainscot, affording a place to put bits of china and old pieces of pewter or copper. Above the wainscot the plaster is sand-finished, as is also the ceiling, and at the intersection of the ceiling and side walls a cornice is carried around the room. On the north side is a large fireplace, which is a necessity on a rainy day to make breakfast cheerful and the room comfortable. It is built of light gray Caen stone, which has almost the appearance of limestone. It is imported in blocks and is soft enough to be worked into a variety of shapes. The hearth has a curb border,

raised an inch or two above the level of the stone hearth in order to retain the ashes better. A heavy carved casing is carried around the stonework of the fireplace, surmounted by a carved shelf supported on heavy brackets.

French doors are an essential feature in the dining-room because they permit it to be shut off from the hall and kept warm, and they prevent interruptions during the dinner hour. As they are of glass they afford a view into the hall—a very attractive feature, which does away with that feeling of oppressiveness experienced sometimes from being shut up in a room with solid doors of wood. The floor is of oak, filled and given two coats of a finish which has a dull lustre and enough elasticity to make it durable. The floor should be of a shade that is not too light or so dark that it readily shows the dust.

Opposite the fireplace is a position for the sideboard and there is wall space enough for a china-cupboard although I should prefer to omit this cumbersome piece of furniture, which everybody shuns with the admonition of childhood still ringing in his ears, "mustn't touch." Near the door to the serving-room is the proper place for the serving-table, and there remains plenty of wall space for chairs. By referring to the plan the position of these pieces of furniture will be made more clear.

The decoration of this room is a simple problem. On the floor there should be a rich-colored rug with deep reds in it, strong enough to afford a foundation for the dark sturdy Flemish furniture and the dark finish of the wainscot. Above the wainscot, the sand-finished ceiling and side walls should be sized and painted with three coats of oil paint of a dull golden shade which reflects a warm glow over the room when lighted. The rough texture of the sand-finish is well adapted for such use as this. Of course a frieze of foliated tapestry paper or real tapestry could be used with good effect, or even an oil-painted frieze representing a scene from medieval history is permissible. It is safe to say that all of these schemes would be good, though of course there would be a great difference in their cost. The radiator under the east window should be painted to match the color of the wainscot. To obtain the correct shade for



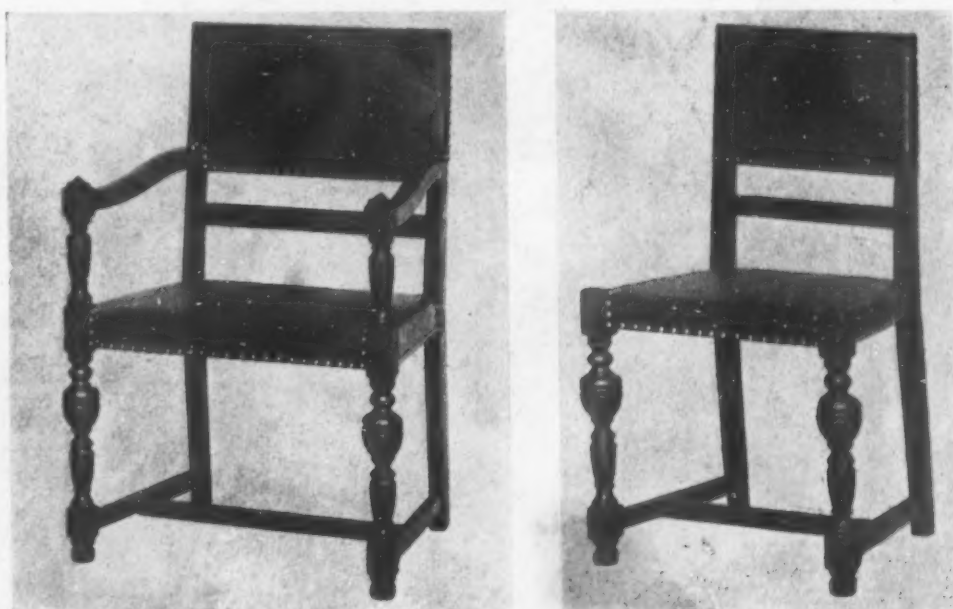
The plan of the 15 x 16 ft. dining-room indicates an arrangement of the furniture that will carry out the dignified character of the room

a shade lighter or a shade darker than that of the finish of the woodwork, in order to give contrast. The dining-room table should be a modern extension table with heavy turned legs, which would of course be repeated in the sideboard, serving-table and chairs. This type of furniture depends entirely for its beauty upon its plain sturdy lines and simple turnings. The chairs should have leather seats and backs, studded with copper nails. The brasses of the fireplace should be of odd design and the electric lights and fixtures should be of old brass to add a touch of color to the dark wood finish.

It seems hardly necessary to mention that the lights of this room should be governed by an electric switch, and an electric bell on the table should ring a buzzer in the serving-room.

In the serving-room there is a counter shelf two feet eight inches high on each side wall, over which there are glazed cases with sliding doors to contain the china. Under the window there is a sink for the washing of fine china, glass and silver, which should not go into the kitchen with the heavier dishes. Under the counter are cupboards and drawers and at one end a plate-warmer and a small refrigerator, in order that one may obtain a bite to eat late at night without having to go through the kitchen to the kitchen pantry—which is sometimes awkward if there is no servant's dining-room and the maid is entertaining.

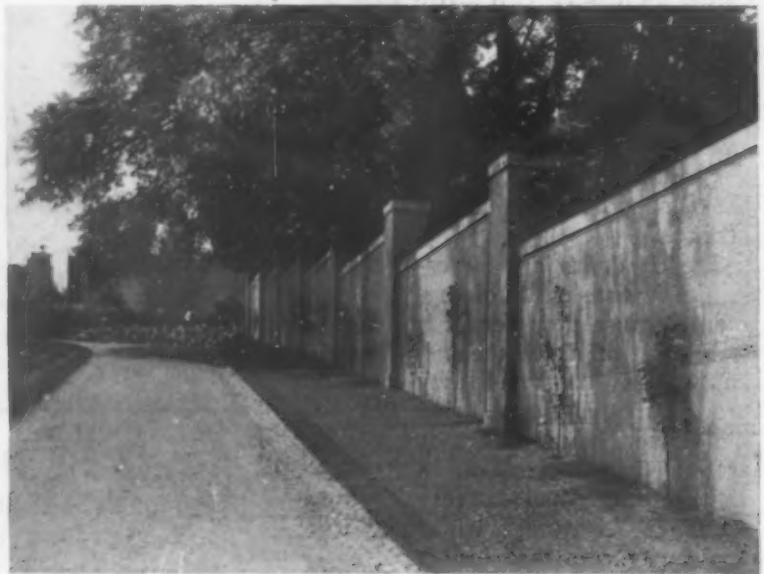
The finish of the room would cost approximately \$575 in selected white oak. The mantel alone is worth \$80 and the wainscot about \$300. The furniture for the room, made from detail drawings, would cost about \$450 in oak and leather.



You can have your Flemish furniture designed and made to order, or you can buy excellent reproductions of old models, such as these



Garden steps of stone are expensive, those of brick are difficult to keep in repair, but those of concrete, if designed with some skill, have neither of these disadvantages.



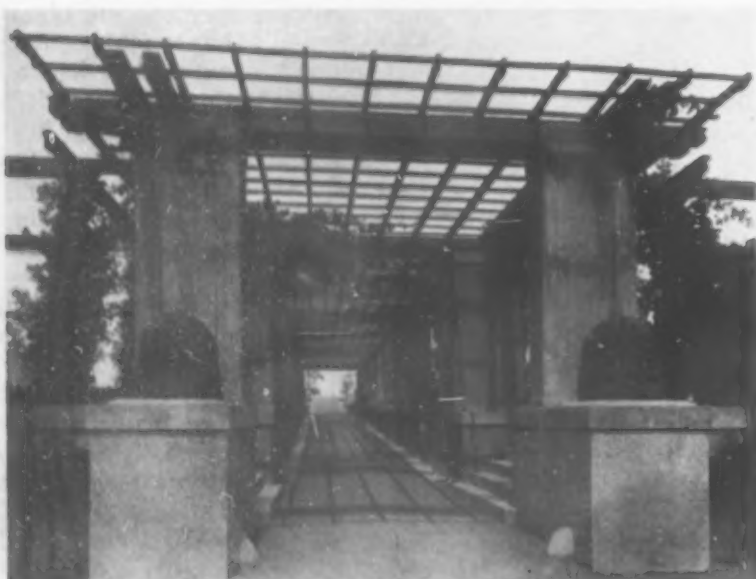
There is an excellent suggestion here for making a garden wall effective and attractive. Train young fruit trees to cover the monotonous expanse of gray rough-texture concrete



Too frequently we see concrete pergolas of crude form. Greater care and skill in making the molds will work wonders



The decay and warping of wooden hotbeds and coldframes is a common fault. Concrete frames will last forever

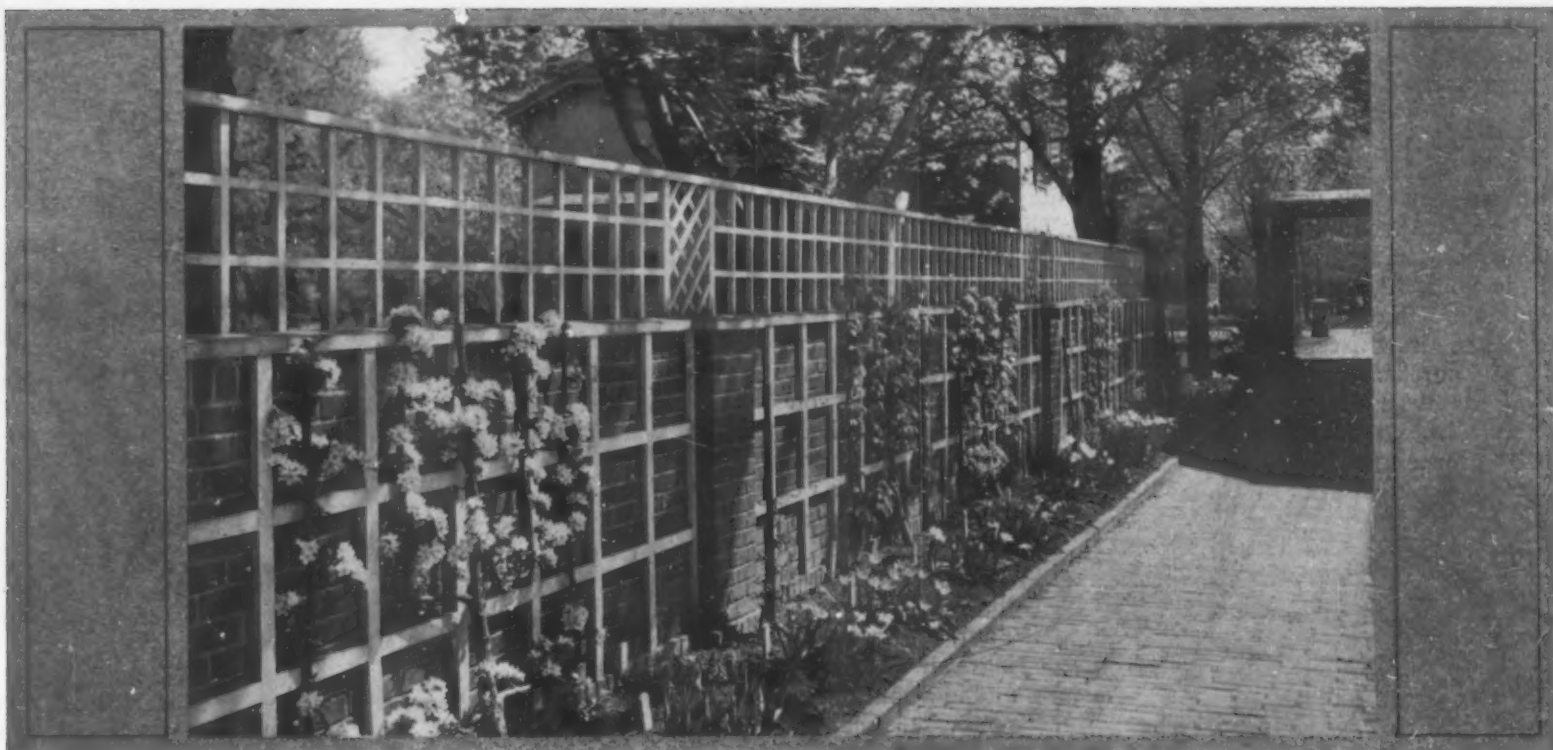


By means of paneling and a variety of textures on the different surfaces, concrete garden structures may be made far more interesting



Covered with vines and banked with shrubbery, the concrete garden wall blends with the landscape as do the old stone walls of Italian gardens

CONCRETE POSSIBILITIES IN THE GARDEN



You can, and should, have fruit trees in your garden, however small it may be. Even if there is no open ground, there is surely a place for training trees on a lattice or wall

Grow Your Own Fruit

WHEN AND HOW TO PLANT THE YOUNG TREES—THE CHOICE BETWEEN ONE-YEAR AND TWO-YEAR TREES—THE MATTER OF PRUNING—CULTIVATION AND FILLER CROPS

BY F. F. ROCKWELL

Photographs by Nathan R. Graves and E. F. Hall

[Mr. Rockwell's series of articles that appeared last year in these pages, under the title "Grow Your Own Vegetables," met with so many expressions of appreciation that we are doubly glad to follow it with three articles on an equally important phase of the home garden. The first article, which appeared last month, took up the important matter of selecting the varieties best suited to the needs of the home orchard.—EDITOR.]

THE first article on this subject dealt with the question of varieties for the home orchard. This matter is so important that I want to emphasize it by repeating one bit of advice given: make out your list to the best of your judgment from what information you may have or be able to get from observation or nursery catalogues, and then submit it to your State Experiment Station for approval. The chances are that some of the good varieties will not do so well as others in your particular locality. Find out before you plant.

As a general thing you will succeed best if you have nothing to do with the perennial "tree agent." He may represent a good firm; you may get your trees on time; he may have a novelty as good as the standard sorts; but you are taking three very great chances in assuming so. But, leaving these questions aside, there is no particular reason why you should help pay his traveling expenses and the printing bills for his lithographs ("made from actual photographs" or "painted from nature," of course!) when you can get the best trees to be had, direct from the soil in which they are grown, at the lowest prices, by ordering through the mail. Or, better still, if the nursery is not too far away, take half a day off and select them in person. If you want to help the agent along present him with the amount of his commission, but get your trees direct from some large reliable nursery.

Well grown nursery stock will stand a good deal of abuse, but

it won't be at all improved by it. Don't let yours stand around in the sun and wind, waiting until you get a chance to set it out. As soon as you get it home from the express office, unpack it and "heel it in," in moist, but not wet, ground; if under a shed, so much the better. Dig out a narrow trench and pack it in as thick as it will go, at an angle of forty-five degrees to the natural position when growing. So stored, it will keep a long time in cold weather, only be careful that no rats, mice, or rabbits reach it.

Do not, however, depend upon this knowledge to the extent of letting all your preparations for planting go until your stock is on hand. Be ready to set it the day it arrives, if possible.

PLANTING

Planting can be done in either spring or fall. As a general rule, north of Philadelphia and St. Louis, spring planting will be best; south of that, fall planting. Where there is apt to be severe freezing, "heaving," caused by the alternate freezing and thawing; injury to the newly set roots from too severe cold, and, in some western sections, "sun-scald" of the bark, are three injuries which may result. If trees are planted in the fall in cold sections, a low mound of earth, six to twelve inches high, should be left during the winter about each, and leveled down in the spring. If set in the spring, where hot, dry weather is apt to follow, they should be thoroughly mulched with litter,

straw or coarse manure, to preserve moisture—care being taken, however, against field mice and other rodents.

The trees may either be set in their permanent positions as soon as bought, or grown in "nursery rows" by the purchaser for one or two years after being purchased. In the former case, it will be the best policy to get the strongest, straightest two-year stock you can find, even if they cost ten or fifteen cents apiece more than the "mediums." The former method is the usual one, but the latter has so many advantages that I give it the emphasis of a separate paragraph, and urge every prospective planter to consider it carefully.

In the first place, then, you get your trees a little cheaper. If you purchase for "nursery row" planting, six to seven feet two-year old apple trees, of the standard sorts, should cost you about thirty cents each; one-year "buds," six feet and branched, five to ten cents less. This gain, however, is not an important

one—there are four others, each of which makes it worth while to give the method a trial. First, the trees being all together, and in a convenient place, the chances are a hundred to one that you will give them better attention in the way of spraying, pruning and cultivating—all extremely important in the first year's growth. Second, with the year gained for extra preparation of the soil where they are to be placed permanently, you can make conditions just right for them to take hold at once and thrive as they could not do otherwise. Third, the



An orchard, after winter pruning. The trees are forced out laterally

shock of transplanting will be much less than when they are shipped from a distance—they will have made an additional growth of dense, short roots and they will have become acclimated. Fourth, you will not have wasted space and time with any backward "black sheep" among the lot, as these should be discarded at the second planting. And then there is one further reason, psychological perhaps, but none the less important; you will watch these little trees, which are largely the result of your own labor and care when set in their permanent positions, much more carefully than you would those direct from the nursery. I know, both from experience and observation, how many thrifty young trees are done to an untimely death by children, careless workmen, and other animals.

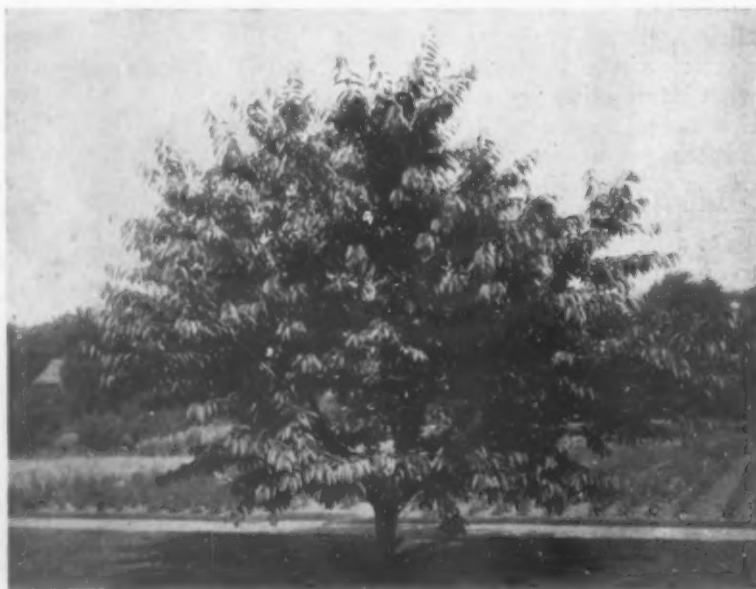
So if you can put a twelve-month curb on your impatience, get one-year trees and set them out in a straight row right in your vegetable garden where they will take up very little room. Keep them cultivated just as thoroughly as the rest of your growing things. Melons, or beans, or almost any low-growing vegetable can be grown close beside them.



Fruit trees trained against the garden wall. It is easier, however, to grow them in the open

If you want your garden to pay for your whole lot of fruit trees this season dig up a hole about three feet in diameter wherever a tree is to go permanently. Cut the sod up fine and work in four or five good forkfuls of well rotted manure, and on these places, when it is warm enough, plant a hill of lima pole-beans—the new sort named Giant-podded Pole Lima is the best I have yet seen. Place a stout pole, eight to ten feet high, firmly in each hole. Good lima beans are always in demand, and bring high prices.

Let us suppose that your trees are at hand, either direct from the nursery or growing in the garden. You have selected, if possible, a moist, gravelly loam on a slope or slight elevation, where it is naturally and perfectly drained. Good soil drainage is imperative. Coarse gravel in the bottom of the planting hole will help out temporarily. If the land is in clover sod, it will have the ideal preparation, especially if you can grow a patch of potatoes or corn on it one year, while your trees are getting further growth. In such land the holes will not have to be prepared. If, however, you are not fortunate enough to be able to



A dwarf cherry. The dwarf varieties are cheaper in first cost, and bear two years earlier; but the standard sorts are considered better

devote such a space to fruit trees, and in order to have them at all, must place them along your wall or scattered through the grounds (as suggested in the diagram in last month's article), you can still give them an excellent start by enriching the soil in spots beforehand, as suggested above in growing lima-beans. In the event of finding even this last way inapplicable to your land, the following method will make success certain: Dig out holes three to six feet in diameter (if the soil is very hard, the larger dimension), and twelve to eighteen inches deep. Mix thoroughly with

the excavated soil a good barrowful of the oldest, finest manure you can get, combined with about one-fourth or one-fifth its weight of South Carolina rock (or acid phosphate, if you can't get the rock). It is a good plan to compost the manure and rock in advance, or use the rock as an absorbent in the stable. Fill in the hole again, leaving room in the center to set the tree without bending or cramping any roots. Where any of these are injured or bruised, cut them off clean at the injured spot with a sharp knife. Shorten any that are long and straggling about one-third to one-half their length. Properly grown stock should



Peach trees come into bearing in three years, so they are frequently used as "fillers" between the rows of slower trees

straw, raffia or strips of old cloth—never string or wire. If the soil is very dry, water the root copiously while planting until the soil is about half filled in, never on the surface, as that is likely to cause a crust to form and keep out the air so necessary to healthy growth.

Prune back the "leader" of the tree—the top above the first lateral branches, about one-half. Peach trees should be cut back more severely. Further information in regard to pruning, and the different needs of the various fruit in regard to this important

(Continued on page 178)

The Real Meaning and Use of Architectural Detail

III. THE ITALIAN RENAISSANCE—THE REBIRTH OF CLASSIC FORMS IN THE FIFTEENTH CENTURY—THE SOURCE FROM WHICH ALL THE LATER WORK OF EUROPE WAS DERIVED

BY LOUIS BOYNTON

[A series of articles by prominent architects appeared in this magazine last year. In it the characteristics of the more common architectural styles, used for country houses, were outlined and explained. Another matter of great importance to those who would build consistently is the detail. Mr. Boynton's series of articles aims to explain the origin and use of motives, ornament and molding characteristics in connection with the better known styles of architecture. The articles that have appeared are: *Colonial Detail*, Jan., 1911, and *The English Renaissance*, Feb., 1911.—EDITOR.]

THE architecture of the Renaissance in Italy was the source from which all the later work of Europe was derived. The Gothic style had run its brief but glorious course and the Italians reverted to the earlier forms of art which were their proper heritage. We are, I think, too apt to overlook the fact that the Italian of the fifteenth century was the lineal descendent of the ancient Roman. While there had been an admixture of races and while the artistic traditions of the earlier times had been forgotten, it was perfectly natural and right for them to return to the forms and principles of the earlier work. Of course the work of the Gothic school scarcely touched Italy. While France, Germany and England were building Gothic churches, the Italians were living in a sort of backwater of Byzantine art.

The word Renaissance means a rebirth and the accepted meaning of the

term as applied to architecture and decoration is a revival or rebirth of *Classic* forms. This does not mean a slavish copying of Roman work but an intelligent adaptation of the motives and principles of *Classic* art to the peculiar conditions of the times.



Type of Italian Renaissance detail, of which reproductions in cement are obtainable

It has been said with much truth that St. Francis of Assisi gave the impulse which resulted in the Renaissance. His teaching that life was a beautiful thing and that it should be joyous, as distinguished from the repressed formalism of the monkish rule, was a preponderating influence in starting the movement towards intellectual and artistic freedom from the traditions of the immediate past. These ideas tended to open the minds of men and women also, to the beauties of the literature and art of *Classic* times. Italy had been dominated by an absolutely dry and formal expression of art which was the result of Byzantine influence, and the sud-



Characteristic treatment of a pilaster. Used in a church, but the ornament has no symbolic significance



A characteristic treatment of a marble frieze

den casting aside of this precedent was one of the most wonderful and interesting events of history.

The Renaissance of art in Italy was only a part of a larger movement. The revival of interest in, and knowledge of, Classic literature was quite as important; and the whole movement marked a capacity for appreciating, and more especially enjoying, the older art. For the whole Renaissance movement was essentially joyous; and any understanding of it must take into account the fact that the work was done for pleasure and not as the result of cold theory as to what was the correct thing to do. This cutting loose from the purely conventional. Byzantine art naturally accompanied an awakening or freshening of perception. People began not only to think apart from tradition, but the artists began to see and paint nature instead of symbols, and the whole period marked a true Renaissance of mind and spirit which resembles the golden age in Greece more nearly, perhaps, than any other per-



An inlaid wood screen that shows the extent to which the Italian designers carried their decoration when the material permitted



Characteristic panel decoration in a ceiling; the ornament almost invariably fills the space



The use of pilaster and frieze was common in the treatment of doorways

iod. In considering the detail of the Renaissance it is of course necessary to select some elements to be considered in a paper of this length; consequently I shall take up only some of the more common forms and such as may be applied to modern conditions.

It is increasingly easy to get good reproductions of such things as mantels, vases, seats, etc., in cast cement or the various forms of imitation stone. These may be obtained at a comparatively small expense and are within the reach of the owner of the most modest home. In fact, there are excellent reproductions of mantels which may be had for less than any wood mantels except the most brutally commercial kinds.

In decorated moldings we find the egg-and-dart, lamb's-tongue and dentils in common use which were described in connection with Colonial work in the January number.

In addition there is the bead, or bead-and-reel, which was occasionally used in Colonial work. This bead-and-reel consists of an elongated form like a small reel separated by beads or buttons, and is commonly found in cornices, below the crowning molding and in lines in the architrave. The upper molding of a cornice was often decorated with leaf forms, and these were often very interesting. As in the detail illustrated here there were sometimes buds or flowers introduced with the leaves.

One of the most characteristic motives of the Renaissance was the decoration of the pilasters. This was accomplished by the use of leaf and plant forms interrupted by vases or sometimes heads. It was always arranged symmetrically on a vertical axis and there is a definite and well defined rhythm in the repeats. That is to say, the important accents were placed with a definite intention and so as to prevent



A detail from the altar of the Chapel of the Sacrament. Note the mischievous leer of the cherubim

monotony without interrupting the feeling of vertical growth. This is very well illustrated by the two pilaster designs given here. There appears to have been absolutely no significance in the motives used; apparently they were employed frankly because they were beautiful or helped to produce a beautiful whole, and without any thought of symbolism. This is very characteristic of the spirit of the Renaissance.

I have seen very beautiful doorways on churches where the elements of the design were frankly pagan or at least non-religious. The two pilasters in the illustrations are from candelabra in the cathedral at Naples and there is not the faintest suggestion of any religious purpose. In fact the whole spirit of the Renaissance was frankly and purely esthetic; the sheer pleasure in the beautiful for its own sake was the dominating influence.

After the pilasters, the capitals were most interesting. The proportions and general sentiment of the conventional Corinthian capital was retained but the detail differed widely and there was much ingenuity shown in the design and a fine sense of the decorative value of detail.

The decoration in the fifteenth century work was almost always firmly confined by strong lines. The decoration of a panel or pilaster *filled* the space, and the ornament was not allowed to straggle over the plain surfaces.

The decoration of the frieze was another instance where much ability in design was shown. A common motive was the use of cornucopias combined with scrolls. There were many varieties of this motive and they show a fine sense of design. Garlands were also used as in all the forms of Classic decoration.

It is interesting to note the introduction of the cherubim on the altar of the Chapel of the Sacrament. This is of course an appropriate motive for such a place; but



Detail of a cornice. Nearly every molding was decorated

the faces are all smiling—almost grinning—and the expression of the eyes is as far from being solemn or even reverent as could well be imagined.

The rest of the detail of this fragment is an extremely good example of Renaissance ornament in its highest development. The quality of the modeling and the richness of invention in

decoration confined in such narrow and formal limits, is an extremely interesting specimen of the work of the period.

While it may seem a far cry from the Italian Renaissance to the work of today, there is really a most intimate relation between the two periods. For almost all of our design is based upon the traditions and motives of the older period and there is an increasing tendency towards the application of Renaissance forms to modern work.

This wide and varied influence can best be appreciated by noting some of the characteristic motives and being on the lookout for their reduplication in modern buildings of good architecture, and it is interesting to see how often they recur even in the buildings we see about us every day.



Accurate reproductions in cement from the old mantels are readily obtained and are very effective



The garlands and heads in the frieze are typical, as is the reeding of the pilasters



The Italians invented this pilaster treatment—growth that is symmetrical on a vertical axis



The house appears large, but is in reality not of such great area in floor plan. The cross-bar of the H is but 18 ft. in depth

"Luckley," A Modern English Country Home

THE COUNTRY SEAT OF MR. AND MRS. E. D. MANSFIELD AT WOKINGHAM, BERKSHIRE—ERNEST NEWTON, ARCHITECT—AN EXAMPLE OF THE BEST RECENT ENGLISH DOMESTIC ARCHITECTURE

BY P. H. DITCHFIELD

ONE of the best of the lesser country houses which have been built in England in recent years is a house at Wokingham, Berkshire. Wokingham is an old town situated in the Forest of Windsor, wherein the kings from Norman times have loved to hunt the tall stags. It is an old-world town. Until a few years ago it remained in a sleepy, dead-alive state; but now it has roused itself and a large number of houses have sprung up like mushrooms, some of them strange freaks of architectural enormity, terrible examples of what not to build; but this one is so charming in every way that it merits special attention. It occupies the site of an old house which was pulled down some years ago. Lofty elms, birch and woodland surround it, and it has a stream running through the grounds, of which advantage has been taken in laying out the garden.

Mr. Newton's conception of the style of Luckley is probably based upon that of Inigo Jones. In plan it is an H house, upon which so many of the beautiful examples of

Tudor in England were based. It is, however, no slavish imitation of ancient models, but the ideas are developed and adapted to modern needs. The old house based upon this plan had the hall in the centre and two wings, one occupied by the kitchen, buttery and servants' quarters, and the other by the solar, withdrawing-

room and the apartments of the family. In this modern adaptation we find in one wing the sitting-room and in the other the dining-room, kitchen and domestic offices. The central connecting link between the two wings is occupied by the reception hall, staircase and a corridor leading from the drawing-room to the dining-room.

The material of the house is brick, those used for facing being "clamp" bricks from Chichester. These are of various colors—deep ruby red, russet brown, grey and almost plum color. The angles of the walls and the margins round the windows are made with deep red kiln bricks. Rich red hand-made Kentish tiles cover the roof. The whole effect of color is quiet and



The walls are of vari-colored "clamp" brick from Chichester, with deep red bricks at the corners, around openings and in the belt course



The English fireplace and its mantel treatment is in contrast to the American type

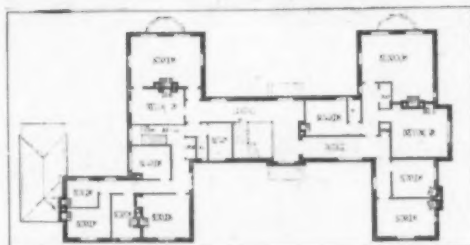


The hall, with its fire corner screened from the passage to the entrance hall. Teak blocks are used for the flooring, and oak paneling in the inglenook

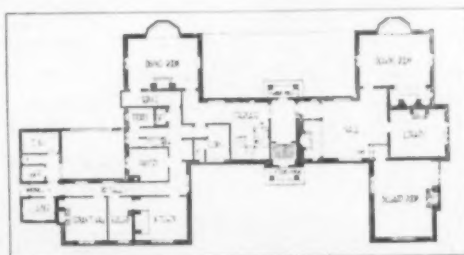
pleasant and quite different from the crude raw look of a new house when ordinary red bricks and tiles are used.

There are several notable features, among which may be noted the mullioned windows of two or three lights and the dentil course beneath the eaves. The projecting bow-windows are well conceived, and the porch with its curved head and pillared portico is characteristic of Mr. Newton's work. You will admire the chimney stacks, which are based upon some of the best models of Tudor building, and notice that the architect has not cramped himself by adhering to a perfect regularity of plan. Thus one wing, where the servants' quarters are, is larger than the other, and the central chimney is not in the centre of the middle roof. An attempt at absolute uniformity and regularity is wisely avoided.

Before entering the house we will examine the garden front. It is very similar to the entrance front. We see the mullioned windows, the two bow-windows and the two small circular ones on each side of the porch, which stands exactly opposite to the other entrance. Before this porch, enclosed by the wings, is the garden court, which is paved with rough flags, not closely placed together, but with interstices in which rock plants are cultivated. The surface of the court is diversified by footpaths of large red quarries. A spacious lawn stretches in front, girt by tall trees and woodland.



The second floor, called the first floor in England, has a supply of baths that would do credit to an American home



It is interesting to note what a wealth of outside light is given the rooms by this form of plan



A cream color is used upon walls and woodwork in the drawing-room, giving a splendid setting for the mahogany furniture

The stables form part of the plan of the house. They are not relegated to a corner and hidden away behind walls and trees as though they were buildings to be ashamed of, as in the case of old-fashioned houses. Believing that stables and outhouses can be made beautiful and deserve as careful architectural treatment as the house itself, the architect has made them fit into the general scheme.

Inside, the house is not a large one. The hall with its fireplace is 26 x 18 ft., occupying the depth of the house, so that you will see the width of the body of the house is only eighteen feet. This hall is a very comfortable room to sit and lounge in. On the left is the staircase. On the right in the wing is the drawing-room, library and billiard-room. The drawing-room is 22 x 16 ft; the billiard-room, 24 x 18 ft. The dining-room in the other wing is exactly the same size as the drawing-room and with it are grouped the servants' quarters, kitchen, scullery, servants' hall, pantry, store-rooms, etc. In the upper floor there are five bedrooms and two bathrooms for the family and guests, and four bedrooms and bathroom in the servants' department. The decorative scheme is cream color, which gives a still greater impression of roominess. There is no cramped feeling about the house, for it was considered much better to have it restful and attractive than to leave narrow passages, stuffy rooms and more of them than would be really necessary.

Old and New Vegetables That Have Made Good

A GUIDE FOR THE PUZZLED AMATEUR WHO IS ABOUT TO MAKE UP HIS PLANTING LIST—VARIETIES THAT MAY BE PUT IN THE TRIED-AND-TRUE CLASS

TO the man or woman planning a garden for the first time there is no one thing more confusing than the selection of the best varieties. This, in spite of the fact that catalogues should be, and might be, a great help instead of almost an actual hindrance.

I suppose that seedsmen consider extravagance in catalogues, both in material and language, necessary, or they would not go to the limit in expense for printing and mailing, as they do. But from the point of view of the gardener, and especially of the beginner, it is to be regretted that we cannot have the plain unvarnished truth about varieties, for surely the good ones are good enough to use up all the legitimate adjectives upon which seedsmen would care to pay postage. But such is not the case. Every season sees the introduction of literally hundreds of new varieties—or, as is more often the case, old varieties under new names—which have actually no excuse for being unloaded upon the public except that they will give a larger profit to the seller. Of course, in a way, it is the fault of the public for paying the fancy prices asked—that is, that part of the public which does not know. Commercial planters and experienced gardeners stick to well known sorts. New varieties are tried, if at all, by the packet only—and then “on suspicion.”

It is the purpose of this article to guide the gardener of limited experience in selecting varieties sure to give satisfaction. In practically every instance they have been grown by the author, but his recommendations are by no means based upon personal experience alone. Wherever introductions of recent years have proved to be actual improvements upon older varieties, they are

given in preference to the old, which are, of course, naturally much better known.

It is impossible for any person to pick out this, that or the other variety of a vegetable and label it unconditionally “the best.” But the person who wants to save time in making out his seed list can depend upon the following to have been widely tested, and to have “made good.”

ASPARAGUS. While there are enthusiastic claims put forth for several of the different varieties of aspa-

ragus as far as I have seen any authentic record of tests (Bulletin 173 N. J. Agr. Exp. Station), the prize goes to Palmetto, which gave 28 per cent. more than its nearest rival, Donald's Elmira. Big yield alone is frequently no recommendation of a vegetable to the home gardener, but in this instance it does make a big difference; first, because Palmetto is equal to any other asparagus in quality, and second, because the asparagus bed is producing only a few weeks during the gardening season, and where ground is limited, as in most home gardens, it is important to cut this waste space down as much as possible. This is for beds kept in good shape and highly fed. Bari's Mammoth will probably prove more satisfactory if the bed is apt to be more or less neglected, for the reason that under such circumstances it will make thicker stalks than the Palmetto.

BEANS (dwarf). Of the dwarf beans there are three general types: the early round-podded “string” beans, the stringless round-pods, and the usually more flattish “wax” beans. For first early, the old reliable Extra Early Red Valentine remains as good as any sort I have ever tried. In good strains of this variety, the pods have very slight strings, and they are very fleshy. It makes only a small bush and is fairly productive and of good quality. The care-taking planter, however, will put in only enough of these first early beans to last a week or ten days, as the later sorts are more prolific and of better quality. Burpee's Stringless Greenpod is a good second early. It is larger, finer, stringless even when mature, and of exceptionally handsome appearance. Improved Refugee is the most prolific of the green-pods, and the best of them for quality, but with slight strings. Of the “wax” type, Brittle Wax is the earliest, and also a tremendous yielder. The long-time favorite, Rust-proof Golden Wax, is another fine sort, and an especially strong healthy grower. The top-notch in quality among all bush beans is reached, perhaps, in Burpee's White Wax—the white referring not to the pods, which are of a light yellow, and flat—but to the beans, which are pure white in all stages of



Of the squashes there are no better sorts than this little Delicata and the Fordhook

BY F. F. ROCKWELL

Photographs by Nathan R. Graves



Kentucky Wonder, tried-and-true bean, stringless until nearly mature



Cos lettuce has more flavor than the old sorts. Paris White is good



Salsify, or the vegetable oyster. Mammoth Sandwich is the best variety

new Early Giant I have not yet tried, but from the description I should say it was the same type as the above. Of the pole limas, the new Giant-podded is the hardiest—an important point in limas, which are a little delicate in constitution anyway, especially in the seedling stage—and the biggest yielder of any I have grown and just as good in quality—and there's no vegetable much better than well-cooked limas. With me, also, it has proved as early as that old standard, Early Leviathan, but this may have been a chance occurrence. Ford's Mammoth is another excellent pole lima of large size. Of the other pole beans, the two that are still my favorites are Kentucky Wonder, or Old Homestead, and Golden Cluster. The former has fat meaty green pods, entirely stringless until nearly mature, and of enormous length. I have measured many over eight and a half inches long—more

growth. It has one unusual and extremely valuable quality—the pods remain tender longer than those of any other sort.

Of the dwarf limas there is a new variety which is destined, I think, to become the leader of the half-dozen other good sorts to be had. That is the Burpee Improved. The name is rather misleading, as it is not an improved strain of the Dreer's or Kumerle bush lima, but a "mutation," now thoroughly fixed. The bushes are stronger-growing and much larger than those of the older types, reaching a height of nearly three feet, standing strongly erect; both pods and beans are much larger and it is a week earlier. Henderson's



For the home garden, it is difficult to find any cabbage better than the Savoy

rich golden yellow color, hang in generous clusters and great profusion. In quality it has no superior; it has always been a great favorite with my customers. One need never fear having too many of these, as the dried beans are pure white and splendid for winter use. Last season I tried a new



Chard, or sea-kale, may be gathered from midsummer until frost

than the width of the print on this page — and they are borne in great profusion. Golden Cluster is one of the handsomest beans I know. It is happily named, for the pods, of a beautiful

pole been called Burger's Greenpod Stringless or White-seeded Kentucky Wonder (the dried seeds of the old sort being brown). It did well, but was in so dry

a place that I could not tell if it was an improvement over the standard or not. It is claimed to be earlier.

BEETS. In beets varieties are almost endless, but I confess that I have found no visible difference in many cases. Edmund's Early and Early Model are good for first crops. The Egyptian strains, though largely used for market, have never been as good in quality with me. For the main crop, I like Crimson Globe. In time it is a second early, of remarkably good form, smooth skin and fine quality and color.

BROCCOLI. This vegetable is a poorer cousin of the cauliflower (which, by the way, has been termed "only a cabbage with a college education"). It is of little use where cauliflowers can be grown, but serves as a substitute in northern sections, as it is more hardy than that vegetable. Early White French is the standard sort.

BRUSSELS SPROUTS. This vegetable, in my opin-



The list of radishes is long and varied, both in shape and in color



Kohlrabi deserves to be better known. Gather when young and tender—an inch and a half in diameter, at the most



Crisp-as-ice radishes. Work a little land plaster into the soil

ion, is altogether too little grown. It is as easy to grow as fall and winter cabbage, and while the yield is less, the quality is so much superior that for the home garden it certainly should be a favorite. Today (Jan. 19th) we had for dinner "sprouts" from a few old plants that had been left in transplanting boxes in an open coldframe. These had been out all winter—with no protection — repeatedly freezing and thawing, and while, of course, small, they were better in quality than any cabbage you ever ate. Dalkeith is the best dwarf-grow-

ing sort. Danish Prize is a new sort, giving a much heavier yield than the older types. I have tried it only one year, but should say it will become the standard variety.

CABBAGE. In cabbages, too, there is an endless mix-up of varieties. The Jersey Wakefield still remains the standard early. But it is at the best but a few days ahead of the flatheaded early sorts which stand much longer without breaking, so that for the home garden a very few heads will do. Glory of Enkhuisen is a new early sort that has become a great favorite. Early Summer and Succession are good to follow these, and Danish Ballhead is the best quality winter cabbage, and unsurpassed for keeping qualities. But for the home garden, the Savoy type is, to my mind, far and away the best. It is not in the same class with the ordinary sorts at all. Perfection Drumhead Savoy is the best variety. Of the red cabbages, Mammoth Rock is the standard.

CARROTS. The carrots are more restricted as to number of varieties. Golden Ball is the earliest of them all, but also the smallest yielder. Early Scarlet Horn is the standard early, being a better yielder than the above. The Danvers Half-long is probably grown more than all other kinds together. It grows to a length of about six inches, a very attractive deep orange in color. Where the garden soil is not in excellent condition, and thoroughly fined and pulverized as it should be, the shorter-growing kinds, Oxheart and Chantenay, will give better satisfaction. If there is any choice in quality, I should award it to Chantenay.

CAULIFLOWER. There is

hardly a seed catalogue which does not contain its own special brand of the very best and earliest cauliflower ever introduced. These are for the most part selected strains of either the old favorite Henderson's Snowball, or the old Early Dwarf Erfurt. Snowball, and Burpee's Best Early, which resembles it, are the best varieties I have ever grown for spring or autumn. They are more likely to head, and of much finer quality than any of the large late sorts. Where climatic conditions are not favorable to growing cauliflower, and in dry sections, Dry-weather is the most certain to form heads.

CELERY. For the home garden the dwarf-growing, "self-blanching" varieties of celery are much to be preferred. White Plume and Golden Self-blanching are the best. The former is the earliest celery and of excellent quality, but not a good keeper. Recent introductions in celery have proved very real improvements. Perhaps the best of the newer sorts, for home use, is Winter Queen, as it is more readily handled than some of the standard market sorts. In quality it has no superior. When put away for winter properly, it will keep through April.

CORN. You will have to suit yourself about corn. I have not the temerity to name any best varieties—every seedsman has about half a dozen that are absolutely unequalled. For home use, I have cut out my list down to three: Golden Bantam, a dwarf-growing early of extraordinary hardiness—can be planted earlier than any other sort and, while the ears are small and with yellow kernels, it is exceptionally sweet and fine in flavor. This novelty of a few years since, has attained

wide popular favor as quickly as any vegetable of which I know. Semour's Sweet Orange is a new variety, somewhat similar to Golden Bantam, but later and larger, of equally fine quality. White Evergreen, a perfected strain of Stowell's Evergreen, a standard favorite for years, is the third. It stays tender longer than any other sweet corn I have ever grown.

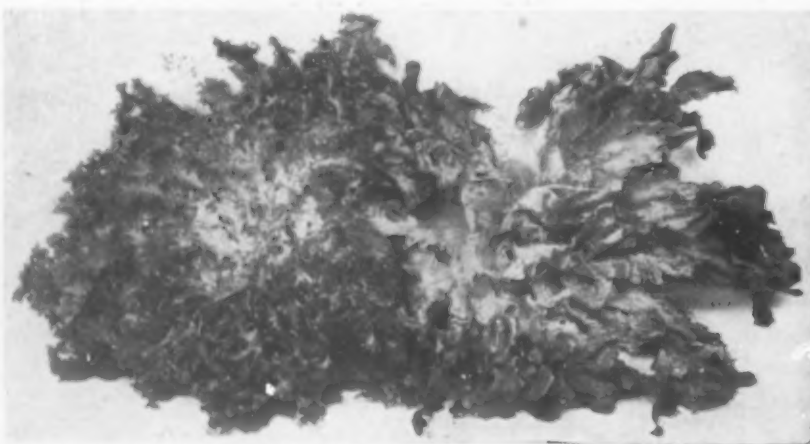
CUCUMBERS. Of cucumbers also there is a long and varied list of names. The
(Continued on page 179)



Leeks, first cousins to the onion. American Flag is the best variety



Vegetable Marrow, an excellent English member of the squash family



Of the endives, Broad-leaved Batavian is good; Giant Fringed is the largest

The Flower for the Million and for the Millionaire

WHY THE SWEET PEA DESERVES A FAR GREATER POPULARITY IN THIS COUNTRY—HOW TO GROW IT WITH THE BEST RESULTS—THE CHOICE BETWEEN PLANTING IN ROWS AND THE LESS COMMON ARRANGEMENT IN CLUMPS—THE ADVANTAGES OF POT-GROWN VINES

BY RUSSELL FISHER

Photograph by Nathan R. Graves

ST. PATRICK'S Day is the time to plant sweet peas in the latitude of New York—at least that is the rule that has come down from our ancestors. Practically, if sweet peas have not already been started under glass, as will be explained later, they should be put into the ground at the first moment that the ground is workable.

I wonder if many people realize what the sweet pea is in England. They sell about forty tons of seed for this annual every year over there. Everyone plants it, and almost everyone who plants it belongs to a sweet pea society. They not only plant sweet peas; they talk sweet peas. The matter of a slight variation in color or form is a subject for deep discussion among the thousands of enthusiasts. A recent list of English books on this flower alone contains seventeen titles. They really know sweet peas over there, and the reason they do lies undoubtedly in the merit of the flower itself. And yet the sweet pea is essentially an American flower by reason of the fact that practically the world's supply of its seed is produced by the California growers. They raise about one hundred and fifty tons a year in that section of the country.

And in England they do not always plant sweet peas in a row—in this country we seem to think that that is the only way that it can be done. In fact, there are many English gardeners who insist that better results are obtained by growing sweet peas in clumps. The practical reason for this probably is that where they are thus grown the smaller space occupied is for that reason much more deeply worked and better fertilized. If the rows are actually given the same advantages and care, however, there is no reason why the results should be inferior.

One hears and reads much about the Spencer sweet pea or the Unwin or the Eckford, but it may not be generally known that there are in fact three great groups in the sweet pea family—the Grandiflora division, the Spencer type and the Unwin type. The original sweet pea was a bicolor flower, usually carrying two blooms on a stem. The standards were, as a rule, erect and flat, the wings smooth and the segments of the keel were invariably closed. That is the first group. This flower prevailed until the new variety, Countess Spencer, was exhibited, just about a decade ago. In it the rigid outline of the smooth standard was broken, so that the standards were waved, and the wings showed the same attractive characteristic. Structurally also there is a difference between the original flower of the first group and the Spencer types—the segments of the keel expand and the organs protrude.



One of the Spencer varieties of the sweet pea, with its characteristic waved standards

The third group is composed of the Unwin varieties, the first of which appeared simultaneously with Countess Spencer. The difference between it and the first or smooth-standard section is that the standard and wings are waved, but it differs from the Spencers in that the keel is quite closed, as in the first group.

The first group and the Unwin group are certain to remain true to type; the closed keel renders cross ventilation by natural agencies practically impossible. It would seem that, owing to this important difference in the Spencer varieties, they would not remain constant. Some of the varieties—Audrey Crier particularly—can never be expected to yield more than ten per cent. true to type. Many sorts, however, may be depended upon to give from ninety to one hundred per cent. true to type. The choice of what varieties to plant must be left to the reader; it is largely a matter of taste and color preference.

Here are the essentials in the matter of soil and its preparation in order that you may have the best results: The ground must be of such a char-

acter that in unusually wet weather the water will not remain in the top soil, causing the sweet pea roots to rot out. If the soil is not naturally drained there must be some provision for draining this moisture off. The vines must have sun and they should have air as well. Do not put them up against a wall that is baked by the midsummer sun. A little shade from the midday suns of June and July will be very beneficial. The fundamental requisite is deep soil—the roots of sweet peas will grow to a depth of three feet if you give them a chance, and the deeper they grow the less likelihood there is of their feeling the effect of a drought. The ground that is to support them should have been worked last fall, but if this was not done it should be worked as deeply as possible this spring—just as soon as the frost is out of the ground and the soil is comparatively dry. Add plant food in the spring only in the form of old, well decomposed manure, or bone meal, or superphosphate of lime. The latter is spread in a fairly heavy coating over the tops of the rows and forked or raked into the soil before planting.

Try the new scheme this spring of planting the seeds in pots. Do this at once—before March first, if possible—using three-and-a-half-inch or four-inch pots. Use for the potting soil a compost of turfy loam, leaf soil and a little sand. Plant four seeds to a pot and cover them with an inch of soil, labeling each

(Continued on page 192)



The Editor will gladly answer queries pertaining to individual problems of interior decoration and furnishing. When an immediate reply is desired, please enclose a self-addressed stamped envelope.

Spring House Cleaning

IT ought to be the "good new days" when we think of the awful process called house cleaning that our grandmothers or even our mothers went through—we needs must pity them. Everything torn up from attic to cellar, nowhere to sit in peace, nowhere to rest one's head, the bureau drawers turned to the wall, the beds pulled into odd places, the floors bare and splintery and wet, and over all the smell of yellow soap. No wonder the poor family thought, if this be cleanliness, then give me dirt! For a frantic, forlorn week or two this went on, and then things settled down for another year. The worst thing about it all was that it was so often unnecessary, for the average house then, as now, was kept clean all the time. It was considered, however, almost immoral not to do it, for carping neighbors would call one "slack," and to be that was to be disgraced.

Nowadays it is quite a different story. Women understand that there is no need of the tyranny of house cleaning, but that one must keep up the fight year in and year out. With all the modern household inventions it is not such a hard task as it sounds. Don't let things accumulate, thinking that some day you will look them all over and get rid of them. Do it in the beginning; it means an easier life for you, and also the things are more useful to the person to whom they are given. If what goes by the general name of "trash" once gets the better of you, you are lost. People in the clutches of the trash habit will look at a little piece of cloth with hungry eyes, and carefully put it back in the piece trunk for fear it may be needed for an iron holder some time in the future. Economy and common sense are needed in every house, but not trash. It is also a good plan to eliminate the surplus bric-a-brac as well as the things useless or ugly. Banish them. It simplifies life and improves the appearance of the room.

Of course in the spring all winter things have to be carefully put away from the ravages of moths. If the hangings are very handsome and heavy, so that summer dust will spoil them, they should be

packed away, and light summer ones should take their place.

There is nothing so unhomelike as bare and staring windows, and to see the gentle blowing of a thin muslin curtain on a hot day makes one feel cooler. Summer rugs may take the place of valuable oriental ones, and the whole house can be given a charming summer air with very little trouble. Velour hangings should be rolled with the nap, not folded. One room should be done at a time, so there will never be a feeling of having things up-



An attractive lighting fixture of dull brass or silver. Shades can be had to harmonize with the decorations

set, even if painting and papering is to be done. By planning the cleaning and re-decorating, matters can be so arranged that the person turned out of a room can use the guest room, and things will continue to go smoothly. A vacuum cleaner is one of the greatest helps in keeping a

house clean that has ever been invented. It fairly eats up dust and dirt. There are many sizes of brushes and cleaners in the outfit, and they should be passed over walls and woodwork, the cracks in the floor, the books in the bookcases, the furniture, hangings, rugs, mattresses, pillows and cushions, all the out-of-the-way crooks and corners and last, but not least, one's own street clothes. It naturally will not take marks from paint, so that must be washed afterward, but there will be no dust to bother with. White paint should be washed with whiting, not soap. There are vacuum-cleaning companies in nearly all towns that will clean the entire house for one at a moderate cost, but a private cleaner of one's own is a far better plan. Two or three families could purchase one together and take turns in using it.

If one still likes the feeling of spring house cleaning so much that one cannot get through the year without it, have it done in the simplest way possible. First of all have the furnace and the furnace pipes and chimneys all cleaned, and any part of the cellar that would make dust go through the house. After that is done begin at the attic and work down to the cellar again. This simple method saves a deal of work as no rubbish is carried through the already cleaned parts of the house.

An Artistic Lighting Fixture

AN interesting and inexpensive electric light bracket is shown in the above illustration, the new feature involved being the "candle holder," or white cylinder with arms to support the shade.

The candle holder is made of one piece of metal, the lower portion being finished in dull brass, silver or other metal color, to correspond with the fixture, and the upper part (or candle) in white or cream enamel. The holder can be set over the socket of any fixture or chandelier, and does not require the use of tools or any fastening.

The shade shown is made of chintz, with gimp binding over wire frame, measuring about 5 inches in height, each shade requiring about one-sixth of a yard of material.

For bed-rooms, these "candle holders" and fabric shades make a delightful scheme, the character of the room being carried out completely by using the same material for the shades and draperies, or if the draperies are too dark, using material to blend with the wall.

A great many variations of these shades can be worked out, for example, using Raja silk with bindings of galloon, and the lower edge can have in addition a finish of narrow gold lace. Such shades are quite handsome enough for libraries or halls.

One should be careful, however, in using dark materials, to line the shades with thin white muslin or china silk in order not to subdue the light too completely.

Beware the Rocking Chair

WHY retain the rocking-chairs in the living room? They are nerve destroyers, trippers up of the unwary and spoilers of tempers. One of the famous New England hostesses of the last century kept a rocking-chair in her drawing room in which a new visitor was tactfully induced to sit. If she rocked she was never asked to the house again. This was extreme, perhaps, but we in our hearts agree with her, for a person swinging rapidly back and forth as she talks is, to say the least, a disconcerting sight, and to most of us a maddening one. We take morals for granted, but we insist upon manners. Rocking-chairs are rarely seen in any room but a bedroom, and the sooner they disappear entirely the better.

For the Radiator.

FROM Germany comes what is perhaps a distant cousin of the tiled stove so much in evidence over there. This new invention is a porcelain radiator cover which fits over it, hiding it completely. The greater part of the front and sides is panelled in openwork, forming a conventionalized design, while between these panels are colored flower decorations. A band of polished brass runs around the base and a small brass door at either side permits regulation of the heater. As porcelain is a good conductor the device facilitates heat distribution. It is in good keeping in rooms where there is white woodwork, and the flower figures can be had in any color or pattern to harmonize with the wall decoration. The cover is especially valuable as an adjunct to the bathroom.

A Convenient Bungalow Bathroom

ONE of the most satisfactory features of our bungalow bathroom is the boiler. The range, to which it belongs, is directly behind it on the kitchen side of the wall. This unusual arrangement was planned to provide heat in the bathroom, where we had none, and to get rid of it in the kitchen, where we had too much. The boiler heat provides warmth eight months in the year, and the remaining four months, when the heat would cause dis-

comfort, we use oil stoves in the kitchen. The space in the kitchen happened to be badly needed, while in the bathroom the corner could very well be spared. The boiler, so located, is often a help in drying small articles of clothing that would only be a bother around the kitchen range. On cold days in winter a small oil stove is used in addition.

Next to the boiler is a medicine closet that practically occupies no space at all, for the closet upon which it backs can easily spare the little room required for four shelves one foot wide and three feet long. In fact it adds to the convenience of the other closet, as the boards that enclose the back and top of the medicine shelves provide a place for clothes hooks and a shelf on the other side.

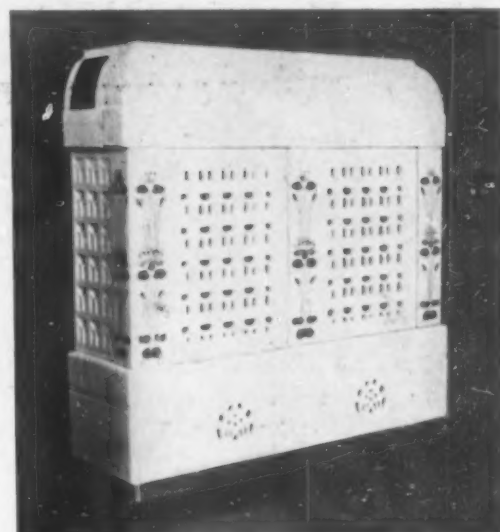
Space is still further economized by placing a nickel towel rod upon the closet door, and the enameled iron basin directly below it. Wall space is also saved by a half dozen nickel hooks on the inside of the bathroom door; these, with a small "hat tree," give all the accommodations required for the temporary disposal of clothing. Light was admitted, from the bathroom window to a dark passage, by removing the uppermost of the five horizontal panels in the door and replacing it with a pane of glass. A thin curtain made the door more ornamental, without interfering with the light.

Hanging shelves hold candle, matches and other small conveniences. A clock enables the dresser to keep his eye on train time. A dressing-table was made by sawing off a third of a round-topped table, to make it occupy less space and to sit square against the wall. A dummy tea chest, such as is used for exhibition in a grocery window, painted, is used either as a seat, when dressing, or as a foot stool, to reach articles on the upper shelf of the medicine closet.

The high window, placed above the bathtub, is twenty inches square and swings inward. A netting screen is kept in this window the year round; this with the extra broad sill provides a good place for drying brushes and sponges. The curtain is arranged with a view to screening and lighting at the same time. A full, straight curtain, gathered top and bottom on two pieces of picture wire, extends only three-quarters of the window space, leaving a four-inch strip of uncurtained glass at the top to admit more light. The space just below the window is utilized for a nickel towel rod.

The bathtub is enameled iron with a roll rim and the wall around it is protected from spattering by a strip of bordered shelf oilcloth. Wall space, over the head of the tub, otherwise useless, holds a wide towel rod for the bath mat. Besides the usual plumbing and piping, this little six by seven room contains, also, a half dozen other bathroom necessities, such as laundry basket and mirror. Both wall and floor space had to be well planned to accommodate all without inconvenience.

A coat of aluminum paint greatly im-



A suggestion for that radiator problem—A cover of porcelain. The flower panels come in a variety of colors and designs

proved the appearance of the boiler, the pipes (except the nickel ones) and the outside of the bathtub. The walls are painted. The woodwork and floor are finished as in all the other rooms, cypress, waxed and varnished, for the former, and North Carolina pine, oiled, for the latter. Inlaid linoleum, cut into mats, makes a most durable and satisfactory protection for the floor.

Although off the line of sewers and water supply, the plumbing is very conveniently arranged by means of a cistern and cesspool. The kitchen pump fills a tank in the attic with very little effort, as there is only one flight to lift the water in this one-story bungalow.

The place is protected in winter by a bank of earth around the foundation. This, made ornamental with rubble work, adds to the appearance of the house.



A bungalow bathroom where space is at a premium. The boiler provides the heat necessary on cold mornings and leaves more room in the kitchen



Garden Suggestions and Queries



Conducted by
F. F. ROCKWELL

The Editor will be glad to answer subscribers' queries pertaining to individual problems connected with the garden and grounds. When a direct personal reply is desired please enclose a self-addressed stamped envelope.

MARCH gets here before we are expecting it, and usually is gone before we have done half the things we had planned to do—and should have done. And then they never do get finished—for April is so crowded with work that will not wait, that there's no chance to go back. We must wait until the seasons come round again, and lose a year.

Preparing for Planting

AS far north as New York, March always finds the "early" patches of ground, the well-subdrained, sandy soils on slopes, ready to be broken up for the spring sowing or planting. Nothing is to be gained by waiting, everything by having it done the first possible day, especially if you have to hire men to do your ploughing or spading. And by the way, if there is room for a horse to turn around in it, have your garden plowed, not dug. Care must be taken not to attempt to work the ground too soon, as it may be injured for years, especially if at all clayey in composition. It is not enough that the frost is out of the ground—the soil must have dried out sufficiently to crumble apart, instead of packing in solid, pasty furrows from the mould-board of the plow. This condition is usually preceded by the soils cracking or opening up into numerous little fissures, a few inches deep, especially if it has had no winter cover crop—such as rye—growing upon it.

Unless the soil is dry enough not to clog and be lumpy, it can be "fitted" for sowing immediately after plowing; if not, it will be well to let it lie for a day or two until the surface dries out a little. A great many of the failures in garden work are caused by not having the ground thoroughly prepared for sowing or planting. It is such a temptation to get the seed into the ground just the moment it is smooth enough to walk on that we hate to spare half a day, or even a few hours, in putting or the seemingly unnecessary finishing touches to the garden bed. But to yield to this temptation is only to furnish another illustration of "haste makes waste;" for not only will the growth made by seeds sown in soil perfectly prepared be much greater at first, but proportionately more at the end of the season.

Let us then take every pains to have the plot devoted to the vegetable garden "fined" perfectly before we begin planting. If the garden is of considerable size, it will be best not to plow it all at once, for in a dry season a freshly prepared seed-bed is of great importance. Where it is not practicable to make more than one job of the plowing, the same result can to some extent be achieved by working up only a part of it at a time—just as much as will be needed for immediate use. A good harrow—the best kind for the purpose will be determined by the sort and condition of the soil—should follow the plow. The piece should be gone over until all lumps are broken up fine,

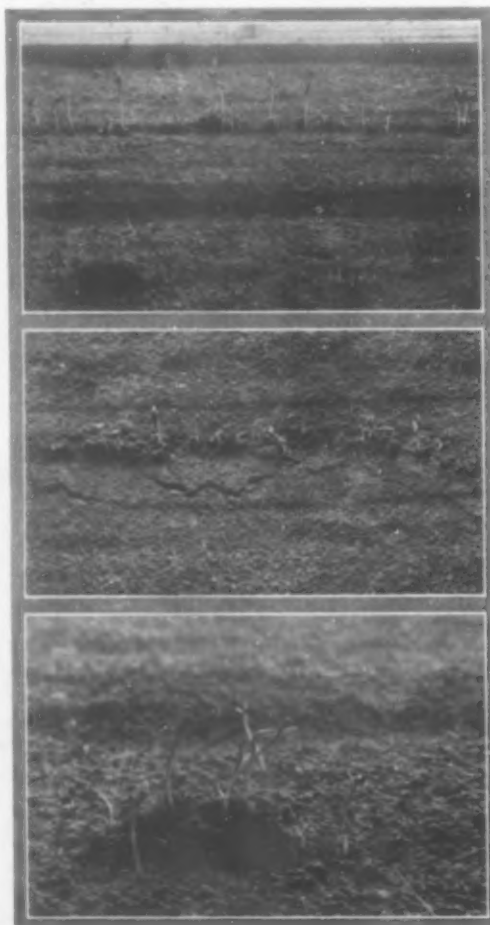
and the earth pulverized to a depth of several inches below the surface. Do not let the harrow stop until the result is obtained, even if it means going over the piece a dozen times. The ground will then be ready for the hand iron-rake, used to level and smooth off the soil, and remove stones, etc. Care must be exercised not to dig up trash or manure, or you can rake all day without getting a smooth bed.

Fertilizer

THE question of manures and fertilizers is another most important one, but we cannot take it up in much detail in this limited space. If you are buying barnyard manure, see to it that it be neither "fire-fanged" or water-soaked. The former condition is shown by the interior of the heap being, usually, of a light gray color, and very light, dry and fluffy in appearance, almost like a heap of ashes; the latter, so saturated with water as to be dripping wet, and although rich in appearance, usually leached and so full of surplus and useless weight as to be unprofitable to handle. The best manure for general purposes is that of horses and cattle mixed, and if pigs have run upon it, better still. It should be dark in color, dry and so thoroughly rotted as to crumble easily into small fragments.

Brands of fertilizer are legion. As a rule, the higher the price per bag, the cheaper the actual available plant food. If you are going to use any quantity, by all means mix your own. Public demand is now beginning to force dealers to carry the raw chemicals from which they are made—nitrate of soda, muriate and sulphate of potash, acid phosphate, and ground bone being the principal ingredients. These come finely pulverized, and may be readily mixed with a shovel and then screened to make the compound uniform. Write your State Experiment Station for further information about "home-mixing." For most garden crops, manure is spread upon the land before plowing—from two to three inches gives best results. Fertilizers are sown broadcast after plowing, and harrowed in.

All the above is mentioned that you may be ready to grasp the first opportu-



When the seedlings first appear they seem almost human and their growth and development is intensely interesting

ity to begin the garden work. But in planning for that, do not neglect the things that are pressing now—the preparations under cover. All the first batches of seedlings, cabbage, cauliflower, beets, etc., put in last month, will be requiring transplanting the first part of this month. They will be ready for the shift shortly after the second or true leaves are found, and before they begin to crowd or grow lanky and droop. Unless you expect to transplant them directly into the soil in coldframes or hotbeds, used "flats" such as described for the sowing of seed, only a little deeper—say about four inches. The bottoms should not be water-tight, but drainage will not be so much needed as in the seed-flats. Such a flat will hold from 35 to 104 seedlings, according to the space given. The fewer the number, the better plants they will make. Fill these boxes about one-third full of well rotted manure, such as described above, and then level off to the top with good loam, which should be put through a quarter-inch or half-inch sieve if at all lumpy or soddy. Do not have this soil too fine, or it will pack and exclude the air which is just as necessary to healthy growth of the little plants as water is. Now take out the little plants and separate them carefully. Don't attempt to pull them from the soil, but lift out a little lump at a time, soil and all, and pull them apart. Make a hole with the forefinger of one hand, and holding the seedling between the thumb and forefinger of the other, lower half its length into the soil. Then with the tips of both thumbs and forefingers firm it into position. The little newly set plants should stand up stiff and stocky. A rap with the palm of the hand on the side of the box will shake down the little mountains about the stems into the valleys. Then water thoroughly, and set where they may be shaded for from two to four days. As soon as the soil begins to dry out, give a second thorough watering, but do not let the soil become muddy at any time. *On bright days always try to water them early in the morning, so that the stems and leaves may be dried off by night.* This may save you the loss of hundreds of plants from the dreaded "damping off," or rotting of the tiny stems.

As the days get longer and the sun higher, the matter of watering and especially of airing must become a daily one, for upon the care and regularity with which the newly transplanted flats are looked after will depend entirely the quality of the plants that go into your garden, and of the vegetables that come out of it.

Don't be afraid to give them air.

Don't coddle your plants in a tight frame or wait to give them ventilation until the atmosphere inside is too hot. Such treatment is weakening and makes the little plants unable to resist the severe temperature changes of the garden. Seedlings are much like young children; they require close attention, especially in the early stages of their career.

How I Made My Poplar Hedge

A NEIGHBOR of mine has a very handsome Poplar hedge that makes a perfect screen of green at the back of his house, and last spring when trimming it he advised me to take some of the pieces he cut off and put them into the ground to root. With many misgivings I gathered about seventy-five large and small pieces, and put them in the ground covering all but a little from the tops. By fall I had forgotten all about them until my neighbor inquired about them. Expecting



A well-grown poplar hedge started from random cuttings. Leave but a little above ground and in six months roots as vigorous as those shown above will have appeared

to find nothing but dried-up sticks we went to inspect and what was my surprise to find that fully fifty of the seventy-five were beautifully rooted. Some of them had roots at every joint from the bottom to the top. My only regret now is that I did not make this attempt before.

MRS. ARTHUR DUFFY

The Grounds

ABOUT the grounds there is not much to do in the first part of March, except such work as may have been left over from last month. As soon as the ground has thawed and dried out a little, the lawns should be gone over carefully with an iron rake, before the new growth of grass shoots up, and if possible a light mulch of finely pulverized rotten manure, so old as to have no disagreeable odor, applied. The first few rains will wash it almost entirely away, and the grass be greatly benefited. In lieu of this, chemical lawn-dressing, or any good fertilizer may be applied—better in several very light applications a week or ten days apart than in one heavy one. A well kept, smooth green lawn is one of the most

beautiful features a place can have—and one not often seen.

As soon as the ground loses its surplus of moisture roll it well with a heavy lawn roller. Frequently the top soil has been heaved up by the frost so that the grass roots are pulled away from the earth underneath and consequently they are liable to die out very quickly. Roll the lawn back and forth in one direction and then again at right angles.

"Hardening Off"

ALL your early plants should be so well hardened as to be capable of withstanding a severe freeze.

For a week before you are ready to set them out, begin to harden them off, by leaving them exposed to all but severe freezing weather. If you should get caught by a sudden freeze, and go out some morning to find your cabbage and lettuce brittle as plants made of glass, don't either give them up for lost, or take out a can of warm water to thaw them out. In the first place, keep them shaded from the sun; in the second, water copiously with the coldest water to be had. With this treatment they will come safely out of a pretty severe freeze.

If you are crowded for room, take out of your frames the boxes of earliest and hardiest plants and set them on the south side of the frames or of a sheltering building, with a board set up endwise outside of them and a few supports or old sash frames over them. On freezing nights they can be covered with old bags or rugs, and will withstand a low temperature.

In the Flower Garden

OF course, all the foregoing applies to the flower garden as well as to the vegetable patch; small pots, however, instead of boxes, will be required for many of the tenderer plants to get good specimens ready for the border. Remember that pots will dry out more readily than boxes, and must be watched more carefully, especially when they are of the small sizes.

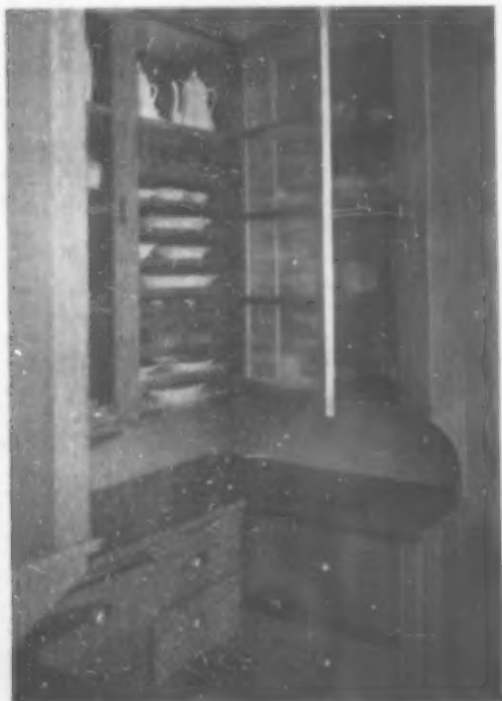
Have you ever tried tuberous-rooted begonias? They should be much better known, and if you had none last year try a few this Spring. The bulbs are very reasonable in price, especially if you will remember they last many years. You can start them easily yourself—even without frames, if you have none. Pot up, first in pots very little larger than the bulbs themselves, using a light, rich sandy compost. Give a thorough soaking, and then be careful never to let the little pots get dry enough to bake, as they will quickly in the sun. As soon as the roots have formed a network on the outside of the ball, shift to a size larger, and repeat as often as necessary, making the soil richer until it is about half old, thoroughly rotted manure. The plants will attain great size, easily filling five- and six-inch pots, and the profusion of color, and variety and beauty of bloom are wonderful. The plants do splendidly for bedding out.

Ingenious Devices

LABOR-SAVING SCHEMES AND SHORT CUTS IN THE HOUSE AND IN THE GARDEN

A Saver of Crockery

FREQUENTLY it is not more space that is required to increase the efficiency of a cupboard, but a more care-



The difficult arrangement of platters in the china closet is made a simple matter by increasing the number of shelves

ful division of the space already possessed. In our accompanying illustration is shown a compartment in a butler's pantry recently built. It is devoted chiefly to platters. Instead of being piled on top of each other or set on end in the ordinary fashion, each platter has a shelf to itself. The shelves are no more than four inches apart and are adjustable. This simple arrangement not only saves much space but prevents breakage, as dishes cannot be slammed together by a careless maid. A similar device could easily be introduced into any cupboard, using the metal supports sold for bookcase shelves.

L. A. S.

For Better Ventilation

AN ingenious scheme for the better ventilation of a room with a transomless door was recently shown me in the house of a well-known actor who is also a good amateur carpenter. The room, which is small and rather low-ceiled, has two windows, in the north and east sides respectively, and one door, divided into sections of five crosswise panels. Seeing the need for the better circulation of air in the room, which is often used as a sleeping apartment, the actor put his wits and his tools to work and sawed out the whole of the top panel. At the bottom of the

panel he put hinges and at the top a brass catch, with brass chains at the sides that allow it to be let down for possibly ten inches. The brass work is unobtrusive, and is by no means disfiguring to the door, which is painted white, and the movable panel does quite as good service as a real transom.

S. L. C.

Lighting Helps

THE frequent blackening which occurs on gas mantles of the Welsbach type can oftentimes be corrected by the use of common table salt. Turn the light low and sprinkle lightly from a salt-shaker. Then let the light burn brightly for a few minutes and much of the black will have disappeared. Repeat this process until the surface is entirely clear. If the brass of the burner is visible clean off all salt grains, as they have a corrosive action and are apt to stain. This simple remedy can make a considerable saving in mantles.

Rust in the Gas Stove

TO prevent the rusting of the gas stove oven, form the habit of leaving the doors wide open while the oven is cooling off after using. If left closed the steam generated by the process of cooling dampens the iron and rust is the result. Strict observance of this rule will double the life of the gas stove.

M. E. S. H.

"Stoa Poikile"

A FAMILY desiring additional porch space without the consequent darkening of the lower windows, conceived the ingenious idea of having a separate porch building constructed. The "Stoa Poikile," as they choose to call it, is of architecture corresponding to the main house and forms

an attractive adjunct to the grounds. It has the advantage of receiving every breeze and providing shade during all the day. The central partition makes it possible to be used either for shade or as a sun parlor, for when one side is in shadow the other has sunlight.

An Efficient Seed Test

TO plant and wait long and hopefully for some result of your labors only to find that a large majority of your seeds are sterile and unproductive is a real disappointment. If one could only have known beforehand and planted again to retrieve the loss. It is very easy, however, to test your own seeds and insure your results.

Take at random fifty to one hundred seeds from the package; get some soft cotton flannel and a good size soup or

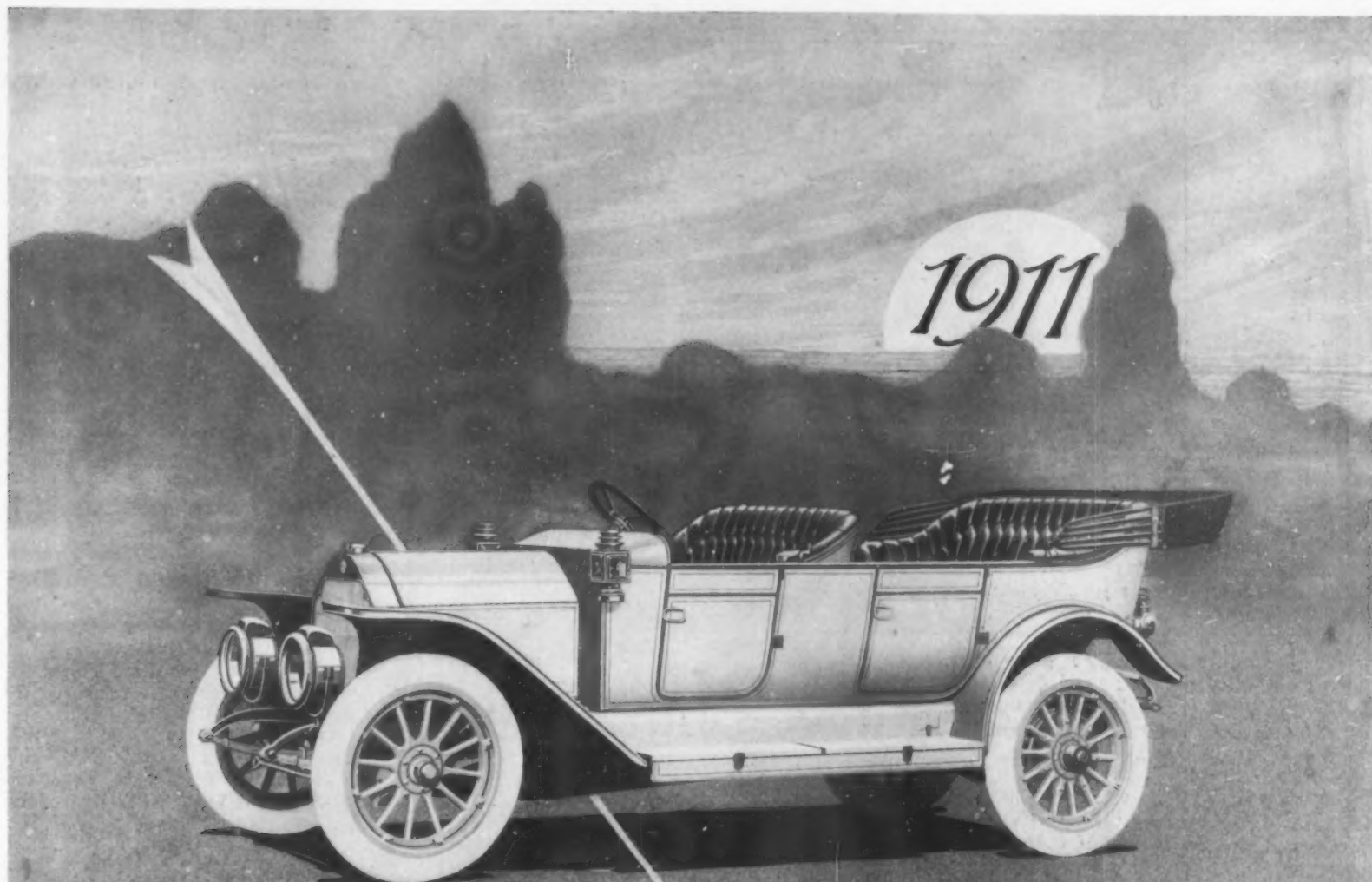


Anyone can test his seeds before planting by germinating them between layers of flannel, kept moist in a soup plate.

dinner plate. This is all the apparatus necessary. Moisten the flannel and place the seeds upon it, then cover with another plate of similar size to retain the moisture. Subject to a temperature of from 70 to 85 degrees and watch the process of germination each day for about eight days. Continue to keep moist as soon as any signs of dryness appear. When your test is completed, count the seeds that have sprouted and find the average of fertile seeds; it is then an easy matter to make allowance for the percentage of poor material.



A novel form of porch that retains all the desirable qualities of the veranda without darkening rooms or spoiling the symmetry of the house. Mellor & Meigs, architects.



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The Keasbey & Mattison Company

Factors

Ambler, Pennsylvania

The Small Model as an Aid in Building a Home.

(Continued from page 156)

far exceeded the original idea, as it gave thickness and texture to the roof. Here and there one or two tiles are vari-colored, in order to do away with the stereotyped effect of an even roof.

Another point encountered was that when the first models were made and set up with their transparent windows, there was a misleading effect, due to the fact that one could look through the building and see the back of the cardboard, as well as the interior construction of the framework. This was overcome by painting the entire interior of the model black, before setting it in position. This successfully concealed the real interior or construction of the house. For giving texture to the models, fine sandpaper in a great many cases was used to indicate pebble-dash walls. It was used in the natural state or given a slight wash over the entire sheet before windows were cut out. Where a rough-cast wall was desired, thick bookboard was used with a rough surface of the required color.

These models, complete, measure 45 x 25 in., and weigh about twelve pounds each.

Grow Your Own Fruit.

(Continued from page 163)

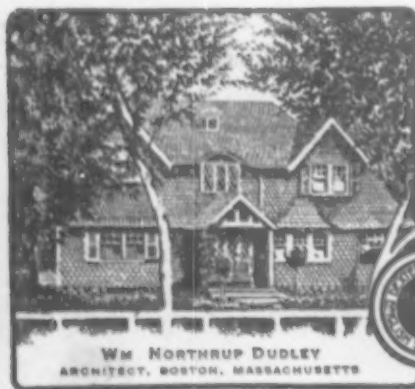
matter, will be given in the concluding article of this series next month.

SETTING

Standard apple trees, fully grown, will require thirty to forty-five feet of space between them each way. It takes, however, ten or twelve years after the trees are set before all of this space is needed. A system of "fillers," or inter-planting, has come into use as a result of this, which will give at least one hundred per cent. more fruit for the first ten years. Small-growing standards, standard varieties on dwarf stock, and also peaches, are used for this purpose in commercial orchards. But the principle may be applied with equally good results to the home orchard, or even to the planting of a few scattered trees. The standard dwarfs give good satisfaction as "permanent fillers." Where space is very limited, or the fruit must go into the garden, they may be used in place of the standard sorts altogether. The dwarf trees are, as a rule, not so long-lived as the standards, and to do their best, need more care in fertilizing and manuring; but the fruit is just as good, just as much, or more, can be grown on the same area, and the trees come into bearing two to three years sooner. They cost less to begin with and are also easier to care for, in spraying and pruning and in picking the fruit.

CULTIVATION

The home orchard, to give the very finest quality of fruit, must be given careful and thorough cultivation. In the case of scattered trees, where it is not practi-



WM. NORTHRUP DUDLEY
ARCHITECT, BOSTON, MASSACHUSETTS

Paint spoils the natural surface—
costs twice as much.

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preserve and waterproof the wood. They are made of finest English ground colors, mixed in linseed and special preserving oils which double the life of the shingles. Write for stained miniature shingles. Examine them carefully. Match them against the natural setting of your house until the right color combination is found. With them we shall send booklet, which tells about our stains, and shows letters from owners and architects.

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Stain Paint

Stain brings out the grain, gives a soft, velvety appearance.

Paint hides the grain, spoils the natural surface of the wood.

cable to use a horse, this can be given by working a space four to six feet wide about each tree. Every spring the soil should be loosened up, with the cultivator or fork, as the case may be, and kept stirred during the early part of the summer. Unless the soil is rich, a fertilizer, high in potash and not too high in nitrogen, should be given in the spring. Manure and phosphate rock, as suggested above, is as good as any. In case the foliage is not a deep healthy green, apply a few handfuls of nitrate of soda, working it into the soil just before a rain, around each tree.

About August first the cultivation should be discontinued, and some "cover crop" sown. Buckwheat and crimson clover is a good combination; as the former makes a rapid growth it will form, if rolled down just as the apples are ripening, a soft cushion upon which the wind-falls may drop without injury, and will furnish enough protection to the crimson clover to carry it through most winters, even in cold climates.

In addition to the "filler crops," where the ground is to be cultivated by horse, potatoes may be grown between the rows of trees; or fine hills of melons or squash may be grown around scattered trees, thus, incidentally, saving a great deal of space in the vegetable garden. Or why not grow a few extra fancy strawberries in the well cultivated spots about these trees? Neither they nor the trees want the ground too rich, especially in nitrogen, and conditions suiting the one would be just right for the others.

It may seem to the beginner that fruit-growing, with all these things to keep in mind, is a difficult task. But it is not. I think I am perfectly safe in saying that the rewards from nothing else he can plant and care for are as certain, and surely none are more satisfactory. If you cannot persuade yourself to try fruit on any larger plan, at least order half a dozen dwarf trees (they will cost about twenty cents apiece, and can be had by mail).

Order your trees now, and get them in the first thing this spring, as soon as the soil is dry enough to work properly. It will prove about the best paying investment you ever made.

Old and New Vegetable Varieties That Have Made Good.

(Continued from page 170)

old Extra Early White Spine is still the best early—for the main crop, some "perfected" form of White Spine. I myself like the Fordhook Famous, as it is the healthiest strain I ever grew, and has very large fruit that stays green, while being of fine quality. In the last few years the Davis Perfect has won great popularity, and deservedly so. Many seedsmen predict that this is destined to become the leading standard—and where seedsmen agree let us prick up our ears! It has done very well with me, the fruit being the handsomest of any I have grown. If

Madam—

No matter what you have decided to serve for luncheon or dinner, do not fail to add Nabisco Sugar Wafers for dessert.

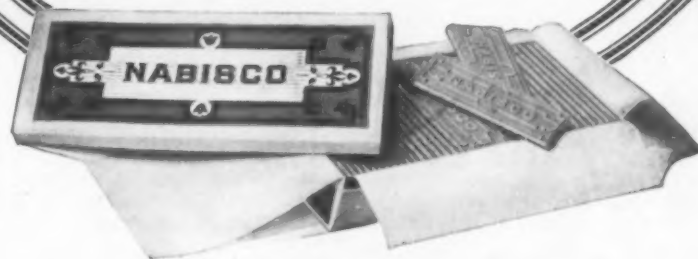
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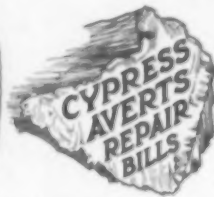
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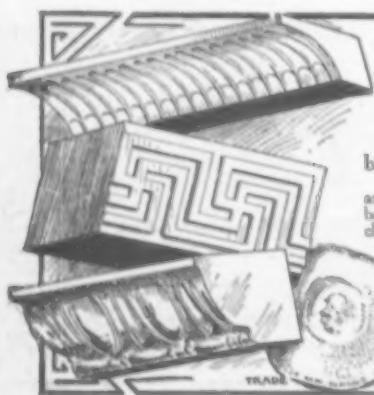
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it proves as strong a grower it will replace Fordhook Famous with me.

EGG-PLANT. New York Improved Purple is still the standard, but it has been to a large extent replaced by Black Beauty, which has the merit of being ten days earlier and a more handsome fruit. When once tried it will very likely be the only sort grown.

ENDIVE. This is a substitute for lettuce for which I personally have never cared. It is largely used commercially. Broad-leaved Batavian is a good variety. Giant Fringed is the largest.

KALE. Kale is a foreigner which has never been very popular in this country. Dwarf Scott Curled is the tenderest and most delicate (or least coarse) in flavor.

KOHLRABI. This peculiar mongrel should be better known. It looks as though a turnip had started to climb into the cabbage class and got stuck. When gathered young, not more than an inch and a half in diameter at the most, they are quite nice and tender. They are of the easiest cultivation. White Vienna is the best.

LEEK. For those who like this sort of thing it is—just the sort of thing they like. American Flag is the best variety, but why it was given the first part of that name, I don't know.

LETTUCE. To cover the lettuces thoroughly would take an article by itself. For lack of space I shall have to mention only a few varieties, although there are many others as good and suited to different purposes. For quality, I put Mignonette at the top of the list, but it makes very small heads. Grand Rapids is the best loose-head sort—fine for under glass, in frames and early outdoors. Last fall from a bench 40 x 4 ft., I sold \$36 worth in one crop, besides some used at home. I could not sell winter head lettuce to customers who had once had this sort, so good was its quality. May King and Big Boston are the best outdoor spring and early summer sorts. New York and Deacon are the best solid cabbage-head types for resisting summer heat, and long standing. Of the "Cos" type (see illustration on page 168) Paris White is good.

MUSKMELON. The varieties of muskmelon are also without limit. I mention but two—which have given good satisfaction out of a large number tried, in my own experience. Netted Gem (known as "Rocky Ford") for a green-fleshed type, and Emerald Gem for salmon-fleshed. There are a number of newer varieties, such as Hoodoo, Miller's Cream, Montreal, Nutmeg and others, all of excellent quality.

WATERMELON. With me (in Connecticut) the seasons are a little short for this fruit. Cole's Early and Sweetheart have made the best showing. Halbert Honey is the best for quality.

OKRA. In cool sections the Perfected Perkins does best, but it is not quite so good in quality as the southern favorite, White Velvet. The flowers and plants of this vegetable are very ornamental.

In writing to advertisers please mention HOUSE AND GARDEN.

ONION. For some unknown reason, different seedsmen call the same onion by the same name. I have never found any explanation of this, except that a good many onions given different names in the catalogues are really the same thing. At least they grade into each other more than other vegetables. With me Prize-taker is the only sort now grown in quantity, as I have found it to outyield all other yellows, and to be a good keeper. It is a little milder in quality than the American yellows—Danvers and Southport Globes. When started under glass and transplanted out in April, it attains the size and the quality of the large Spanish onions of which it is a descendent. Weathersfield Red is the standard flat red, but not quite so good in quality or for keeping as Southport Red Globe. Of the white, I like best Mammoth Silver-skin. It is ready early and the finest in quality, to my taste, of all the onions, but not a good keeper. Aisla Craig, a new English sort now listed in several American catalogues, is the best to grow for extra fancy onions, especially for exhibiting; it should be started in February or March under glass.

PARSLEY. Emerald is a large-growing, beautifully colored and mild-flavored sort.

PARSNIP. This vegetable is especially valuable because it may be had at perfection when other vegetables are scarce. Hollow Crown ("Improved," of course!) is the best.

PEAS. Peas are worse than corn. You will find enough exclamation points in the pea sections of catalogues to train the vines on. If you want to escape brain-fag and still have as good as the best, if not better, plant Gradus (or Prosperity) for early and second early; and Boston Unrivalled (an improved form of Telephone) for main crop, and Gradus for autumn. These two peas are good yielders, free growers and of really wonderfully fine quality. They need bushing, but I have never found a variety of decent quality that does not.

PEPPER. Ruby King is the standard, large, red, mild pepper, and as good as any. Chinese Giant is a newer sort, larger but later. The flesh is extremely thick and mild. On account of this quality, it will have a wider range of use than the older sorts.

PUMPKINS. The old Large Cheese, and the newer Quaker Pie, are as prolific, hardy and fine in quality and sweetness as any.

POTATO. Bonce is a good early garden sort, but without the best of culture is very small. Irish Cobbler is a good early white. Green Mountain is a universal favorite for main crop in the East—a sure yielder and heavy-crop potato of excellent quality. Uncle Sam is the best quality potato I ever grew. Baked, they taste almost as rich as chestnuts.

RADISH. I do not care to say much about radishes; I don't like them. They are, however, universal favorites. They come round, half-long, long and tapering; white, red, white-tipped, crimson, rose, yellow-brown and black; and from the



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PAINT which wears is made from pure white lead, mixed with linseed oil and colored at the time of painting. Even though linseed oil is high, the thing to remember is that paint materials are not nearly so expensive as the repairing of a neglected house. Linseed oil at even \$1.00 or \$1.25 a gallon makes the painting of the average house cost only \$4 or \$5 more than it used to cost. Not enough to warrant letting any house go to ruin from lack of paint.

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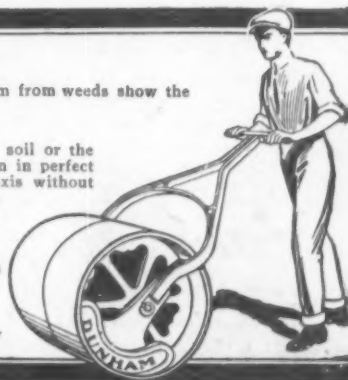
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size of a button to over a foot long by fifteen inches in circumference—the latter being the new Chinese or Celestial. So you can imagine what a revel of varieties the seedsmen may indulge in. I have tried many—and cut my own list down to two, Rapid-red (probably an improvement of the old standard, Scarlet Button), and Crimson Globe (or Giant), a big, rapid, healthy grower of good quality, and one that does not get "corky." A little land plaster, or gypsum, worked into the soil at time of planting, will add to both appearance and quality in radishes.

SPINACH. The best variety of spinach is Swiss Chard Beet (see below). If you want the real sort, use Long Season, which will give you cuttings long after other sorts have run to seed. New Zealand will stand more heat than any other sort. Victoria is a newer variety, for which the claim of best quality is made. In my own trial I could not notice very much difference. It has, however, thicker and "savoyed" leaves.

SALSIFY. This is, to my taste, the most delicious of all root-vegetables. It will not do well in soil not deep and finely pulverized, but a row or two for home use can be had by digging and fining before sowing the seed. It's worth extra work. Mammoth Sandwich is the best variety.

SQUASH. Of this fine vegetable there are no better sorts for the home garden than the little Delicata, and Fordhook. Vegetable Marrow is a fine English sort that does well in almost all localities. The best of the newer large-vined sorts is The Delicious. It is of finer quality than the well known Hubbard. For earliest use, try a few plants of White or Yellow Bush Scalloped. They are not so good in quality as either Delicata or Fordhook, which are ready within a week or so later. The latter are also excellent keepers and can be had, by starting plants early and by careful storing, almost from June to June.

TOMATO. If you have a really hated enemy, give him a dozen seed catalogues and ask him to select for you the best four tomatoes. But unless you want to become criminally involved, send his doctor around the next morning. A few years ago I tried over forty kinds. A good many have been introduced since, some of which I have tried. I am prepared to make the following statements: Earliana is the earliest quality tomato, for light warm soils, that I have ever grown; Chalk's Jewel, the earliest for heavier soils (Bonny Best Early resembles it); Matchless is a splendid main-crop sort; Ponderosa is the biggest and best quality—but it likes to split. There is one more sort, which I have tried one year only, so don't accept my opinion as conclusive. It is the result of a cross between Ponderosa and Dwarf Champion—one of the strongest growing sorts. It is called Dwarf Giant. The fruits are tremendous in size and in quality unsurpassed by any. The vine is very healthy strong and stocky. I believe this new tomato will become the standard main crop for the home garden.

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TURNIP. The earliest turnip of good quality is the White Milan. There are several other of the white-fleshed sorts, but I have never found them equal in quality for table to the yellow sorts. Of these, Golden Ball (or Orange Jelly) is the best quality. Petrowski is a different and distinct sort of very early maturity and of especially fine quality. If you have room for but one sort in your home garden, plant this for early, and a month later for main crop.

Don't fail to try some of this year's novelties. Half the fun of gardening is in the experimenting. But when you are "testing out" the new things in comparison with the old, just take a few plants of the latter and give them the same extra care and attention. Be fair to the "standards"—and very often they will surprise you fully as much as the "novelties."

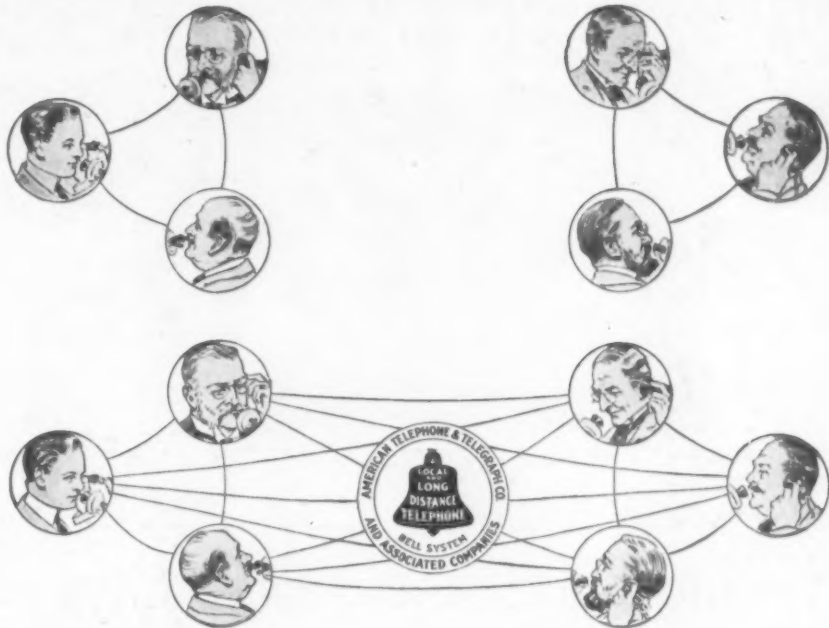
A Man, a Woman and a Garden

IT was the Big Man who first wanted the garden; but it was the Little Woman who brought it about at last, after they had failed for more years than one. The Big Man was city bred, but the Little Woman had been born in the country. When they were first married they lived in a city flat, where the only garden possible to them was contained in flower pots. They are coming back to flower pots again—but that part of the story must be told last. They were satisfied with the city flat until the babies came and then they decided that they *must* live in the country. Since it was impossible for the Big Man to make a living for them all and do that, they compromised on a suburb and left the numbered houses and the city flats forever.

Here the Big Man meant to have a garden. He cherished certain tender memories of blissful weeks which he had spent in the country while visiting the Little Woman in her home the year before they were married. At that time, in spite of traditions to the contrary, the Big Man's love affairs did not diminish his appetite. When he should have a garden of his own he hoped to raise such corn of his own, with such peas and egg plants as those he had eaten at the home of the Little Woman in the country.

In the back yard of their new home in the suburb there was a generous expanse of hard-pan clay, which had been scooped from the cellar when the foundations of the new house had been dug. This the Big Man chose for his garden plot. For a week he rose at five o'clock and laboriously turned over the clay until time to take the train to his business. This he did in secret as a surprise to the Little Woman. He planted it all on the same day with sweet corn, egg plants, tomatoes, cucumbers and parsnips. The Little Woman smiled with tender appreciation when he proudly displayed his garden—

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and his blisters—but when he had run off to his train she made a contract with the green grocer of the suburb for vegetables for the summer. The outcome proved that she was right; for the parsnips never came through the hard, sun-baked soil; potato beetles promptly devoured the egg-plants, root and branch; the cucumbers escaped an insect devastation by dying promptly after they came up before the striped bugs could reach them. The corn lingered out a sickly existence until late in July, when a neighbor's horse mercifully broke into the yard and ended its struggle for existence, before a single ear appeared to continue the species. As for the tomatoes, three tiny crimson balls finally reached a leathery ripeness, which were carefully served as a salad on the Big Man's birthday. Thus ended the history of the first year's garden in the suburb.

Then the Little Woman took her turn at the garden. She employed a man to sift coal ashes and cover the clay soil with them. Next she had him cover the whole plot with well-rotted manure and spade it down. This was done in the early fall, after the three tomatoes had ripened. The next spring she had more ashes sprinkled over the clayey section and a coat of bone dust broadcasted over the whole plot before the hired man forked it all over again. All this was pretty expensive—but they were determined to have that garden.

In the loamy section which had been spared when the clay from the excavation was hauled out, she planted lettuce, parsley, beets and radishes. She would have gone on with onions, tomatoes, and especially beans, but the soul of the Big Man yearned for sweet corn, and he planted the most of the remaining space with that.

During this second year the garden grew finely. Their lettuce left nothing to be desired. For three weeks they had radishes for breakfast every morning and for more than a month there was lettuce every evening for dinner. But one cannot live on these things. Then after a long while, there were beets, and then there was a prospect of corn, while the green groceryman supplied them with peas, beans, cabbage, and all the rest that they might have grown, if it had not been for those greedy, space-consuming corn stalks. At last the corn was ready for the table—and such delectable stuff it was! Nothing at all like the tasteless, leathery article which they had eaten while they had lived in the city flat. The Big Man renewed the days of his courtship. But there was so little of it. Even though they ate every nubbin, and only allowed the babies one ear apiece, there were only four or five messes of corn, which made that first crop cost several cents per grain. It was then that the Big Man declared that gardening did not pay. It might be carried on for the sake of sentiment, but not as a business venture.

But if other vegetables were a disap-
(Continued on page 186)

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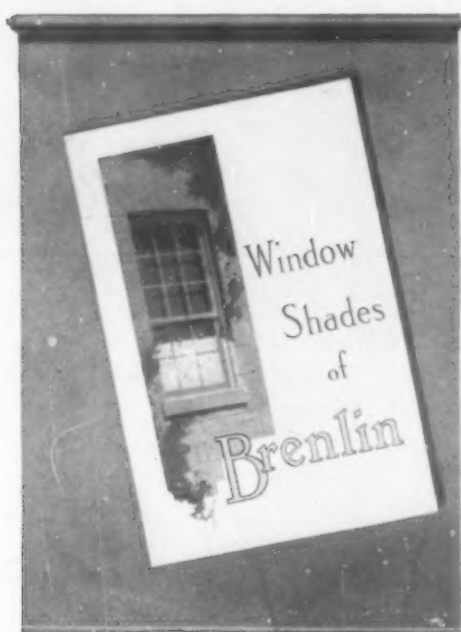


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In this book are samples of Brenlin, the new window shade material, with illustrations of what others have done with Brenlin to make their windows attractive.

Unlike ordinary window shade material, Brenlin is made without chalk or clay "filling" of any kind. It is this "filling" in ordinary shades which cracks and falls out, leaving unsightly streaks and pin-holes.

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if you would embellish your grounds this year and for years to come. Our

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lists a thousand best varieties of strong vigorous plants which give quick and gratifying results.

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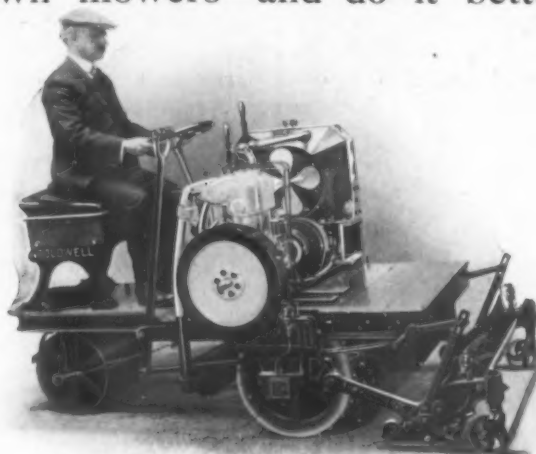


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Hand, Horse and Motor

Coldwell's Motor Lawn Mowers

Will do the work of three horse lawn mowers—and do it better

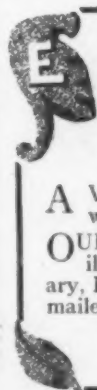


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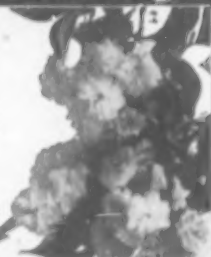
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IT is a Floral Extract of absolute purity and enduring fragrance; it refreshes and revives as does no other Perfume; it is delightful in the Bath and the finest thing after shaving; because it is, in fact, the most reliable and satisfactory Toilet Perfume made.



ASK YOUR DRUGGIST FOR IT.
ACCEPT NO SUBSTITUTE!

(Continued from page 184)

pointment, there was plenty of parsley. Except the weeds, nothing ever grew more luxuriantly. There was parsley to use and parsley to give away; parsley for week-days and parsley for Sundays; parsley for festive occasions and parsley for common days; parsley for soup and parsley for garnishing. They garnished nearly everything with parsley, all through the autumn and the following winter. They garnished all the roasts, all the broiled meats, all the stewed potatoes; they even garnished the fried potatoes. At last the Big Man proposed that they should have a dish of boiled parsley, so that they might garnish the garnishing.

But the Little Woman was wiser than her husband knew. She had kept that parsley on the table all through the winter, so that she might provoke the Big Man to garden-making the next spring. In this calculation she was not mistaken; for, although he had been discouraged with the two experiments, yet when he came home one warm day in April for a half holiday and proposed that they should have another garden, the Little Woman had already purchased seed and contracted with an Italian to dig up the ground.

This time the Little Woman managed the garden all herself. Corn, potatoes, pumpkins, and all vegetables requiring much space for their growth, were rigidly, although in some cases regretfully, excluded. On this third year they succeeded in raising so many luscious vegetables that they never again went back to the green grocerman.

Although they did not learn everything in the first year or two, and even yet they are still learning how to garden on a small lot, yet they have done so well that they would not think of omitting to plant a garden on this general plan:

1st. They plant only those vegetables which can be grown in a limited space, planting the seeds in parallel rows, which run north and south, so that the sun may have an equal chance at every stalk.

2d. They arrange their crops so that two, and often three, different kinds of vegetables can be grown on the same ground in the same year. This requires very rich soil and careful management in the rotation, but it can be done somewhat after this manner: *First planting*, which can occupy nearly the whole available garden space, spinach, radishes, lettuce, swiss chard, peas, onions, and beets. *Second planting*, beans, tomatoes, cabbage, cauliflower, and summer squashes, all of which can be planted between the rows already occupied by the first planting, if the ground is spaded over. *Third planting*, fall peas, celery, and turnips. Turnips can be broadcasted over space already occupied by almost any other vegetable and left to grow after the frost has killed almost everything else.

3d. They have secured the continual growth of the garden by constant cultivation.

(Continued on page 188)



FARR'S HARDY PLANTS FOR SPRING PLANTING

A REMINDER. The swelling of the buds in March reminds us it is time to get busy, if the garden picture our fancy has created during the Winter evenings is to become a living reality.

THE LOOK-AHEAD-GARDENER KNOWS that early spring is the best time to plant most things, and the only proper time to plant some things that should have a prominent place in every hardy garden, as:

Anemones, Hardy Asters, Chrysanthemums, Pyrethrums, Primroses, Campanulas, Tritomas, Foxgloves, Hollyhocks.

HE KNOWS no time may be lost now; that he cannot afford to risk having his garden picture marred by plants inferior, or untrue to name, and that he will save time, annoyance and money, by ordering from

THE LOOK-AHEAD-GROWER, whose complete collections of the best things enable him to supply all his needs with the assurance that he will get just what he orders without substitution. Knowing or wanting to know my plants, he will want My Book:

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For the information and help which its accurate descriptions and suggestions for planting and cultivating will give—mailed free on request. Plan your Garden NOW. WRITE ME TODAY.

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**For Verandas, Porches, Lawns, Indoors
The Perfect Couch for Outdoor Sleeping**

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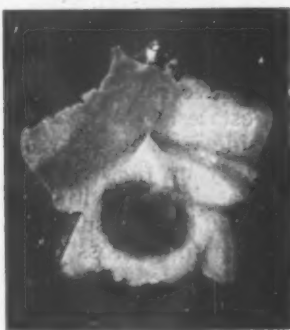
It is made by sailmakers on the model we supplied for years to the U. S. Navy. It is made from duck that is 60 per cent. to 200 per cent. stronger than that in others, and sewn with thread that is twice as strong. It has sewing and bracing that no other maker has learned the need of. It is handsome, but severely plain—no showiness, just solid merit.

Our Khaki is permanent in color, will not soil clothing. A very few first-class stores are licensed to sell our hammocks. If not conveniently situated, you should buy direct from us. Delivery prepaid, ready for hanging.

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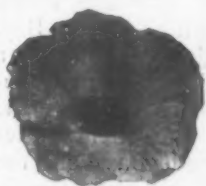
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Thousands come to us yearly—we are their headquarters. If you own a garden you need to know us for your own good.

The flower pictured is one of our Mallow Marvel blossoms. We originated and introduced this wonderful strain of plants. Ask us about them.

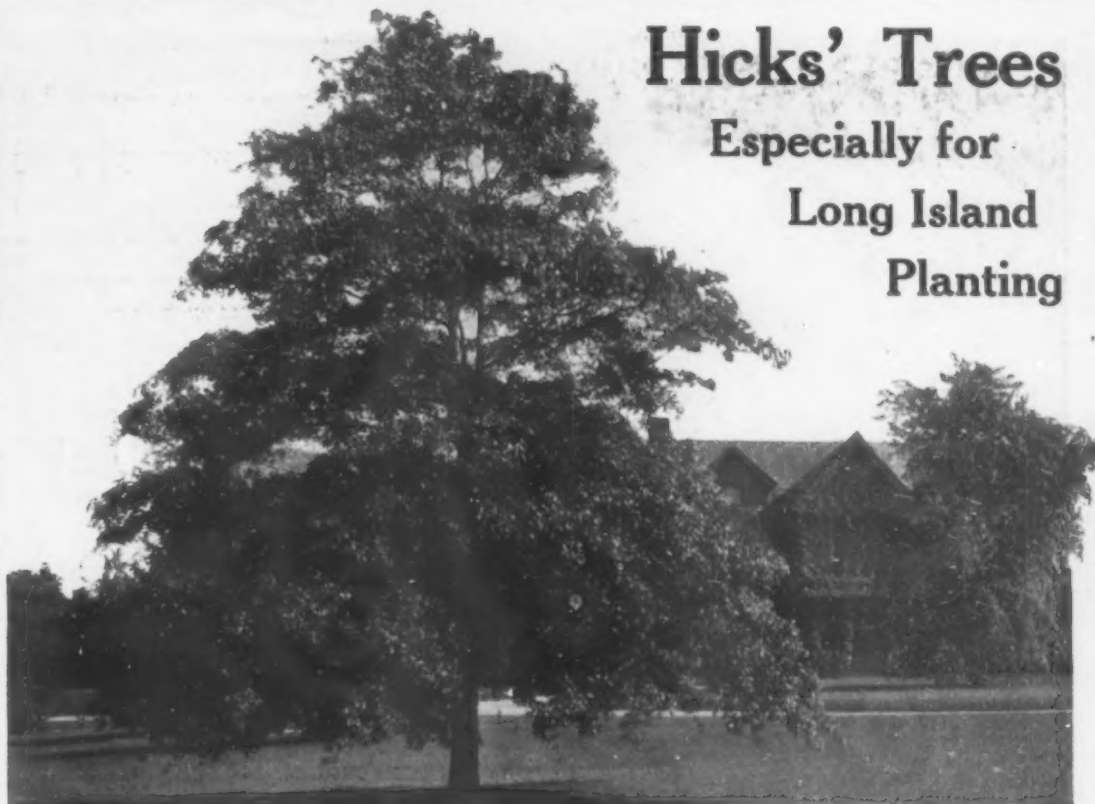
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Hicks' Trees Especially for Long Island Planting

LARGE PIN OAK AND CUT-LEAF MAPLE MOVED TO CEDARHURST, L. I., BY HICK'S TREE-MOVERS A FEW YEARS AGO.

LONG ISLAND'S sandy soil requires drought resistant trees. Don't make the costly mistake of selecting the Elms, Basswoods, Poplars and Willows, you remember growing so luxuriantly on the mainland. On the mainland the rock or clay subsoil holds the moisture. On Long Island the water sinks through the sand and gravel to the water table, which may be thirty or one hundred feet deep, and therefore below the reach of tree roots. The trees that grow in river bottoms are the kinds generally grown by nurserymen because they are cheap to produce, live when transplanted with poor roots, grow rapidly the first few years after planting. On most of Long Island, however, they will commence to fail soon after planting and never reach that perfect health, which is essential to beauty. We have drought resistant trees grown from Long Island seed.

In our nursery are over 2,000 trees, 15 to 40 years old. They are big, broad specimens, grown wide apart like trees in an orchard. We can move these big trees right to your grounds and plant them for you. You secure at once a shady lawn and overcome all those long years of waiting for small trees to grow up. We will guarantee the trees to thrive if you wish us to do so. Our catalogues show what has been done on Long Island, and the stock available to solve your landscape problems. Send for them. If possible come down to the nursery and see how we move these big trees, and talk things over with us. You can select just the trees you want. Better do this the first day possible and get ahead of the inevitable spring rush.

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Made with our composition top, smooth as glass, stainless and not affected by heat. Does away with foul-smelling, unsanitary oil-cloth. Frame of hard wood, white enameled.

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Sargent Locks and Hardware are preferred by architects and have been used on thousands of notable public buildings and magnificent private residences. Write for the

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It illustrates many artistic patterns in the various periods and should be in the hands of every person who contemplates building or remodeling. A Complimentary Copy will be sent you on request. We will send our Colonial Book also if you express an interest in that period.

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(Continued from page 186)

tion with a rake or pronged weeder, rather than with a hoe. By this means the ground is kept always loose and soft on top, so that it never bakes or loses moisture, even during drouths. Under this sort of cultivation weeds do not exist.

Now the Big Man is experimenting to obtain earlier vegetables by the use of a hot-bed. Beets, which always grow better if transplanted, are started under glass. Tomatoes he raises in flower pots until they are ready to blossom and bear fruit, as soon as it is warm enough to transplant them. Even sweet corn, for which he still hankers, is planted in strawberry baskets in the house, a hill in each basket, and then transplanted. Summer squashes are planted in the same way, and the boxes carefully cut away when he transplants them to the open ground. These last are the frills; but the garden itself is always full of solid achievement.

WILLIAM FUTHEY GIBBONS.

The Commuter's Long Island

(Continued from page 211)

Neck Bay and Bayside. At the head of the Bay is Douglaston, and farther on the village of Little Neck, followed by Great Neck, which occupies the high bluff between Little Neck Bay and Manhasset Bay. Here the farms have rapidly given way before large estates. Manhasset lies along a steep hillside with the Bay to the north, while half-way up the neck on the east lies Port Washington with its miles of water front and its unusual attractions for the yachtsman. Across Cow Neck which divides Manhasset Bay from Hempstead Harbor, lies Roslyn, another community mainly of large estates. Glen Head, Sea Cliff, Glen Cove, Nassau, and Locust Valley occupy the long slope on the east side of Hempstead Harbor, while further east on Oyster Bay are found Middle Neck and the town of Oyster Bay.

Everyone has heard of Manhattan Beach and Coney Island, but of more interest to the commuter are some of the quieter and more homelike communities lying back of Sheepshead Bay on the mainland. There is Rockaway Beach, with its summer colonies of Belle Harbor and Rockaway Park, sixteen miles from New York. Arverne, Edgemere, Far-Rockaway and Ostend are cottage and hotel colonies resembling the Atlantic City type.

Turning back from the beach, the railroad touches Lawrence, the location of many excellent bits of domestic architecture, and Cedarhurst, still further inland with many of the larger class of homes. Woodmere and Hewletts also have become famous for their excellently designed houses. From Valley Stream, which is a junction point, the Montauk road continues to Lynbrook, from which a spur runs south to East Rockaway and Long Beach, with its seashore hotels and cottages. From Lynbrook the Montauk di-

(Continued on page 190)

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PORCH - FURNITURE

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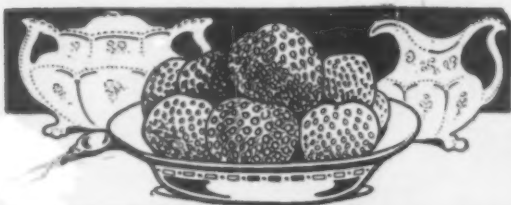
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It is much easier to have a real appetizing breakfast, luncheon, dinner, or a supper, in strawberry time, than in August or at Christmas. Guests appreciate strawberries, just as the little boy did who said, "I go to the garden to eat strawberries before I breakfast, and before I go to bed, and lots of times between." If your patch is as big as 50 by 100 feet you will have berries for every meal all season, and plenty to eat from the patch, to preserve, or flavor sherbets, etc. It will give all of you—babies, parents, and old folks, if there are any—a chance to exercise and relax outdoors. Strawberries lead to health, in the eating and in the growing.

Money to Be Made from Berries

Neighbors will buy what you can't use. By starting a bigger patch in your garden, and buying crates, it is easy to clear ten, twenty or even fifty dollars. If there is plenty of space—a summer home or a farm—any amount of money can be readily made.

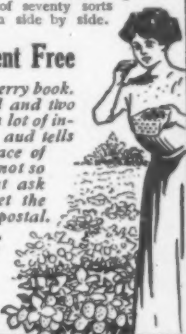
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A new one,—berries big, conical, light red, uniform, rich, mild, firm but crisp; ripens early and over a long period. Vigorous, healthy, with perfect blossoms and handsome foliage. The best of seventy sorts grown side by side.

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Get our unusual and complete berry book, which tells about King Edward and two dozen other kinds. It contains a lot of information valuable to growers, and tells how berries can be used in place of other food that costs more and is not so good. Yes, free, of course,—but ask soon, or some one else will get the last one. Use your pen and a postal.

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There Are Specific Reasons Why the U-Bar Greenhouse Is the Best for the Expert and Amateur

There are many strong points about the construction of the U-Bar Greenhouses that make it by far the best, not only as a plant producing house, but as best adapted for the home grounds. The absolute simplicity of the construction is one of its strongest points.

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Our catalog describes and illustrates pertinent U-Bar construction points in an interesting, readable way. Send for the catalog.

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ANDREWS Air Pressure Water Supply gives to a country home or farm house the essential convenience of city water.

You can have running hot and cold water in your house, using the Andrews air-tight tank in the basement or the ground outside. This is filled by the use of a pump, worked either by a gasoline engine, windmill or hand power, the water being delivered under pressure. It has all the advantages of an overhead tank, but it never freezes, never runs over, and the pressure is usually sufficient to throw water over the house, thus making ample fire protection.

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ANY man-about-the-house or carpenter of ordinary ability can set up these pergolas by following the simple instructions we send with the crated sections.

Our new departure places pergolas of a number of the most modern and most approved designs, and of excellent quality, within the reach even of the owners of modest-priced homes.

The saving in money averages about one-third to one-half the cost of such equipment when made to order. The saving in time may amount to many weeks.

Our illustrated catalog will show you how you can acquire a pergola of correct design and proper construction without the usual trouble and excessive cost. Let us send it to you.



WAGNER'S Beautiful Hardy Borders

"The best effect in the space. The longest period of bloom"

A Wagner Hardy Border provides, at slight cost, pictures of living beauty from earliest spring till frost.

Finest-grown hardy herbaceous perennials arranged for color harmonies, picturesque outline, continuous bloom and permanence.

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Any of these delightful flower-schemes will make your place one to be proud of.

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Border B1—4 x 10 feet, 15 strong, hardy plants,	\$2.25;	extra large,	\$ 3.75
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Larger quantities (artistic grouping maintained) at proportionate rates.

Order Your Wagner Border Now

We will ship at proper time. Write us about soil, etc., and we will advise you.

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Trees, shrubs, roses, miscellaneous plants. Write for this splendid book. Free.

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Florists, Nurserymen, Landscape Gardeners

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REMEMBER—You make your selection from more than 600 acres of choicest nursery products—from *our own gardens* shown below, which have been growing for more than half a century. The finest collection of trees, shrubbery and garden plants in America; all hardy and old, well-established growths.

REMEMBER—Our expert landscape gardeners plan your place for you, selecting plants suitable to soil and situation, with special regard to immediate and permanent effects.

REMEMBER—We make a specialty of moving and planting large trees and shrubbery, and furnish from our nurseries all varieties of large trees, evergreens and conifers to screen unsightly views or to produce woodland effects.

Everything for the home garden, including fruit trees, berry bushes, etc.

Write at once for Catalog D and let us know your plans.

THE STEPHEN HOYT'S SONS COMPANY

Est. 1848

NEW CANAAN, CONN.

Inc. 1903

(Continued from page 188)

vision continues on eastward to Rockville Centre, an active trading point. Baldwin, already mentioned as the average commuting distance from New York. Freeport, Merrick, Bellmore, Wantagh, Seaford, Massapequa, Amityville, Copiague and Lindenhurst.

Babylon lies just beyond, the largest town since leaving Jamaica. With Bayshore and Islip, it has a magnificent location on the Great South Bay and is further blessed by many fresh water lakes, old trees and wide streets. From here the commuter who wants all the sea air he can get may take a boat across the Bay to Saltaire and Ocean Beach—two comparatively new communities on Fire Island. At Great River, the next station beyond Islip, and forty-six miles out, an arm of the Bay provides special facilities for small boating. Beyond this, about Oakdale, are some of the large estates, while at Sayville the typical home is nearer the middle-class purse. Bayport, Blue Point, and finally Patchogue, nestle around Patchogue Bay. Patchogue is the most flourishing city of the South Shore. Beyond it lie many communities which to their inhabitants and friends surpass anything on the western end of the Island—the picturesque Hamptons, Aquebogue, Mattituck, Cutchogue, Southold, Riverhead, and Amagansett, but they are, for most people, beyond the commuting zone.

Not many years ago the pioneer commuter blazed the way for all this; and to him is due much of the credit for carrying out into the country the comforts and conveniences that we now demand as a matter of course. Drainage, adequate water supply, gas, electricity, libraries, good roads—all these were counted luxuries by the pioneer of but a few short years ago; to-day they are the necessities that we insist upon.

Modern invention, too, has helped along this great movement of the city's toilers out into fresh air and quiet, out among the trees and the growing things. She has brought us the individual drainage system, the individual water supply without the difficulties of the past, the individual power plant for generating electricity. Only yesterday she has brought, through the German chemist, Hermann Blau, an illuminating gas that seems particularly well suited to the needs of the isolated home or group of homes that has no public service supply. The gas is subjected to a pressure that liquefies it and permits of its being transported in iron cylinders, which are connected directly to the ordinary piping systems.

To sum up, if you will, divide the Island into zones. At Jamaica and Flushing there is the country house, but still in immediate connection with the city either by trolley or train; from there on to the line of Patchogue is the commuter's section, and here are the colony developments and estates—both for the man of moderate means and the millionaire.

(Continued on page 192)

In writing to advertisers please mention HOUSE AND GARDEN.

10 CHERRY TREES for \$1.95

This very special collection of 10 Hardy Cherry trees will be sent you for \$1.95. The selections were made by Mr. Green personally, as the result of his 30 years' experience as a successful fruit grower. Here is the list—there is none better—all gilt-edged, first-class, largest size, 2-year-old trees, and all for \$1.95.

One Dychouse, three Early Richmond, five Montmorency, one English Morello. The true value of these is \$2.25 according to Green's "Direct to you" Prices, but others would charge you much more.

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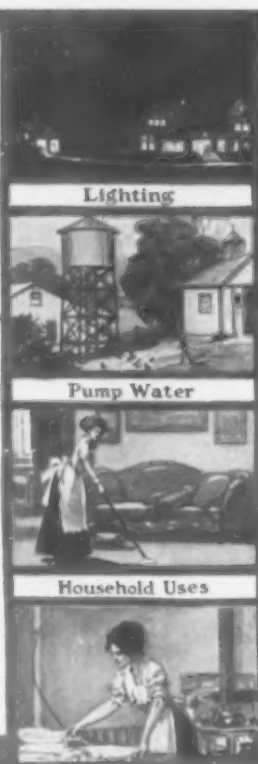
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(Continued from page 190)

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The Flower for the Million and the Millionaire

(Continued from page 171)

variety. Put these pots in a well-protected coldframe or in a cool greenhouse, near the light. If you have neither, try them in a cellar window. The idea is to keep the growth sturdy but dwarf. When the young vines are two or three inches tall support them with twigs in the pots. Do not, of course, allow the young plants to be caught by frost. Even if they are, however, you can follow the old method of planting the seeds directly outdoors, so that you are losing nothing but a few seeds by trying this pot method.

The young plants may be set out any time from early in March to early May, according to the latitude and weather conditions. A potful will be sufficient for a clump, if you prefer to grow them in clumps rather than rows. If you decide to follow the old method, however, allow a space of eighteen inches between each potful. Set the whole ball of soil, with plants and twigs, into the prepared soil outdoors so that there will be no shock in the transplanting.

If you follow the old method of planting the seed outdoors do not make the common mistake of planting too much seed in the given space; use about one ounce of seed to a fifteen-foot row, covering it with two inches of soil. Firm this down and dust the top with soot from a smoke-pipe; this will keep away birds and insects.

When the seedlings are about two inches high thin out the young plants so that the remaining ones will have a fighting chance for their life. Leave but one plant to every six inches. It is a great temptation to leave too many plants growing, but thinning is the only way to get stocky, healthy vines. You will get not only larger flowers but more of them, longer stems and better color.

Hoe up the soil towards the young vines as they grow, having been careful, in the first place, to sow the seed so that the covering soil was in a trench about four inches below the surface.

Of fifty-two experts on sweet pea culture, forty-seven were found to be in favor of sticks—hazel brush preferably—for the

(Continued on page 194)

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ORNAMENTAL DEPARTMENT
Fifth Ave. and 17th St., New York

(Continued from page 192)

supports. Cut boughs that have plenty of twigs on them, either in the fall or early in the spring, and insert them in the ground for at least a foot, so that the tops are wider rather than narrower than the bases. This will afford space for the vines to spread out at the top. If you really have not room for the brush supports, wire mesh will serve very well. The six-foot width will be sufficient for the latitude of New York, but in the northern States and Canada the width will have to be increased.

Here are just a few points to remember in cultivation: In case of very hot and dry weather apply a mulch of manure or grass cuttings, extending for a foot on either side of the lines. Water two or three times a week over this.

Apply liquid manure only after the first blossoms appear, and then sparingly, alternating with clear water. Strengthen this food when the vines are in full flower.

Put about a peck of soot in a bag and let it dissolve for a few hours in a barrel of water. The resulting solution will serve both as a plant food and insecticide.

In watering do not neglect spraying the vines themselves. It serves not only to refresh the foliage but helps to keep it free from insects.

The only pests that are likely to bother the sweet pea are the cut-worm, the red spider and the green aphids. Soot will help to keep the cut-worm away and a spraying of whale-oil soap or kerosene emulsion will rid the vines of the other two enemies. The greatest enemy of all, however, is usually the amateur gardener himself, in not working the soil deeply enough at the start and in not keeping it cultivated along the rows. Starting with a well-worked and well-enriched soil to a depth of three feet; keeping the seedlings six inches apart; hoeing the row every few days until the vines are well grown; and cutting the flowers daily—these are essentials to success.

Hotbeds and Coldframes.

(Continued from page 153)

sash to provide fresh cool air every day after danger of freezing is over. In some types of hotbeds, the sash slide in grooves, but ordinarily they can be lifted up and blocks of wood placed under the corners to hold them up.

An amateur will probably have better success with a coldframe than with a hotbed, as its care does not involve quite so much garden knowledge. There is really nothing complicated about either, however. The principal thing is to keep the growing things well watered and to give them a maximum of sunlight and the necessary amount of fresh air.

A hotbed is really a greenhouse on a small scale and practically the same possibilities are open to it in the hands of an expert. Violet and pansy culture is extensively carried on by this means, and flowers are obtained in the winter and early spring that are the equal of those grown in large commercial hothouses. The

(Continued on page 196)



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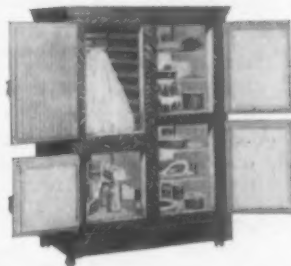
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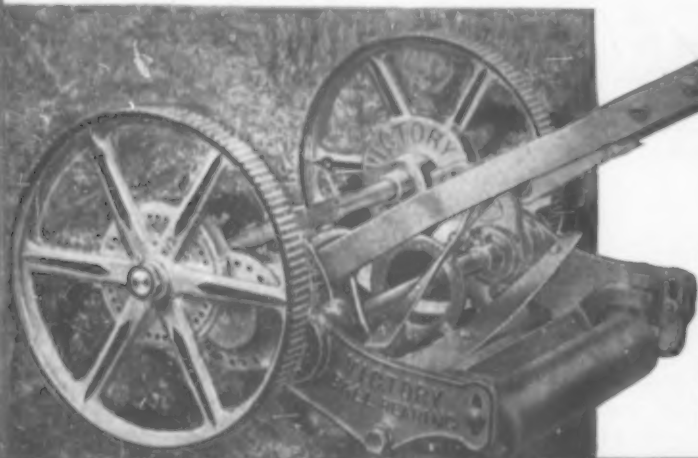
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This Collection is enclosed in a coupon envelope, which when emptied and returned, will be accepted as 25c cash payment on any order of one dollar or over.

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(Continued from page 194)

beginner, however, had better start by planting seeds in the early spring to obtain plants to set out in the open later.

A standard unit in hotbed and cold-frame construction consists of a frame of four sash, each three feet by six. In such a hotbed all the flowers and vegetables that a small garden can possibly use may be grown. One sash may be devoted to early lettuce and radishes, another to flower seeds, and possibly the third and fourth to vegetables that are to be transplanted. The usual method is to plant the seeds in flats and later to transplant them directly into the soil of the hotbed.

There is a profitable side to hotbeds that need not be overlooked by any gardener not averse to turning an honest penny. A small paper of tomato, egg-plant or pepper seed will produce enough plants for a dozen garden, and as a rule a ready market may be found for the excess plants at ten or fifteen cents a dozen.

It is a good plan to first soak in water all the seeds that are to be planted in the hotbed. This will insure their germination more quickly. It is also an excellent practice to mix small garden seeds with three or four times their bulk of dry sand before sowing. In this way the tendency to plant too thickly will be modified somewhat, but you may be sure that in any case you will have many more plants growing in a given space than can do well, so that the thinning process must be carried on with a heavy hand. If your plants grow spindly and "leggy" it is because they are too far from the light. The inside ground level of the hotbed should be not more than six or eight inches from the glass to insure the best results.

If the soil in which the plants are growing is poor, their growth may be greatly stimulated by the use of nitrate of soda. This chemical, however, will burn them unless it is used in very dilute solutions. A handful to a pail of water is sufficiently strong.

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THERE are a few annuals which by their persistent self-sowing qualities possess practically the value of perennials, provided of course that their nature be understood and the plants treated accordingly. Annual phlox is one of the varieties that comes up thicker each year, the seed living over our winters where twenty below zero is no rare occurrence. Nicotiana is another prolific self-sowing annual with the slight fault that some of the seed is sure to scatter and cause plants to spring up in all manner of odd places. Nicotiana, however, is a drought resister, and though it stops growth in the absence of moisture, it will not die, but is ready to start up again whenever water is supplied. Cosmos likewise is a ready self-sower, as are also the bachelor buttons, considerable of the seed germinating in fall, and the young plants passing the winter unprotected underneath the snow.

(Continued on page 198)

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Contains complete cultural instructions by American experts for growing all kinds of vegetables, flowers and plants. These arranged conveniently with illustrations, descriptions and prices of the flowers, plants and vegetables to which they apply. Such articles, for example, as:—

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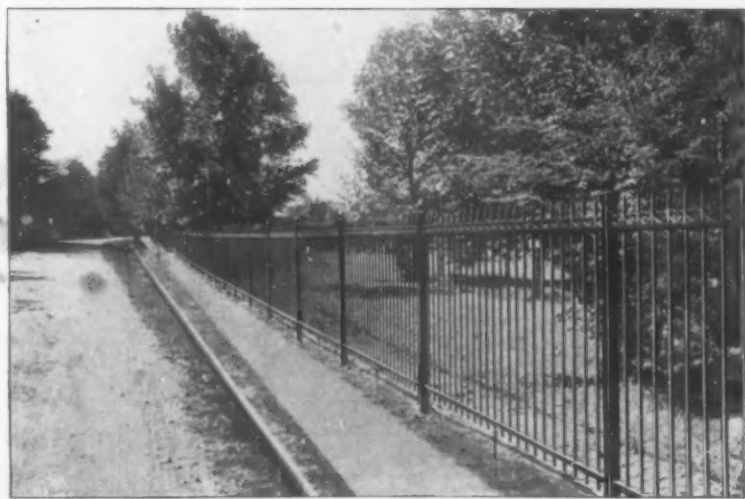
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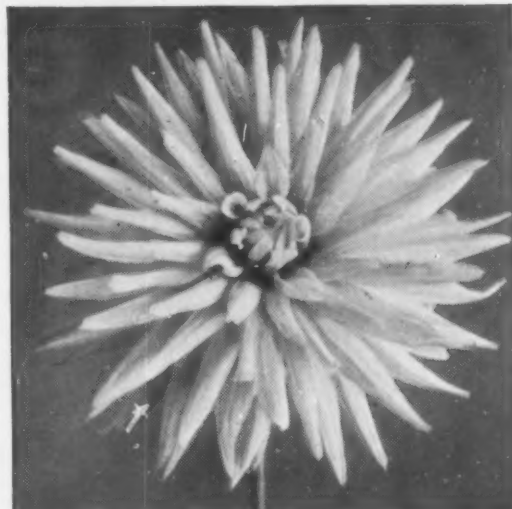
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GRENLOCH, N. J.

(Continued from page 196)

Petunias and nasturtiums might also be mentioned in this connection, but they are unreliable in regions when severe cold is felt.

It is evident that the seed of these hardy annuals can be sown as readily in fall as in spring. Indeed where conditions permit I deem it advisable to sow them in fall. The ground must necessarily be well prepared, for if their self-sowing qualities are to be taken advantage of, it



Annual Phlox, the second year after sowing

is clear that the earth can not be spaded up again for several years. All the soil needs subsequently is a light raking or weeding over in spring. You will find it necessary to thin out the plants the second year after sowing. To say that for a few cents one may have years of bloom sounds a little like some of the exaggerated wording occasionally found in seed catalogues, nevertheless from personal experience I can say definitely that in the case of the annuals mentioned above, ten cents' worth of seed of each kind will provide an ever-increasing amount of bloom and this, moreover, with comparatively little work after the first thorough preparation.

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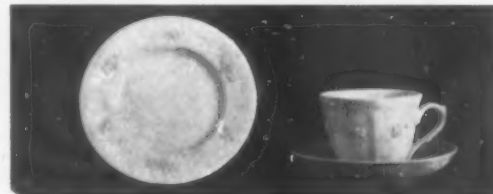
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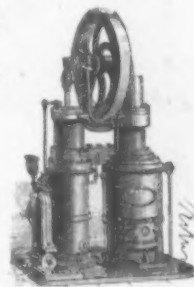
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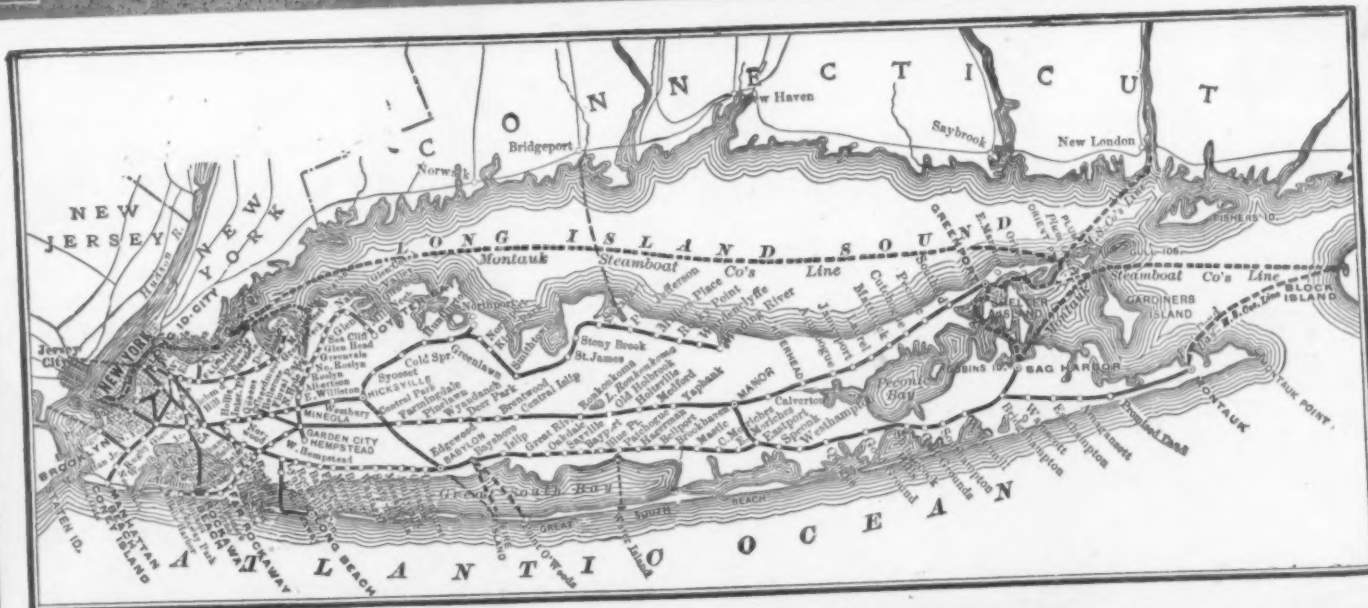
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The Long Island Supplement



The old and the new





An example of how the soil of Long Island has been deposited by glacier action is shown at Montauk Point, the eastern extremity. It is proposed to make a landing here for European steamers, which would bring the United States in still closer touch with the Old World

Long Island—Its History and Character

THE EARLY SETTLEMENTS AND THE LONG PERIOD OF UNREST IN INDIAN DAYS AND DURING THE REVOLUTION—THE ISLAND'S GEOLOGICAL FORMATION AND ITS VARIED TOPOGRAPHY

BY WILLIAM A. VOLLMER



FAMILIARITY does not always breed contempt, and a closer knowledge often induces affection. Everyone feels a little brisker pulsation at the realization that he is upon historic soil, Massachusetts folk, for instance, have pardonable pride in the many spots endeared by a historical connection—yet Long Island can boast of as old a settlement as hers and as great a Revolutionary struggle as Bunker Hill; upon her soil lived as great men and about her serried coast line cling as romantic stories. With the satisfactory warmth of feeling that comes of the knowledge that this section is intimately connected with the early growth of our country, an added interest is found here which gives it all the charm and dignity of any of the old towns in Europe. A brief examination of Historic Long Island makes this apparent.

Long Island is geologically dissimilar to rocky, sparsely-covered Manhattan; her hills and deeply indented harbors have no resemblance even to Connecticut, only just across the Sound. In accounting for this striking variance of characteristics the geologists look to the conforming powers of the glacier period. In ancient times, they claim, a large body of ice, drifting southward, spread over all the land. It

followed the main features of the country, moving through lake beds and along valleys, and reached the latitude of Long Island, extending westward in an irregular line across the continent. In the course of these glaciers' progress the soil was scooped up and dragged along, some pushed before the glacier's mouth, other portions embodied in its substance, and still more upon its surface. With the cessation of its advance, this soil and rock was heaped up at its terminus, and, as the ice gradually receded, was left in the form of rolling hills. Long Island is, then, the terminal moraine of a great glacier. The rocks and soil characteristics of Rhode Island and Massachusetts found here, besides typical gravel beds and quantities of glacier-scratched stones, substantiate this conclusion.

As new causes operated, some of the land subsided; this, together with the action of the sea, accounted for the present configuration. For the 120 miles of its extent Long Island is ridged by a line of hills which extend unevenly from Brooklyn Heights

through Queens and Forest Park, east to Roslyn, near where Harbor Hill is 320 feet high, and through Huntington and Port Jefferson to the ocean extremity. Upon the north coast the shore is so indented by harbors and bays that at one place a straight-line distance of ten miles has a water boundary of eighty-one miles. The center is a wide stretch of plain, while the Great South Bay upon the southern side notches this with river-like creeks and inlets. Long stretches of white sandy beach occur on the



The Old Mill, at Huntington, still in good repair, and a reminder of the picturesque Colonial times

ocean side of this bay, noted for the weird dunes of shifting sand, everywhere in evidence. Rivers and streams abound and there are several considerable lakes—in fact, almost all types of scenery and formation are represented. In much of the surface the soil is of exceeding fertility, while the long considered desert area is now being proved especially adapted to certain kinds of crops, and the great beds of marine shells are at hand to render all fertile.

Perhaps this variety of attractions drew the early explorers to Long Island. At any rate it is believed that this was their first place of landing. Some have it that John de Verazzano touched here in 1524. But from Hendrick Hudson's account of his discovery, it is quite probable that Coney Island was the first landing place, and that the Canarsee Indians were the savages whom he saw in 1609.

When the tide of colonization began to turn upon this land in 1620 the Indians were found peaceable enough. They appeared to be of a less virile stamp than the Pequots or other tribes on the mainland, and perhaps on account of their geographical position, became less warlike. They were probably all of the Delaware nation, however.

An interesting account of Indian habits is found among the writings of an early Long Island minister, the Rev. Mr. Denton, who states that they lived by hunting, fishing and agriculture—chiefly corn-planting, in which the squaws were the husbandmen. They were nomadic and lived in tents, settling here and there as fancy directed. Their recreations were "foot-ball and cards, at which they will play away all they have excepting a flap to cover their nakedness." So prone are they to get intoxicated that "if there be so many in their company that there is not sufficient to make them all drunk, they usually select so many out of their company proportionable to the quantity of drink, and the rest must be spectators."

They never gave the white man much trouble, and by 1783 had practically disappeared.

Though the Indian's career was so short after the white man's advent, his presence will be forever remembered in the place



Where John Howard Payne spent his boyhood. This interesting Easthampton house inspired "Home, Sweet Home"



A relic of the days of persecution — the old Quaker meeting-house at Manhasset

names which his language has given us—and which designate many beautiful spots on the island that he called "Land of Shells"—Seawanhacky. Most of his locations were named from their physical characteristics—Amagansett, "near the drinking place"; Mahchongitchuge, a Montauk swamp "where rushes grow"; Ronkonkoma, "boundary fishing place"; Haupauge, "flooded land"; Setauket, "land at the mouth of the stream." Most of these characteristics aptly fit the towns today.

Into a land of so many physical attractions and inhabited by the peaceful savages who have been described above, gradually moved the settlers. Probably the first came from New Amsterdam in search of wider and newer lands, but the Connecticut and Massachusetts colonies later supplied many more, and many came direct from over the sea. From 1619 to 1648 settlements grew to towns, among them Brooklyn, Gravesend, Newtown, Flushing, Hempstead, Southampton, Easthampton and Southold. But there were many difficulties in their path. In the first place the jealousy and conflicting claims of the Dutch and English retarded growth. Lord Sterling claimed the island from Cabot's discovery and the King's grant; the Dutch insisted that Hudson's landing made it theirs. In the meantime, the English were buying land from the Indians under the consent of Lord Sterling's agent while the Dutch governor granted the same section to his own countrymen. Stuyvesant ruled with an iron hand over Gravesend, Newtown, Flushing, Jamaica and Hempstead, where the English were forced to become Dutch subjects. Later when the English captured this territory in 1664 the "Duke's Laws" went into effect, with clauses against witchcraft, decreeing punishment of death for anyone who should "deny the true God or his attributes."

Between the two grindstones of Duke's Laws and Stuyvesant's Edicts, it would seem that the Quakers would have had little chance to become successful colonists. Their search for religious freedom discovered little peace, yet they helped to build up the land notwithstanding persecutions. In Flushing their sufferings



In former days this beach was patrolled by the whalers. When the alarm was given, the whaleboats were launched from the shore



There is an interesting contrast between the quiet coves and harbors of the North Shore and the wave-washed beaches of the South

were terrible. To harbor a Quaker was a crime, and the courts fined one man "for permitting Quakers to quake at his house in Gravesend." Neither threat, fine, imprisonment or banishment could deter these enthusiasts, and they suffered for a long period, living continually in apprehension and danger.

What with war and witchcraft, heathens and heretics, the times were strenuous. King Philip's war on the mainland kept the people in fear of local outbreaks, and under arms even at church. Prosecution and persecution seemed synonymous, security was unknown. Pirates continually sailed along the shore and dropped down to rob and plunder. In the records note is made of this situation in voting Cap. Kidd 150 pounds "for his many good services in attending with his vessel to guard against enemies and pirates." But after being commissioned to protect the British interests in the east, he captured a Moorish vessel and turned pirate himself, boldly cruising along the Malabar and Madagascar coasts in his *Adventure Galley* taking prizes and plunder. In a rash moment he returned to Long Island waters and, after burying treasure on Gardiner's Island, was captured and hung in 1701. Lyon Gardiner, who owned Gardiner's Island, was aware of the location of the treasure and it was recovered to the State. Legend has it that much more is buried along the Sound shore, but the treasure referred to is probably the golden opportunity of the soil.

The hardships of a new land were barely surmounted when the Long Islanders again found themselves embroiled. Realizing the strategic importance of this land, the first campaign was planned to get possession of it. Today there are few signs of the brave struggle of the Battle of Long Island, where the Colonists' heroic efforts seemed in vain. After this defeat the Island was in complete control of the British, and suffered all the horrors of a local war until peace was declared. The prison-ships lay anchored at Walabout, each day bringing some new and ghastly tale of cruelty and death. The fields and farms were continually sacked for the army, and the sons and fathers of the inhabitants impressed and shanghaied into the British service. Those who avoided these



Long Island is dotted with such farm-houses as this one, dating from Colonial times. They offer splendid opportunities for remodeling, to accord with the more comfortable mode of life of today



Northport Harbor, once a ship-building center, second only to one or two New England ports, such as New Bedford



Long Island is not all flat plain—there is much of beautiful woodland, marked by great century-old trees

troubles had Hessians quartered upon them. To add to their pitiable condition both Whig and Tory suffered at the hands of the whaleboat men.

The scoundrels and raff that a war brings to the surface, under pretense of getting supplies for the British, preyed upon both sides. Landing in whaleboats, they robbed and plundered the inhabitants, often torturing them to reveal the hiding places of their valuables. Lloyd's Neck, Sand's Point, Southhold and Sag Harbor all have vivid recollections of

terrors caused by this mode of warfare.

Peaceful days came at last and the ship-building and whaling trades again began to flourish. In the early days whales were common in the adjacent waters, and the inhabitants found their pursuit a profitable employment. To such an extent was the traffic carried on that ministers' salaries were paid in oil. Every man of sufficient ability was obliged to take a turn in watching for whales from a lookout tower upon the beach. When one was seen, a general alarm was sounded and the boats manned for the chase. Today many relics of the time when Long Island was New England's only rival in this romantic trade are still seen.

Upon such a historical setting as this the ancestors of the sorely tried Colonists today dwell where their forefathers lived, and the scenes of former times are everywhere brought to mind in the sturdy old buildings of Colonial time, almost as sound as the day they were built. Some places, such as Easthampton, seem to retain all the characteristics of their former appearance. Almost every town has its old mansion or ancient farmhouse, about which such thrilling events took place—the Bowne House at Flushing, built in 1761, where John Bowne suffered for his belief and where George Fox visited, the King Mansion at Jamaica, where Washington's first ambassador lived, and many others too numerous to mention. In such surroundings lived the poets Whitman and Bryant, and John Howard Payne's "Home, Sweet Home" was inspired by his boyhood dwelling at Easthampton. Indeed his sentiments are felt by thousands, for Long Island is today the land of homes, and realizes an opinion expressed in 1638—"it is worth naming as affording many accommodations."



Until recently it was thought that alfalfa could be successfully raised only in the West. Three crops annually have been raised on Long Island, with a yield of about five tons to the acre

The Small Farm and Its Possibilities on Long Island

THE NATURAL ADVANTAGES OF THE INTENSIVE METHODS AND SMALL ACREAGE—THE ISLAND'S OPPORTUNITIES IN VEGETABLES, FRUIT, ALFALFA, FLOWERS, BERRIES AND POULTRY

BY H. B. FULLERTON

Photographs by the author.

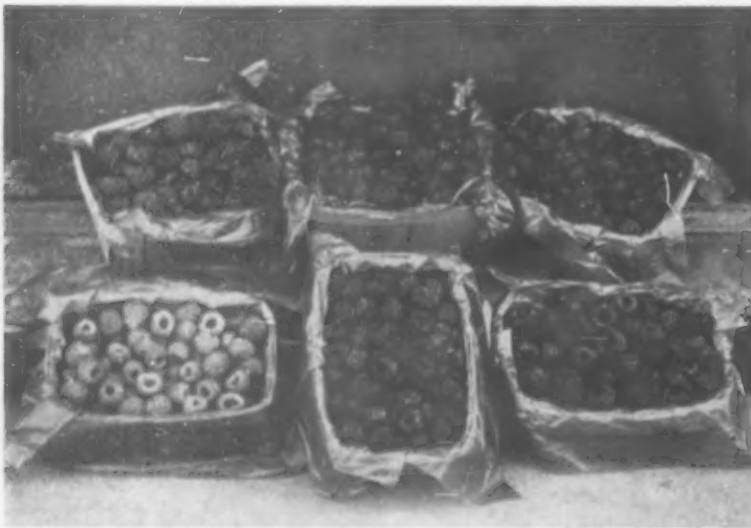
THE one-man, big acreage farm is rapidly sliding into the category of the antiques. It will soon rest upon the same shelf, in the museum of reminiscences of early customs and methods, with such things as the home soap-kettle, village tannery and the open-pan sugar refineries. We have the documents and columns of authentic figures from European sources to prove how overwhelmingly the thoroughly developed and persistently cultivated small acreage farm shows enormous advantages, both in crop yield and income return, over large acreage producing not one-tenth its possibilities.



For the man who is tired of the city pace, the Long Island farm of ten acres provides at least a respectable income, and an ideal life

During the last decade practical Americans have demonstrated the astounding crop values resulting from thorough and continuous cultivation and care on small acreage.

Orchards of but ten acres, inspected daily by eyes trained by practice to detect the first sign of insect injury, of fungus development or of buds starting where limbs are undesirable — where spraying is done with businesslike and undeviating regularity, where pruning has been reduced to a science, where thinning of fruits has proven a wonderful dividend-yielder, where individual hand-picking is the only course pursued, where packing is done with mathematical pre-



There are great possibilities in raspberries and blackberries, for the demand at the present time far exceeds the supply



In peaches, apples, pears and plums there are splendid possibilities, particularly in combination with poultry

cision backed by undeviating honesty, where frequent shallow cultivation keeps the orchard as clean as a nature lover's flower bed and preserves for the use of the swelling fruits every atom of food, together with every drop of moisture with which the winter snows and spring rains have filled the ground—orchards such as these bear out the statement. All these modern methods have united to overwhelm the owner of the enormous orchards that receive at best but half the needed attention to the details which long ago were proven to pay in real bankable money.

Americans are beginning to learn that ten acres of alfalfa pay far better than forty of the best timothy that ever went down under the blades of the mowing-machine; that an acre of strawberries will yield annually a net profit twenty times as great as that garnered by the grain grower in the best season chance has brought him. So, too, the American is learning fast that quality pays far better than quantity, and further, that the maximum yield of any acre of any crop has not yet been reached; that a yield of one hundred bushels of potatoes to the acre can be, by common-sense practices, pushed to four hundred with but a fraction's increase in cost; and that methods proven correct in other mercantile pursuits and professions are equally valuable in agriculture.

Experimental farms, established in the "scrub-oak wastes" of the Long Island Sound shore and the "pine-barrens" of the central section, were started primarily to demonstrate the fact that the traditions and even the scientific statements which had held them as idle, unproductive acres for two centuries and a half were truly without reason or foundation of any description. This they proved in the year following their clearing, by the production of over three hundred varieties of plant life and by the expenditure of only \$9.50 per acre. This was the cost of ten tons of barnyard manure, applied to secure the humus which was lacking because for

generations forest fires had devoured the fallen leaves from tree and shrub. These experimental stations were in truth "demonstration farms," not only of the fact that both local wiseacre and scientific expert were entirely wrong regarding these acres but that there existed an unsupplied demand for high-quality, strictly fresh food in the great cities of New York and Brooklyn, as well as in the big towns and villages of Long Island, which fairly lap over each other on both Sound and Ocean shores. They have also proved that the agriculturalist's income can be made a continuous performance, and not one month, one week or even one day of the year need be left unproductive of revenue; and that, after the extremely long out-door open season of sea-water-surrounded Long Island, his glass coldframes alone, covered by double glass, will mature a great number of eagerly sought vegetable foods.

Ten acres has proven, time and time again, not only enough, but, with a tremendous variety of plants grown in demonstration of Long Island's capabilities, and for the selection of varieties best suited for Long Island's conditions—not only enough, but a superabundance of area to handle in a thoroughly business-like way. For example, it is difficult indeed to combine with tree and bush and vine fruits, vegetables maturing from spring until early winter. On the market garden or small farm of any individual grower, such a combination would be very rare, for indi-

viduality—a man's likes and dislikes—would quickly eliminate either the fruits or the vegetables for the more pleasing or desirable line to follow. On the other hand, the combination of fowl and fruit has proven most satisfactory. Mixed orchards of apples, peaches, pears and plums, in which chickens are allowed to run, have time and again proved wonderfully free from insect injury, and the fruits have shown the beneficial results secured by the thorough work done by



Long Island's level inland country, with its particularly deep soil and nearness to the big markets is a paradise for the truck gardener



The American is learning that quality pays better than quantity in market gardening, and that ten acres by intensive methods may be made to pay better than the one-man big-acreage farm

feathered insecticides, feathered cultivators and fertility producers. The gain is two-fold, for in helping the orchard the feathered end of the combination is keeping in prime condition and gathering its own food at the same time.

To those who find the greatest pleasure and profit in growing vegetables, the intensive crop system of Europe soon becomes second nature, for common sense alone is needed to show that four crops annually per acre are four times better than one, and that ten acres handled thus equal forty acres in yield and far excel larger acreage in income. Aside from the condensation of labor for all four propositions, oftentimes a single crop is wiped out by unfavorable conditions. That concentration in agriculture has precisely the same great value that this most excellent quality has in professional or mercantile life is assuredly a self-evident fact.

Limited acreage or the small farm need not by any means be looked upon as of value only as an intensive vegetable garden, for many are the possible combinations open and susceptible of development into sure producers of an extremely good living, of an eminently respectable income, or as high-class money-makers, in accord with the personal equation possessed by the owner and manipulator thereof.

Ten acres, for example, will be found a satisfactory plantation for the man or woman who loves flowers, and perhaps is especially attracted by the violet, aster, chrysanthemum, or the rose. On this limited number of acres can be garnered a vast yield of cut flowers, and to this extremely lucrative source of revenue can be added the growing of seed and of plants, for which there is an ever-unsupplied and constantly growing demand. This source of revenue does not end with the waning of the summer's warmth, but can be, and is, made a continuous performance throughout the entire year by the use of

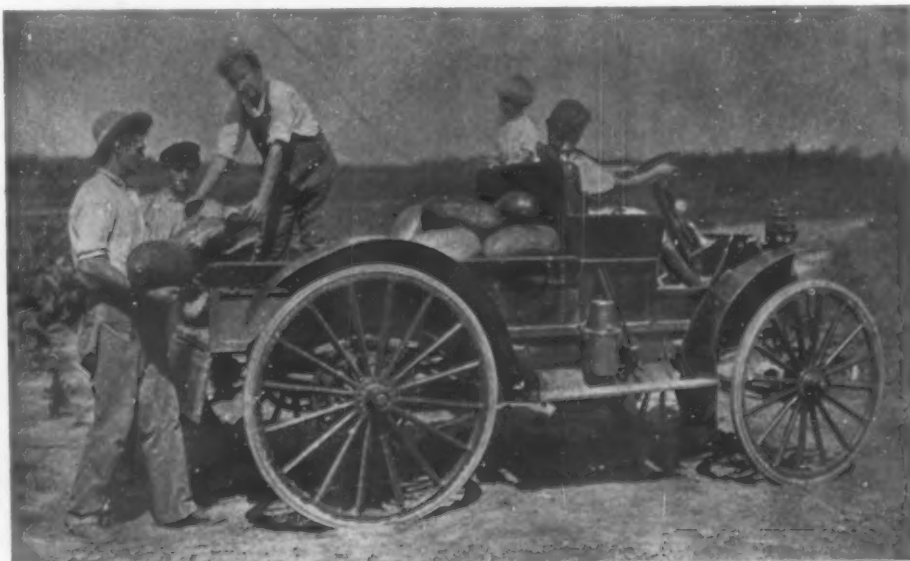
glass, whether in the form of high-class modern greenhouse structures, or the simple, and low-priced, coldframes.

To Long Islanders there opens another most attractive profession—that of growing flowering bulbs, which is not only a promising, but a practical and proven highly successful line of work. For years we have personally planted bulbs coming from European sources, in the open, and found, without exception, that the particularly benign natural conditions belonging to Long Island, both in soil and climate, developed bulbs producing finer flowers, both in color and texture, than those obtained from foreign-grown specimens. This was true of many varieties of tulips, hyacinths, and members of the narcissus family. It is likewise true of cannas, gladioli and lilies, and this line alone presents opportunities for a vast army of growers.

Another alluring profession is berry culture, and for this the small acreage will prove entirely satisfactory. Five acres of strawberries, with varieties so selected as to cover the full strawberry season, from extra early to very late, can, because its owner is enabled to cover every foot of it frequently and with careful scrutiny, because the owner is enabled to hold down within proper bounds the number of runners produced by each variety, because overhead irrigation can be cheaply installed so that moisture can be given when nature withholds this absolute necessity for the highest development and fullest production, produce this delectable and almost universally favored vine fruit to a high degree of excellence.

Raspberries are, at the present day, practically unattainable in the quantities for which they are yearned by either the classes or masses, and hence present a most enticing source of income.

Beyond the insipid and woefully unattractive, dull, purplish colored berry, commonly grown at the present day, few raspberries indeed can be found in even the best of our markets, yet selection



Melons are at their best only when ripened on the vine and then rushed directly to the consumer

has, of late years, given growers a wide range from which to choose.

Black Caps, firm, delicious in flavor, and of positively enormous size when compared with the berry of half a generation ago, and there are red berries too, in every respect far superior to the variety usually found, and even yellow ones, brilliant in color, although not so luscious in flavor, yet, when mixed with either their black or red cousins, present a dish as attractive to the eye as to the palate. To tide over the short interim between the raspberry and the blackberry comes the dewberry, developed of late years from the low-growing, or vine blackberry. Far more delicate in flavor, far more juicy than the rampant-growing high-bush variety, is this little-known, attractive money-maker.

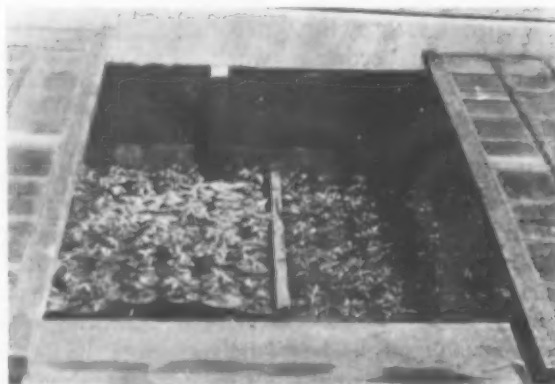
Sweet corn, known to the city dweller only when he goes to the country for a vacation, will be in the near future shipped direct from the grower to the great hotels, restaurants, and boarding-houses of our cities, because its sugar is turned to starch long before the consumer can get his teeth into it. The demand for real sugar corn is great, and this demand can never be supplied until the interval between picking and eating is reduced to an extremely limited number of hours, even six causing a vast loss in sweetness and flavor.

Melons also offer a glorious chance. Ten acres of canteloupes will keep the most energetic grower busy indeed. Practically they are at their best only when ripened on the vine, and must be picked when ripe, the leeway either side being very slight. In the melon patch, as in the strawberry patch, a succession can be kept up by planting high-class varieties at different ripening seasons, from the very early summer until far into the winter. The Casaba melon has proven to be an easily grown and an easily kept melon, when grown upon Long Island as when grown in the far west.

Among other extremely prof-



The man who has once raised and eaten his own garden vegetables will never again be satisfied with the kind that is picked when green, losing all its flavor in transit



With the aid of the hotbed and coldframe the season of crop production may be lengthened almost through the whole twelve months



One of the Experimental Farms which a few years ago was acknowledged to be the most unpromising spot on Long Island

itable crops available for the man with small acreage are onions, egg-plant, tomatoes and cucumbers. They are all husky income-producers, and upon the experimental stations, both upon the heavier soil of the Sound Shore, and the lighter soil of the central section, once considered valueless, all have done splendidly.

So have the wonderfully productive Japanese plum orchards, and highly colored, highly flavored peaches and apples, and to these have been added grapes of many varieties,

notably Niagara, Brighton, Delaware, Catawba, Worden and the well known Concord.

Our experiments have proven that alfalfa, which but a few short years ago was thought to be possible only in the West, grows on Long Island with the greatest luxuriance and full nutrient value. It has for centuries been known to prosper throughout Europe. Three cuttings annually is the record with us, with a yield of about five tons, and a selling value running up to \$30 per ton when cut. Alfalfa has been easily established in every section of Long Island, and

offers an extremely big-paying crop, for, once established, little care is required beyond the annual cuttings. Beyond its great value as a salable product of the soil, it is a fact that pork produced by it brings two cents a pound more than pork produced by either swill or corn. Cattle fed on it produce not only greater quantities of milk, but milk yielding more cream, hence butter. Chickens receiving it as part of their daily ration in summer or winter are impelled, because of their improved physical condition, to recover quickly from the moulting process and get busy laying eggs.

The transition stage has reached America, and we will, from this time forward, follow the lines of the older countries, giving up great areas and low crop production, to small areas and continuous heavy cropping. For some years to come, the West will continue great-acreage farming, but in the East it is a thing of the past.



A typical view of Brightwaters, which South Shore community has a rather unusual combination of many trees and inland lakes and ponds. The upper end of the Venetian yacht harbor

The Commuter's Long Island

THE EXTENT OF THE ZONE IN WHICH COMMUTING IS PRACTICABLE—THE DIVERSITY OF COUNTRY TO BE FOUND WITHIN AN HOUR'S RIDE FROM NEW YORK

BY C. E. WHITTLESEY

THERE are several alleged jokes that have grown gray and threadbare in the using—the talkative barber, for instance, and the mother-in-law theme with its variations—but the quip that, beyond all the rest, has been worked overtime, until its piquancy and zest are like unto a glass of champagne that has stood overnight—that dean of all the old chestnuts is the commuter joke. One does not hear it so frequently these days, however, due perhaps to the fact that the rapidly dwindling number of non-commuters has almost reached zero.

Take Long Island, for instance. In the five years between 1903 and 1908 the number of commuters in that wonderful country doubled. In the next two years, 1909 and 1910, it doubled once more. If this rate of increase keeps up, Manhattan at night will soon resemble a deserted village. Last year the Long Island Railroad carried twenty-eight million passengers over a space of four hundred and seven millions of miles. But these figures are too overwhelming to be really significant. Of more interest to us is the fact that there were, in 1910, before the opening of the

tunnels under the East River, about 17,500 people who went back and forth, day by day, between Manhattan and various points on the Island. With the statistics at hand it is easy enough to figure out how far out the average commuter goes, what it costs him

for transportation, how long it takes him to get back and forth, and what advantages he has for his effort.

The average commuter on Long Island lives a trifle less than twenty-five miles out and reaches the new terminal in New York in about forty-five minutes. His commutation costs him about eight dollars a month. Following these figures out on the map of the Island it appears that our average commuter, if on the Oyster Bay branch, lives somewhere in the vicinity of East Williston; if on the main line his home is in Westbury; on the Montauk division he travels back and forth from, let us say, Baldwin. Both the Far Rockaway and Port Washington branches end inside of the average distance.

It is a difficult thing indeed to say just what constitutes the commuting zone on the Island. Roughly speaking, it extends fifty-six miles out on the Montauk division to Patchogue; on the main line, fifty miles to Ronkonkoma; while on the Wading River branch it includes Port Jefferson, which is fifty-nine miles from New York. This does not mean that this is the extreme limit of commuting, by any means, for there are men who travel each day from Southampton or even from Amagansett, which is one hundred and six miles out.

Another interesting comparison is between the number of commuters in winter and those in summer. To



A house at Plandome that is a modern adaptation of Dutch Colonial



From the high bluffs of Belle Terre there is a splendid view over Long Island Sound



The name Woodmere has become closely associated with this most attractive development of the American farmhouse

Patchogue, for instance, the number more than doubles in the summer; to Hicksville and most of the points inside of the average commuter's distance it remains nearly stationary. Far Rockaway had twenty-one hundred commuters in the month of August last summer, and although it is usually considered a summer resort there were six hundred and thirty commuters in January of this year.

The answer to the question "What does the commuter find on Long Island in return for his effort in traveling back and forth?" requires a very long answer. There is a variety in the character and appearances of the many suburban communities that is found probably in no other portion, covering the same area, of the United States.

If the commuter takes the main line he will pass through the group of towns near the city and reach Richmond Hill, extending along the hillside of what is now Forest Hill Park

of the Borough of Brooklyn. Adjoining this on the south lies Morris Park which has been developed by the railroad division running through Brooklyn to downtown New York. Jamaica, lying just beyond, ten miles from New York, is the center of the railroad system. From the west two tracks of the Atlantic division to Brooklyn are equipped with electric train service. From the



The home of Mrs. Russell Sage is one of the landmarks of Sag Harbor

west also, four tracks from Long Island City carry through trains to all parts of the Island proper. Four tracks extend eastward from Jamaica, the two northerly reaching the North Shore and central points; the southerly pair carrying the traffic of the South Side or

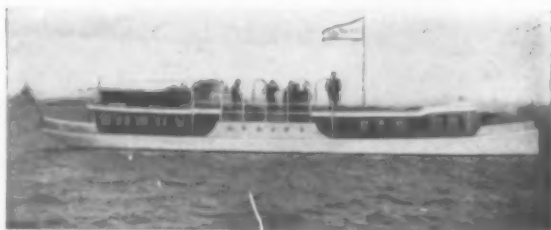
main line to Montauk or Sag Harbor. Just east of Jamaica lie Hollis, Queens and Floral Park, the first of which is twelve miles out, while Floral Park is fifteen. Just beyond lies Garden City, eighteen miles from New York and one of the most attractive inland communities on the Island. With its Cathedral, its large and well known hotel and the two famous schools, St. Mary's for girls and St. Paul's for boys, its golf club and its magnificent tree-shaded streets, it has naturally been built up with many of the most attractive modern homes to be found on the Island.

Hempstead lies just beyond, twenty miles out, and is particularly attractive on account of its Revolutionary associations, while nearby on the Hempstead Plains is the Meadowbrook Hunt Club. Beyond Queens, on the straight line from which a spur branches off towards Garden City, lies New Hyde Park, bordering Hempstead Plains. Farther on is Mineola, the

county seat of Nassau County and widely known for its Fair Grounds. Just beyond lies Westbury, the center of many beautiful estates. Hicksville is twenty-five miles out and one of the famous one-street villages. From here the Wading



The gate lodge and entrance to the estate of W. Bourke Cochran at Wampage



The yacht that carries commuters from Bay Shore to Saltaire on the western end of Fire Island



Lake Winganahuppauge at Islip is a reminder of the Indian days



One of the new houses at Kensington—another adaptation of the Dutch Colonial to modern needs. Forman & Light, architects



An old Wantagh homestead that has been remodeled. Pettit & Green, architects



The Mochrie home at Waldheim, Flushing.
G. S. Appleton, architect

River line branches off, at the junction of the two branches of a Y, the upper one leading to Wading River, the lower one continuing out through the middle of the Island to Greenport. Near Hicksville lies old Jericho, at the end of the Jericho Pike, the famous auto-

mobile thoroughfare, that is so often a solid line of cars.

Continuing along the Wading River branch we come to Syos-

set, Cold Spring and Huntington,

where the character of the country changes rapidly from the level and low rolling plains to the wooded hills and quiet valleys that slope down to the large group of in-

lets and harbors in the vicinity of Oyster Bay and Huntington Bay. The railroad here passes along the ridge some distance back from the Sound, and each village on the road lies well away from its station down towards the water. Huntington is one of the oldest towns on the Island, resembling very closely many of the old New England towns whose wide streets are arched by elms. It comprises in reality three necks of land surrounding Huntington Bay—West Neck, East Neck and Middle Neck. On the second of these is the Chateau des Beaux Arts, the objective point of many automobile trips out from Manhattan.

Returning to the railroad, beyond Huntington lie Green Lawn, Northport, Kings Park, Smithtown, St. James, Stony Brook, Setauket and Port Jefferson. Each of these enjoys wonderful natural advantages in the magnificent view across Smithtown Bay and the Sound, with the Connecticut shore in the distance. Port Jefferson

was a ship-building and outfitting port at a time when yachts were unknown. It is today one of the most popular ports for small craft along the Sound. There is space but to mention a few of the attractive towns beyond—Miller's Place,



An interesting type of cement bungalow at Huntington Terrace. J. S. Conkling, architect



Curved driveways and irregular shaped plots are a feature of Great Neck Villa



Two new houses at Great Neck Villa



At Garden City, a beautiful inland community

Rocky Point, Shoreham and Wading River.

The North Shore of Long Island is at the western end almost as different from the South Shore as one nation is from

another. Steep wooded highlands project out into the Sound and shelter seven great bays. Elmhurst, formerly Newtown, lies nearest the western end, with Corona just beyond—only six miles from New York. Flushing comes next, fortunate in having two stations, one on either branch. On the northerly of the two lines lies College Point, with an outlook across Flushing Bay. Whitestone and Whitestone Landing, where the branch ends, lie at the junction of the East River and Long Island Sound. On the other branch lie Murray Hill and Broadway, outlying sections of Flushing where the moderate-size type of home has been built in great numbers. Beyond lies Little
(Continued on page 188)



The new Cafe des Beaux-Arts, at Huntington, is the mecca of automobile parties



A most attractive bungalow in "The Pines," Brightwaters—one of the three distinct sections of that community

Outdoor Life on Long Island

WHAT THE ISLAND OFFERS THE SPORTSMAN AND LOVER OF THE OPEN—YACHTING, HUNTING, FISHING, GOLF, TENNIS, MOTOR BOATING, BATHING, POLO, CRICKET, ICE-BOATING, MOTORING

BY ARTHUR W. DEAN

IF you want to hunt the white rhinoceros on Long Island you'll have to wait a little while; the local St. Hubert hasn't started his preserve yet—but if it's hunting you want, come out next fall and learn what real battery or sneak-box shooting is like. Most any place along the South Bay will do—or out at Montauk, or even to the city line. There are twenty-nine species of ducks and geese, thirty of snipe, eight of plover, three of partridge, and they've even bagged pelican, so you ought to get something. Perhaps some of those Canadian geese will be flying by if you've got a "honker" tethered among the decoys, so wait until you see what looks like an ostrich at the end of your gun and then let go! The feeling may be something the same as they felt on top of Bunker Hill waiting for the whites of the enemies eyes, but you must get him! I may come in at the eating, and it's great! If you're too delicate to lie in the cold battery try those snipe; they're scattered all along the North and South shores, and a day's sport is waiting for you there.

Perhaps your blood needs the stir of exercise; then go to that deserted stretch of middle island with that dog of yours. You'll not go far before the clear "bob white" will set you a tingle, or further on your heart will stop altogether as a big brown partridge whirs from cover. And rabbits, too—you can't fail to see that little white flag flying behind a bunch of brown fur, sometime between November 1st and December 31st. You have an added month for ducks and geese, as you can start in October. For quail and partridge there is but November, and deer—yes, deer; they really do get them here on the first two Wednesdays and the



The stiff breeze which is never lacking on the South Shore makes it a paradise for small boats

first two Fridays after the first Tuesday in November.

If this isn't your style of hunting, and the baying of hounds, the flash of red coats, a blue sky above you and a good horse beneath, seems your ideal sport, there is the old Meadow Brook Club, with its famous hounds to run over the Hempstead meadows, or the Rockaway Hunt at Cedarhurst, or yet the Piping Rock Club, Locust Valley.

But if you are one of Isaac Walton's brethren, ready to convince with fine logic that your sport is best, why go to Nova Scotia or the north woods, when along all the south side are good trout brooks? I'd tell you one in particular, but it's a secret, and then it's much more sport to discover it yourself. There are pools and good casting brooks near Oyster Bay, Smithtown or Wading River, and the Cold Spring Hatchery keeps them stocked; besides, the angling sense will lead you to many a little stream all the way out to Southampton on the South Shore, and there you're sure to have luck. Then there is Ronkonkoma Lake for bass, pickerel and perch—big ones, too.

Long Island has a greater distribution of fish than any other part of the State, and there are few kinds of game fishes not found in her waters. Those who prefer the marine fish can get plenty of excitement in the South Bay. Take Bay Shore, for instance, with a bayman to grind "chum," and the blues running well, you can take fifty or sixty in no time. When you get tired there is the alternative of going deep for flounders, or "jigging" for weakfish. If you're not satisfied then, go out to the inlet and troll for the big fellows, or up near the wrecks and get bass and blackfish. The ocean beaches also, and



Up hill and down dale, by bay and ocean, the game of golf finds no better setting than at Shinnecock Hills. The turf is fine enough here to arouse even a Scotchman's enthusiasm



Putting out the decoys in anticipation of a big day's duck shooting on the bay

the Sound Shore all have their quota of enthusiasts whose stories will go without discounting.

Those who can't sniff the salt breeze without feeling around for a tiller will find their sport either in the South Bay or the Sound. Almost any week-end finds the Bay one series of races from Westhampton to Freeport. All classes of small boats, larks, cats and the neat one-design boats are here to supply a choice for the yachtsman. A lazy cruise in a cat makes a good vacation spent along the Bay, with the extra inducement of one of those Long Island "shore dinners"! The Sound is for larger boats, and the yacht club cruises work along with the possibilities for visits at the numerous yacht clubs in the attractive harbors along the way. There is racing, too, especially of the more formal type. In the waters of Shelter Island, Gardiner's Bay, and the Peconics, a combination of all the other styles of yachting is to be had. The motorboat cuts an important figure in regattas, and it is understood that this exhilarating form of racing will have its most important events in all of the harbors of the North Shore. Nor need winter cool your sailing ardor; just hitch yourself to one of those comets, called an ice-boat or a scooter, and when you regain your breath you will have found one argument for winter.



The courts in front of the Woodmere Club are fast enough for the most proficient player



The beach at East Hampton is only one of many affording perfect ocean bathing



Picking up the scent. Hunting after the hounds is one of Long Island's many opportunities for out-door recreation

Surely the sportsman's delight in rivalry finds no better opportunity than in the games which can be played on Long Island. Followers of the "royal and ancient game" find golf links equal to the finest in the land. At Garden City under the care of Scotch experts a wonderful course has resulted. Shinnecock embodies the features of St. Andrew's, and the play is part by ocean and part overlooking the bay, up and down the rolling dunes which make such ideal golfing country. There must be four-score links on the Island, most of them excellent, many of them near—Forest Park is at Jamaica. The Long Island soil seems to grow tennis courts, which are

attractive in the proximity of good bathing facilities either in ocean, bay or sound. Few sections have the quality of surf bathing that is found here—or the choice of still or rough salt water. Polo and cricket are much in vogue at the country clubs, and baseball too is a source of friendly rivalry in summer.

When the question of "where shall we go today?" arises, take your car out on Long Island. Leave the guidebook and map at home, and just go—the roads are excellent and you can strike no bad ones wherever you run. The long Merrick Boulevard, running into the South Country Road, extends nearly the entire length of the Island through varied and beautiful scenery and



If you wish to talk conformation or points with the cognoscenti go to the Bayshore horse show



The Westbury turn. One of the most exciting points on the Vanderbilt Cup course



Polo at Wampage always draws a crowd of those who choose to enjoy their sport vicariously

past many historical places and old homesteads well worth a visit. Take your time, stop off and enjoy the Island's unlimited opportunity for sport. If you wish to try what that new motor car can do, there is the Motor Parkway where no speed limit can check you on the concrete and macadam road that is an engineering wonder.

The Vanderbilt Cup Race is run partly over this course, and on the night preceding the much-heralded event, thousands of enthusiastic motorists crowd the roads leading to it. It is a remarkable sight to see the continuous stream of shining headlights all hurrying toward the course. Some stop at the hotels in Garden City or the vicinity, but the greater number make themselves comfortable in their machines until dawn. At the first light the racers are away belching fire and roaring, their juggernaut drivers seeming inhabitants of some other strange planet with their weird helmets



The motor boat race is now a permanent feature of Long Island regattas and finds no better water for making good performances. All the big races are scheduled here for next season



Winter does not end the yachting season on Long Island. Then the "scooters" or ice-boats make other sailing seem tame in comparison

and staring eyes. The race itself is tremendously exciting as the cars swoop by at a rate fast enough to make the most chronic speeder gasp.

Since the favorite sport of kings has become the game of lobbyists, horse-racing is not carried on to the extent it was formerly, and aviation provides an excellent substitute at Belmont Park. Horse lovers, however, can see some really creditable performances at the various country fairs, and the Bayshore Horse Show brings as fine an exhibition of quality as can be seen anywhere.

"Perpetual devotion to what a man calls his business is only sustained by perpetual neglect of many other things, and it is not by any means certain that a man's business is the most important thing he has to do." If you agree with Stevenson that the great outdoors has a claim upon your time, you can find no better place for recreation than upon Long Island.



The South Country Road is one of Long Island's ideal boulevards, which make it the most logical place for the motorist



Drop by that riffle, and if you don't land a speckled beauty your skill is lacking or you have the wrong fly