



CONTENTS

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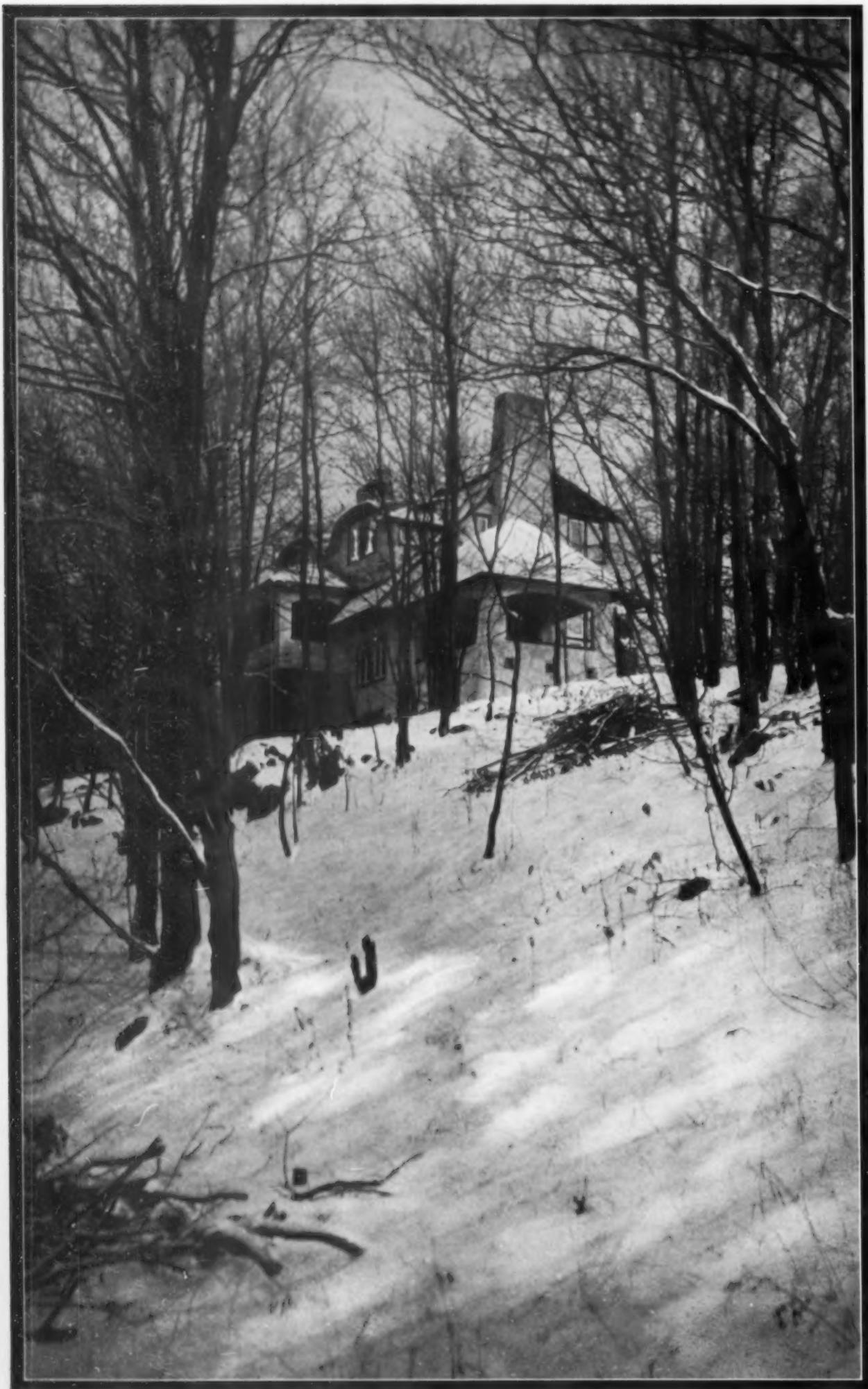
FRONTISPIECE.....	78	SOUTHERN CALIFORNIA GARDENS.....	99
THE ESSENTIALS FOR MAKING A LIVING-ROOM LIVABLE <i>Mary McBurney</i>	79	<i>Charles F. Holder</i>	
AIREDALE—THE ALL-ROUND DOG.....	83	THE ELECTRIC AUTOMOBILE IN THE COUNTRY.....	102
<i>André Norman</i>		<i>John R. Eustis</i>	
YOUR SATURDAY AFTERNOON GARDEN.....	86	EFFICIENCY IN THE FLOWER GARDEN.....	104
<i>D. R. Edson</i>		<i>F. F. Rockwell</i>	
THROUGH WILD FOWL BREEDING GROUNDS.....	88	A HOUSE AT GREAT NECK, LONG ISLAND.....	106
<i>Herbert K. Job</i>		A HOUSE AT ANNANDALE, STATEN ISLAND.....	107
CREATING PERSONALITY IN BEDROOMS.....	90	INSIDE THE HOUSE.....	108
<i>Agnes Foster</i>		The Care of the Bathroom A Vase for Orchids Small Decorative Lamp Shades	
WHAT WAS DONE WITH A FIVE ROOM COTTAGE.....	93	GARDEN SUGGESTIONS AND QUERIES.....	110
<i>Elise Ward Morris</i>		EDITORIAL.....	111
METHODS AND RESULTS OF WINTER SPRAYING.....	96		
<i>Grace Tabor</i>			

RICHARDSON WRIGHT
Managing Editor

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The house set on a high hill usually has the advantage of a magnificent outlook and invariably of a good approach. If that approach is through the woods, then the setting is indeed perfect. In serried battalions the sentry trees stand about through the rigors of the winter, and when summer seasons come they hide with their foliage the house as one cherishes a jewel





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An excellent arrangement creating a proper center of interest is to place a very long and somewhat massive davenport before the fire, and directly behind a table, equally long, about seven feet, and ample enough to hold a lamp on either end and plenty of books and magazines

The Essentials for Making a Living-Room Livable

THE PROPER LOCATION IN THE HOUSE—ITS CENTERS OF INTEREST—THE NECESSITY FOR GOOD LIGHTING ARRANGEMENTS—METHODS FOR ADAPTING OLD PERIODS TO MODERN USE—PAINTED AND WILLOW FURNITURE

MARY MCBURNEY

Photographs by the Author and Amee A. Jones

THE real significance of the living-room and drawing-room is so often misinterpreted by being carried to the utmost extreme that it is interesting, and even necessary, to lay stress on the true individuality of each. The drawing-room is usually accepted as a formal, somewhat uncomfortable place to be used for entertaining, and to be avoided at genial, intimate moments. It seems to lack an atmosphere of warmth and comfort and to stand coldly aloof from everyday life. I have seen houses where people retreat to the bedrooms or the nursery rather than try to make themselves at home in the drawing-room, and it is easy to understand their doing so when one feels the cold and cheerless atmos-

phere; curtains are drawn, the hearth—where no fire ever burns—is bare or concealed by some ornament; and in summer, dreary, white Holland covers deform the furniture. It should, of course, be a formal, dignified room, well carried out in a period style if possible, especially when there is another room, a library or morning room for general day use; but it need not lack either in comfort or charm because of its formality; in fact, great emphasis should be laid on the choice of comfortable furniture and a real fire on its dignified hearth! And also, most important, the sun should be allowed to enter through its not too much curtained windows, while a great stimulus to livableness are growing plants



There are few things that can lend such an air of charm, and can make instead of mar a room, as the lighting arrangements. Devices used here are admirable—good reading lights and wall brackets shaded

and fresh flowers. On the other hand, the living-room—the very words suggest informality—is the place for family and friends to gather on any and all occasions—a room to live in. And for this very reason it is often abused by being made too personal, too expressive of the details of a family's life, the details which ought correctly to belong to the individual's own apartment. It has too often the tendency to contain a collection of everything, rather than to be a unified whole. It should, of course, express the person or persons who are to use it, being thoroughly suited to their tastes and personalities; and it must be made essentially comfortable; but, on the other hand, it should not fail in dignity and repose. There must be a sense of harmony in form and color and arrangement. Above all, there should be plenty of space so that there may be no feeling of overcrowding. Most pleasing is that freedom from too many things. As very often there is no other suitable place for the purpose, the living-room must be made for entertaining, as well as for everyday life, and then the necessity for plenty of space is appreciated.

For daily use, a room that can be entirely closed so that privacy is secured when the occasion demands it, is most satisfactory. It never should be a passage, nor, if possible, should stairs or front doors be in the living-room, for then it is open to strangers and servants, and there is often a time when that is not desirable.

Two, or even three different centers in the living-room are advisable: the fireplace, primarily, with its long davenport and easy chairs; and also the window with seats and desk, bookcases close by, and a pleasant view of the outside world. These two centers for different times of day and year are almost essentials.

There are few things that lend such an air of charm, and can

make, instead of mar, a room, as the lighting arrangements. Tables with good reading lights, and all lights well shaded; those on the walls should be used sparingly and always concealed by carefully made shields. Nothing perhaps is more inartistic than electric bulbs in the ceiling, which throw the light in the one place not wanted. Almost as important as the lighting is the curtaining of the windows. Light, and yet more light, is generally needed. Thin scrim or net across the glass and the other hangings pushed well back with a formal, simple valance across the top is generally safe; clumsy, overtrimmed curtains and fancy lace ones shutting out light and air ought to be avoided.

The walls ordinarily should be plain and low in tone, with very few pictures, for seldom are there pictures that are good enough to lend beauty and distinction to a room! Paneled walls, which are in themselves decorative, simple and reposeful, really need no pictures at all.

The structure of the room, the main idea, as it were, should be of some one period which can be adjusted and



The drawing-room must be formal and yet not so stiff and unnatural as to make the guest uneasy. Here again the lights should be well shaded and an air of general repose created

changed to meet the modern requirements of the family. When carried out too strictly, the room becomes stiff and unnatural, as if made to order by outside means; yet with the general feeling of a period seen in the paneling, the main pieces of furniture, the fabric and design of the curtains and upholstery, there is a strong framework to build on. This will hold in place the individual expression of the owner shown in all the minor details.

The Jacobean—possibly the most popular period now used for an English living-room—can be made altogether delightful for

modern use. The walls are of dark, simple paneled oak, and are better without pictures unless one is fortunate enough to possess some old English masterpiece; then nothing could be more beautiful than to see it set unframed into a panel. If paneling proves too expensive, there are other ways of treating the walls suitably. Tinted plaster in gray or putty color, with a simple moulding to suggest panels, is always good. A plain, rough-textured wall paper in a neutral tone can also be used, or even a canvas finished in very dull gold. Dark oak floors, small-paned windows, a huge, carved or Caen stone fireplace, and architecturally one has a delightful setting. The furniture should be of oak; the chairs carved, with upholstered seats or turned with coarse cane inset—the latter are simple and exceedingly good looking. Before the fire is a very long, somewhat massive davenport and directly behind it a table, equally long—about 7 feet—and so ample that it can hold a lamp on either end and plenty of books and magazines as well. In choosing such a table one should guard against too elaborate and bulbous an un-



Roominess in a small place may mean elimination of furniture; in general, however, proper arrangement solves the problem as here where the davenport is drawn away from the fireplace

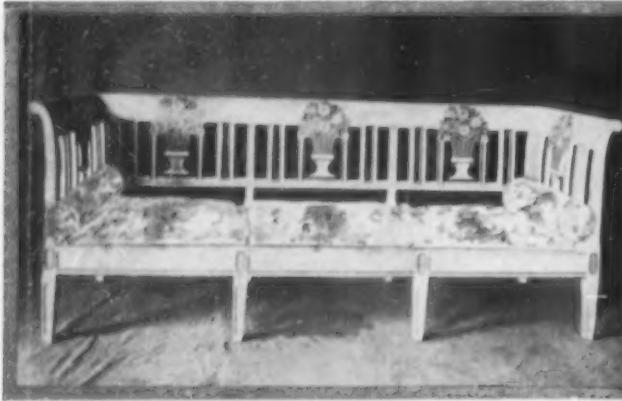


Where space permits roominess can also be created by setting the davenport beside the fireplace. By providing a light at one end comfort to a reader is insured and not too much light for the guest opposite

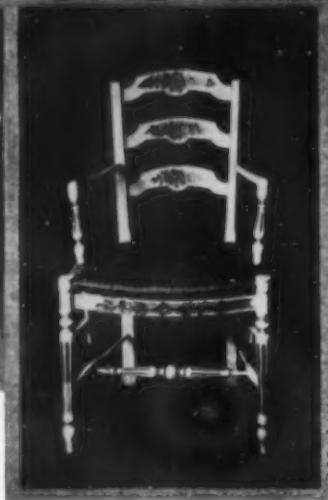
derstructure. The simpler the lines, the better, especially in a reproduction. Two deep-seated easy chairs drawn up before the fire, make, with the sofa, a perfect gathering-place. A small, gate-legged table can be brought forward and used for tea, and most convenient at such a time are one or two cane-bottomed stools with turned oak legs; near the fire a long, low chest for wood is both useful and decorative. Nothing perhaps speaks so of age and the home life of centuries as the chest, the oldest form of furniture. Several substantial Jacobean chairs matching

the stools are very ornamental against the walls, and a much-carved cupboard—one of the many beautiful reproductions made now—gives a sense of age and weight to a room. Placed between the windows is a writing table—no small and dainty desk, but a wide, roomy table fully equipped with all writing materials and well lighted by two oak candlesticks fitted for electricity and with shades alike. The coloring for such a room should be rich, no light nor pastel tones, and the textures deep and heavy in feeling. Appropriate are curtains of heavy, blue-green velvet, finely striped in a darker tone; tapestry coverings in the same color, merging into dull browns and russets; and, for a strong note of vividness, yellow or orange lamp shades on heavy gold carved lamps. For fixtures, gold carved ones in the oak-leaf design, with shields of heavy silk or parchment, are suitable. Other materials can be used, such as heavy linen, in a good Jacobean design—large and striking—and rep or velour or a very strong armure would answer for upholstery. The floor should be covered with dark, dull, Oriental rugs, or, if those are impossible, with a plain velvet rug of a deep, mahogany brown color. Such a room would stand years of everyday use and grow more and more mellow and beautiful.

For another type of living-room to suit other tastes, is a very original and very American-made room. It would be more correct for a country than a town house. The six-foot wainscoting is of light cypress wood, in color a warm gray. Above it, the wall is covered by a putty-colored paper of rough texture slightly lighter in tone than the wood. Slightly darker than the wood is a large velvet rug, covering the floor within 2 feet of the baseboard. Before the fireplace—of pale, dull blue tiles—is a black fur rug. The three or four easy chairs are somewhat small and light in



Painted furniture may be used in a purely modern American living-room, its color and form and decorative detail chosen to suit the owner's individual tastes



A rush bottom chair of such a set is inexpensive, comfortable and always decorative



By some, painted furniture is considered merely a hot-weather medium, whereas it can readily be used all the year round in certain types of rooms

structure and covered in a gray and blue linen. The gray and blue—that rare Chinese blue—are subtly related, much neutralized in tone, and the intricate design is made up of a strange, impossible dragon with faint touches of black in his anatomy! Instead of the usual davenport before the fire, a day-bed is drawn up a little to one side, the frame and back painted the dull blue and decorated in a delicate, black design. The cushioned seat is covered in a linen, like the chairs.

The tables, the small writing-desk, and two or three chairs, all of rather odd shapes and with rush-bottomed seats, are painted blue, like the day-bed. Two chairs and a standard lamp are lacquered in black, and one odd, black sofa cushion, are all used to bring out a striking contrast. Another lamp is of white, crackle ware pottery, and both have very dull orange shades, one with black fringe and gimp, the other covered with heavy filet lace. The curtains at the French windows are of crinkled silk of a dull, faded orange. Delicate electric fixtures painted black, with small, orange shields, give a note of color to the walls. The portieres are of the same linen as the upholstery, or, if one should prefer it, use a gray velvet as near in tone to the walls as possible. In such a neutral-toned room the bookcases should be curtained—the orange silk, for example, drawn tight under the glass doors. Otherwise the books would be too heavy and varied in color. The painted furniture and light-toned linen would be delightful for a room much used in hot weather. This style of furniture can be made to order in many different forms and colors, suited to any individual taste, and makes a charming and distinctive room. The plainest and most inexpensive furniture, but of good lines, can be used when necessary, painted and decorated as one wishes, instead of the rather high-priced reproductions of peasant furniture used in the room described above. The expense can be



In this room Chippendale chairs have been used effectively against a background of dull gold Japanese paper hung with Japanese prints

much lessened by papering the entire walls and using some lovely chintz instead of the linen and silk. The effect will be very pleasing and the cost comparatively small.

For those who like Colonial rooms, or to be more exact, the American adaptation of the 18th Century English periods, the problem is simplified, as so many families have inherited and accumulated in one way or another much mahogany furniture.

So-called Colonial architecture in the country is still popular, and the living-room, with its white paint, low ceiling and figured wall paper, is in excellent taste in such a house. The paper can be put on above a three-foot wainscot and finished by a chair rail, or, if preferred, the effect of paneling can be produced by giving the plastered walls many coats of enamel paint and dividing the spaces with a two-inch moulding. This latter treatment has much more dignity and permanence, as well as beauty, than any wall paper. However, if it can be found, for it is a rarity these days, a good Colonial landscape paper is appropriate; or, possibly, in default of this, a two-toned stripe, or a green and white stripe is in good taste. With either of these the curtains should be of a plain fabric, rep or taffeta silk or velvet. A plain carpet will set off the furniture to best advantage and not clash with the figured walls. For upholstery, a two-toned damask or armure with two or three odd chairs in a contrasting color. If the room is paneled, a wider choice is possible. Chintz or printed linen—there are many old-fashioned 18th Century designs, including some interesting Chinese—can be used for curtains and furniture coverings. In mahogany there is a great variety of delightful tables of all shapes and sizes, from substantial library tables to tiny, round ones just large enough for a book or a cup of tea or coffee. Medium-weight, stuffed furni-

(Continued on page 114)



Airedale

The All-Round Dog

HIS ANCESTRY IS OBSCURE BUT HE IS A "SELF-MADE" DOG—THE MOST VERSATILE AND BIGGEST OF ALL THE TERRIERS—HIS POINTS, MANAGEMENT AND CARE

ANDRÉ NORMAN



LIKE most of the good things of life, the Airedale's origin is confused, if not obscure; but only a pedant would cavil at that. To those who know him and call him friend, it is enough that he is.

Out of the welter of fact and fiction regarding his ancestry, however, these points may be noted and are fairly well agreed upon. The streams and vales of Yorkshire were

his first home and his owners were the mining-folk of that locality, who were looking for a rough and ready terrier for ratting and fighting. In his veins is the blood of the otter hound—a big, stiff-coated water dog; a good deal of the tan and grizzle terrier stock; probably a dash of bulldog and a sprinkle of collie. Thus, about 1880, he emerged, a stocky, upstanding water-terrier, and at once created a sensation in the dog world. At first a trifle pugnacious—remember he was bred for fighting—he has gained through the years in gentleness as well as in fineness, until now he stands alone as the biggest and best of terriers—the all-round dog.

A typical Airedale should weigh between 40 and 45 pounds. This fact of good weight is a most important one with the Airedale. In the early days of the breed there was considerable objection against classing him with the terriers at all. He was too big to "go to earth," it was said, and that was the *sine qua non* of the terrier. Even to-day, judging from the specimens at the shows, the difficulty seems to be in keeping him down to weight.

As regards conformation, the head should be long, tapering down smoothly from a broad, flat skull to the muzzle, with its lips drawn tight over the big, white teeth, which are extraordinarily even and firm. The eyes are dark brown and full of terrier expression. Small, triangular ears, carried rather peaked, are essential. The front legs must be as straight as two sticks, ter-

minating in firm and well-confined pads. His chest is of splendid depth, running narrowly between the front legs. The ribs are well sprung and the body is cut up somewhat in the loins. The thighs are firm and strong, with the hocks close to the ground, and the tail is carried gaily, like a pennon.

The color and quality of the coat is a most important feature of the Airedale. Rich tan on the head, legs and all underparts, and a blanket of blue-black grizzle on top, is the accepted combination. The darker the ears are, the better. Puppies are black and tan at birth, with quite smooth coats, which soon become wiry and tough. Any tendency to curl is faulty. Underneath this top-coat is an undervest of soft, woolly hair, which makes the Airedale practically impervious to water. This soft hair easily catches the dirt and the coat is apt to become irregular and tufted. This can easily be remedied with a stripping-comb, or even with the fingers, which will remove all superfluous hair. Care must be taken, however, not to pull out the long hair on the muzzle, as a good beard adds to the strong appearance of the jaw.

Summing up his points, you see in the Airedale a grand, strong animal that will do anything that a man will ever require of a dog. He is without a peer as a worker by the waterside after water-rats, musk-



A good specimen of the Airedale, with all the typical points of the breed

rats or otter; he can be trained, too, as a first-rate gun dog to do the work of the pointer, the retriever and the setter. He has also been frequently used in coursing hares. I have before me a letter from a sportsman who has used the Airedale as a hunting dog in India, in Australia, in Japan and in the Rockies. During his travels he hunted everything up to bears, and, as he says, "the only fault with the dogs was that they rushed in too fast."

But, with all his versatility, the Airedale does not disdain the humbler, domestic side of life. As a watchdog and a companion for the children he is thoroughly faithful, obedient and kind. I have seen one drawing a sleigh in Canada and enjoying it as much as the kids. He is noted for his attachment to his owner, and is self-contained, even reserved in manner. He is far from quarrelsome with other dogs; yet once started, he never lets up; he would rather die than turn tail.

Best of all, in the eyes of dog-owners, he is possessed of an iron constitution. In the early stages of his career he needs very little attention, and, when once grown to strength, he can stand an unlimited amount of rough wear and tear. He can endure any climate, and is now established from the Klondike to New Zealand.

Recently the German army formed several dog battalions for use as lookouts and searchers for wounded men. It was found that the Airedale was peculiarly adapted for this purpose, not only on account of his sagacity, but because of his nerve and strong sense of smell. In the trials among the German police dogs it was found that the Airedales scored eighty-two points out of a possible ninety, and clearly established their superiority over every other breed.

At a public exhibition of New York police dogs in Madison Square Garden in 1908, some trained dogs were tried out at man-catching; of all the entrants the Airedale was the quietest and



The pups are naturally robust and do not require hot-house methods in bringing them up

quickest at his job, and carried off first prize with great ease.

Stories about the Airedale are as numerous as flies around a sugar barrel in summer time, but the one about the dog in the Australian bush which was used for retrieving parrots is as good as any, and rather typical. These birds, which are a nuisance in Australia by reason of their great numbers, are frequently used in trap-shooting. A winged parrot is as nasty a customer as a cat in a trap, for he has very strong mandibles and talons like a hawk. By taking hold of the wing tip, this dog managed to bring back the biting, scratching quarry throughout the whole afternoon without losing his temper or once "lying down on the job."

These few chapters from the life history of the Airedale serve to illustrate the manner in which the breed has adapted itself to its environment and made good in every instance. No doubt they could be duplicated many times over.

Regarding the care of the Airedale, it must be borne in mind that, like all terriers, he is essentially an out-of-doors dog. A well-known veterinarian once said that most toy dogs are killed by kindness and most terriers die of neglect. Of course, the terrier should not be subjected to hot-house methods; on the other hand, he mustn't be treated like a bear. All a healthy terrier needs is a dry, clean place to sleep, food and

water at regular hours, and as much exercise as he wishes. The country owner should be able to solve all these matters without difficulty, but for the city man the problem is more difficult. By all means the kennel should be outdoors in a sheltered, dry spot, and kept full of fresh straw. I do not advise chaining under any circumstances, but if the dog shows a tendency to climb fences a convenient runway can be made with a stout wire strung along the yard, to which a leader is attached with a swivel. This will allow the dog to caper up and down to his heart's content. If you have two dogs, the chains can be adjusted so that they can fraternize easily.

As regards feeding, I have found that two meals are sufficient under ordinary circumstances. I am speaking, of course, of the dog not used for heavy work. A breakfast of cereal, or mush, with milk, and in the evening a dinner of boiled greens, with dog biscuit. Meat should be given sparingly, and then only after a thorough boiling. A good soup bone every now and then will serve to keep his teeth in good condition, and, besides, may prevent him from gnawing more expensive household furnishings. I have in mind right now a pair of trousers which I had inadvertently left in the way of a six-months' pup. When I examined them I felt like offering him the coat and vest as a bonus. Too much washing for a dog, like study for a man, "is a weariness of the flesh." It is apt to make the coat thin and dry, instead of hard and thick. It is better to use a stiff brush every few days and, if necessary, a comb to keep out snarls.

By all means, if you live in the city, take your dog into the country over week-ends. There is no better companion for a walk, and the way he goes bounding and charging over the fields, with head to earth and tail carried high, will be a delight to your



He is full of fire and ginger, and he never starts anything he cannot finish

eye. So popular has the Airedale been that he has gained friends and admirers very rapidly. Naturally there have been Airedale clubs both in England and in this country which have done a great deal to exploit the breed. The dog, however, has never lost his head under this attention, and has never been "cod-dled" into a mere bench favorite. He is too virile for that.

England, of course, claims the early champions of the breed, but of late years the quality and style of the native American stock have been increasing by degrees. Two of the best dogs now in America, however, were recently imported from England, namely, Patrick Oorang and York Ryburn Swell. Both are wonderful terriers, and carried all before them in the Old Country. They have not as yet been matched against each other on this side of the Atlantic. When they are put together on the bench it will be a battle worth watching.

Dogs, like humans, are heir to certain ills, and the Airedale is no exception. In the case of the terrier, small ailments will not bother him very much. His natural robustness will throw them off. When he does fall sick it will probably be a more serious complaint. A good rule to keep is that dogs respond readily to the same treatment as humans, although, of course, medicine should not be given in the same quantities. Generally, the dose for a terrier is about one-fourth of that for a man. It is not wise, however, to rely too much on one's medical knowledge or powers of diagnosis. It is best to call in a veterinary at once if things look bad. In giving the dog medicine, hold the head high and make a little pocket by pulling out the lower lip at the side. Into this the medicine may be poured from a spoon.

Every dog owner is afflicted with visions of distemper in his dogs, and the *bete noire* of the kennels is likely to break out at any and all times. Some kennels are singularly exempt from this disease; others are hardly ever without it. It is the most insidious of the germ diseases which attack the dog. Feeding utensils, bedding, water-vessels are all likely to become active agents for the spread of the malady. Scrupulous cleanliness and constant care are the only safeguards against it. Distemper is particularly prevalent among puppies. If its presence is suspected, the animal should be isolated and examined at once for any signs of fever. If its temperature is above the normal, 101° F., a veterinary should be sent for immediately. In any case, you have "locked the barn door" first.



As a friend and companion he is without a peer; he will do anything from playing with the baby to hunting bears

There is so much real enjoyment to be had out of the keeping of dogs, even if you never show them, that it seems a waste of opportunity for the man in the country not to establish a small kennel for breeding purposes. I think it will be found that the

Airedale is an ideal dog for the venture. In selecting a spot for your kennel, the requisites of free admission of sunlight, pure air, free from draughts, dryness and drainage facilities must be borne in mind. Every outdoor kennel should have a run attached, surrounded by a wire fence about five feet in height. A cheap and entirely suitable kennel house can be made from a stout barrel raised above the ground on a couple of railroad ties. When this is filled with straw, a dog could wish for no more comfortable house. More elaborate and more durable kennels may, of course, be provided, but I am speaking now for the beginner on a small scale.

Breeding Airedales successfully is a matter of reading all you can about the dog, and then paying the best price you can afford for your parent stock. Most dog dealers are reputable men, and it will be found that the amateur can generally rely for their word in buying from them. It is a good plan to register your puppies with the American Kennel Club as soon as possible. In this connection, a recent ruling of the A. K. C. provides that after 1915 no dogs will be registered whose parents have not also been previously registered.

If you are going in for showing your Airedales, "condition" will be your first care. This is of two kinds, internal and external. If you have been taking care of your dog's diet and exercise, a few days of extra attention should make him physically fit. The condition of the coat is quite another matter, although, of course, general physical fitness keeps the hair growing properly. But the coat of the Airedale, as with all wire-haired dogs, has the most exasperating

tendency to become tufted and snarled. If you have not been in the habit of grooming your dog daily with brush and comb, then the task of preparing him for the bench will be doubly difficult. As an artificial aid, however, the following application will be of benefit:

Tincture of cantharides, ½ oz.; oil of nutmeg, ⅛ oz.; lavender water, 10 ozs.

This mixture should be rubbed well into the roots of the hair daily. As a general stimulant for the coat and also as a preventive against vermin, kerosene oil is as good as anything. But you will not want to keep the dog in the house after using it. The American Kennel Club does not allow the use of scissors or knives in trim-

(Continued on page 73)



He has been well named the "biggest and best terrier"



Lay potsherds over the holes in the bottom of the seed flat to insure proper drainage

Your Saturday Afternoon Garden

A DIVISION OF GARDEN WORK ACCORDING TO YOUR AVAILABLE SPARE TIME—MAKING FLATS—HOW TO START SEEDS INDOORS

D. R. EDSON

$\frac{3}{4}$ oz.; turnip, $\frac{1}{2}$ oz.; French broccoli, 35; and Swiss chard, $\frac{3}{4}$ oz. For late or tender crops the following applies: Beans (early), 1 pt.; beans (wax), 1 pt.; beans (lima), 1 pt.; beans (pole), $\frac{1}{4}$ pt.; beans (pole lima), $\frac{1}{4}$ pt.; beets, 1 oz.; brussels sprouts, 35; cabbage (late), 25-35; carrot, $\frac{1}{2}$ oz.; cauliflower, 25; corn, $\frac{1}{2}$ pt.; cucumbers, $\frac{1}{4}$ oz.; egg plant, 25; lettuce, $\frac{1}{4}$ oz.; melons (musk), $\frac{1}{4}$ oz.; melons (water), $\frac{1}{4}$ oz.; peas (late), 1 pt.; peppers, 25; pumpkin, $\frac{1}{4}$ oz.; radish, $\frac{1}{2}$ oz.; squash, $\frac{1}{4}$ oz.; tomato, 15-20; turnip, $\frac{1}{2}$ oz.

If you know how many rows of each of the vegetables you expect to plant and how long your rows are it is an easy matter to figure out just how much seed you will need. The proportionate amount of seed contained in a package of the various things can be approximately estimated by the price per ounce. Of those seeds that are cheap, you will get a larger amount in the package than of the high-priced sort.

At the same time that you make out your seed order the planting plan for the garden should be made. Take the sketch of the place, drawn to scale, that you made last month, and on a separate piece of paper draw an outline of the garden, making it as large as is convenient, so that a foot of space in it can be plainly shown. Usually it is more convenient in the garden in which many things are to be grown, to run the rows the short way of the garden. It facilitates the weeding later.

In arranging the different crops in the plan, they should be placed with regard to convenience in planting and cultivating, and to putting in the succession or follow-up crops, which will occupy during the latter part of the season the places in the garden which have been cleared of earlier crops. The very first classes of things to go into the garden are the hardy plants, such as cabbages, beets and lettuce and, a little later, cauliflower, and such cold-weather seeds as onions, parsnips, salsify, radishes, spinach.

Beginning at one end of the plan, put down the various vegetables as nearly in the order in which they will be planted as possible. The amount of space each item will require should, of course, be drawn in to scale. It is not important, however, to show on the plan the length of the row, and, therefore, a vertical line may be drawn through the plan or through as much of it as will be available for the second planting and for the succession crops.

ABOUT the most exciting thing that happens during the first part of February is the arrival of the new catalogues. If the seedsmen would only send out the same catalogue each year, making out the seed order would be a much simpler undertaking. One is tempted to try the luscious new musk-melons, pictured in full colors, in preference to the variety that is given only a few lines of cold, black type, even though the latter sort may have been tried and found satisfactory. The brand new sort, one suspects from former experiences, may have nothing new about it excepting the name on the packet; still, one can't be sure, and, according to the printed page, it is so fine that one hates to take a chance on missing it. As a general rule, it is safer to depend on sorts with which you are familiar for your garden, and to buy these new things only in amounts large enough to give them a fair try-out. Most of the standard varieties and the newer sorts which all seedsmen list will be found satisfactory if you get good seed—seed that will not only show a strong percentage of germination, but that has been carefully grown from selected stock and that is true to type. Deal only with firms in which you have confidence.

Though selecting the various varieties is interesting, the problem of deciding just how much to order is as important. This should be figured out accurately so that you will be sure to have neither too much nor too little. The amount of seed or the number of plants of the different vegetables required for each fifty feet of row is approximately as follows:

Asparagus, 50; beet, 100-150; cabbage, 35; cauliflower, 35; carrot, $\frac{1}{2}$ oz.; celery, $\frac{1}{2}$ oz.; endive, $\frac{1}{2}$ oz.; lettuce (seed), $\frac{1}{4}$ oz.; lettuce (plant), 50; leek, $\frac{1}{2}$ oz.; onion, $\frac{1}{2}$ oz.; onion (seedling), 150; parsley, $\frac{1}{2}$ oz.; parsnip, $\frac{1}{4}$ oz.; peas (smooth), 1 pt.; peas (wrinkled), 1 pt.; potato, $\frac{1}{2}$ pk.; radish, $\frac{1}{2}$ oz.; salsify,

WHAT TO DO IN FEBRUARY

6th—Consult your garden plan, and according to the directions given there make out the seed order.

13th—It's about time to get your frames ready. Work this afternoon would complete the job.

20th—If your flats are made, start your seeds to-day. Making flats takes but little time and the planting can be finished before supper.

27th—Measure your garden plan by the table given here so that the planting can be carried out systematically.



Where space is very limited, "inter-planting," or planting two crops at the same time, one of which will be used and out of the way by the time the other one will want the whole space, may be employed to great advantage. In this way, lettuce may be planted between cabbages, either between the cabbage plants or between the rows, if they are far enough apart; and again, later, between hills of pole beans and tomatoes. Radishes may be planted between rows of carrots; one row of turnips and two rows of radishes between rows of tall peas. Carrots are sometimes sown between rows of onions in June; sweet corn may be started in the middle of the furrows between rows of early potatoes; squashes may be planted or set out, from paper pots, between rows of early peas or beans which have been set purposely far apart. There is no limit to the skill and ingenuity which the gardener may use in accomplishing what must become his aim—namely, to make his particular plot of ground yield the utmost both in quality and quantity.

With the seed order made out and safely sent off, the thoughts and the activities of the gardener must be turned at once to making preparations for giving such seeds as must be started early in heat the proper conditions to thrive and produce strong plants. Unless there is a small greenhouse on the place, the hotbed and coldframe used in combination offer the most effective means for this early gardening. If the frames were properly protected last fall there should be little or no frost in them. It is time now to get both the hotbeds and coldframes ready for use. While the latter may not be required for some weeks yet, the sooner the ground can be got into condition for working and warming up, the better. See to it first of all that your sashes are in repair and tight, and patch any holes that may be starting in the mats.

The vital part of a hotbed is the manure used to furnish heat. Unless it is of the right kind and used in the right way, the bed will be more or less of a fizzle, no matter how much care you may take with the soil and seed and watering. Horse manure, and especially that from livery stables or other places where the animals are fed a good deal of grain, ferments very rapidly when kept in a heap, and this fermentation creates a surprising amount of heat. If thrown into an ordinary loose pile and left there, the heat will be generated so rapidly that the mass will soon be burned out or "fire-fanged." What is wanted to maintain the temperature in a hotbed is a slow, steady heat. In order to secure this, the manure must be stored first in a compact heap, each layer thoroughly tramped down, and preferably, to save work in handling, made near the bed in which it is to be used. If it is packed correctly, the little snow or rain which may fall on it before it is used will be beneficial, rather than harmful. The heap should be kept at all times moist; it may be necessary to pour a few buckets of water upon it, especially on the center. A week or ten days after the heat has

been made and it is fermenting thoroughly it should be forked over. Also apply water to any parts of it which may have become dried out. At the end of a week or ten days the pile should be in a state of active fermentation from top to bottom, so that it is hot and steaming wherever you take out a forkful. For best results a certain amount of bedding or short straw should be mixed with the manure. If it seems to be lacking, mix leaves, straw or some other absorbent.

While the manure is being got into condition the frames should be cleaned out and the necessary repairing attended to. If the old manure from last year's hotbed is still there, remove it and save it, under cover, for use in connection with plants that you start and for transplanting work later in the garden, as it is in ideal shape for these purposes. Six inches of soil should be removed and thrown up into one end of the frame; then put in the manure from 15" to 30" deep, according to the climate of your locality and what the bed is to be used for (24" will usually be enough). Tramp it down firmly and evenly. Over this spread the soil which has been removed, and then do the same with the corner which has not before been dug out. If the hotbed frame is large enough for several sashes it will be wiser to put an extra amount of manure under one or two of them, so that a higher temperature may be maintained for tender plants, such as tomatoes, egg-plants and peppers. Even where the same amount of manure is put under all the frames, a partition of thin wood or of cardboard may be inserted, so that one of the frames, by being given less ventilation, may be kept at a higher temperature. As soon as the soil over the manure is sufficiently dried out and mellowed it should be finely pulverized and raked thoroughly. It is best to leave the bed to heat for a few days before planting.

By the time you have these things done and everything in readiness for planting, your supply of seeds will likely have arrived. Go over the packets and pick out for starting at once, beets, cabbage, cauliflower, early celery and lettuce; also Spanish onions if you intend to grow them from seedlings. If you are planning to do this work upon a Saturday afternoon, take the second or third Saturday in February, according to the date on which it is usually safe to begin planting outside in your vicinity. The actual work of planting the seeds, if one has everything in readiness, will take but a few minutes.

Some gardeners make a practice of sowing the seed directly into the soil of the frame. In exceptional instances this may be of advantage, but generally it will be better to sow them in home-made flats, which can be cut easily from soap boxes. They should be a couple of inches deep for starting the seed, but if you expect to use them later for transplanting, they may be made three inches deep and filled only partly full of soil for seed sowing. The soil used should be made very light and porous, by mixing with the garden soil sifted, rotted sod, chip dirt, or any similar light

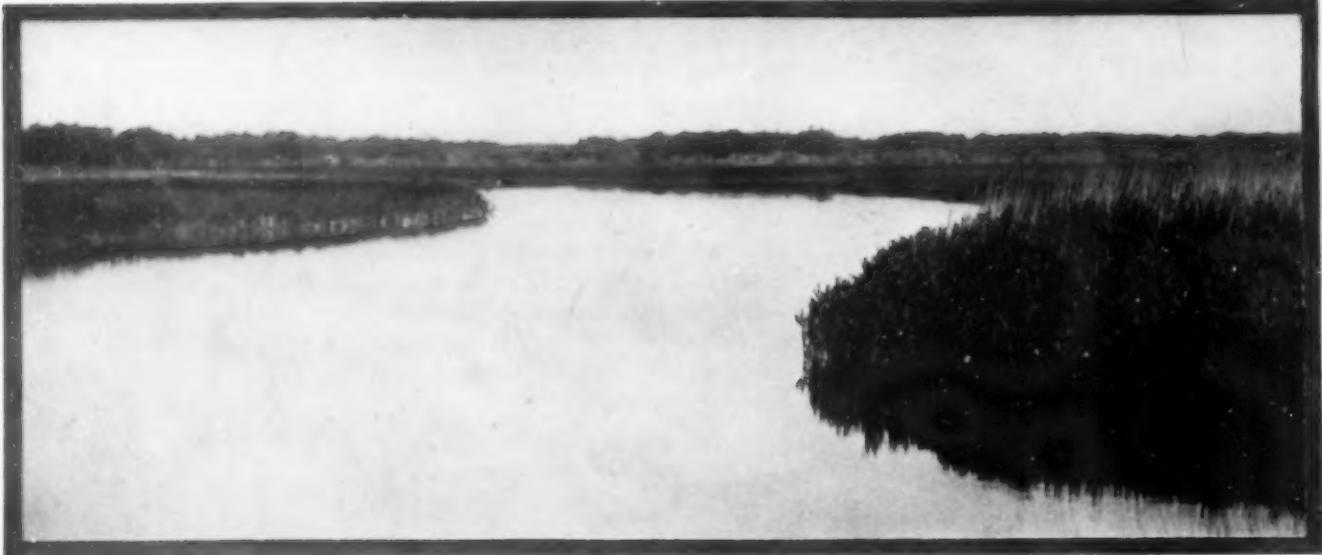
(Continued on page 114)



Cut the flats from ordinary soap boxes; one box usually furnishes enough for three flats

Over the drainage shown on opposite page place well-pulverized soil and sow seed lightly

After plants have attained a growth, as here, thin them out, planting the strongest of the remainder in another flat



Away to the far horizon stretches endlessly the green-brown prairie, or the sea of reeds and rushes of the marsh, desolate, forlorn, monotonous. Yet in its distances the wildfowl breeding ground is majestic; in its silences, pierced now and again with bird cries, awesome and serene

Through Wildfowl Breeding Grounds

THE WASTE SPACES OF THE NORTHWEST WHERE WILD BIRDS FIND A HOME TO REAR THEIR YOUNG—MATING TIME IN THE MARSHES AND MUSKEGS—A PLEA FOR THE PROTECTION OF NATURAL PRESERVES

HERBERT K. JOB

State Ornithologist of Connecticut

Photographs by the Author

WHERE go the wildfowl to breed, those wedges of honking geese, high overhead; those lines and masses of swiftly-moving ducks that skirt our shores or drop into our streams and lakes on their swift journey northward in the early spring?

As a class, our American wildfowl are loyal to the call of the North. A few kinds, notably the wood duck and

much the North as the Northwest. Though a few species, particularly scoters, eiders, and the oldsquaw, follow the North-Atlantic coast line to their distant breeding grounds, the majority of them strike across the land somewhere and hie them to the marshes, pools and muskegs of the Northwest interior, even many species that in winter are distinctly maritime.



On an island lake in Saskatchewan the fluffy nest of a wild Canada goose in dry stony land in the grass



Soft reeds picked out with down—the nest of the toothsome mallard duck by the prairie slough



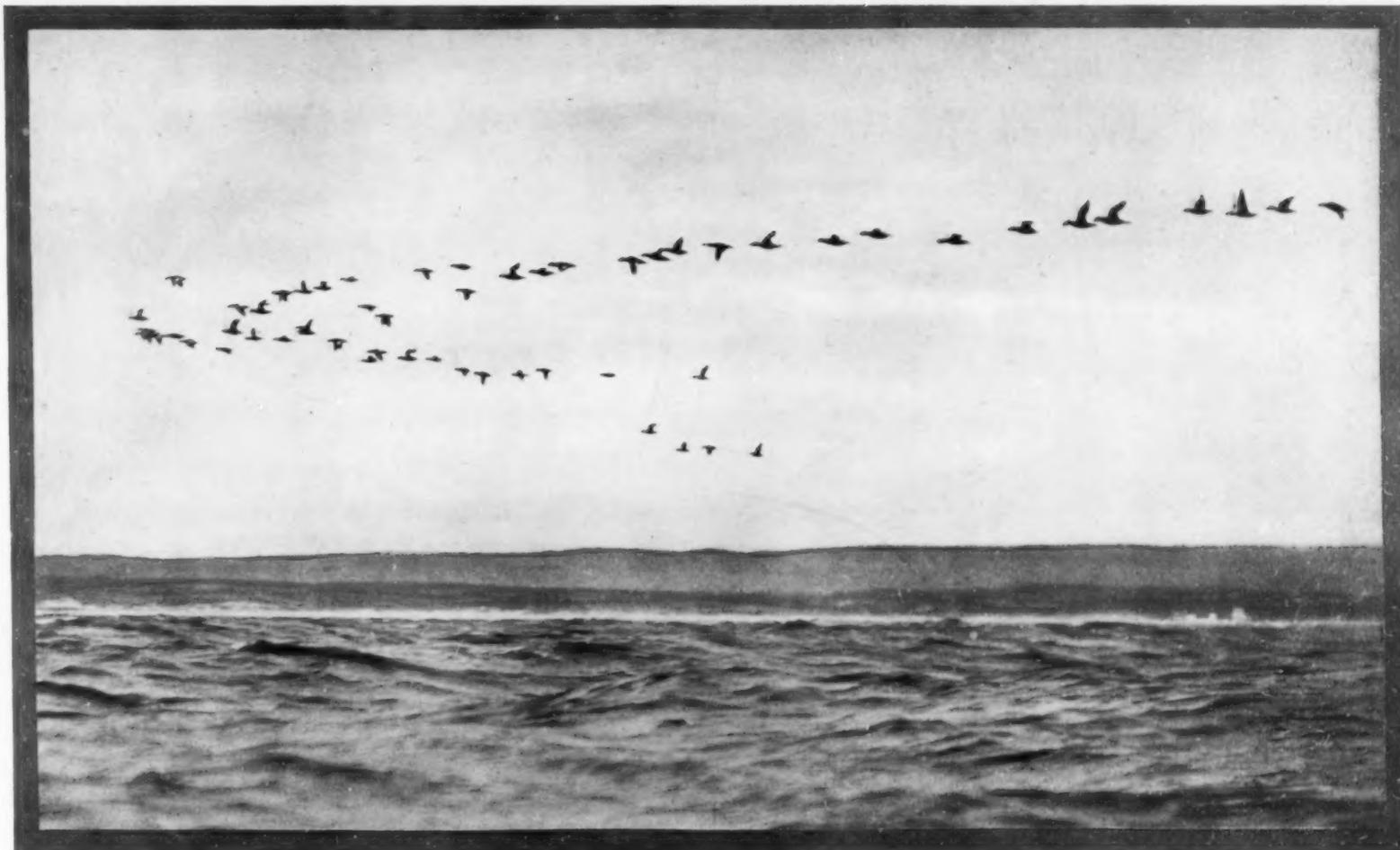
The nest of a lesser scaup duck fashioned about like an ark of bulrushes and hidden by tall reeds

black duck, breed South as well as North, and a few others occasionally. But the majority find annual attraction in the northern wilds. Creatures of habit, they are impelled by the ways of past generations to seek out again the place of their birth.

There is a strange thing about this habit: the rendezvous of the wildfowl is not as

There we find them in May, swimming by pairs in the sloughs, in beautiful nuptial plumage, or settled down for the summer to breed.

The southern edge of this region is the prairie country of Minnesota and North Dakota. To the north it includes Manitoba, Saskatchewan and Alberta, and thence



A wedge of honking scoters migrating from the morasses of the north. Their nesting habits are peculiar—the female buries her eggs in the loam beneath a tangle of vines and grass until all are laid, then she uncovers them, builds a nest, and lines it with down picked from her breast

north to the Arctic Sea, and even the lands and islands further north; likewise the marshy portions of Alaska. Around Hudson's Bay and at the deltas of the Arctic rivers are notable breeding areas of marsh and muskeg. Not all of the great area, by any means, is breeding ground, for much of it is forested or rocky and unsuitable for ducks and geese. But scattered over it are localities enough of the right sort to produce an enormous number of fowl.

On my first exploration in North Dakota I started out on a six-weeks' tour with guide, double rig and camp outfit. Not everywhere, by any means, did we see fowl. Some days we drove forty miles over the dry, perfectly flat prairie; sometimes on roads, again on mere trails through the short, dry prairie grass, without meeting a duck. Then we would see, perhaps, a series of shallow, marshy pools, with grass or rushes growing from the water. There we pitched our tent and spent the night. The water was usually about knee-deep. As I beat through the grass at the edge or waded out to the clumps or areas of rushes, a female duck would flutter from the tangle at my feet and reveal her carefully concealed, down-lined

nest and in it a hatful of eggs, usually from eight to eleven.

On that first jaunt, the first duck's nest that I discovered was a pintail's, by the shore of such a pool, or "slough," as it is called. The second nest was revealed a few moments later, when I waded out toward some rushes, and a big gray canvasback sprang from her "ark of bulrushes" and went fluttering over the water. In another slough a few days later I saw eleven species of wild ducks swimming in pairs; and I was able to locate many of their nests in the slough or in the prairie grass adjoining.

Other favorite breeding locations in such regions are dry islands in the larger lakes; sometimes partly stony, overgrown with weeds, grass and low bushes. Years ago I happened upon a group of small islets of this character, where, on the landing of our party from a boat, dozens of ducks fluttered off their nests, and even some wild Canadian geese.

Another remarkable island was in a large lake in Saskatchewan. This was a grassy island about half a mile long, and the grass was full of nesting ducks. One day we flushed sixty of them from their nests. Next year one of my party went there with another ornithologist to

(Continued on page 115)



By the prairie sloughs the gadwall makes its nest, and the brood stays around home while the mother goes foraging



A Louis XVI bedroom, with the spirit of a Watteau woman expressed in its detail of cane and carved furniture and paneled walls. It is to be regretted that the mistress failed in her arrangement of bedcovers, for even by such minute mistakes can the effect of a good room be spoiled

THEIR FURNISHINGS AND DECORATIONS ACCORDING TO OCCUPANTS—THE ESSENTIALS FOR MEN—THE GRANDMOTHER'S ROOM—WHAT THE GUEST ROOM SHOULD EXPRESS—GENERAL RULES FOR BEDROOMS

AGNES FOSTER

IS there anywhere in the world that a woman is so completely herself as in her bedroom? It is her little domain, and there she is supreme. And it is usually her dream to make it an expression of herself, if so complex a thing as a woman can be expressed—even to herself. So milady dreams of what she will do with that room, and the whole gamut of possible schemes passes through her ambitious head.

Who of us has not formed a resolution in those early hours that this year the curtains shall be rose, a gay rose? We are tired of those dull, old, blue ones. Or if the present ones are a matter of little interest, we promise ourselves that in our next apartment our bedrooms shall be mauve with a little yellow, say, or in the spring we'll repaper the wall with a gray stripe. Maybe we will call in a decorator to suggest the change, but decorators will all tell the same story—that a woman is never less docile and pliable than in the matter of her bedroom.



For a business woman, a room of more severe lines—no frippery, no dust-catchers, the sort of room for a small city apartment

And as to men's, it is generally settled thus: "No frippery, if you please, madam. No, I hate pink. And I don't want the kind of curtains that blow out the window." The decision is indisputable.

The rule does not hold that because a woman is blond, blue-eyed, with light curls, that her room is pale pink and blue, but the general furnishing of her bedroom will lead you to suspect the curls and the blue eyes. So, for this dainty lady—and there are hundreds of her kind—let's plan a suitable room: small in scale, a favorable setting for her Watteausque self. Watteau! What could be better than a Louis XVI bedroom?

The walls can be treated either one of two ways; the simpler method is to panel them and paint the woodwork cream; or they may be paneled in damask, with a buff background and rose figures. The woodwork inclosing the rather large panels would be painted cream. At the windows two-toned taffeta hangings of rose and buff, or a less expensive, soft silk

fabric. These are rich, but unobtrusive. It is the wall paneling that must be given prominence with a graceful pattern of flowers and arabesques. Against the glass could be thin, scrim curtains, used both to soften the light and to preserve the silk from the direct sunlight. On the floor would be a small-figured velvet carpet of deeper rose.

The furniture, of course, would be a Louis XVI design—cane and carved wood of a rich, deep cream. Nothing is more lovely than a piece of period furniture when the workmanship is excellent, the carving to the least detail consistent and carefully wrought. And nothing is worse than a bad reproduction of a period piece—witness the horrors of Louis XV "parlor suites"!

A dainty little table of Adam design fits in well with this scheme. These two styles mix amicably. The chairs should be of carved wood and cane, reproducing the details of the beds and the pretty dresser. Between the beds could be placed a stand, a composite of Adam and Louis XVI. On it could be placed a gold lamp with a rose shade, decorated with a garland of vari-colored flowers.

Here and there in such a room would have to be touches of blue—some of the chairs upholstered in a blue stripe brocade, relieving the feeling of too rosy an atmosphere. In short, such a room would have the spirit of a nosegay plucked from the gardens of the Trianon. In furnishing and decoration it creates the personality of the dainty feminine type.

An extremely different type from this is the bedroom for the business woman. She shares with men the abhorrence of frippery and dust-catchers. In the modern apartment, space is at a premium, and one has much to adjust. In fact, acquire the habit of elimination, rather than accumulation: it will help to make

the bedroom the easy resting-place it should be in an apartment.

There may be in the room an unnecessary door or a window with an unpleasant outlook; if so, it may be covered with a large-figured damask or a less-expensive rep, hung in plain, straight folds, forming a rich background for the dull-finished wooden bed. The lines of the room are severe, dignified and restful; a retreat that promises solace to the overtaxed nerves of the business woman.

The walls could have a striped paper of gray, and the colors of the damask, the carpet and the bedspread could desirably be Saxony blue with rose, dull green and corn colors that combine so beautifully with it. There is a feeling of perfect sanitation, perfect repose and richness, which it would seem are the chief requirements for a bedroom.

A small dressing-table with a triple mirror, a good-sized chiffonier, and, in lieu of a cheval glass, a mirror set in the door, a combination that answers the purpose of a large bureau. Especially when closets are so small as in city apartments, one needs a large chiffonier. A compact desk, a little sewing-table, a couple of straight chairs and one comfortable upholstered chair done in blue velour, would complete the room.

At the windows, linen hangings, repeating the colors of the damask—the linen possibly striped with black—are effective. These same stripes can be appliquéd onto a heavy, linen bedspread, which makes a handsome and quite serviceable covering.

Often a business woman's bedroom has to serve also as a sitting-room, so it is best to keep to rather dark tones and to make as little of a feature as possible of the bed as a bed. Maybe a brass or iron bed is preferred; in which instance, of the two a white iron bed of good lines is preferable to the glittering bed of brass,



The comfortable armchair before the fireplace and the well-equipped dressing-table, with its triple mirror, will be appreciated by guests. There is an interesting treatment of the radiator that suggests a successful way of hiding this ugly feature

which is invariably commercial looking and unpleasantly reminiscent of St. Lawrence's gridiron. The popularity of brass beds, we may be thankful, is on the wane. They make an ostentatious display, whereas there is a seemliness to a white iron bed, as a bed, that the brass lacks.

A Colonial bedroom is a joy to furnish, since such remarkably good reproductions are made. Then, too, many of us are proud possessors of at least one heirloom, and, making this our *piece de résistance*—providing it is worthy, of course—we build up a room with more knowledge than when we attempt any other period. For the Louis lived such a long time ago, and we have little knowledge as to where the Brothers Adam placed their masterpieces.

Doubtless, the Colonial has been overdone, and sometimes those who inherit an ugly Colonial empire table have not the courage to pack it away in the attic. By itself, the Colonial is often harsh and too sparse, therefore the use of a French chintz gives an air of vivacity and cheeriness. Nothing is more successful than this combination.

In a Colonial room the bed is preëminent. There are many really lovely types. For the larger room, the high poster with its valance is preferable; but for the small room, the low posters cut a room up less, and still give the old-fashioned air that is such a charming background for many women.

There are many ways to treat a four-poster. If the other hangings in the room are of a varicolored cretonne, it is wiser to keep the valance and cover white or cream. This gives the bed a restful air and does not detract from the well-turned posts. If the room is simple and in monotone, a gay, old-fashioned chintz valance can be used to good effect. If a striped cretonne is used elsewhere, by using a plain fabric on the bed and edging it with strips of the cretonne, a striking effect is attained. Above everything, avoid making the bed look fussy.

In a room where much mahogany is used it is rather distinctive to place a few pieces of wicker of a lighter color than the mahogany to offset the rather monotonous effect of the latter. Or else use some decorated furniture—two chairs and a small table will give much relief to an otherwise monotonous room. There are lovely little black chairs with rush seats, and on the splats at the back is a prim, formal nosegay. This decoration may be repeated on the sewing-table drawers. If you have a very heavy

chest of drawers, place it so as to form part of the background of the room, as though it were built for just that space. Avoid having it look like a detached piece of furniture. Do not accentuate its heaviness.

For the walls there come quaint calico papers looking like old block prints, and the colors being simple, they form an excellent background for decorated furniture. Plain wall papers are generally more satisfactory in every bedroom, although in a guest room a paper with a chintz design is rather refreshing; then, too, one does not have to live long enough with it to tire of it.

Older people are usually fond of these chintz papers, and for the real grandmother comes one with much lavender among the flowers. With it, plain lavender hangings at the window frames the picture outside. The furniture would be white, and there could also be used a large wing chair upholstered in lavender of a deeper tone. Old people need clean, clear colors. It is a shame to put

drab around a person who loves most to live in the memory of gay-flowered days.

There is a prevalent notion that in a Colonial room rag rugs must be used. This is rather a pity, as they certainly can prove themselves a nuisance, never lying flat, flying around at all angles, easily kicked and readily soiled. They have but one virtue—their cheapness. A Scotch rug has the same "home-made" look and gives three times the service.

If one should lean to the ultra-modern, a very charming room can be made by using a futurist chintz of not too violent design or color. For example, there is a buff and black striped chintz with very smart little bouquets of mulberry green and blue. On the floor use a black carpet—distress to the maid, but joy to the mistress; and keep the walls a light buff. Against this combination place clear, green-painted furniture, decorated to harmonize with the bouquets on the chintz. Have as few pieces of furniture as possible for comfort. If, instead of the buff hangings, black and white figured curtains of well-woven linen to insure richness are used, the room will have a certain finesse. In every case where something out of the usual is attempted much discrimination must be used; an ill-placed note of color will spoil an expensively furnished room at once. The stronger tones one uses in the color scheme, the more difficult is its handling. It is not such a

(Continued on page 118)



Fortunately the popularity of brass beds is on the wane. One need but visualize small wooden four-posters here to appreciate the change



Painted furniture fits in well in a Colonial room. Here also is shown the advantage of having plain valances to the bed and a more lively chintz at the windows



What Was Done With a Five Room Cottage

Wide porches with Corinthian columns, stone floors and flower boxes run across the front of the house and around the left wing. The generous width of the steps, a characteristic of the South, gives striking approach to the entrance

THE EVOLUTION OF "LONG VIEW" AT NASHVILLE, TENNESSEE—A HOUSE BUILT AROUND A HOUSE—WHAT THE HALLWAY MEANS TO A SOUTHERN HOME—THE ATMOSPHERE OF ITS GARDENS

ELISE WARD MORRIS

Photographs by M. W. Wiles

THE South is essentially a land of homes; not "places." Possibly the inborn love of sentiment, so characteristic of the native Southerner, is what lies at the root of this home-loving, home-making instinct. Or it may be an inheritance from Anglo-Saxon forefathers who fought for the privilege of building their own homes on their own lands. Anyhow, there is a feeling in the South about one's own home that cannot be conjured up when contemplating one's neighbor's house, even though the garage of the house next door may have cost more than the "home."

To own a country or suburban house in the South and not name it would be as odd as permitting the newest baby to grow up with the same lack of individuality. "Longview," the home of James E. Caldwell, of Nashville, Tennessee, was christened more than thirty years ago. Then the present house was in its embryo stage of a five-room cottage. The evolution of the present "Longview" from its original cottage state has been gradual, but each improvement bore a permanency. Whether it meant planting trees on the front lawn, once part of the old field on which the battle of Nashville was fought, or adding rooms or porches, it meant one step towards realizing a certain ideal. Each alteration has been made after careful planning and loving thought, to meet the need of a growing family, and yet to keep the house in proportion, and, though several additions have been made, the

original house has been preserved, forming the heart of the home. The affectionate interest and needs out of which each addition was born have gone to make of the house not a confusion of rooms and hallways tacked together, but a home of excellent and artistic proportions, betraying a singular sense of individuality.

"Longview" stands on a gradual rise above the road, double-winged, modified Colonial in architecture, with a winding road that leads from a rose-grown, stone-pillowed gateway. Directly before the house the lawn is unbroken with trees or shrubs, but to the immediate sides, and at a short distance between the house and the road, flowering shrubbery and great shade trees stand in generous growth. The stretch of open, trimmed lawn gives to the house a suggestion of an English home, and brings into clearer relief the stately dignity of its lines. The driveway is bordered by trailing roses and honeysuckle. To one side of the driveway an arbor bears, from early spring until fall, a joyous burden of crimson ramblers and wisteria.

Wide porches, with Corinthian columns, stone floors and flower boxes, run across the front of the house and around the left wing to the rear. Before the windows of the right wing are small iron balconies of an early style of architecture. The side porch is well shaded, its generous width permitting the possibility of a summer living-room. All summer the flower boxes are



At the end of the hall is a small court, with living-room adjoining. It was a bedroom when the house was only a cottage

kept filled with pink geraniums. Green, Chinese willow furniture is used here, and the same tones of geranium pink occupy an inconspicuous place in wall pockets and rugs, and in the cushions on couch and chairs.

The most impressive feature of the house is its great hallway. After the fashion of old Southern houses, the hall runs the full length of the house, opening at the back into a



Chinese willow furniture stained green and decorated with a geranium pink fabric is used on the porch



A corner of the hall looking into the dining-room. Above the wainscot is a gray-blue paper showing tropical scenes. The furnishings and draperies are soft greens save the two big chairs that are upholstered in old rose

small glassed-in court. The woodwork in the hall, as carried out in every other part of the house, is white. Above the wide Colonial doors and windows fan-shaped lights are used. The walls are wainscoted in white; above it a pale, gray-blue tone, showing tropical water scenes. In trees and water of subdued colors are life-sized birds with quiet red and green plumage. The same tones of green are in the furnishing. This soft green has been chosen for rugs and hangings, and the same color covers the mahogany chairs and long davenports. White window-seats disguise the presence of the radiators, and these, too, are covered with dull-green velours. The presence of two carved chairs done in old rose, on either side of a doorway, blends with the plumage of many of the wall birds, and furnishes

just enough of a contrast to break the sameness of the furnishing of the great room. The hall might well be termed a room, for, owing to its arrangement, it can readily be used for living-room or music room.

In widening the hall there arose the necessity for supporting-beams, which required the presence of pillars. These in a manner divide the narrow cross hall that runs at the back, from the larger front one, giving to the latter a more roomlike seclusion. Before the latest additions were made, a hall of possibly one-fourth the present width ran the length of the house, with an open fireplace in the back. This fireplace was untouched in the alterations. About its rough sandstone, bookcases are set in a white wooden mantle, all adhering to the simplicity of the

Colonial lines. The stairway, which runs up in the cross hall, was also preserved in its original position for the old plan. The stair is the conventional white, narrow-stepped one, of true Colonial type, with mahogany rail.

To the right of the entrance is the dining-room, a room of the same splendid proportions characteristic of the house. It was built generously, not alone because of its possibilities for beauty, but because here, at last, was room enough to hold the family dinner parties when Christmas Day arrives.

Old blue and yellow are the colors chosen for the dining-room decoration. The rugs carry out the combined tones; the draperies are blue, while the walls are covered with a gold design on a white ground. The woodwork is white and the



The door to the inside garden duplicates the entrance, making a distinctive glimpse through the hall. Here the open arrangement is easily seen



Stone floors, a carved stone bench and growing plants make the court an attractive inside garden

heavy furniture mahogany. Back of the dining-room, in a continuation of the wing, are placed the pantries and kitchen. The isolation of the kitchen from the main body of the house is essential in this land of open doors.

Opening from the left side of the hall is a drawing-room that is far removed from the fragile white and gold affairs of the typical modern suburban home. The rosewood furniture, with its crimson brocade coverings, bears the quaint design of many years ago. The whole room has the aspect of having been picked up intact and removed from one of Mrs. Mary J. Holmes' story-book houses of the before-the-war grandeur. It is charmingly consistent. The long, gilt-framed mirror, on its white marble pier table, the portraits that cover the walls, the high-ceilinged



Old blue and yellow are the dominant colors of the dining-room, the draperies blue, the rug a combination of those tones, and the paper gold on white. The woodwork is white, the furniture heavy mahogany

Methods and Results of Winter Spraying

WHAT PESTS TO LOOK OUT FOR AND WHAT SPRAYING MIXTURES TO APPLY—THE NECESSARY MACHINES—THEIR CARE—COMMUNITY SPRAYING—FORMULAS FOR COMPOUNDS

GRACE TABOR

THESE are things other than the plants we cultivate that are perennial in our gardens—the pests. And our warfare against them is about the one thing that is truly perpetual. Flowers come and go, the seasons bring their special labors, and winter finally brings rest—to everything save the man with the spray-pump. He must never rest; at least he must never rest with more than one eye closed at a time, although there is a brief interval during the blizzard season, when a truce is sometimes declared.

The reasons for this eternal vigilance lie in the varied habits of the enemy—an allied enemy composed of many races and tribes, each ravaging and pillaging according to its own peculiar ideas; each living and feeding and multiplying, hibernating and dying, according to some particularly cunning scheme that insures its success in all these undertakings.

A secondary reason is the depletion of bird life, unquestionably; but that is a phase of the gardener's troubles that must have consideration quite by itself, and is not a part of the subject we are here considering. In connection with insects, however, and their appalling increase, thought should always be directed to the diminishing number of birds and the fact that Nature's balance is thus destroyed. Conserve the birds and preserve the crops—that is the wise gardener's slogan.

With the arrival of the first day of February hostilities are resumed. Some gardeners assume the aggressive sooner; no one should ever wait until later. In those gracious climes where vegetation starts earlier into growth than it does in the latitude of New York city, proportionately earlier activity is desirable; for the first spraying of the year must be done while the plants treated to it are dormant—unquestionably dormant, with not a suspicion of life about them. The dose of lime-sulphur that they receive at this first treatment would be quite as disastrous to them as it is to their assailants, if they were not fast asleep and unconscious of it.

The one insect which is the star of this performance is the San José scale—"the most dreaded of orchard pests"—and perhaps the most general nowadays. Time was when we knew him not in this land; but in the forty-five years since he made his first appearance in grounds at San José, California, he has thoroughly "naturalized," until now there is not a corner of the

land that is free from him, or a garden spot left unmolested.

One real service has it rendered mankind, however; this is to center official attention upon insects, to give them the place in men's minds and thought which their horrific depredations entitle them to, in commerce, in farming, and in all the branches of husbandry. From taking them and their destructive assaults as a matter of course, agriculturists have been forced to advance—or go under completely!—to an intelligent understanding of what they do, how they do it, and how to prevent them from doing it. And as this advance has been gradually made, millions of dollars formerly lost have been saved annually. There are still more millions to be saved; but everyone is working in the right direction at last; and no one longer regards the insect pest as providential chastisement or discipline—thanks very largely, indeed, to just this one immigrant pest—which, by the way, should not be credited to Japan, as it is so often, but to China.

The San José scale belongs to the same class of insects as the well-known and comparatively innocuous oyster-shell scale, or oyster-shell bark louse, frequent on apples. But, instead of being elongated, as are practically all other species of scale known to us, it is almost, if not perfectly, round. Its color is so nearly that of the bark of twigs that it is not always easily discovered unless present in great numbers; and when it is full grown it is about an eighth of an inch in diameter. Its general appearance, when present in mass, is similar to a grayish deposit, roughened a little, suggesting a

dusting of fine ash on the branches. Indeed, trees that are very badly infested might easily be mistaken for trees well coated with lime or ashes.

Around the spot where each scale is affixed the bark is often dyed to a purplish tinge, and the bark beneath them is darkened perceptibly by their presence. The younger, smaller insects are darker in color than their seniors, sometimes so dark as to appear almost black; while those still younger than these—very tender infants, indeed—are yellowish. Both the full-grown and the half-grown will be found at this time of year; and it is against these that the spraying of early February is directed, the lime-sulphur solution destroying them, in spite of their armor, by its caustic action, which eats through it.

It is perfectly possible to make this lime-sulphur solution, if one



Slung over the shoulder and light in weight, the compressed air sprayer is the best for the small place

is so minded; but as some of the biggest orchardists find it not worth while to go to the trouble of preparing it, but prefer to buy it in wholesale quantity from manufacturers, it hardly seems that the average fruit grower or gardener is wise to undertake its concoction. The formula is given, however, with others, for the benefit of those who wish to try it. Follow directions exactly as to quantities, also as to mixing, diluting and applying all of these; the slightest deviation may mean disaster.

In addition to being the best means of combating the scale in the plants' dormant stage this insecticide is also a fungicide of the highest value. Its use holds in check peach-leaf curl, apple scab, and such fungous torments; also the blister mite on pears which causes black spots on the leaves and makes them fall off, thus checking the trees' growth. This February spraying must include everything on the place, if scale is found on anything. Once let this insect get the upper hand and it is almost impossible to control it. Do not give it a chance to get the advantage, but spray all fruit trees and bushes, all shade trees and all shrubs, letting nothing escape

without its portion. It weakens whatever it attacks; and from one infested bush or tree the creatures spread amazingly to all the rest, being carried when newly hatched on the feet of birds or on the backs of other insects; those that are winged, and therefore efficient carriers.

Late in March, or at the beginning of April, when the young leaves are just beginning to put forth, the young new brood of scales are also beginning to live and move and have their independent being. This is the time for a second spraying; not with lime - sulphur now, by any means, but with the milder kerosene-soap emulsion, which will not injure the young growth. Again, everything should be given a thorough coating, and every part of each tree or shrub must be reached, as a single insect overlooked, and so escaping, means almost untold thousands of its descendants by

midsummer, the rate of multiplication being very rapid indeed. It is usually considered discreet to use a weaker solution of the emulsion upon shade trees and shrubbery and all fruits save the apple and pear.

On a large place where there are orchards as well as large shade and ornamental trees

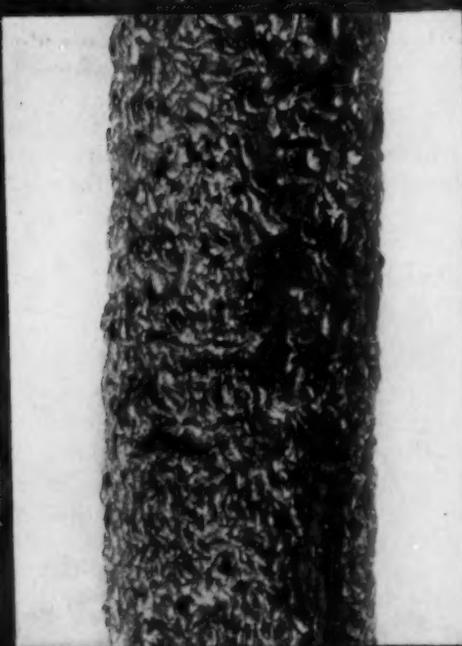


Courtesy of The E. C. Brown Co.

There is no reason why a number of garden lovers in a community should not contribute toward the purchase of one large machine. It would eliminate labor and ultimate expense



Close scrutiny is required to detect the San José Scale, the growth of which is rapid and destructive, and should be halted at once



The Oyster Shell Scale is longer than the San José and thickly encrusts the bark. Spraying now should exterminate it



The Shot Hole Borer can be detected by the tiny round holes in the bark, a decrepit tree being its favorite breeding place

to be treated, it is the truest economy in the end, as well as the only really efficient means of handling the matter, to supply oneself with a gasoline-power outfit. The initial cost will be saved in a comparatively short time by the saving in labor it insures; and it is, moreover, the one means of having even pressure and, as a consequence, even spraying. Hand-power apparatus is effective and satisfactory if worked properly; and where time is no object, it is not, of course, more expensive to operate. But the rapid and perfect work of the gasoline-driven engine makes it an excellent investment. Moreover, if it seems a good deal for one to undertake, community ownership of such an outfit is perfectly feasible—and spraying is essentially a community necessity.

Next to this there is the barrel pump, suitable for use on fairly large places, the barrel holding usually 50 gallons. This may be hauled about on a sled or set into a low truck and wheeled. A tub-like tank already mounted on wheels is also offered, and where there is less to be done, will prove very satisfactory. This holds half as much as the ordinary barrel, and is equipped with a strong pump.

The size of tank most appropriate for a given number of trees is readily estimated when an average of 3 to 7 gallons a tree is taken as a basis. A small fruit tree will require about the former quantity, an old apple tree the latter, under normal weather conditions. Spraying should not be done on a windy day if it is possible to avoid such; but when it is necessary to spray and the wind blows, it must be done. Proceed, then, with the wind always, letting this carry the mist of the spray towards the trees. It is possible to accomplish a very good piece of work, even in quite a wind, by gauging the distance carefully and holding the hose nozzle sufficiently away from the tree to bring the mist around it. Have the nozzle set at right angles to the pipe, for greater convenience in the work.

For myself, I could not get along without a small compressed-air sprayer, and even where there is a large apparatus for trees and shrubs, this is invaluable for the smaller plants. It is quite equal to trees, however; and if every other kind were to be taken away, this one, I feel, could not be dispensed with. One can work it very comfortably alone, with both hands free, which is not possible with any other kind of small contrivance, for everything else must be pumped continually. This is pumped up, then used for from six to ten minutes, the spray being forced by compressed air.

In selecting any kind of apparatus, bear in mind that the use of Bordeaux mixture demands copper receptacles. Galvanized iron, while resistant to other sprays, will be eaten by the copper in

Bordeaux. Therefore, choose copper, even though its cost is a little more. For nozzle, choose the Vermorel. It clogs occasionally, but it throws a fine and beautiful mist, and is easily cleaned. The Bordeaux nozzle is a good investment also, and should be in the outfit for lime-sulphur use, as it cleans even more easily, and is not so apt to clog. It does not throw as fine a mist, however, and it throws it in a fan-shape, instead of a cone; therefore its action is not quite equal to the Vermorel, which emits actually a cloud of mist that settles gently over and around the tree or shrub to which it is being applied.

Avoid any of the cheap substitutes for these standard kinds; spraying with a nozzle that does not do its work properly is almost as bad as no spraying at all. Avoid also the waste of money that an investment in small "atomizer" forms of spraying apparatus amounts to. These are only fit for indoor use—in doors, of course, they have their place, and are perfectly practicable—and efforts to use them

outside where spraying must be conducted on a fairly generous scale, even though the garden is not large, are foredoomed to failure.

Whitewash may be applied, and even paint, with any of the good barrel or tank spray pumps; and still other nozzles for special purposes cost but a trifle, and are advisable, as they save the higher-priced Vermorel and Bordeaux. Always clean apparatus thoroughly after using; and dry out the separate parts careful-



With the larger machines come lengths of hose that permit several men working at once. The purchase of such a machine should be seriously considered by the garden club in your town

ly—in the sunlight if possible. This keeps them free from stickiness, which otherwise does sometimes cause inconvenience.

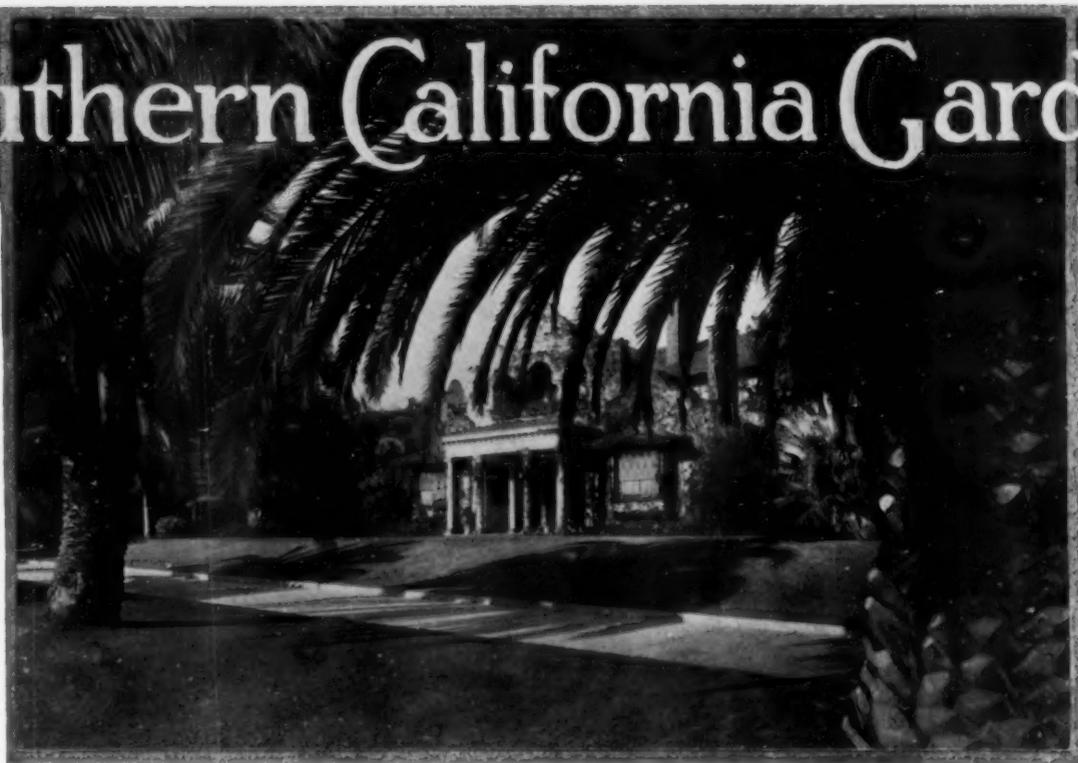
Mound the earth up about trees for this lime-sulphur spraying of February; then draw it away as soon as the work is done. This is to protect the tree at its crown and the roots below, from the fluid that might otherwise penetrate down to them and do them injury. Do this also when spraying with kerosene-soap emulsion; and never use the latter stronger than the spraying table directs.

The two compounds necessary for winter spraying should be mixed according to the following formulas:

Lime-Sulphur Wash.—3 lbs. unslaked lime, 2 lbs. flowers of sulphur, 1½ lbs. salt, 3 gallons water. Slake the lime in a small quantity of the water. Mix the sulphur into a stiff paste and add at once to the slaking lime. Add the salt to the remainder of the water; then add the mixture of lime and sulphur, and boil all together in an iron vessel for two hours. Dilute after boiling until the total quantity of the liquid is 6 gallons. Apply at once, straining it into the spray tank through an iron screen strainer. Agitate while applying, so that it shall not settle.

(Continued on page 124)

Southern California Gardens



A Pasadena home, showing the broad sweep of lawns fringed with giant, Canary Island palms

FLOWERS FOR RICH AND POOR ALIKE—THE EXTRAORDINARY GROWTHS IN A SHORT SEASON—WHAT THE CLIMATE REALLY IS AND DOES

CHARLES FREDERICK HOLDER

Author of "Life in the Open"

IN going through Southern California one cannot but be impressed by the novelty and beauty of the gardens which surround the homes of rich and poor alike. Indeed, so responsive is the land that it is difficult to find plants in the gardens of the rich which are not duplicated in the humble cottages of the working man, many a poorly constructed shack being glorified by roses or other flowers covering its crudities from sight and making it a bower of loveliness.

Another striking feature is the extraordinary growth attained there and the rapidity with which plants grow. To Californians who go East the fields of summer wild flowers there are extremely grateful, though it is well to remember that the prototype of the Eastern summer is the California winter, when the land runs riot with verdure and bloom. I remember well my delight at seeing a field of golden rod near Boston after many years in California, and the common clover, a flower which as a boy I pulled to secure the sweets in each crimson-hued petal. The field of golden rod near Arlington was perhaps two feet high, possibly a little higher. Last year golden rod was planted in a garden near my house, and this year I have seen it eleven feet tall. Everything seems to grow tall and big here, hence it is possible



A February sweet pea hedge, two hundred feet long and in some places eleven feet high

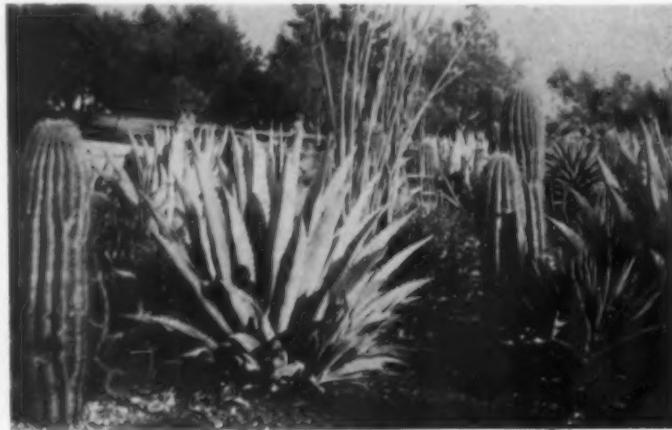
to take a spot covered with unsightly weeds, burrowed with owl and gopher holes, and, by the application of water, produce in two or three years a place which the average Eastern gardener would pronounce the growth of a decade or two.

Probably no country in the world makes a more lavish display of gardens than do Los Angeles, Pasadena, Santa Barbara and other Southern California towns in the winter. The latitude is similar to that of the Riviera, but lacks the cold and piercing winds which sweep over the Maritime Alps with blighting effect; also the extreme hot simoons which come occasionally from the Desert of Sahara.

The gardens of Southern California have few, if any, menacing dangers. As an illustration, the heliotrope growing in front of my house, beneath the eaves, has not been frostbitten in eight years. The result of these conditions is shown in the wealth of flowers all through the winter.

A feature particularly noticeable in this section is the open garden, in contrast, as an example, to the gardens of England. The people of Southern California seem disposed to share their good things with their less fortunate neighbors, and often the most valuable and pretentious places are open to the street without sign or suggestion of a fence. This feature is well illustrated in the residence of F. T.

Holder, of Pasadena, and the Burrage home in Redlands. The Pasadena place stands on two streets, the front of three hundred feet being on a broad avenue, a perfect lawn extending its entire length and back over one hundred feet, where is the garden, a mass of bloom, forming a splendid frame for the picture. The only trees on the lawn are giant Canary Island palms, in front of the house, and a few trees near the garden. From the house nearly all the winter-bearing flowers in Southern California are seen. At times the display of stocks is marvelous, forming a charming background for the lawn. This place is a striking example of the value of artistic setting. The house is not pretentious, but is an excellent type of the Mission style. To the south



In the old days of frontier life the cacti were planted as a hedge to keep out wild beasts that preyed on the stock

extends a patio, which is now covered with the great Bermuda bouganvillia, which forms an artistic mass of color against the delicate salmon tint of the stucco.

One cannot but notice the entrances to some of the suburban places: masses of Lawson pinks or carnations backed

winter nights are cool, the temperature often being as low as 40° or 50°, with occasional frosts; the tropical verdure is therefore very deceptive. The Southern California winter is a revel

of flowers, but it is cool and bracing, with no suspicion of the tropics, nor is the so-called rainy season a "season," as the entire annual rainfall of Southern California is just half that of New York. So there are few ponds, bogs or swamps except along the ocean, and no ma-

various deceptions. The average reader who has never crossed the divide or visited California might very naturally arrive at the conclusion that, as palms, bananas and similar trees grow in Cuba and other tropical countries, Southern California, consequently, is in the Tropics. Every winter certain tourists arrive in Los Angeles equipped with wardrobes—white flannels and muslins—adapted for a tropical season, and such people are amazed to find Southern Californians dressed as they would in winter in the East, minus furs. In fact, the vegetation is tropical, but the



The pepper tree, showing its foliage akin to that of the Eastern willow

against a hedge of callas, and behind them fan palms on one side and Canariensis on the other, winding through the beautiful grounds.

In Los Angeles are seen some notable garden entrances where the artistic landscape gardener has produced a sumptuous effect with palms, peppers and bananas, which lend themselves so readily to decoration.

A singular feature of this country is its



Gardening is so simple in Southern California that the children take delight in their own little patches. Each small member of the family contributes to the garden's loveliness, be it with flower or vegetable



A rose-embowered path. Behind is a glimpse of a Norfolk Island pine

lar or mosquitoes.

A study of the trees alone of the gardens in Southern California would prove an interesting pastime, so infinite is the variety.

The pepper tree deserves an article by itself, as in beauty of form and leaf it is chief among the Southern California trees. It more nearly approximates the Eastern willow than any other tree, as in its natural growth the branches fall to



A familiar sight at Redlands, an estate from a distance resembling some old mission, the towers especially being like those at Santa Barbara. Surrounded by an orange grove that reaches out in every direction, this house has a striking setting. Its view is no less lovely, the splendid peaks of the Sierra Madre being always in sight

the ground, forming a complete canopy about itself. On the streets it is rarely allowed to do so, hence is shorn of its greatest beauty. Marengo avenue, Pasadena, is famed the country over, as here the peppers meet and form an elm-like arch the entire length of the avenue. In winter the trees are filled with brilliant berries, which form a pleasing contrast in the sunlight, against the vivid green; the green we often see in the genre pictures of the French artists. Besides the pepper, we see the black wattle of Australia—a tall, shapely tree; the common live oak of the country is very decorative. The Monterey, sugar and other pines are common, and, with various firs growing side by side with the umbrella tree, the cork, bread fruit, or alligator pear, or big Abyssinian banana. The famous century plant is sometimes used as a hedge plant, and blooms here every seventeen years, throwing up a remarkable stalk which is very ornamental.

Cacti of various kinds are also used, and about the old Mission grounds of San Gabriel was formerly a cactus fence over a mile

in extent. It was ten feet high, and in the old days was intended as a protection from Indians, as well as other invaders, such as coyotes, mountain lions and various other animals which preyed upon live-stock.

Such gardens and their possibilities of outdoor life have stamped a peculiar individuality upon the country. They have attracted an entirely different class from that which generally flocks to a new country.

Thirty years ago the entire region was a series of great principalities or ranches. It was the day of an old and charming régime. To-day the country is on the crest of a tidal wave of advancement. There are some who regret the old days, who miss the primitive and unconventional life, but most of the Californians accept the evolution of the region with confidence and take pride in the remarkable city of Los Angeles and its suburban towns from Pasadena to the sea, thirty miles away, a region that for beauty and climate doubtless has no peer in any land.



Nature being generous, the entrance to a California garden is generally guarded by palms that form a natural gateway where walls and iron structure seem out of place



If the gardens are enclosed, the wall is usually low—a democratic characteristic of the Californians—and those that are without can always see the loveliness within



TO one conversant with the admirable qualities of the electric automobile it seems strange that these modern passenger vehicles are not more extensively used in the country. Perhaps the principal reason is the common notion that the electric, being especially adapted to city use, is, therefore, not suited to the country.

Nothing is more erroneous. The very qualities which make the electric automobile suitable for city use make it even more desirable for country service. Foremost among these qualities are reliability, economy of operation and simplicity of control.

Reliability in an automobile should be of greater importance in the country than in the city, where garages and repair shops are near at hand, as well as the convenient street car and taxicab, so that a car out of commission need not seriously interfere with one's plans. Because no satisfactory substitute is available in the country and repairs are not readily obtained it is highly desirable that the automobile for country use be as reliable as possible.

The economical operation of an automobile is certainly just as much of a desideratum in the country as in the city, and simplicity of control is of even greater importance. As a rule, the services of an expert chauffeur are not available in the country. One either drives himself or else expects the man "about the place" to drive the car and to care for it. Herein is another advantage for the electric, for it is not only simpler to drive than the gasoline car, but requires a minimum of skilled attention to keep it in good running condition.

Since we have introduced a comparison between the electric and the gasoline car, we may properly, in equine parlance, refer to the former as the "ladies' horse" of the automobile world. It is a vehicle which the ladies of the house can readily drive without masculine attendance and without any fear of soiling either dainty hands or gowns. The customary types of electric cars afford the protection of enclosed bodies, a feature which seems



(Courtesy New York Edison Co.)

With no engine to freeze in winter, the electric car can readily be driven through the ordinary storm. Its ease of operation in such seasons will be a deciding factor for the woman in the country

The Electric Automobile in the Country

REVEALING SOME OF THE LITTLE KNOWN POSSIBILITIES OF THE ELECTRIC CAR—THE LOW COST OF MAINTENANCE—THE SAFE CAR FOR WOMEN AND CHILDREN

JOHN R. EUSTIS

and ending at the Panama-Pacific International Exposition at San Francisco. An investigation has disclosed the fact that there are a sufficient number of charging stations along the route of the proposed Lincoln Highway, situated at the proper intervals, to make this trans-continental tour entirely possible.

It is not likely, however, that the electric automobile at the present stage of its development will be generally used for long-distance touring. This is a field in which the most ardent advocate of the electric is willing to acknowledge the superiority of the gasoline car. The above facts are noted for the purpose of showing that the electric can readily be used for short runs and



especially designed for the feminine driver and passenger.

The electric car has its disadvantages: at least they are so termed by many people. One is its limited radius; that is, the electric can only run so far without having to have its battery recharged. Another is the limited speed of the electric automobile.

Improvements in recent years in the design and construction of the batteries used to furnish the power for operating electric automobiles have increased the mileage obtainable on a single charge of the battery to a point where runs of from seventy-five to one hundred miles are frequent. Distances of one hundred and fifty or more miles have been made in official test runs, but these have been made under somewhat different conditions than those which prevail in ordinary service.

With the increased mileage radius of the modern electric automobile and the large number of garages and other places scattered about the country districts where facilities are available for recharging batteries, it is now possible to use these vehicles for touring. During the past year an electric was used for a trip from Chicago to Philadelphia, and several runs between New York and Boston and between New York and Philadelphia, Baltimore and Washington were recorded. A trans-continental tour for electric vehicles has even been planned for the coming season, starting from New York

tours. After a run of about fifty miles in the morning, the battery can be "boosted" while its driver and passengers are at luncheon, and an equal distance covered in the afternoon without taxing the battery. Over night the battery can be given a full charge, and this performance repeated, day after day, *ad lib.*

In the matter of speed, the electric automobile normally has a range of from zero to about twenty-two miles an hour. For those who delight in tearing along the country highways at forty to sixty miles an hour this speed limitation of the electric is a condemning feature. For the average person, however, a speed of twenty-two miles an hour is sufficient, and they find in the quiet, gliding motion of the electric car a sensation which recompenses them for the absence of high speed. It is entirely possible, however, to get higher speeds out of an electric. Speed is simply a matter of gearing, but is only secured at a sacrifice of mileage radius, and for this reason is not desirable. On one of the trips made between New York and Boston last year by an electric, the average speed for the entire run was 21.3 miles an hour, and on another it was 20 miles an hour.

In order to determine the cost of operating and maintaining electric automobiles the Electric Vehicle Association of America conducted a nation-wide canvass of owners during the past year. In considering the results obtained, the prospective owner of an electric car in the country should remember the fact that most of the vehicles on which figures were computed were used and garaged in cities and towns, where the cost of housing and charging are usually higher than in the country. This is particularly the case where the country user not only garages his or her own car, but also has a private charging plant. Small private charging plants cost but little money and require little or no skill or attention to operate. They require only the making of the connection, as the charging is automatically controlled, and automatically shut off when the battery is completely charged.

In the canvass referred to a set of questions was submitted to a large list of electric automobile owners in twenty-nine different States. The first question was: "What has been your average monthly bill for current consumed?" The replies were divided into two classes—one for cars kept in private garages and the other for those kept in public garages. In the first class answers received from Eastern States showed an average cost of \$5.34 per month for cars kept in private garages. From the Middle Western States the answers showed an average cost of \$5.61 per month; from the Southern States the replies showed the average to be \$5.75 per month; from the Southwestern States the monthly average was \$6.35; in the Northwestern States the average cost indicated by the answers was \$6.00 per month; the answers from the Pacific Coast showed an av-



erage of \$5.90. From the entire United States the replies showed an average cost for current consumed of \$5.73 per month. The cost of storage and service, including washing, polishing and current consumed, for cars kept in public garages, varied from \$15.00 to \$35.00 per month, the average being \$23.50.

The second question asked owners of electric cars was: "What is your best approximate of the average monthly distance traveled?" The answers to this question varied widely; only twenty-five owners reported a monthly average of over 500 miles, and the highest was 900 miles. Answers were received from owners in Eastern States showing an average of 315 miles per month; from the Middle West, showing an average of 290 miles per month; from the Southwest, showing an average of 278 miles per month; from the Northwestern States, showing an average of 257 miles per month; and from the Pacific Coast, showing an average of 215 miles per month. For the entire United States the monthly average, as shown from the answers to this question, was 286 miles.

The answers to the third question, which inquired as to the life of the batteries, were remarkably uniform, and showed that the manufacturers' guarantees were exceeded. On the basis of the use cited above, the average life of the batteries was two and a quarter years.

The fourth question was: "What period of service has your car had, and what has been your tire expense?" Owners in the Eastern States with thirty-seven months' experience reported an average monthly tire expense of \$3.08, and seven owners, with an average of twenty-two months' service, stated that they had had no tire expense. In the Middle Western States, owners with thirty-six months' average experience reported monthly tire renewal costs of \$4.81; owners with fifteen months of service reported no tire expense. In the Southern States, owners with an average of twenty-five months' experience reported \$5.16 per month for tire renewals, and others averaging seven months of electric-car service reported no tire expense. Owners with twenty-seven months' experience in the Southwestern States reported \$5.66 monthly expense for tire renewals, and those with an

average of seventeen months, no expense. In the Northwestern States owners with an average of forty-eight months' service reported \$3.74 average monthly cost for tires, while those with an average of eighteen months had no tire expense. Owners on the Pacific Coast with twenty-five months' experience reported no tire expense. The general average for the entire United States, for tire renewal cost, was \$2.78 per month.

Taking these monthly averages of \$5.73 for current, \$2.78 for tire renewals, and 286 miles as the distance traveled, we have an average

(Continued on page 121)



(C) Underwood & Underwood, N. Y.

It is undoubtedly the most handy conveyance for the shopping trip, for visiting neighbors, meeting trains and for short rides about the country. No expert attention is needed, any one can run it. A practical neighborhood car





A well-ordered garden is not merely a picture of gay colors but an atmosphere as well, the result always of combining practical ideas with the esthetic

Efficiency in The Flower Garden

APPLYING PRACTICAL LAWS TO FLOWER GROWING—THE CHOICE OF GARDEN SITES—
SOILS AND DRAINAGE

F. F. ROCKWELL

Editor's Note.—Have you used the same up-to-date methods in managing your flower gardens as you have in growing your vegetables and fruits? Do you realize that the fact that flowers are grown for beauty rather than for utility does not save them from coming under the same practical laws of plant-nutrition and growth? This is the first of a series of articles on efficiency in the flower garden which will pay particular attention to the practical, essential things which are so often overlooked. If you will take the trouble to follow them, we think your flower gardens will show a marked improvement.

ONE does not usually think of flowers and flower gardens in terms of efficiency. Perhaps we even feel an instinctive hostility to such an association of ideas. But is there, after all, any incongruity about it? The aim and purpose of a garden, it is true, is the creation of a spirit of beauty—a product too intangible to be measured by the stop-watch and scales of the efficiency engineer. But the materials upon which the garden artist must draw to create his picture, whether he be the greenest of amateurs or the skilled professional, are plants, subject to laws of growth which we have fairly well ascertained, and which apply no less surely to the bed of dew-bejeweled roses than to the hum-

blest row of beans. And there are, furthermore, some general principles in the use of these materials which are not mere questions of taste.

It is, however, next to useless to speak of efficiency in flower gardening before having clearly fixed in mind just what a garden is. It is more than the flowers and shrubs and bulbs and beds and borders which go to make it up. These things form its physical being, it is true. But a path may be more important than a costly planting of roses; a bit of graceful columbine against a gary wall may express more than hundreds of dollars' worth of rare plants carefully watched and tended. No real garden can be measured by its size or the kinds or numbers of things in it. It

must have a spirit, a soul, that is the expression of someone's joy in creating a thing of beauty; that is its sole *raison d'être*.

"A row of sunflowers by a paling,
A wicket left upon the latch,
A summer-house with woodbine trailing,
And ivy creeping o'er the thatch,"

may be all that are required to create the desired effect—and in such a case "efficiency" in gardening is the strength of mind to be able to resist the temptation to put in something more.

In its truest sense, the garden is an atmosphere, rather than a picture merely. Gay colors, sweet odors, graceful forms, which appeal to the physical senses, do not in themselves make a garden; if they did, the ideal garden would be the commercial nursery, with its acres of rioting colors. They must be so combined as to harmonize with each other and with the spirit of the place. Your garden may be a garden of rest or of cheerfulness; one of sweet sadness, or even of reverence.

The first thing we look for in a garden is that it should express the gardener. If it fails to do that it is not a garden, but a collection of plants. For that reason many elaborate pieces of landscape architecture which are supposed to be wonderfully beautiful gardens are not gardens at all. You cannot have a garden by proxy, you have to labor over it; you have got to work in it; you have got to take it to heart; otherwise an intangible thread snaps somewhere, and the thing you thought to accomplish by hiring a substitute you find cannot be done. Not only does the mercenary garden fail to satisfy its owner, but even the stranger within its gates can detect therein, in spite of the most beautifully kept plots and rarely trimmed edges, an air of hardness, coldness and aloofness that has a petrifying effect discernible to his finer sense of appreciation.

The real desire for a good garden, on the other hand, the enjoyment of working in it, and even the means of getting everything one may want for it, are not enough to insure success. You should know what kind of a garden you want; how to plan it so that it will be in good taste and in harmony with the place, as well as satisfying your personal ideal; and, furthermore, how to make it grow.

As to the kind of a garden you may choose, it may be any one of three general types—the informal or naturalistic garden, the picturesque, and the formal. While these are all distinct types, the line of separation between any two of them is not distinct. But, in looking over the garden or gardens on a place, one may usually say pretty definitely to which type they belong. In the majority of cases the informal or naturalistic effect will be the one that can be the most satisfactorily employed; it offers the widest range of possibilities, and the amateur is certainly more likely to get satisfactory results than if he attempts either of

the other types. As an example of picturesque gardening, the Japanese garden stands as an extreme, as do the Italian garden and the sunken garden as examples of formal gardening. The picturesque and the formal gardens are, of course, highly artificial. But as a corollary of the old principle that "art is most perfect which conceals itself," so the picturesque or the formal garden that fails to look natural is a sorry affair indeed. Each, however, has its uses, and if your place or your house seems to make the use of one or the other desirable, by all means endeavor to make use of it.

Do not allow the fact that you may make mistakes for the first season or two to discourage you. Overcoming such difficulties is, after all, part of the pleasure and the purpose of gardens. But, nevertheless, you should take every possible precaution against making mistakes; there will be enough of them left to overcome, and the principal insurance against making mistakes is to make a definite plan before you begin the laying out of the various beds

and borders or planting of flowering shrubs. This plan should show the whole place and should be drawn to scale. Jotted down upon it should be the walks and beds and borders and rows, which may already be there, and any new ones you may wish to add, or any changes you intend to make. You do not, of course, sacrifice the privilege of changing your mind—but the point is that it is very much easier to change it on paper than on the lawn. And then the things which you actually do in the way of making out flower beds or setting out trees and shrubs can be much more conveniently made part of the general plan of development, so that you will not be so likely to find yourself tearing out something you did



Most of the gardening just now is done indoors and on paper—drawing the plans, calculating for the right amount of seeds, and arranging for the drainage

last year to carry out what you want to do this year.

The various classes of flowers differ from each other in methods of culture much more than do the vegetables. It is, for that reason, necessary to consider them in groups instead of giving, as we can for vegetables, general principles which will apply to nearly everything. But there are a few elemental principles with which the would-be gardener must make himself familiar. The fairest rose, the frailest poppy, the most delicately scented spray of mignonette or heliotrope derives its nourishment from the soil in much the same way as a pumpkin or a cabbage, and can reach its fullest development only with the most careful attention of the gardener to such prosaic matters as proper under-drainage, fertilizing, manuring and cultivating. The same problems in regard to plant nutrition, available and unavailable plant-foods, properly prepared soil, protection from insects and diseases, irrigation and numerous other matters require study just as much in connection with the flower garden as with the vegetable garden. The commercial grower gives them this attention, but the amateur for the most part seems to think that his posies must have a different way of growing from his peas.

(Continued on page 124)



The exterior presents many interesting points; with the huge stone chimneys, turret, rows of casement windows and sturdy, buttressed, enclosed porch. The lines are rambling and unusual, and the grounds, when well planted, should give the house a distinctive setting

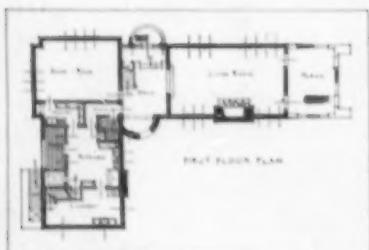


In the living-room the Jacobean furnishings are fitting with the Caen stone mantel and beamed ceiling



By having furniture consistent to one period, the dining-room has been decorated in good taste; simple and yet sensibly luxurious

A STUCCO HOUSE
ALONG ENGLISH
LINES AT



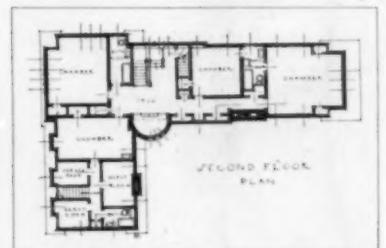
The service department has been set in the ell, well away from the living quarters



That the lines of English cottage architecture can be successfully adapted to an American setting is readily shown by the rear view

GREAT NECK,
LONG ISLAND

Caretto & Foster, architects



On the second floor the ell serves again to separate the servants' rooms from the other chambers

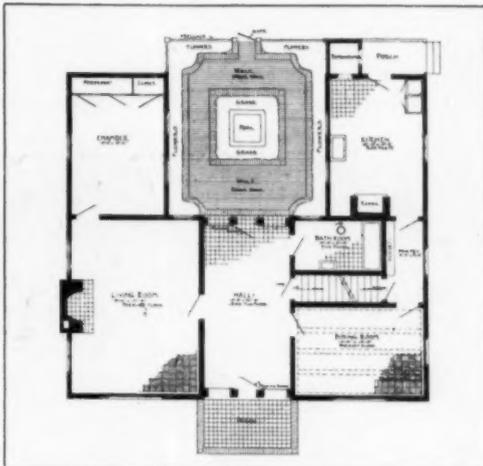


Simplicity and liveableness characterize the house. The rows of windows and the triple-door of the entrance afford plenty of sunlight within and an air of prim hominess without

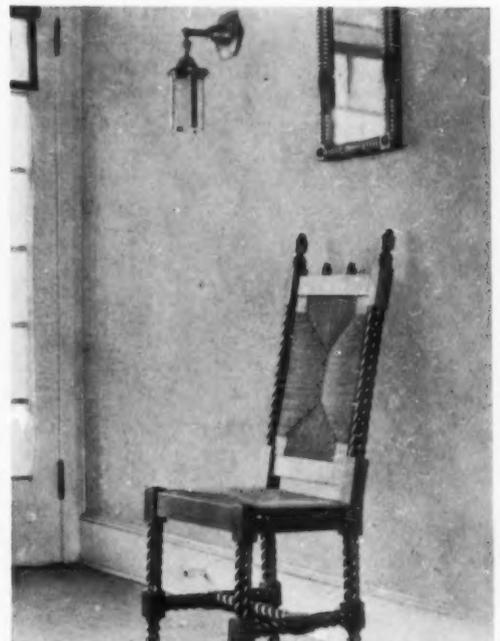


Old heavy mahogany has been used in the dining-room. The floor is parquet

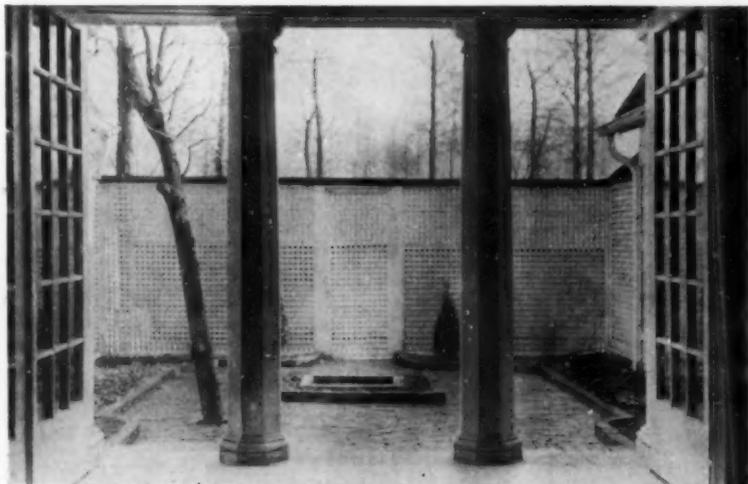
A SHINGLE HOUSE
AT ANNADALE,
STATEN ISLAND



An inside garden is the pronounced feature of this simple plan



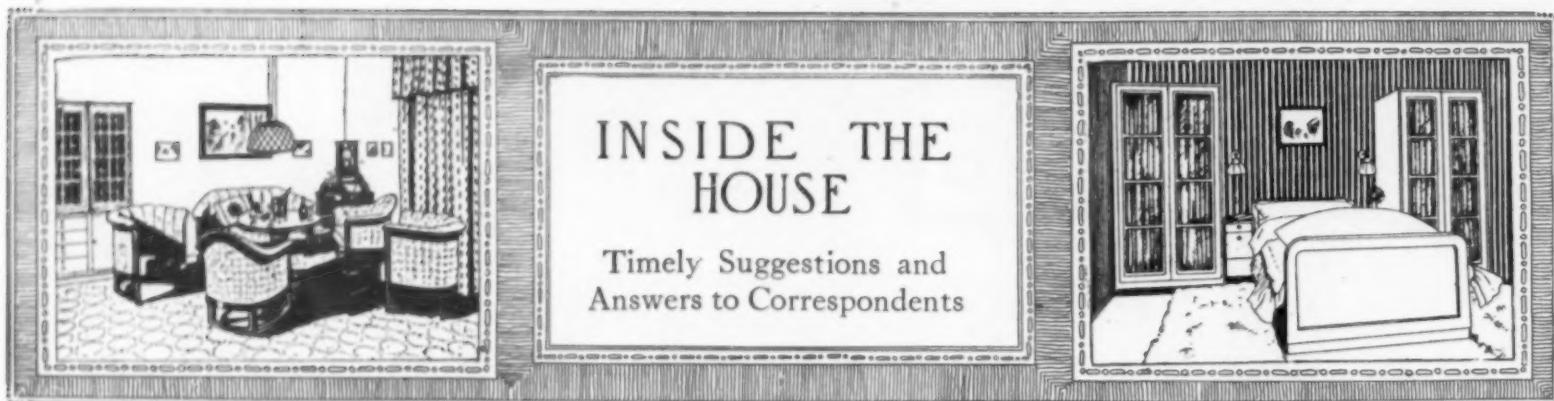
The hall is wide and runs through the house to the patio behind



Enough of a garden to care for between whiles, flower beds and a pool affording an excellent opportunity for formal treatment



High, white wainscot adds to the cheer of the dining-room and makes a fitting background for the mahogany furniture



The editor will gladly answer queries pertaining to individual problems of interior decoration and furnishing. When an immediate reply is desired, a self-addressed stamped envelope should be enclosed. This department will also purchase any of the articles here described for subscribers living at a distance, or will furnish the names of the places where they may be obtained.

Small Decorative Lamp Shades

LAMP shades can be either purely decorative or else distinctly useful, and the problem is to make them both. The shape depends largely upon the capacity in which they are used. Thus, a rather flat, flaring shape always gives a broader shed of light, and in libraries these are the most practical kind to use. Stretched, two-toned silk, with gold guimpe at the top and bottom, and a broad fringe as a finish, gives a handsome effect and also provides a good reading light. Such shades are best when made of dull gold or soft rose color; if of tan they may be interlined with a rose or orange silk, and thus, when lighted, give a warm, rich glow, and unlighted, the color is neutral and unobtrusive. Green and blue shades give a most unbecoming light, and the effect when lighted is a dirty gray. A shade of an orange color will lend an air of piquancy to an otherwise drab room.

The illustrations used here are of shades where direct light is not relied upon, or in any case a small amount of light, such as one desires for a bedside lamp. These may be very decorative, repeating and emphasizing the color to be brought out in the room.

The group of three is designed to be used in a bedroom where a vari-colored cretonne is employed and the rose tones of the other decorations need emphasizing. The larger shade is for the bedside stand, the smaller pair for the dresser. They are hexagonal and covered with finely shirred rose India silk, which is drawn up to the center of the top, forming a radiating figure. The prong to fit over the electric bulb is dropped an inch and a half so there will be no danger of rotting from over-heat. A pretty, old-rose fringe is used at the bottom, and at the top the fringe itself is cut away, leaving only the heading, which, carefully sewed on to avoid raveling, makes an adequate finish. Dimensions of the larger are seven and a half inches across the bottom and five and three-quarters at the top, and six inches high. The smaller are three and three-quarters at the bottom, three at the top, and three and a quarter high. Wire

frames for these can easily be made, and the shades may or may not be lined. Having the top covered, they give a soft glow all over the room, and one needs only the light downwards.

A rather striking shade is made up on paper; the straight cylinder shape is interesting. The background is ivory white with black figures and bands. Used with a plain, white-painted standard, it is very attractive, although not as durable as a silk shade.

For use with black and gold Chinese decorated standard there is a shade of yellow, lacquered chintz of Chinese design. Orange lacquer has been used, so that when the lamp is lit the colors are



A serviceable vase in which to place orchids is an Italian milk bottle, varieties of which are being shown in the shops

rich and glowing, from a delicate yellow to a deep orange. The frame is oblong, but hexagonal in shape. It is finished with dull-gold guimpe, and has no lining. This same idea of a lacquered chintz shade can be used on a large lamp, each of the six faces framing a Japanese scene.

It is always a problem how to shade side fixtures. The regulation little, round

silk shade is apt to look silly and tawdry on a dignified bracket, especially when it is a double fixture. A suitable and unusual shield may be made of plain, shirred silk edged with gilt or silver galoon to match the finish of the fixture itself. A fascinating shield may be made by using a Renaissance design of cretonne, stretching it tightly over the wire frame, and making it large enough to cover both lights. It should be bent at the sides so as to hide the bulbs. This also can be finished in lacquer, which gives a translucent light and shows up the figures when lit. Used in a blue dining-room, the blue-green of the peacocks in the shield illustrated is really lovely.

The same shield can be used on a branched candlestick of brass on the serving table. It will keep the glare from the eyes of the diners and at the same time give a suitable light at the sideboard. Such shields are distinctly decorative in character.

Lamp shades so often become grimy and dusty, although the materials themselves are in good condition. They can be freshened and be made quite gay and bright again by dipping them in naphtha. Especially is this true of the guimpes and fringes. Brush them well first, and give them a good sunning afterwards.

A shade of Empire shape—not flaring—is excellent when used on a high-floor standard and also on lights not used for reading. They are beautiful if made of damask or rich, figured silk.

Always line a shade with a very light color—almost white, as a darker color will absorb the light. A dead white lining, however, is apt to look crude with a rich color, so it is preferable to use a color delicately toned to the silk used for the outside.

Chintz shades are used for bedrooms and summer places. There is being shown one of oval shape, on either side of which is a medallion figure of gay, old-fashioned flowers. The background is golden. A pert little ruche of pinked sateen edges it top and bottom. Linen and sateen are a good combination to use, and if of the best quality, the sateen does not



For a branched candlestick to set on the sideboard comes this shield. It also would serve on a double wall bracket

fray. This same shape is made up in a violet stripe with little yellow birds—an appropriate shade for a dainty woman's boudoir.

Men's tastes rather lean to wicker and bamboo shades. They are substantial, and can be made very attractive. When bought in the shops the linings are often a hideous red or orange or an unfavorable green. The inside wire frame can easily be taken out, however, and the silk removed. If the wires are wound, do not trouble to remove the covering, but paint them with water color whatever color the



An unusual shape for a table where not much light is needed—made of a Chinese patterned chintz, heavily lacquered

lining is to be. If the bamboo is of a dark color, use a black pongee with brilliant vari-colored flowers, and the effect when lit or unlit is stunning. Also a pretty ecru mandarin silk may be substituted for the commonplace commercial outside silk.

For a reception hall is an unusually attractive shade made of a black chintz or linen, with clear-colored Chinese figures—butterflies, pirouetting birds, dragon flies, even a graceful, green worm. A flat, flaring shape is best adaptable for this use. The chintz can be stretched very tightly, then lacquered, leaving the surface hard and shiny. The edges are finished with a greenish-gold guimpe. On a pure white Chinese vase or a black standard this is unusual, effective and decorative.

A Vase for Orchids

Because of their very short stems, orchids are difficult to display properly. In an ordinary vase much of their exquisite beauty is lost, but it has been discovered that they look remarkably well when placed in the little cream jars which are common in Italy. These little jars are made of clear glass in most delightful shapes, and have long, narrow necks. They are being sold in this country now for use as vases, and cost about thirty-five cents apiece. One orchid or several may be used in them, and, while a bit of fern is a pleasing addition, it is not necessary.

The Care of the Bathroom

Once a week I have my bathroom cleaned with soap powder and a scouring soap. The remainder of the time I care for it myself; for the modern bathroom, with its tiled floor and walls, and its porcelain fittings, requires more attention than any other room in the house.

The ideal cleanser for the bathtub and the bowl is gasoline. This, however, in careless or ignorant hands, is a dangerous fluid. Accordingly, I keep a can of it for my own exclusive use.

Ordinarily, with a generous amount of gasoline and a clean, rough cloth I can make the bathroom fittings shine like new in a very short time. Occasionally, though, from careless handling of medicines, or other causes, unsightly spots will appear on the tub. These spots in many instances are difficult to remove.

When the bathtub happens to be in this condition I cover the spots with scouring soap, place the stopper in the tub, and pour into the tub enough gasoline to cover the stains. I allow the gasoline to remain in the tub for a few minutes; then, with a clean, soft cloth I rub the stains briskly.

I have never known this method to fail. And not only is the gasoline efficacious in removing the stains, but when it is allowed to run out of the tub it proves an excellent medium to carry off grease and lint from the pipes that lead to the sewer.



Striking, black figures on a white, cylindrical background. An effective shade for a corner of the living-room

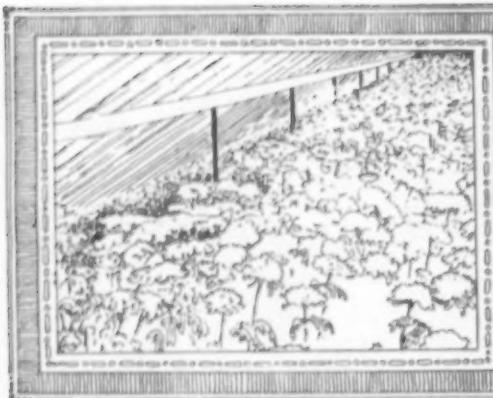
While the bathroom fittings need to be cared for with infinite pains, even more care is required in washing the tiled walls. Careless cleaning frequently loosens a tile, which, once out of its proper place, in many instances necessitates the removal of the entire wall before the loose tile can be replaced.

It is readily seen, then, that it is well for the housewife to keep the bathroom under her own supervision, as a careless servant may do much damage in a short time; and the services of a tile setter are expensive.

(Continued on page 130)



A bedroom set of pink shirred silk; the smaller candle lights for the dresser, and the larger for a bedside reading-lamp



GARDEN SUGGESTIONS *and* QUERIES

CONDUCTED BY F. F. ROCKWELL



Canned Garden Food

EVEN though you may have been successful in getting a good supply of manure for the garden, or in arranging for its delivery later when you are ready to have the garden plowed or spaded, you will probably have use for some commercial fertilizer. Now is the time to get it. The amount will depend largely upon how much manure you now have at your disposal. From one to one and a half pounds for every twenty-five square feet will make a generous dressing where little or no manure is used. With a good coating of manure, one-half, or even less, of this amount will be enough to produce good results. This would make for a garden 50 x 100 feet an application of 100 to 200 lbs. of high-grade fertilizer, according to the amount of manure being used with it. The best fertilizer for garden use should contain approximately 4% of nitrogen, 8% of available phosphoric acid, and 10% of potash.

In addition to the general dressing of fertilizer, before planting you should have some other things to put on at the time of planting and to use as top dressing. For this purpose get from 25 to 100 lbs. each of fine ground bone and nitrate of soda and also of tankage or cotton-seed meal. As potash is very scarce this year, it will be difficult to get ready-mixed fertilizers containing a high percentage of potash. Therefore, you should not only carefully save any of your own wood ashes, but purchase them wherever you can at a fair price, provided they have been kept dry. Ashes from hardwood are more valuable than those from soft wood.

The home mixing of fertilizers is being done more and more. At first only large commercial growers, who used many tons of fertilizers annually, took it up. But now the raw materials or ingredients can

be purchased in many localities from local dealers in small amounts, and there is no reason why the home gardener who uses several hundred pounds of fertilizer during the year should not mix up his own fertilizer to meet his own requirements. It is certain that he can get much more for his money by so doing. All the tools that are required for the job are a square-pointed shovel, a screen and a tight floor or large shallow box. You can readily duplicate the formula of any mixed brand you may have been using. But most of the ready-mixed brands are low in nitrogen and potash in proportion to the amount of phosphoric acid they contain. A mixture of—

- 30 lbs. nitrate of soda;
- 40 of muriate or sulphate of potash;
- 50 of high-grade tankage, and
- 70 of 16% acid phosphate

will contain the plant-food elements in about the right proportions.

Spread the several ingredients out in a low, flat heap, the bulkier ones at the bottom, and shovel or hoe them over two or three times until they are thoroughly mixed. Then put them through the sieve, mix them again and remove any lumps; these may be pounded up with the bottom of the spade and added to the rest of the mixture afterwards.

Enough of this general mixture or basic formula should be made to give the garden one good dressing before planting is begun. One of the great advantages of mixing your own fertilizer is that during the course of the summer it is often desirable to use one or more of the different ingredients by itself as a top dressing; nitrate of soda is used for this purpose, as it contains nitrogen, which, in an available form, is capable of quickly stimulating any crop that may fail to show that dark-green color, indicating a lack of nitrogen. An application of nitrate of soda followed by rain or a good watering will frequently show perceptible results in a few hours. A convenient way of handling the mixture is to get a few empty cracker boxes in which the material can be kept until you are ready to use it.

An Early Start for Late Beginners

The gardener who has to contend with the disadvantages of a new place, or who has not for some reason put in a cold frame or a hot bed in the fall, and who,

nevertheless, wants to start plants early for this year's garden, is not at a hopeless disadvantage. A hotbed may be constructed on top of the ground. In order to do this, more manure in proportion to the size of the frame must be used, but this is better than no hotbed at all. A cord of manure, costing three to five dollars, will make a bed for a sash frame holding three regular 3 x 6 sashes. In this amount of space enough things may be started for a substantial family garden. And after you get through with the beds, the manure will be in the right condition for hills of melons, beans, tomatoes, squash, and so forth, or to use for late celery or cabbage. The manure should, of course, be horse manure, fresh enough to heat properly when it is stacked in a compact heap to ferment. A third or so in bulk of short bedding or leaves should be added to it unless it already contains sufficient stable litter. This should be packed thoroughly, trampling down each layer, and kept under cover, and after a few days turned inside out and allowed to heat again. When it is hot through and through, spread it out in a flat heap about 9 feet wide and 18 inches deep and 18 inches longer on either end than the frame which is to be set upon it. This pile is made level in a sheltered position, getting the full sun, but protected from north winds. About 6 inches of soil is put on top of the manure inside of the frame; the outside of it is banked up with manure. For the first few days after it is made, the temperature will be very hot, and even if only frozen dirt is available it will thaw out very quickly with the joint action of the manure and the sun through the glass sash, especially if matting shutters are kept on during cold nights.

There will be plenty to keep one busy in the greenhouse at this time of the year. A new supply of flats, if one has not



Additional warmth can be secured by covering the frames with heavy pads



Over the pads put a wooden cover, and the frame will be well protected

enough already on hand, should be made. The first sowings of cabbage, cauliflower, beets, lettuce and brocoli may be made from the first to the middle of the month. If you intend to grow any onions from transplanted seedlings, they should be planted early this month. As these are not transplanted again, when the other vegetables are, they are planted in a somewhat different way. When they are put in the flats or directly in the hotbed, 2 inches or so of rich compost should be put into the bottom, followed by an inch of fine sifted soil, and on top of this half an inch or so of clean sand, in which the seeds are sown. The seeds should be sown a quarter to half an inch deep in rows 4 inches to 6 inches apart, putting 12 to 15 seeds to the inch, thinning them out if necessary, when they are up, to 8 or 10. During their growth the tops of the plants should be cut back two or three times to make them extra stocky. Among the flowers which may be started now are a number of the annuals and perennials which, if left until later, would not flower until the year after sowing. Among these are African daisy, antirrhinum, asters, balsam canna, chrysanthemums, cosmos, dahlia, heliotrope, hollyhock, kochia, pansies, ricinus, salpiglossis, salvia, verbena, *Vinca rosea*.

Practically all the seeds to be planted will grow sooner and stronger if given "bottom heat." A convenient way of doing this is to place the flats on the hot water return. Where these are under the benches, however, great care must be taken to remove the flats as soon as the seeds sprout. If left for only a short time in partial shade they are sure to be injured seriously; the little grow up tall and bend towards the light in an almost incredibly short time. Although the seed boxes may be kept dark until the seeds break the surface, from that time on they should be given full light, and the nearer they can be kept to the glass, the better. A mistake the beginner is likely to make is to "monkey around" too much with the watering pot during the early stages of growth. The less the seed boxes are watered the better, provided they are kept from drying out. By far the best way of watering them is to get a galvanized iron pan made at the tinsmith's about 15 x 24" in size and 4" or 5" deep; the flat can be placed in this and the water poured in around them, which they can soak up from the bottom. In this way the foliage and the surface of the soil are kept dry, which is an important factor in warding off that dreaded trouble known as "damping off," and the soil can be easily saturated.

An Illustrated Garden Record

OF course, you keep a garden record? Then, if you own a camera, why not illustrate it? If you had in your garden last year too much of this or too little of that; if you by mischance struck the

wrong seed or seedsman; if you discovered something new by your practice that is worth remembering; if you found flower or vegetable varieties that you wish to repeat or avoid this year, you will realize the value of a garden record.

The volume itself can be an ordinary, twenty-five-cent record book, with pages seven and a half by nine inches, and with a space an inch and a half wide ruled off at the left. This gives ample room for



Plants raised in the house from young cuttings have a tendency to dry out. One way to prevent this is to cover the thumb pot with the cover of a jelly glass, slit to allow the plant to come through. The loam in the pot will remain moist for a long period and will be of great benefit to the plant

notes as detailed and extensive as one has time or fancy for making; the book is thick and cheap, and there is no need of saving space.

At the top of the ruled-off space at the left of the page the year is entered. In that column, set off by its surrounding white space, is the date preceding each item as it is entered. In the same space, in red ink, to make it stand out clearer, are subject headings to make it handier for reference.

The illustrations can be made unique. Taken with an ordinary hand camera, using the portrait attachment, they are fastened in with library paste, and the record is written around them. Thus, combined with the written record, they

constitute a tangible and striking permanent register of garden results. Unfortunately, camera-makers have not yet shown cunning enough to fix it so that colors can be recorded—not to speak of fragrance—and much of the garden's glory is necessarily omitted. But, even without the colors, these pictures add tremendously to the interest of this record of the business and fun of gardening.

The portrait attachment, which every camera owner should have, anyway, does not alter the working of the lens otherwise than in its focusing. It cuts sharply the object on which it is focused, leaving other objects undefined. As the hand camera lacks facilities for visual focusing, it is necessary to adhere strictly to the rules governing its use. For instance, with the scale on the camera adjusted at six feet, the shortest distance of which it is capable, the lens should be—in this case—exactly two feet and eight inches from the object.

Much is added to the clearness of the pictures if a proper background is provided. This should be secured by the use of a screen of some material without gloss, with a slate-gray or other neutral color, placed a few inches or more behind the object. Fair results can be secured without any background whatever, as the landscape or objects behind the subject will be out of focus, anyway; but the blooms stand out more strongly if a background is provided. A practical background can be made by taking a square of cloth from an old brown canvas tent and stretching it upon a frame such as is used to contain a piece of tapestry for a fireplace screen. On one side, to afford a still sharper contrast for lighter blossoms, one can fasten a piece of dead, black material.

With this equipment you can photograph single blossoms, bouquets and foliage, and also take your grounds in whole and in part, and as they look at various seasons.

Watering Cuttings

I HAVE raised many plants in the house from cuttings, but it was not until I happened across the following scheme that I was very successful. I always found that, no matter what I did, the cuttings, when first put into thumb pots, would dry out, in the house. This frequent drying had an effect on the plants that was shown by the slowness of growth and the dropping of leaves and degenerating into such a poor condition that they had to be thrown out. This occurred very often to me, but is not to be wondered at when one realizes the small amount of loam that a thumb-pot holds. I tried one day fitting tin covers over the pots, and the problem was solved. I bought two dozen jelly tumbler covers and slit them and fitted them on the pot. The results are wonderful. Try it and see.



EDITORIAL



IS THE UNITED STATES SELF-CONTAINED?

NOW that war has blocked for many nations their avenues of importation of food stuff, some Americans are developing an unwonted—and perhaps unjustified—appreciation of our singular position among the powers. Outside of Russia, the United States is the only self-contained nation. Were our ports closed, they say, we could continue feeding and clothing our eighty millions as though little or nothing had happened. And, as in Russia to-day, so here, the people of the interior would scarcely know a war was going on. Though this is in a measure true, one often wonders just how much the average man understands the part played in the nation's welfare by the farmer and rural life; how much the city dweller appreciates the farmer's possibilities and potentialities.

The matter was brought vividly to the attention of the public in the recent report of the Secretary of Agriculture. "Relatively speaking," Mr. Houston says, "there has been a neglect of rural life by the nation. This neglect has perhaps not been conscious or willful. We have been so bent on building up great industrial centers, in rivaling nations of the world in manufacturing and commerce, fostering these by every natural and artificial device we could think of, so busy in the race for populous municipal centers, that we have overlooked the very foundations of our industrial existence. It has been assumed that we have a national monopoly in agriculture—that it could take care of itself—and for the most part we have cheerfully left it to do so."

Contrasting with that statement is the following:

"The progress of agriculture reveals itself more particularly in its diversification, in the rise of minor crops to larger proportions, than in the increased production of staple products. For example, dairying in the last generation has become an exceptionally important branch of agricultural economy, the annual production including more than one and a half billion pounds of butter, a half billion pounds of condensed milk, and a third of a billion pounds of cheese, having a value of approximately \$600,000,000. The production of orchard fruits exceeds 216,000,000 bushels a year, with a value of more than \$140,000,000. The value of the annual production of vegetables is in excess of \$400,000,000. The production of hay and forage approximates 100,000,000 tons, with a value in excess of \$800,000,000; the poultry products of the nation have reached a point where their annual value is about one-half that of the cotton crop at normal valuations, and marked increases are noted in the quantity and value of the cereals.

"We know that the wheat crop of 1914, of approximately 892,000,000 bushels, is the greatest ever produced in our history, and that the crop of oats, barley, rye, potatoes, tobacco and hay are unusually large. The cotton crop forecast in October at 15,340,000 bales is the second largest. The apple crop, estimated at 259,000,000 bushels, is the greatest ever harvested. The total production of six leading cereals is estimated to have been 5,000,000,000 bushels, or about 428,000,000 bushels in excess of the crop of 1913. For the country as a whole, the crop yields per acre were 2.3 per cent better than the average for the past ten years. The average yield per acre of all the staple crops was 9.4 per cent greater than 1913, and, except for corn, oats and flax seed, greater than the ten-year average.

WHERE DECREASE COMES

"BUT, after all our efforts, while there is an increased diversification of agriculture, and both a relative and absolute increase in important products, such as wheat, forage crops, fruits, dairy products and poultry, we still note not only a relative, but also an absolute decrease in a number

of our important staple food products, such as corn and meats. In the former in the last fifteen years there has been no substantial advance. In cattle, sheep and hogs there has been an absolute decline—in cattle, from the census year of 1899 to that of 1909, of from 50,000,000 head to 41,000,000; in sheep of from 61,000,000 to 52,000,000; in hogs, of from 63,000,000 to 58,000,000. Since 1909 the tendency has been downward, and yet during the period since 1899 the population has increased over 20,000,000. This situation exists not in a crowded country, but in one which is still in a measure being pioneered; in one which, with 935,000,000 acres of arable land, has only 400,000,000, or 45 per cent, under cultivation, and in one in which the population per square mile does not exceed thirty-one, and ranges from 0.7 persons in Nevada to 508 in Rhode Island.

"Just what the trouble is no one is yet sufficiently informed to say. It can scarcely be that the American farmer has not as much intelligence as the farmer of other nations. It is true that the American farmer does not produce as much per acre as the farmer in a number of civilized nations, but production per acre is not the American standard. The standard is the amount of produce for each person engaged in agriculture, and by this test the American farmer appears to be from two to six times as efficient as most of his competitors. Relatively speaking, extensive farming is still economically the sound program in our agriculture, but now it is becoming increasingly apparent that the aim must be, while maintaining supremacy in production for each person, to establish supremacy in production for each acre."

RURAL LIFE UNDER INVESTIGATION

AN inch of such statistics and facts is worth pages of theorizing, yet there are some salient conclusions to draw at this point. "The American farmers," the report goes on to say, "are more prosperous than any other farming class in the world. As a class they are certainly as prosperous as any other section of the people; as prosperous as the merchants, the clerks, or the mechanics." All of which corroborates the results of an investigation made by HOUSE AND GARDEN recently. The earning power of the farmers of New York State were compared to their social and wage-earning parallels in the city, and it was found that, whereas but few farmers make more than their living and overhead expenses, their lot is no worse than that of thousands of city dwellers. The farmer lives a more natural life and has the advantages of open-air work and physical exercise, as against the tenement and flat life of the city worker and labor in factories. The situation seems to resolve itself into "*de gustibus!*"

That the rural life is not increasing is evident from a final statement in Mr. Houston's report: the population of the nation in the last fifteen years has increased 23,000,000; the strictly rural districts have shown an increase of perhaps less than 6,000,000. It is futile to cite the multitude of reasons why rural life is not growing in popularity, though the fact remains that our much-boasted ability to feed and clothe our own will not stand investigation. We have overproduced this year, and still the high cost of living has not been reduced. Is it the farmer's fault or the fault of those who own the farm? One case investigated by a representative of HOUSE AND GARDEN made the following reply to the question of crops: "I make more money in a poor year than a good one. I'm not growing for crop results, but for crop prices." Until situations such as this are radically changed we cannot hope for a growth in the rural population, nor need we boast of our self-sufficiency.

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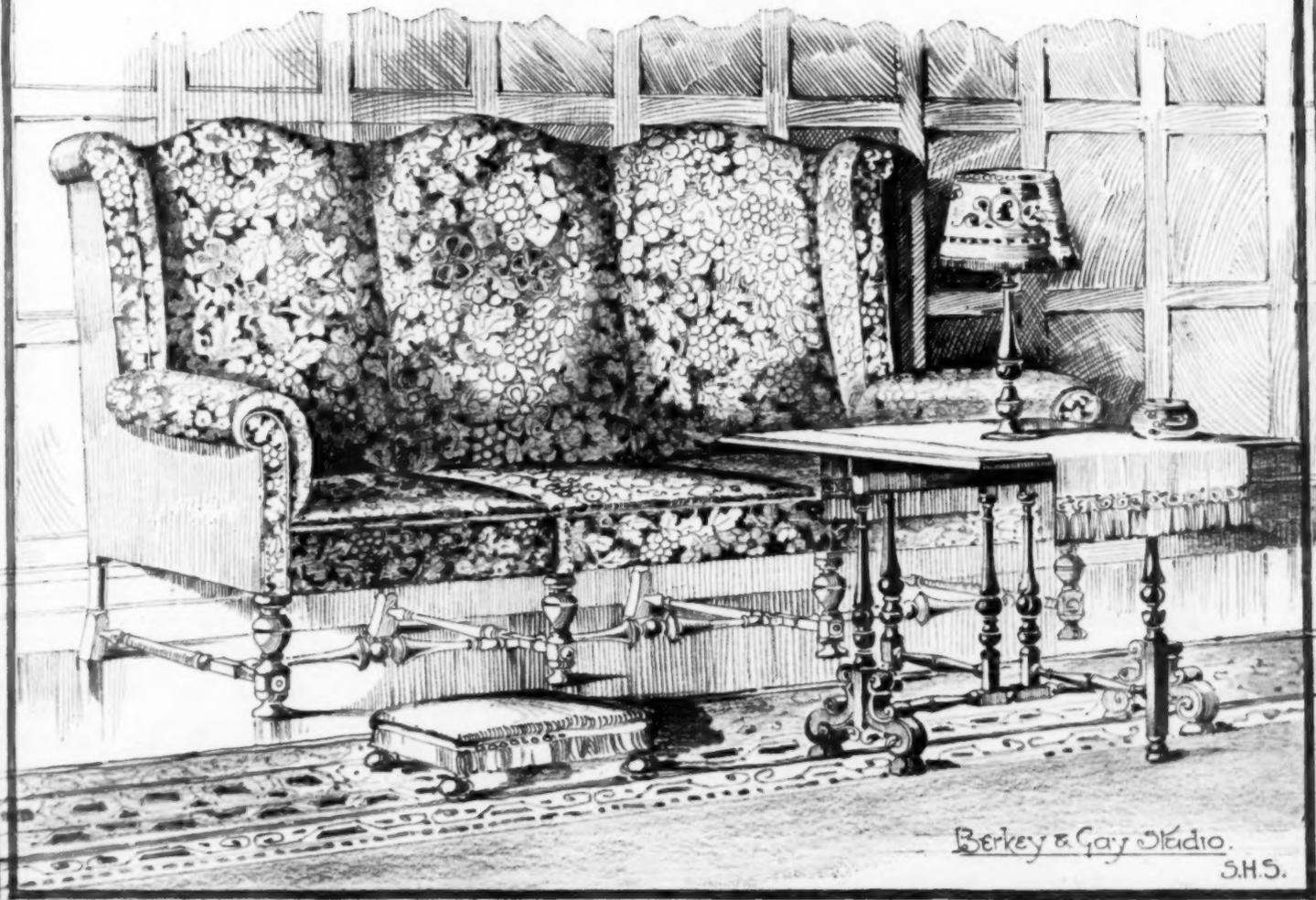
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Hand and Power Pumps for all Purposes



Essentials for the Living-Room

(Continued from page 82)

ture goes well with Chippendale chairs—the ladder-back for such a room—or shield-shaped, wide-seated Heppelwhites. A tall, capacious desk with built-in bookcases on either side, and an old Colonial mirror over the mantel, make up a dignified and thoroughly comfortable room. Brass andirons and fender, a brass jar made into a lamp and brass sconces on the wall are all decorative details. Plants in a sunny window are especially suitable here, and add a sense of cheerfulness. A room of this type has an air slightly old-fashioned and full of repose, and most appealing to many Americans.

With any of these rooms, where economy is necessary, willow chairs can be introduced instead of the upholstery ones, and can be made delightfully comfortable. With the decorated furniture they can be painted to match in a plain color, or, in the Jacobean or Colonial rooms, stained a dark brown or black. Another economical suggestion is to have an old rug dyed the proper color, instead of putting a large percentage of the money to be spent on the room into the floor covering.

In summer, for the Jacobean and Colonial rooms, chintz covers of some gay, yet cool, design, both save the furniture and make an agreeable change.

It is stimulating to think that at this time, in spite of the conditions abroad, there is a wonderful variety of beautiful things for people to choose from made right here in America. The opportunity to create delightful and artistic rooms was never greater than at the present moment.

Your Saturday Afternoon Garden

(Continued from page 87)

vegetable matter. A generous proportion should be mixed with the other soil so that the soils may both absorb plenty of water, but permit drainage of the surplus. Coconut-fibre is an excellent material for covering seed, when the other things mentioned cannot be procured. If the soil is very heavy, sand, as well as humus, should be added generously to the mixture. This makes it more friable and less likely to form a crust.

The seeds should not be covered very deeply, a quarter of an inch of light soil being sufficient. Each row should be plainly tagged. As to the number of rows of each to sow, onions and beets are the things of which you will require the most plants; celery and lettuce next; and of cabbage and cauliflower, the fewest. The soil in the seed boxes should be in a good, moist condition when the seed is put in, and should be kept so until the seedlings are large enough to transplant. Extremes of dryness and moisture will tend to make poor plants. All of the seeds mentioned will start well in a temperature of 50° to 55° at night, and, if the temperature of

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the frames gets more than 10° or 15° higher than this during the day, ventilation should be given by raising up the sash. It is always best to raise it in such a way that a cold wind will not blow directly into the frame.

Through Wildfowl Breeding Grounds

(Continued from page 89)

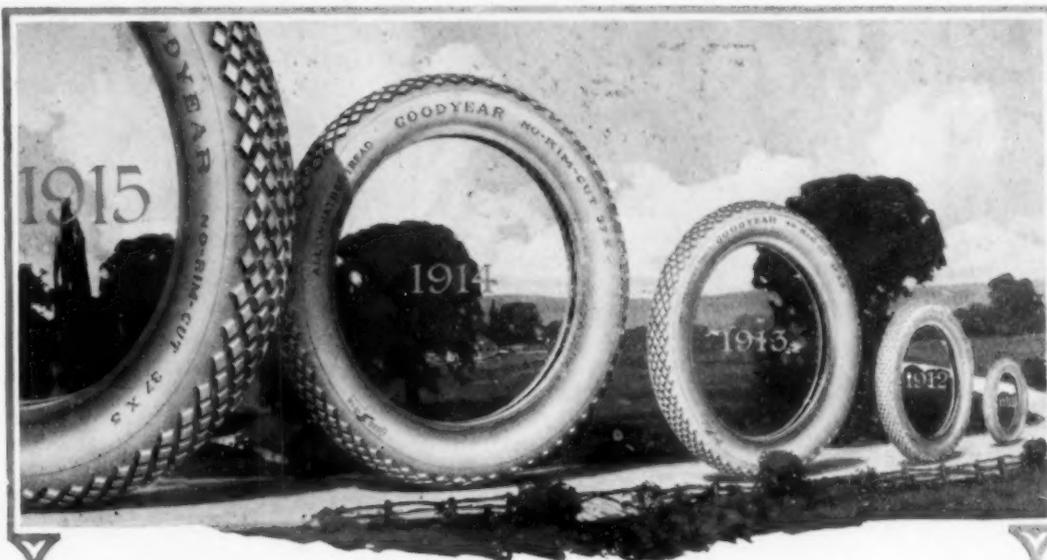
show him the wonders, but, alas! there was not a duck on the island. Investigation showed that a pair of coyotes, which had probably crossed in winter on the ice, had located there, and had cleaned out the colony. This indicates some of the natural dangers to which the wildfowl are exposed.

Proceeding further north, as in the upper parts of Saskatchewan and Manitoba, we find a country largely forested with poplar and spruce, but with very many lakes, both large and small. Around the shores of these, at least in part, extends a border of reed-grown marsh or grassy meadow, which gives good opportunity for wildfowl to nest, much as in the prairie region. Here also we find wild ducks nesting in good numbers, and some Canada geese.

Still further north, back from the shore of Hudson's Bay, it is said, are vast muskegs, where great numbers of ducks and geese breed. This sort of country is a quaking bog, a layer of turf floating on the water, overgrown with tall reeds and the like. A person attempting to walk on this is likely at any moment to break through and be immersed in mud and water. Other extensive marshes are said to be in the deltas of the northern rivers, where they flow into the Arctic Sea, notably, the Mackenzie, Yukon and Anderson rivers. Besides these larger areas are multitudes of smaller lakes or sloughs, giving opportunity for the breeding of wildfowl.

All this sort of marsh country where the fowl breed is forlorn and desolate, in a way. The tenderfoot, civilized person would have no use for it. One must expect to wade and flounder and struggle to get on in the world. The outlines of scenery are monotonous, though the vast spaces, as on the ocean, are majestic. There stretches away endlessly the green-brown prairie, or the sea of reeds and rushes of the marsh.

Stand quietly in an area of reeds on the edge of open water, until the birds have forgotten your intrusion. Various kinds of wild ducks in pairs swim out before you, or mother ducks lead forth their downy broods. The curious, slate-colored coots or mud-hens paddle along the edge of the reeds, bobbing their heads and grunting as they go. Various species of grebes emerge from the water, look around, and dive again at the least alarm. Sora and Virginia rails skulk past in the thick growth, uttering wailing cries. The



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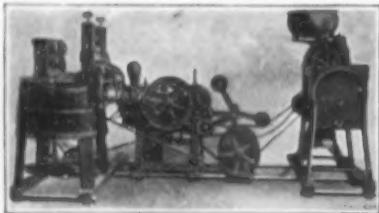
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bittern "pumps" away near by. Black terns and Forster's terns are flying about actively, and sometimes numbers of the beautiful, rosy-breasted Franklin's gull. In the reeds the long-billed marsh wrens are singing vociferously, and, like as not, there is a cocoanut-shaped nest close at hand, suspended in the reeds, as is the case with the nests of innumerable yellow-headed and red-winged blackbirds. An incessant chorus is heard, all manner of notes and cries. Something is constantly happening.

The ways of that singular creature, the ruddy duck, are curious. The mated pair swim past, the male, as always, in the lead. His bill is the color of the blue sky, and his back a rich chestnut-red, so different from the winter plumage. His little tail stands straight up and is proudly spread, each feather revealing its sharpened point. The demure little, dull-colored female, with no jaunty erection of the tail, follows obediently, and admires her wondrous lord as he displays his charms. He throws back his head, draws in his chin, and, with down-pointed bill, strikes the water with a rapid series of blows, making a noisy splashing and also a grunting vocal effort, both of which are audible at some distance. I have often heard these performances by various male ruddies all about me. But, what else does the singular creature attempt? Does he help build the nest, hidden over there in that jungle of dead stems or in the clump growing out of the water in the middle of the slough? Does he, unlike other ducks, condescend to nursery work? Once I saw a female bring out to him from the reeds a fine brood of soft, downy, black-and-white ducklings. He actually stayed near-by for half an hour, while he exhibited his funny performance, showing them what a wonderful father he was!

It may be of interest to name and comment briefly on the wildfowl species which occupy this great breeding area. The group of ducks known as the river or pond ducks are well represented by nearly all the species, notably, mallard, pintail, gadwall, shoveller, widgeon, blue-winged and green-winged teals. These all nest by the prairie sloughs or on the edges of marsh or muskeg. The nests are placed in thick grass or among weeds or low brush. In some cases, particularly with the pintail, one will nest as far as a mile from water, in the prairie grass. The black duck and wood duck are properly Eastern species, and only a few stragglers reach this region. In the far western part the cinnamon teal is found.

Another class of wildfowl are the so-called sea and bay ducks. It is curious that a number of species usually considered distinctly marine breed in the interior of the continent. Those nesting in the southern part of the region described, as well as further north, are the canvas-back, red-head, ruddy duck, greater, lesser and ring-necked scaup ducks, golden-

eye, bufflehead, and white-winged scoter. The Barrow's golden-eye and harlequin ducks breed in the western parts of the area. The following species breed in the northern part of it, and along the Arctic coast: the several eiders, the old-squaw and the American and surf scoters.

The canvasback, which has great renown as the king of wild ducks, breeds in the deeper sloughs, building its nest in thick vegetation growing from water. In the marshes of Lake Winneposis I found a number of nests, and considered it one of the commoner ducks. Where it is found, the red-head and ruddy duck usually keep it company, sometimes close company, for they frequently lay in each other's nests, and naturally are thought of as a sort of little group by themselves. The lesser scaup comes rather near being included, though it often frequents smaller ponds, and nests rather differently. Usually I have found the nests on dry land, amid grass and weeds, particularly on stony islands. But at Lake Winneposis they nested altogether in clumps or tracts of grass growing from shallow water, on the edge of ponds, and they do this elsewhere, when convenient.

The white-winged scoter is found only sparingly in the southern part of the wildfowl area, and only on the large lakes. Its nesting habits are quite peculiar. Selecting an island or dry ridge of land close to the shore, the female crawls in under the thickest tangle of vines, weeds, grass or low bushes, scratches a hole, and keeps the eggs buried in the loam, which she puts back over them, keeping them buried till all are laid. Then she lines the nest with down from her breast, as do all other ducks, and begins incubation. It is very difficult to find the nest, unless one almost steps on the setting bird. They cannot fly direct from the nest, and sometimes I have caught them before they could reach the open shore.

The golden-eye and bufflehead nest in hollow trees back from the water, sometimes well back in the forest. The former is quite common in the timbered parts of Manitoba and in some places in North Dakota. The dainty little bufflehead, which is so small as to nest frequently in old flickers' holes, seems to be growing scarcer all the time. It has disappeared from Lake Winneposis, where it was formerly common, and there is danger of extinction.

The mergansers—hooded, red-breasted, and American—breed in this great area, and complete the list of the ducks. The Canada goose breeds as far south as North Dakota, but the other geese—blue, snow, white-fronted, the brant, and the few remaining swans—nest far up along the Arctic coast. Many of the shore-birds, a tribe noted for their powers of flight, nest in this great region, a few kinds well south in the prairie country.

This great wildfowl breeding ground and its interesting and spectacular feathered tribes present important problems. Our wildfowl have been slaughtered be-

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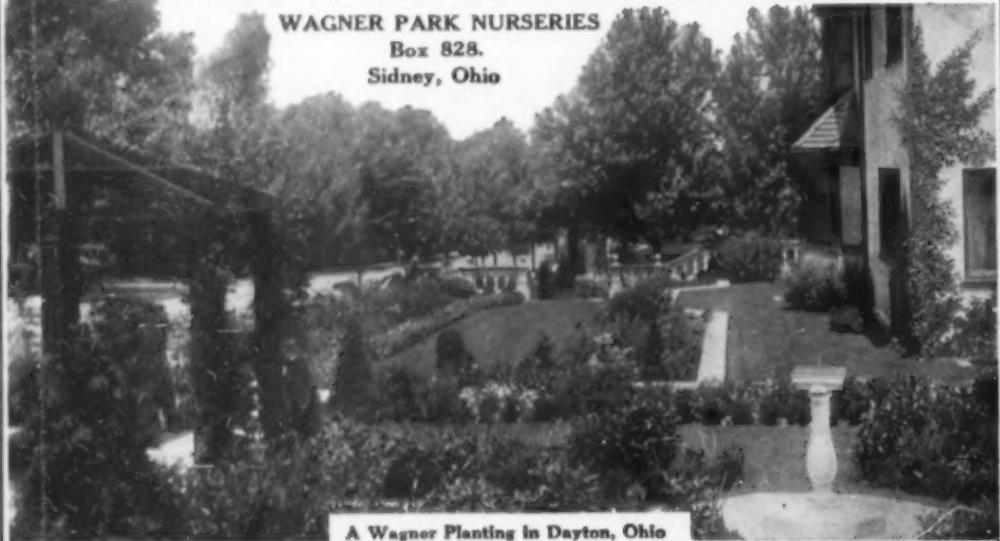
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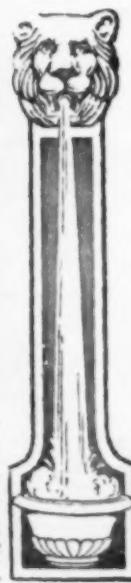
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yond all reason, through ignorance and selfishness. Can we check the slaughter, and will this great Northwest wilderness suffice to keep up the supply?

Great changes certainly are taking place, particularly in the prairie region of the southern part. Settlers are pouring in, the land is being broken by the plough, and marshes are being drained for agriculture. This is driving the wildfowl from these prairies. Railroads are being pushed in various directions, even to Hudson's Bay, which in a year or two will be accessible. Gunners and depredators are thus pouring in. In addition, Indians and settlers live on the land, and take what game they require for food at all seasons.

It has been well suggested that the area adapted to breeding purposes is not as vast as has been supposed, which is doubtless true. To offset this, however, is the fact that the available area does not possess its normal quota of breeding wildfowl, probably because the stock has been so depleted on the migration south. These unspoiled areas can certainly produce more wildfowl than they do at present. Even yet, multitudes of fowl are still reared in this great natural preserve. In autumn, on the western lakes and marshes, they still swarm in tens of thousands. They can yet be saved if the breeding grounds can be better protected, and if the migratory host can be saved from undue slaughter on its long journey and on the winter feeding grounds.

The former is for the Canadian government to carry out, the latter largely for us. It is a matter of patriotism and public obligation for game officials in every State to support and co-operate in every way with the Federal authorities, and likewise for all sportsmen who are gentlemen and not mere pot-hunters. If we can save and send back to the breeding grounds each spring a million more of wildfowl breeding stock saved from the avarice of man, and these return with their broods, it is not difficult to calculate the result.

Creating Personality in Bedrooms

(Continued from page 92)

long reach between tawdriness and richness as one might imagine.

Another point as to the use of color: take into consideration the color you most effect in your clothes. I know a woman who wears much lavender. She furnished her boudoir and bedroom—shades of sixty-two!—with a predominance of red. The moment she entered that room her personality lost itself in the shock to one's color sense. Later, the same woman, having learned her lesson, always tried out pieces of her new gowns in the rooms in which she would appear in them most frequently.

Time was when the guest-room held mostly the dejected, and, alas! often re-

jected furniture from the other rooms. Now a hostess plans carefully for her friends' comfort, and the shops aid and abet this altruistic motive. She realizes the joy a restful room is to a visitor, and she plans it with the idea that after her guest has been dined and wined, taxied and tangoed, her four walls are a haven of peace. Thus an excellent arrangement for that room is to use a gray lacquer furniture, including a chaise longue and several stools. With this, a portable desk of black Chinese lacquer and a fetching little dressing-table of the same design. The hangings are of gray linen with a wonderful Chinese design in many colors. Underneath the dressing-table, placed in front of a window for good light, is a black rug. A piece of green pottery highly glazed, together with two Japanese bronze candlesticks above the fireplace, make the room an artistic success, as well as a room of much comfort to the guest.

A man's bedroom is rather less of a problem, since his ideas are mainly as to comfort, not as to decoration. He must have ventilation; see to it, then, that there is in his room a fireplace, for these are as valuable for their ventilation as for their air of coziness. A man's grate should be as his shoes, polished to the point of perfection.

In his room, as in all bedrooms, it is best to have a few small rugs, rather than stuffy carpets, since the former are more easily taken up and cleaned than a single large, heavy rug. The furniture must be simple in line and construction—and masculine. Is anything worse than a man's room filled with simpering furbelows?—and yet it is done. What a crime to perpetrate! A good type for his room is furniture of the William and Mary period in walnut—not the dark, heavy, over-ornamented Victorian, but the well-proportioned, substantial-looking kind.

For color, green and brown, or both combined; perhaps a linen of Jacobean design at the windows; and a great, comfortable chair by the bedside stand. This stand should be large enough to hold, beside a serviceable lamp, a pile of magazines and best sellers, for it is thus that most men quiet down for the night.

In general, avoid unnecessary details in bedrooms. The simpler, fresher they are, so much more are they the things that architects and decorators and hostesses intend they should be—rooms of re-creating sleep.

If St. Patrick could see the story called "Real Irish" in the March HOUSE AND GARDEN he would shout for joy. You dog lovers who have an Irish terrier will shout, too.



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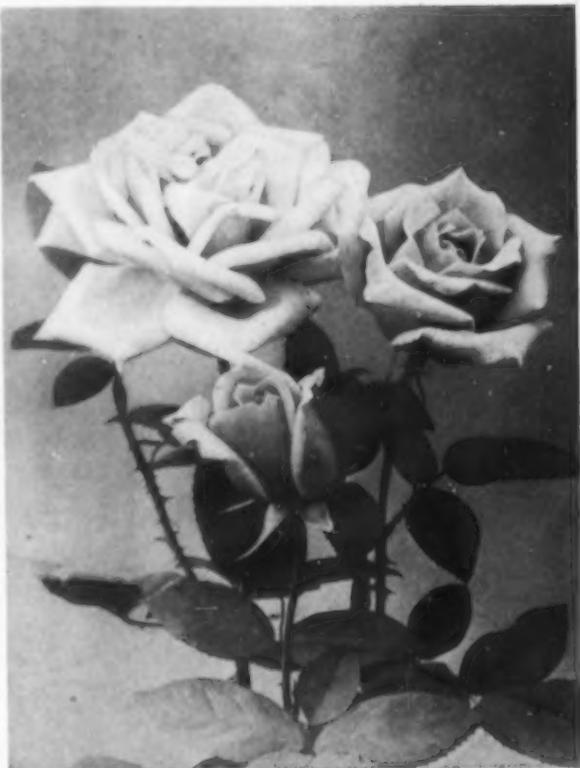
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What Was Done With a Five-Room Cottage

(Continued from page 95)

benches, palms and growing plants, tend to give the impression of an inside garden, distinctly different from the usual sun-parlor. Opening into the court are a homelike living-room and a small den. The living-room is a late addition, but the den dates from an earlier period of reconstruction, and was formerly used as a bedroom. It is a restful spot, with gray-toned wall and pink, chintz-covered chairs and draperies.

The living-room betrays the intimate touches that come from daily association, and is in every sense what its name implies. Books, old family portraits, personal possessions of individual members of the family, with big, roomy chairs and old mahogany tables and desks combine with the grays and old reds of the walls and furnishings to fill the room with an all-the-year charm. It looks out over the garden lying only fifty or more feet away, across an open stretch of bluegrass.

Bedrooms on the upper floors have no point of especial distinction beyond their convenience and light airiness. In the remodeling of the house a generous provision was made for bathrooms. From the original place of some years ago, lamp-lit, with water supplied from the spring down the hill, to the modern home with its splendid lighting and numerous baths, there is registered vast strides towards comfort and convenience in suburban and country homes. While "Longview" still prides itself on being a country home, the city is creeping up on its very heels. But for its protecting acres, it doubtless, before this, would have received from the city some of the objectionable features of the suburbs, along with its privileges of lights and water. Well fortified by its open stretches of lands, except for the fact that the house lies between two lines of street cars, "Longview" is, happily, isolated from its neighbors and civilization in general.

Of all of its possessions, the garden is the best beloved by its gentle mistress. Like all true old Southern gardens, the kitchen and flower garden are combined. There are four acres, with two quaint entrances from the yard—gates of carved stone, with stone benches beside them. In the stone wall that surrounds the garden is a fussy little fountain hurrying into an artistically shaped basin. Inside the garden are other stone seats and another busy little fountain in a quaint, circular basin.

The garden has beds eight feet wide that border a walk running the entire length of the plot. In this are peonies, iris, poppies, coreopsis and all the fragrant succession of blossoms that made our grandmother's garden one continuous array of riotous color and perfume from

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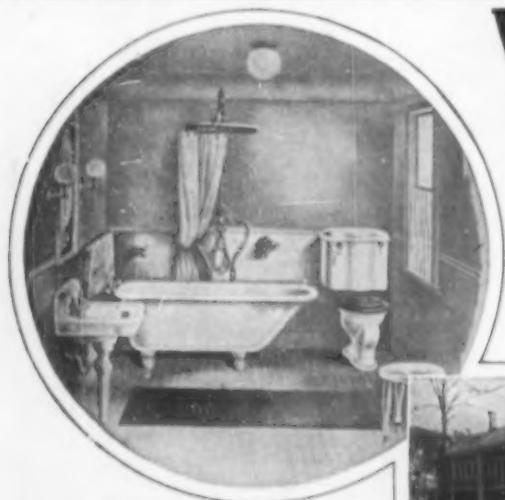


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spring until late fall. The walk at irregular intervals is canopied by rustic arches, on which a wealth of rambler roses make vivid splashes of color in the spring and early summer. In individual beds, well planned to fit in with the general scheme of the whole, are bulbs of every variety and color, roses and a wealth of other blossoms.

The Electric Automobile in the Country.

(Continued from page 103)

cost for current of two cents per mile, and for tires of a shade under one cent per mile. This is at least as good, and probably a much better showing than would result from a similar canvass among owners of gasoline cars, in which gasoline, oil and tire costs were figured. It serves to prove in a most comprehensive and conclusive manner the marked economy of operation of the electric automobile.

The country resident finds many uses for the electric automobile. It is without doubt the most handy conveyance for the shopping trip to town or nearby city, for visiting neighbors, meeting trains, traveling to and from church or theatre, and for short rides about the country. It requires no expert attention and is always in running order and ready for service. All one needs to do to start an electric car is to climb in, grasp the steering wheel or lever, advance the controller, and glide away. Its operation is so simple that most anyone can learn to drive it in a few minutes. There is no bewildering array of motor and transmission controls, and no skillful manipulation of gear changes to acquire. The motor does not have to be cranked, nor does it stall on muddy roads. No dangerously inflammable fuel is used, and the electric car can be left out in cold weather without danger of anything freezing. It has its limitations, to be sure, as we have previously noted, but for the country man or woman, who does not have to, or care to, travel at high speeds, or cover long distances, these would seem to be adequately offset by its many desirable features.

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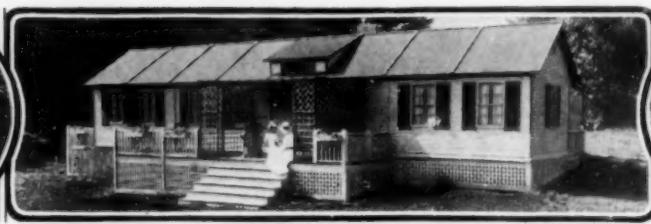
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The plan of the Exposition gardens has been formulated by the eminent landscape gardener, Mr. John C. McLaren, who has designed the famous Golden Gate Park at San Francisco. Under Mr. McLaren's supervision a small army of expert gardeners are at present working on the preparation of plants, blooms, trees and flowers that will be used in the decoration of the World's Fair of 1915.

The site of the Exposition at Harbor View lends itself particularly to beautiful color and floral effects. It is situated on the shores of the bay of San Francisco, near the Golden Gate, the entrance to the bay from the Pacific Ocean.

Along the water front which faces the hills of Marin county, with Mount Tamalpais overlooking the whole, there is to be a grand esplanade a mile in length. Here will be planted the hardy trees and shrubs and the palms and flowers that need less sheltered courts than the more delicate specimens which will be used in the decoration scheme in great profusion.

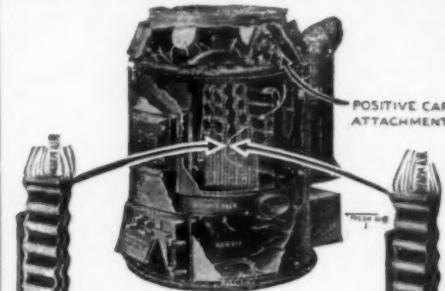
The more exotic plants will ornament the formal gardens of the inner courts and promenades, where they will be protected from the ocean breezes. For the esplanade there are now being nurtured hundreds of pine, lady birch, myrtle, olive, cypress, acacia and other hardy growths. Against the old ivory white of the Exposition palaces and triumphal arches, the dead green of the myrtle mingling with the silver green of the olive, the gray of the dainty lady birch and the livelier greens and yellows of the acacia, will produce an effect of striking beauty.

It is interesting to note the influence of Japanese art on floral decorations in the Exposition. In many of the open spaces, and in the more spacious places of the inner courts, there will be seen the pink and white spray-like traceries of the flowering peach and delicate heliotrope of the graceful wistaria, which constantly occur in Japanese prints and paintings and works of applied art. Under the clear, blue of the California sky, the wonderful effect on these and kindred flowering growths may easily be conceived.

According to Mr. McLaren's plan, most of the beds in most of the courts will be laid out with flowers of the same general color, producing a brilliantly dazzling effect. But in other courts and boulevards a marvelous kaleidoscopic spectacle will be produced by the use of varicolored plants and flowers in generous abundance.

Here and there will be a court with flower beds trimmed with the waxy fuchsia, another aflame with the red, orange and yellow of the aster, and still another set with the scarlet spikes of the salvia. There will be vistas lined with the star-like marguerites against rich, green avenues screened with clematis and bougainvillea and gardens flanked with asparagus ferns.

Adding to the general beauty of the



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gardens will be pools clothed with lotus pads, and winding stretches of still waters with an effulgence of water lilies, beneath which gold fish sport and play in the sunlight.

At this time, nearly two years before the opening date of the fair, practically all the plans for the floral decorations of the Exposition grounds are completed, and the thousands of trees and plants are ready for transplantation from the nurseries and green houses, which have been especially erected at the San Francisco Presidio by the Exposition Company.

Six green-houses have been built, each 150 feet in length, and another block of glass-covered hot-houses is now under construction. Near by is a ten-acre tract of especially prepared ground, where millions of cuttings and seedlings have been planted. More than 600,000 flowers and shrubs have been raised in the green-houses, and many times that number will be raised under roof during the next few months. Special nurturing plots have been laid out under glass roofs for the tropical plants and trees too exotic to thrive in the open. It has taken months to install into these tender specimens of ornamental vegetation the life necessary to make them thrive and blossom in their new climate.

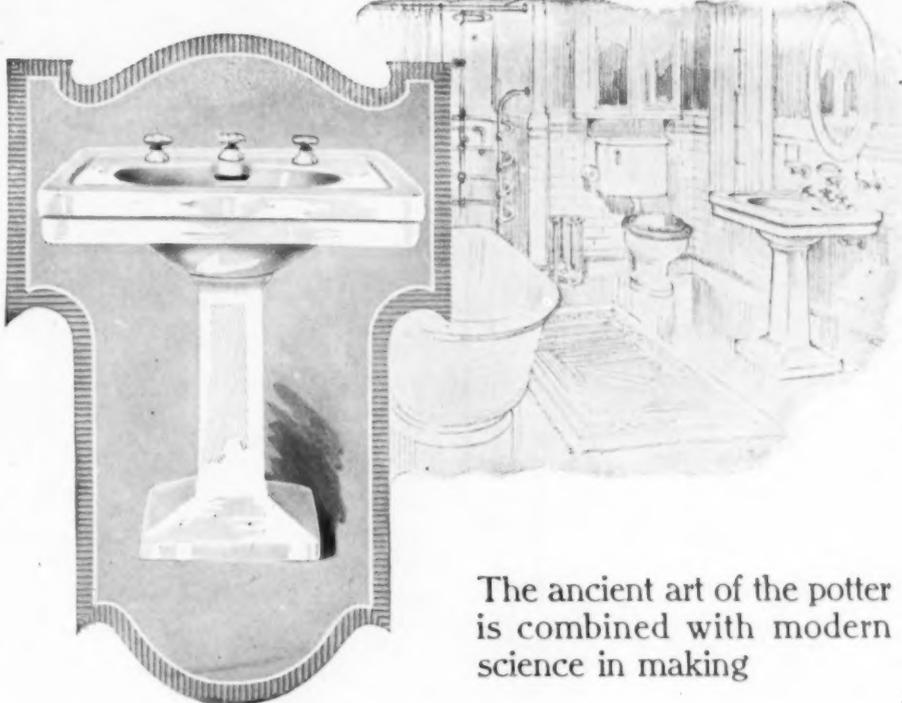
The flowers and plants which are now thriving and flourishing in the Exposition nurseries and which will later become integral parts of the floral decorations of the fair, include floristina, escalonia, eunymus, honeysuckle, bougainvillea, santolina, geranium, marguerite, clematis, scelalum, plumbago, bigonia, calianthus, arbutus, salvia, fuschia, muelenbeckia, streptolon, aralia, and hydrangea. There are thousands of other perennials and the larger growths of shrubs.

The trees for the Exposition include many of Australian origin, brought to San Francisco during the past year. They stood their journey across the line well, and are thriving much better than was expected.

The flowers will be planted in the Exposition grounds and gardens according to their seasons of bloom, and removed when their blooming period passes. Then other varieties, budding and breaking into flower, will take their place. There is not a month of the year in California which does not have its plentiful supply of flowers. This arrangement of rebedding and transplanting all through the year will give to the Exposition an effect of continuous brilliancy. There will be no fading, yellow autumn tints in the gardens of the Panama-Pacific International Exposition. It will be springtime all the year round.

Aside from what the Exposition will do in floral decoration through its own landscape gardening experts and in the marvelous exhibit promised under the roofs of the horticultural buildings, where

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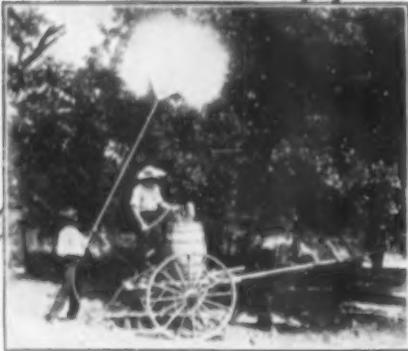
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MY CATALOG No. 1, an illustrated book of 64 pages, tells all about them and describes, with prices, all "the good old varieties" of Small Fruits as well. It gives also full instructions for planting with cultural notes, and tells about the giant Jumbo raspberry that I am giving away. It is free.

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For 38 years a specialist in Berry Culture.

flowers and plants from all corners of the earth will be seen, the marvels of the celebrated plant wizard, of Mr. Luther Burbank's fields and gardens, will be found in a special exhibit section. Burbank's plants are numbered by the thousand. He has signified his intention of producing a large and comprehensive exhibit of his own and Nature's prodigies of plant life. He has already engaged the services of a famous Pacific Coast expert to process hundreds of his fruits, flowers and other vegetation for display at the Exposition.

Japan has appropriated a million and a quarter dollars for its national exhibit, which will be set in a Japanese garden laid out by gardening experts from the Land of the Rising Sun. It is Japan's intention to lay out and plant this immense garden with a view to permanency and to present it to the city of San Francisco at the close of the Exposition.

"Cluck! Cluck!" Time to think of the poultry yard, sir. Time to think of incubators and the new broods and how to care for them. E. I. Farrington tells you how in the *MARCH HOUSE AND GARDEN*.

Methods and Results of the Winter Spraying

(Continued from page 98)

Kerosene-Soap Emulsion.— $\frac{1}{2}$ lb. hard soap, or 1 qt. of soft, 2 gallons of kerosene, 1 gallon rainwater (if necessary to use hard water, "break" it with lye). Dissolve the soap in the water by boiling. Take this from the fire and add the kerosene immediately, while it is still boiling hot, churning the mixture violently the while by pumping it back upon itself through an open nozzle that will throw a strong stream. Usually five minutes of such churning will bring the emulsion, when the bulk will have increased by from one-third to one-half, and the mixture will be as thick as very rich cream. This is the stock, to be kept and reduced for use as needed.

Solution "A"—Dilute one part of the stock with 10 parts of water for apple and pear trees.

Solution "B"—Dilute 1 part of the stock with 15 parts of water for plum, peach, cherry, apricot, and all other trees and shrubs.

Efficiency in the Flower Garden

(Continued from page 105)

The first essential in getting a successful flower garden started is that it shall be well drained. If the ground is sloping it is pretty sure to be all right in this respect. An examination of the sub-soil where the ground is level will usually show whether any surplus water can drain off quickly. Heavy soil with a hard-pan or impervious sub-soil are a bad combina-



THIS instructive book of 144 pages, devoted to everything for the *Farm-Garden-Lawn*, brimful of useful information and suggestions, is yours for the asking.

It is attractively and conveniently arranged with many clear pictures showing results you can obtain in your garden and text explaining how to get these results.

It contains complete description of the latest novelties and specialties in flowers and vegetables, as well as standards.

All plants described are grown from superior strains, selected from types that we have tested with splendid results.

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tion. But by the use of the tile drain, tiles to take off any surplus water, or by using dynamite to break up the sub-soil to let it through, conditions which are naturally unfavorable may be overcome. The latter is especially useful for this work, as it can be used under beds in isolated spots, while to use tile a complete "system" must be put in, extending from the spot to be drained to lower ground elsewhere. The expense of improving a small amount of ground by either method is very little.

The location of the garden is another important point. Most flowers and plants thrive best with all the sunshine they can get, although very few are injured by partial shade during the middle of the day. They appreciate also protection from north and west winds. Anyone who has wandered through spring fields and noticed how the wild flowers seemed to flock to the sheltered slopes and the sunny nooks and corners can appreciate the difference which favorable conditions in this respect will make.

In connection with the location of the garden there is another double-edged suggestion, of which the gardener should never lose track—the location should be chosen to suit the things to be planted, and the plants selected to suit the location. Where one cannot be changed, the other can. There is no excuse for the gardener who puts a shade-loving plant in the bright sun, or one that likes heavy soil and proximity to water in a dry, sandy bed.

The character of the soil itself is also important. But either the soil or the gardener must be very poor if any ordinary disadvantage in this respect cannot be overcome. Neglect in enriching and handling the soil properly is the most usual mistake of flower gardeners. Questions of special preparation for the different classes of plants will be discussed as they occur later in this series, but the gardener should do everything possible in the way of getting his beds and borders into proper shape before he begins any actual planting. This is especially necessary with hardy perennials and things of that sort which will occupy the ground for several years after they are once planted. Heavy applications of rich, well-rotted manure or compost are almost invariably beneficial. Ground limestone may also be used freely to advantage, as it improves both the physical and chemical condition of both light and heavy soils. Most thorough pulverization of the soil in the way of trenching, forking and working over, including very careful raking of all surfaces to be sown or planted, cannot be overdone. Too often these things are done in an indifferent or makeshift way in the hurry to get something set out.

Take the same care in enriching and preparing your flower garden as you would in enriching the vegetable garden. That will give you a basis upon which to begin operation, with some certainty of success.



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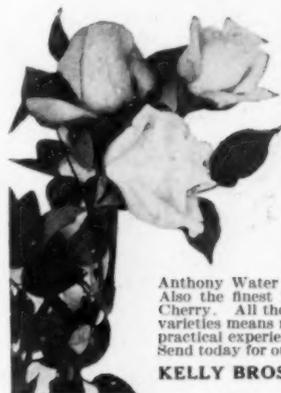
Q A booklet entitled "Turn Your Garbage Into Fuel" describes this device thoroughly. We will gladly send a copy to you upon request.

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a winter storm—RUIN!**

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When, How and Where to Paint

“TO paint or not to paint” is no longer the question for the modern home owner—but rather, “When to paint” or “How to paint.” I shall try to tell you in a condensed way something about paint efficiency. It may be that some of my advice is an old story to you, but by glancing through this article you possibly can hit upon those questions in which you are especially interested.

You might just as well ask the question, “Why go to the dentist?” as to ask “Why paint?” In both cases the answer is “to protect from decay,” with perhaps the additional reason, “to beautify.” Yes, paint is as essential to property as dentists are to teeth, and those who avoid either do so to their own loss.

Granted, then, that you paint first of all to protection, and, secondly, to beautify, you face the problem of what kind of paint to use. You have the choice of hand-mixed paint or of ready-mixed paint. By hand-mixed paint we mean paint which a painter mixes himself according to his own fancy and judgment. He, himself, often grinds the ingredients—white lead, linseed oil and the necessary drier and coloring pigments. Some people prefer this method of painting, because they claim they can specify and know just what ingredients are used, and they like to dictate how to mix these ingredients or else depend on some painter in whom they have confidence.

The other way is to use ready-mixed or machine-made paint. This kind of paint is being more generally used all the time, as it is more in keeping with modern ideas of efficiency. Machine-made paint is always the same—the most scientific formulæ can be followed out exactly—the ingredients can be more finely ground by powerful, modern machinery than by human power. With your materials ground and mixed to such a fine degree, you obtain paint that has great spreading capacity, and, therefore, great economy. Another argument in favor of good, machine-made paint is that it is more likely to contain zinc. This is an essential protective ingredient for paint, but it is not so often found in hand-mixed paints. Of course, all machine-made paints are not desirable, but there are any number of firms who manufacture good ready-made paints. So, in your painting, specify a paint that is guaranteed by the trade-mark of one of these well-known concerns.

Under no circumstances should a new house be painted before the wet basement or the plaster has dried out. It should be borne in mind that every yard of green plaster contains nearly a gallon of water, and unless thorough ventilation is given and the moisture is allowed to evaporate and escape in that way, it must necessarily escape through the siding (which may have been thoroughly dry when put on), and the result must inevitably be blistering or peeling. Painting during, or fol-

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How would you like to have a colony of sociable purple martins, or a family or two of Wrens or Bluebirds or Flickers living on your grounds this year? Now is the time to invite them by setting out Dodson bird houses—because birds favor houses which are a bit weather-worn.

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Pomony-Flowered Dahlia

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lowing soon after, a dew or heavy frost or fog, or in any heavy, damp atmosphere, is likely to produce unsatisfactory results, as dry siding absorbs moisture very rapidly. To the greatest extent possible, painting in the direct heat of the summer sun should be avoided. Paint on the shady sides of a building as much as can be done. Painting around fresh mortar beds should be avoided on account of the tendency of the oil in any paint to absorb the moisture and fumes from the lime, destroying the life of the oil and causing the paint to flatten out and perish.

Here are a few rules which in general apply to any finishing in which you want the best results. See that the surface is free from grease and soot. If it has been previously painted and is peeling, scaling off or cracking, burn off all the old paint. See that the surface is perfectly dry. Moisture is what often causes blistering, cracking, scaling, and like troubles. All pitchy surfaces should be treated either by burning or by sealing with good orange shellac. All knots should be carefully treated with shellac. Make sure the paint is mixed and stirred thoroughly before using. Do not paint in frosty weather or over too glossy a surface. Any paint may "crawl" under such conditions. Unless you have perfect confidence in your ability or your painter's, do not use boiled oil in any form or for thinning. Boiled oil never dries thoroughly, and always leaves the surface in bad condition for repainting unless rightly used. Pure, raw linseed oil should be used; it dries through and through and leaves a good, hard surface for repainting. "Elbow-grease" must be used to spread any paint out into thin coats and to brush it well into the pores of the wood.

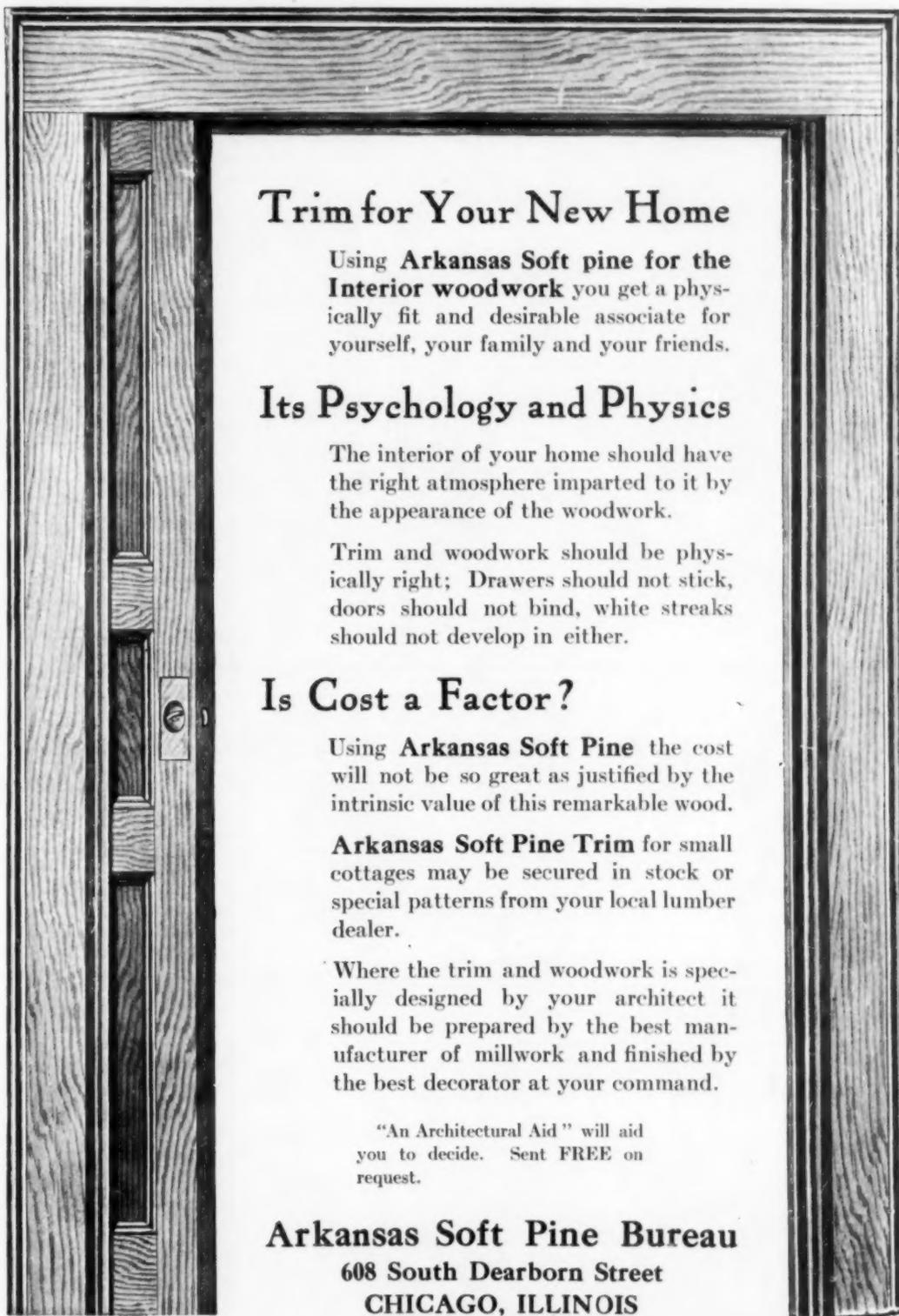
Here are a few things to remember when doing your interior "brightening up:"

In using enamel for finishing (and you are very likely to paint an old desk or table), remember first to apply two, and probably three, coats of flat paint. If you have a good, solid surface on which to apply your enamel, you will not only produce a better effect, but save time and expense, which would be wasted if you had a poor undercoating and were forced to put on several enamel coats.

In finishing a floor, remember to begin at the corner farthest from a door and work towards your exit, otherwise you will find yourself "cornered" and surrounded by a sea of wet varnish or stain!

You no longer need bemoan the fact that the furniture in a certain room doesn't "match." The many stains to be had now will closely imitate nearly every kind of wood.

Time was when varnish turned white if any liquid came in contact with it. Varnish can now be obtained which is perfectly heat and water proof. So, when purchasing varnish, or when your painter is using it, ask if it is waterproof.



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Apply wall paints with a wide wall-brush and work freely with sweeping strokes. This will produce a smoother and less "streaky" effect.

Remember to stir all paints thoroughly from the bottom of the package.

Unless you are very confident of your own ability in selecting color schemes, I would advise you to leave this matter in the hands of experienced architects or decorators—some of the more prominent paint manufacturers conduct decorative departments which furnish special decorative suggestions free of charge. But there are a few simple rules which you can safely follow out in selecting the colors for your exterior painting. You should first consider the surroundings of your home, and then keep in mind the fact that the colors used should harmonize with these surroundings and the house seem to be a part of them. Don't get the idea that a house, in order to be satisfactorily painted, should stand out in strong contrast to its surrounding—on the contrary, it should really harmonize with them. If the house is well surrounded with foliage, select medium warm colors, which will give you a slight contrast between the house and its environment. On the other hand, if the house is subjected to the glare of the sun, very frequently a satisfactory painted effect can be obtained by using the cooler colors, such as grays, drabs, greens, etc. If your house has rather elaborate trimmings, simplify them by painting the entire trim in one color, thus keeping these parts subdued; the plain effects have much more dignity. The tall, plain house can oftentimes be improved by selecting two body colors—a light one for the lower and a dark one for the upper part. It does not cost any more to paint a house in an attractive color combination, and a little extra care in choosing these colors is well worth while.

It is only in the last few years that we ever discussed the matter of walls. Painted walls were not even considered except for hospitals, offices, kitchens and bathrooms. But nowadays it is very different—walls painted with oil finish are constantly growing in popularity, and decorators are devoting quite as much time in developing attractive painted walls as they used to in selecting wall papers. The painted wall undoubtedly has many arguments in its favor—it affords a soft, velvety, background; it does not fade, and above all, it is washable. So it is safe to say that flat wall paints are here to stay.

When you choose your interior paint color schemes you can allow your own personal taste to have more play. Some people prefer the darker type of room, with tan walls and oak woodwork, while others like pale-gray, or even white walls and woodwork. Again, we will find some adapting the futurist ideas of black woodwork and vivid wall coloring. For general good taste, however, it is safe to say that the most pleasing and artistic interior



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J. K. ALEXANDER, "The Dahlia King,"
8-12 Central Street, EAST BRIDGEWATER, MASS.

effects result from walls that are painted soft, neutral shades. This makes the wall live up to its real decorative object—a background. You should, of course, remember that poorly lighted rooms require light colors, while sunny rooms can stand the deeper shades.

On these painted walls the plaster can be left smooth finished or in the rough. The latter looks very well when darker colors are used or when the wall is painted in stippled effects. But in small rooms painted in lighter tints, the smooth finish is more desirable.

The finishing of woodwork is largely a matter of taste, but there are a few rules which should be followed out in regard to floors. In choosing the colors, you should be guided by the other decorations of the room, especially the woodwork. All shades of brown are most practical, but it is well to select a shade somewhat lighter than the woodwork. If the woodwork is in white enamel, either a very light or a very dark tone would be appropriate for the floor. Painted floors are often desirable, especially when the wood is in poor condition and you do not wish to go to the expense of making it suitable for staining. You can develop some very attractive effects with painted floors—in some rooms you can use greens. I have seen white floors used to good advantage in country homes which had white woodwork and furniture. The new rag rugs or plain, bright-colored rugs look very well on these white-painted floors.

W. B. POWELL.

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DURING the last three weeks in October the landscape gardeners of the Panama-Pacific International Exposition at San Francisco, under the direction of Donald McLaren, set out the enormous number of 704,000 golden flowering plants in the main entrance plaza, facing the Tower of Jewels and in the minor courts of Palms and Flowers.

Work was begun October 20th on the final transplanting of 27,000 yellow wall-flowers and an equal number of Golden Spanish Iris in the Court of Palms, which looks out upon the Palace of Horticulture. The Tower plaza already has been planted to 200,000 yellow pansies, 100,000 yellow daffodils and 100,000 golden poppies. In the Court of Flowers, which opens toward Festival Hall, will be 150,000 golden poppies, 50,000 daffodils. This first planting will be replaced later by other flowers, so as to keep constant succession of bloom as a carpet for the Exposition. There will be no palms in the Court of Palms, the space being given over to acacias, towering cypress and low-growing eugenias. The balustrade surrounding the pool will be overhung by trailing muehlenbeckia, or maiden-hair vines.



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Care of the Bathroom

(Continued from page 109)

Another bathroom fitting which needs to be handled with extreme care is the towel rack. A rack attached to the tiled wall is never strong. Before a rack of this kind can be secured to the tiling it is necessary, first, to bore into the tiled surface; into these holes, then, are placed small wedges of wood. And, finally, the rack is secured to the tiling by small screws screwed into these inserts of wood.

On a rack of this description it is decidedly unwise, therefore, to place a heavy object of any kind. A different rest should be supplied for the bath mat and for heavy, wet towels.

The bathroom floor is also an important thing to be considered. If it is a tiled floor, like the tub and bowl, it may be very satisfactorily cleaned with gasoline. But with this I find it very advantageous to use a good laundry soap.

A rag rug is an excellent labor preventive for the bathroom floor. A rug of this kind may be bought at any carpet store for a comparatively small sum. The advantage of this rug over other floor coverings is that it may be sent to a steam laundry at any time, and be washed for a few cents.

In addition to the rag rug, if, as is the rule in most households, the members of the family take a morning bath, I find it a great economy to provide two bath mats. While one mat is sufficient in warm, sunny weather, if there is a stretch of damp, cold weather it is quite difficult to dry one of the heavy mats in twenty-four hours.

Unless the mat is perfectly dry there is a musty, disagreeable odor about it which makes its use unpleasant. On account of this fact I always use two mats in rotation. This insures a clean, dry mat each morning. These mats, too, like the rag rugs, may be laundered at the steam laundry for about ten cents.

All of these details make the cost of keeping the bathroom in a spotless condition insignificant. And that they are well worth observing is obvious; for it is by taking care of these small details that the housewife saves much time, labor and money in the course of the year.

Flowers for Poor Soil

There are times when the amateur gardener, despite his efforts, finds that he has got but poor soil with which to work. In such instances he is often obliged to adjust himself to the circumstances. The best way is to plant those flowers that grow best in poor soil.

Of the perennials, the following are advisable:

Snapdragons.

Anthemis Kelwayi, a golden marguerite. 2 feet.

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Gold Dust. Alyssum saxatile. 9 ins.

Columbines. Aquilegia hybrida, double and single.

Honesty, purple or white. (Biennial, but resows itself.)

The yellow Welsh poppy. Meconopsis. Cambrica. 1½ feet. (Biennial, but resows itself.)

Iceland poppies.

Wallflowers.

Of the annuals, the following are advisable:

Rose of Heaven, or Agrostemma coeli rosea. Pink. 9 inches.

Blue clover. Asperula azurea. Beloved by bees. 8 inches.

Pot marigolds. Caledulas, orange or yellow, double and single. 18 inches.

Calliopsis. Tall or dwarf, gold and crimson.

Candytuft. The common single, in white, carmine, lilac, or pink. 1 foot.

Clarkias. The singles are suited to poor ground.

Collin's toad flax. White or mixed. 9 inches.

Erysimum Perofskianum. Brilliant orange. 1 foot.

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Now is the ideal time to get out all the back numbers of one's magazines, many interesting things in which had to be glanced over but hastily in the busy spring and summer days, and delve in them thoroughly at leisure. Even the things which one has read will yield a bountiful second crop of suggestion and ideas upon further perusal. I have made both a business and a hobby of gardening for

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many years; I aim to keep in touch with new methods, new varieties, new discoveries and new theories; but there is not a magazine among the scores in my files—stacked around three walls of the room, and too frequently, I confess, left scattered over table, chairs and floor—in which I cannot find information and suggestions in the personal experience of others. Gardening is a game that never ends and never loses interest.

And there are the books! Magazines we could not do without, but they can never take the place of books. No more welcome gift can be made to a friend who is interested in gardening than a good book on the subject. Narratives of personal experience are particularly interesting, but occasionally they are not genuine: the back-to-the-land faker is as much to be guarded against as the nature faker. But good books, both interesting and instructive and most attractively "gotten up," there are in plenty; and one can never give—or receive—too many of them.

SOUTHERN GARDEN DEPARTMENT

Conducted by JULIA LESTER DILLON

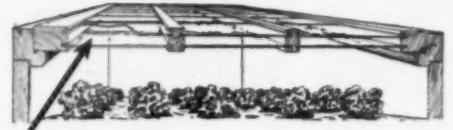
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THERE are many shrubs, both deciduous and evergreen, that may be put out at once and will give satisfaction from their planting. In general terms, all the shrubs that have finished their season of bloom, and all those that blossom late in summer or autumn, may be planted at this time. Only these are given here. There will be many cold days and colder nights in the months to come which will keep the leaf buds dormant while the root systems are being established, which will insure a safe passage over the hot, dry days of the summer.

The blossoms of the *Lagerstroemias indica*, in white and red and pink, may be safely counted upon for the summer months. The shrubby borderer may receive groups of the *Hibiscus syriacus*, the Rose of Sharon, or altheas, as we usually call them, in both the dwarf and tree forms. If these shrubs are planted in masses of known colors they are very effective and attractive at a time when there are few other flowers in bloom.

The *Loniceras*, *Rhodotypos kerrioides*, *Berberis Thunbergii*, with the *Viburnums*, *opulus* and *lantana*, form another group of late spring and summer-flowering shrubs. The sumacs, *Rhus glabra* and *Rhus copallina*, which bloom in August, and the *Rhus cotinus*, which gives us a cloud of purple mist among its branches in June, are all desirable and hardy. For the golden yellow that is rarely found in the summer-flowering shrubs we may plant *Hypericum moserianum*, which is almost an evergreen in this section.



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The *Hydrangeas* of all varieties are evidently considered most desirable summer bloomers, judging by the extensive plantings which we see on all sides. They are attractive, if properly placed and grouped, but the usual planting is neither good nor attractive. They require a deep moist soil and prefer a shaded situation. They should be grouped in masses against an evergreen background where the closely-pruned stems will not be obtrusive in winter, and in this position they are dependable for fine summer results, even though the leaves droop at midday from the heat. Usually they are in prominent places without proper background, and consequently for more than half the year they are unsightly. They do not mix well with other plantings. The white *Hydrangea paniculata grandiflora* and the *Otaksa*, in pink and blue, with the creamy *Hydrangea quercifolia*, are good deciduous plantings for large places, where striking effects can be obtained for a season and lost sight of later on.

As delicate of foliage as the hydrangeas are coarse are the feathery tamarisks, which are much like the cypress in leaf. Their color is a dainty glaucous green, and with the fern-like form of the leafage, and the foamy blossoms of palest pink, are exquisitely dainty and beautiful. The *Tamarix hispida aestivalis* is considered the finest of all and blooms from late spring through the long summer. This, with the *Tamarix gallica*, may be planted now. The other varieties bloom earlier, and it is too late to put them out, but all are attractive and satisfactory if planted among the heavier-leaved groups and given the moist soil of either sand or loam that they like. They do well at the seaside also, as the saline or alkaline soils seem to suit them.

Of strikingly different form and evergreen are the *Yuccas*, which are being more and more planted throughout the South, perhaps because they are so easy to grow. The varieties, *Yucca treculeana* and *Yucca filamentosa*, are very stately and lend an air of tropical luxuriance to the garden. They are effective both in leaf and flower.

Among the broad-leaved evergreens that bloom in the autumn are the heavenly sweet oleasters, *Eleagnus macrophylla*, and the bronze oleaster, *Eleagnus reflexa*. If only for their fragrance they should be found in every garden. These, with the *Eriobotrya*, the Japanese loquat, bloom in October, and perfume the air for a wide circumference with their delicious odors. The *Olea fragrans* and *Osmanthus aquifolium*, the tea olives, are also wonderfully fragrant and fall-blooming varieties of these evergreens. A little later than the oleasters we have the blossoms of the Assam tea plant, the *Thea Bohea*, which is truly a tropical shrub. This is not as well known as it should be, for it is really quite a decorative plant at all times and in the blooming season most attractive. The petals are pearly white, either four or five

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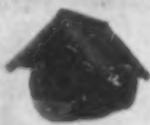
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in number, and like the orange blossoms in texture but larger in size and with masses of yellow anthers in the centers. These flowers, closely studded along the stems among the deep green leaves, make a very striking midwinter garden picture. About twenty miles from Charleston these teas are grown for commercial use and are a successful experiment of foreign plant introduction. From this point and south along the Gulf Coast they are perfectly hardy. This is almost a Christmas flower.

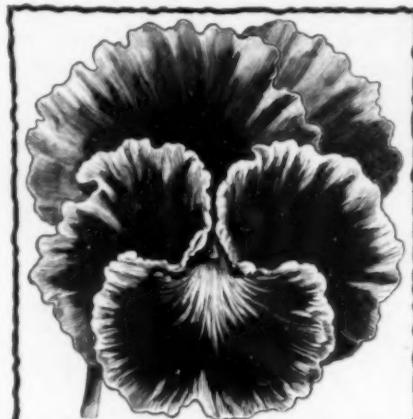
Other Christmas greens that should be planted are the hollies, which should always be closely associated in groups that include both the pistillate and staminate kinds. The familiar American holly, *Ilex opaca*, is not more attractive than the *Ilex aquifolium*, the European holly, and the Chinese and Japanese varieties, *Ilex cornuta* and *Ilex crenata*, with the *Ilex glabra*, the native winterberry or inkberry, are all good and hardy garden plants. The tree hollies should, of course, be used for background and border plantings or as a screen. They are of a beautiful light green color that contrasts most strikingly with the foliage of the darker-leaved plantings. A Southern lawn in its winter dress of bright velvety green framed in a border of the American holly, with vivid green leaves and bright-hued berries, is a winter picture that is beautiful and striking and well worth working for.

The two *Leucothoes*, *acuminata*, the well-known "Ti-Ti" or pipewood of South Carolina and Florida, and the *Leucothoe catesbaei*, are graceful and attractive both in summer bloom and in winter garb of shiny, glossy green leaves and showy scarlet berries that are used extensively for Christmas greens.

Of the summer-blooming shrubs we have the *Magnolias* and the *Neriums*. The latter, both in single and double, in all the shades of pink and in the white are among the most beautiful and desirable of our broad-leaved evergreens. The pink varieties are much more delicate than the white kinds. Galveston is known as the Oleander City, and along the Louisiana bayous they are planted only where a dense and tall evergreen screen is needed. In the cooler sections they are not so vigorous, but they are beautiful whenever and wherever found.

For the lower shrubby groups the *Gardenias* are most popular. They should have a fertile, loamy soil, and if the season is very dry they require much water if they give the full return of bloom. *Gardenia jasminoides* and *G. jasminoides fortunei* are the standards. In the older gardens these plants have attained tree-like growth and are magnificent.

Some of us have big gardens and some gardens no larger than a pocket handkerchief, but there are infinite possibilities in each. When you see the pictures in "Landscape Gardening on a Small Place," in the March HOUSE AND GARDEN, you'll understand how it is done.



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Starting Tubers

Besides the seeds which are to be started now, there are a number of bulbs and tubers that should be attended to. Get out the cannas which you saved from last fall, break the larger clumps apart and place them on moss, covering them up with sand and keeping them moist and warm until the buds start, when they can be cut apart and potted separately, instead of setting out whole clumps. Dahlias may be treated in much the same way; in separating them, however, a piece of the crown where last year's stalk grew must be kept with each tuber. Like the cannas, you start them first in a mild heat before separating and cutting up the bulbs. Varieties that are scarce may be increased by making cuttings from the new shoots, which may be rooted and potted in the usual way except that care must be taken to cut them where there will be a bud at the base of the cutting, otherwise no tuber will be formed. If the sprouts are broken off close to the tuber, as soon as they are long enough to pot up, they will be succeeded by others, so that from one clump of roots a number of plants will be had.

In the small greenhouse which is not divided by a partition into sections where different temperatures may be maintained, it will pay to rig up a simple propagating frame in which to start cuttings and those seeds that need a higher temperature than that maintained in the main house. A further advantage of such a frame is that the air within it may be kept at any desired degree of moisture. A hotbed sash or one or two ordinary windows or storm windows, if available, will serve for the roof of such a frame. An upright at each end, with a cross beam between them, to which the sash or window may be secured by a couple of hinges with ends of wood or glass, will be all that is required. If this frame is constructed so that air from the heating pipe can get into it from the bottom, a difference of 5° or 10° in temperature above that outside of the frame can be easily maintained.

D'you remember "Cloverly and The House Next Door" that was published in the May HOUSE AND GARDEN last year? It was months and months back, but people are still writing us letters about it—people who love their gardens and were caught with the fugitive charm of this article. For next month, Fanny Sage Stone has written another article—"The Old Ballard Place"—the story of a garden that was rejuvenated in the heart of a city. It is even more delicate and kindlier than was "Cloverly." You'll like it.

Birds Will Check Wireworm's Depredations

BIRDS are probably the most important factor in restricting the depredations of wireworms, according to the United States Department of Agriculture's new bulletin. Among the birds that

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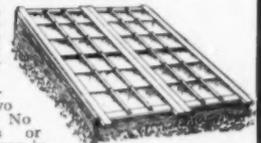
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are known to feed on wireworms (either the larvæ that do the damage or the adult beetles) are the following: Bobwhite, flicker, mourning dove, ruffed grouse, crow, whippoorwill, California quail, cowbird and bobolink. Beside the above, certain hawks, cuckoos, woodpeckers, phœbes, fly-catchers, jays, blackbirds, orioles and sparrows, help the farmer in protecting his grain from the undesirable wireworm.

While the wireworms, when they do most of their damage, are merely grubs measuring from one-half inch to over three inches in length, they are more readily recognized when grown into adult beetles. These beetles are known in certain localities as "click-beetles," "skip-jacks," "snapping beetles," etc. These names are all derived from the beetle's habit of snapping the fore part of the body when placed upon its back or held between the fingers. The worms that do the damage are usually yellow or reddish-brown, with three pairs of short legs near the front of the body.

The term wireworm is sometimes misapplied to the larvæ of another group of beetles. The meal-worm, which feeds upon stored products in warehouses and granaries, is one of these false wireworms. The beetles of this group of insects do not snap the fore part of the body as do those of the true wireworm.

The true wireworm, economically, is one of the five worst pests that attack Indian corn. It is amongst the twelve worst pests attacking wheat and oats. With the exception of the cotton and corn wireworm, these insects begin their attacks immediately after seeding time, when they attack the seed, eating out the inside and leaving only the hull. When they are very numerous they often consume all the seed, making reseeding necessary, and in severe outbreaks a second reseeding is sometimes made before a stand is obtained. Aside from the extra labor and cost of the seed, this delays the planting of the crop, and if it be corn, in the Northern States the season is too short to mature so late planted a crop, and, except for the fodder, it is a failure. Where wireworms are present, even in very small numbers, corn will make a poor stand, which will necessitate the planting-in of missing hills. In some regions where these insects are quite numerous it is customary to sow three or four times the amount of seed that would normally be necessary in order to get a good stand.

The only remedies which have actually proved to be of practical value in combating any of the wireworms are cultural methods. Even these in a number of cases have not proved entirely satisfactory; however, they are preferable to such apparently ineffective means as endeavoring to kill the adult beetles by poison baits, drying the seed to prevent its being eaten by the insect, or the introduction of poisons into the soil.

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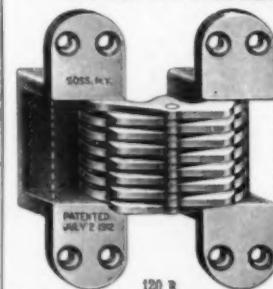
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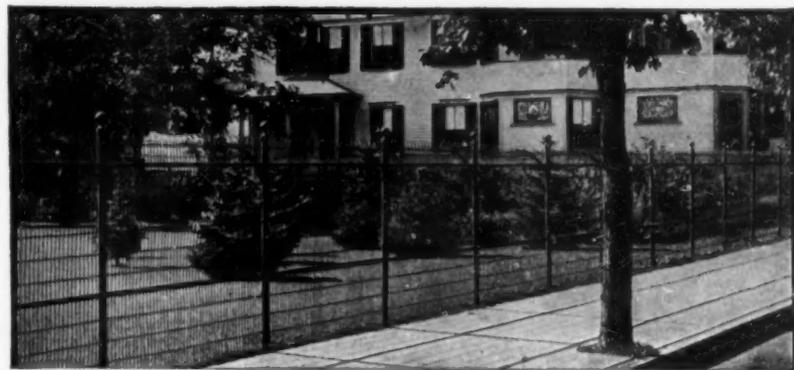
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The wheat wireworm measures, when full grown, about an inch in length, and it is about as thick as the lead in a pencil. Its adult is a small, brown beetle only about one-quarter of an inch long. This is the most common wireworm of the Northeastern and Middle-Western States.

The wheat wireworm is normally a grass feeder, living on the roots of sod, and, with the abundance of its natural food supply, producing no appreciable disturbance in the meadows, but when the sod land is broken these wireworms concentrate in the drill rows or hills of corn, the usual crop to follow sod in the Eastern United States, and often produce absolute failure of the crop by destroying the seed and eating off the roots of such plants as may germinate. This species is usually more destructive, therefore, on land recently broken from sod.

To combat the wheat wireworm, the Department's specialist recommends plowing sod land immediately after the first hay cutting, usually early in July, when the land is intended for corn the following year. This land should be cultivated deeply throughout the remainder of the summer. Land that is in corn and badly infested should be deeply cultivated, even at the risk of slightly "root-pruning" the corn. This cultivation should be continued as long as the corn can be cultivated, and as soon as the crop is removed the field should be very thoroughly cultivated before sowing to wheat. In regions where wheat is seeded down for hay any treatment of infested wheat fields is precluded. Where wheat is not followed by seeding, the field should be plowed as soon as the wheat is harvested.

Thorough preparation of the corn seed bed and a liberal use of barnyard manure or other fertilizer will often give a fair stand of corn, in spite of the wireworms, a vigorous plant often being able to produce roots enough to withstand the deprivations of several wireworms.

The wireworms that attack corn and cotton are not hard and wiry as are most of the tribe, but soft and elongated. When full grown these grubs are about an inch in length, but scarcely thicker than pack thread. Unlike most of the Eastern wireworms, which are usually most destructive in damp, low-lying fields, these insects seem to be far more numerous on the higher parts of the fields in light, sandy soil. These wireworms are among the most troublesome species of the Southern States. Investigators are, as yet, unable to recommend definitely any cultural method, but it is probable that something in the near future will be shown to be effective.

As these worms are of three different ages in most infested fields, and as only about one-third of these will be in the pupal stage each year, it is evident that the first year of this practice will not show startling results. However, if the practice is continued for a couple of years it will undoubtedly reduce the number of these pests very considerably.

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Extract from the Scotsman of July 23, 1912

There was a large attendance at the trial of Armgaard Karl Graves yesterday. The prisoner was a well-built, dark-skinned, foreign looking man. He remained perfectly cool, made notes and cross examined with some ability. He conducted his own defence.

On being informed that he might challenge the jury-men, he scrutinized them closely and challenged four who retired. Inspector Trench, in giving evidence, said:

"The prisoner on being arrested in his hotel had in his possession a doctor's book apparently empty. This was found on inspection to contain two leaves stuck together. In the middle were sentences and figures—a code which had subsequently been deciphered by a process of subtraction from the A. B. C. Code.

Prisoner was sentenced to 18 months' imprisonment. He had already been 105 days in custody since the time of his arrest.

The Secrets of the German War Office

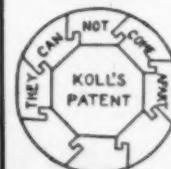
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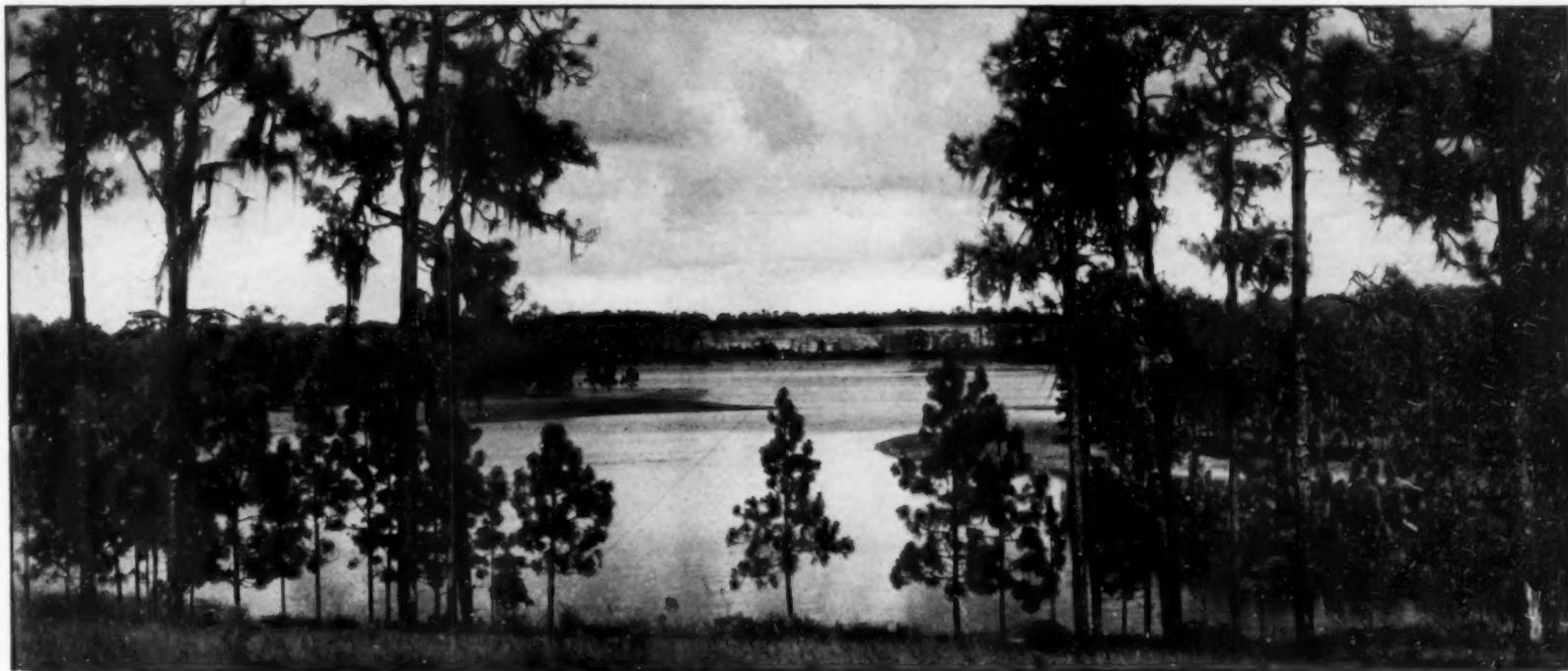
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Dosing the Dog

IN these columns and elsewhere I have always advocated common sense and exercise as the two medicines which are most valuable in keeping a dog in good health. Yet, inevitably, in the case of almost every dog, there will be occasions when some simple remedy of more concrete form must be administered in order to relieve a condition which can be touched in no other way, and here a knowledge of a few of the "tricks of the trade" will save considerable trouble.

When most people decide to give a dog medicine they try to pour it down his throat as if he were a hungry child. Towser, however, is constituted differently



Introduce the medicine at the rear of his mouth

from Tommy, so most of the remedy seeks the floor and the doctor's clothes in its efforts to escape from the sufferer's unwelcoming mouth. The proper method is to kneel with the dog sitting between your knees with his back to you, and introduce the medicine at the rear corner of his mouth, pouring the required dose from a small bottle for the sake of convenience. Hold the dog's jaws firmly together and pointed skyward, and when the medicine is in his mouth loosen your grip a little; he will at once swallow, and the trick is done.

Medicine in solid form, such as pills and capsules of various kinds, can be given in one of two ways. If they are small and the dog is hungry, conceal them in little balls of bread or meat and they will reach their destination without delay. If the pill is large or the dog in such a condition that he will not take food readily, it becomes necessary to adopt a different method. Kneel over the dog as before, open his mouth with one hand over his upper jaw, and with the other place the pill well down

(Continued on page 147)

March Poultry Work

MARCH is altogether the best month in the year for the amateur to begin hatching, whether he be using an incubator or hens, although the third week is early enough when the eggs have come from the hens of the smaller breeds, like the Leghorns and Anconas. In all hatching, much depends upon the breeding stock, and it is better to buy one's eggs or to purchase day-old chicks than to incubate eggs laid by hens which have been kept in close confinement all the season.

The man who lives on a town lot, with only a back yard available, can get just as many eggs from a flock of good hens as the professional poultryman with acres of land for his birds to range over, but when spring comes the hens will be in no condition to breed from. The best plan for the amateur so situated is to renew his flock every season by the purchase of either setting eggs or day-old chicks, taking care to get them from reliable breeders who have their birds on free range much of the time.

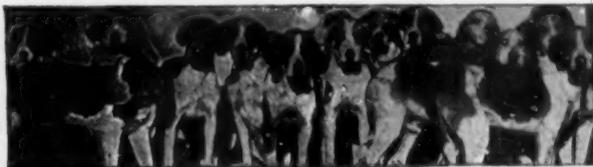
It is perfectly feasible for the man who seeks only to keep his table supplied with fresh eggs the year around to adopt the no-yard system, his hens being confined to roomy, open-front houses at all times. Of course, there is no reason for keeping a male bird then, and the neighbors escape what might otherwise be a local nuisance.

When hatching eggs laid by one's own flock, it is important to remember that very much depends upon the male. It is necessary that he should be full sized, well formed and vigorous. Vitality is the first essential in both the male and the hens. And heavy-laying pullets cannot be expected unless the head of the flock came from a heavy-laying strain of birds. It is considered a good plan to breed a two-year-old cock with pullets, or vice versa, and often there are two males, which are allowed to run with the hens on alternate weeks.

Poultry lice are likely to be much in evidence this month, and it is important to keep them in subjection. Most active hens will keep themselves reasonably free from body lice if they have a good dust bath, but they are entirely at the mercy of the red mites, which suck their blood at night and retreat to the under part of the perches or to cracks and crevices in the walls before daylight comes. The common practice of poultry keepers is to spray or wash the perches and surrounding walls with kerosene at frequent intervals, but there are preparations on the market which are applied with a paint brush, and one application of which will keep the red mites away for three or four months.

Usually the roosters need to be dusted with insect powder occasionally at breeding time, for they are prone to neglect the dust bath, however convenient it may be, and often become badly infested.

When only a few chickens are to be hatched the amateur is likely to use a set-



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ting hen or two, in the good, old-fashioned—if somewhat bothersome—way. In that event it is advisable to hatch all the chicks at one time, if possible, in order to do away with the bother of caring for broods of different ages. And here again it is necessary to make free use of lice powder, for a setting hen requires an application at least once a week, being held up by the feet and the powder thoroughly worked into the feathers, especially under the wings and around the vent. Hundreds of hens have died on their nests simply through neglect of this precautionary measure. Decided lack of intelligence on the part of the hens is indicated, of course, but they must suffer torments.

The nest for a setting hen should be low enough so that she can walk into it. She has to run a risk of breaking the eggs when she jumps in. The properly made nest is ridged at the sides to keep the eggs in, but flat on the bottom, in order that the eggs may not roll to the center. It should be shaped like a pie plate, rather than a bowl.

When brooders are to be used they should be ready by the time the chicks are out of their shells. Of course, brooders are necessary when incubators are used, and some people who hatch with hens prefer brooders for raising the chicks. Probably the portable hovers are most convenient for the amateur as they may be set up anywhere under cover, and are very easy to manage. At this season of the year they are quite as dependable as any kind. Outdoor brooders may also be used for chickens hatched as late as the latter part of March, but a hover in a colony house is preferable, for when the chicks are large enough the hover may be removed and the house will serve for a coop.

As soon as the ground in the poultry yard is dry enough it should be spaded over, if the amount of space is limited. Small yards soon get very foul, and poultry cannot be expected to thrive in them. Sometimes it is necessary, and even desirable, to scrape off an inch or two of the surface soil and to cart on fresh earth. Some amateurs find it convenient to use a wheel-hoe for breaking up the soil in the poultry yard.

March is a good month to clean out the poultry house if the weather becomes settled sufficiently to allow the hens outside. A thorough cleaning once a year is most advisable, and conditions are often improved by giving the interior a coat of whitewash. It is better to keep the hens confined, though, so long as the weather is wet and the ground cold, except for occasional excursions in the middle of the day. If the hens wade around in puddles they are certain to bring much water into the houses and get the litter damp.

If ducks are to be raised, this is none too early to set the eggs, although the hatching of Indian Runners can run over into April. Usually the eggs are very fertile in March and good hatches may be

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Dosing the Dog

(Continued from page 144)

his throat at the base and on top of his tongue. Now close his jaws, hold them so with the left hand, and rub his throat up and down with the right. This will cause an involuntary gulp or two, and down goes the dose.

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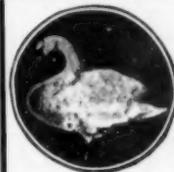
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