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McBRIDE, NAST & CO.
UNION SQUARE NORTH NEW YORK

VOLUME XXVI NUMBER 5
RICHARDSON WRIGHT
Managing Editor
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A drawing-room with vistas, is invariably the desideratum of everyone who builds a house, yet rarely is it attained. In this house at Pasadena, Cal., of which Myron Hunt is the architect, the generous proportioned arrangement and wide doors throughout the lower floor afford a view from the reception hall through the drawing-room to the dining-room at the farther end. While the decorations are of mixed styles and periods, the room is in harmony and excellent taste.



House & Garden

REGISTERED IN U. S. PATENT OFFICE



VOL. XXVI—No. 5

NOVEMBER, 1914



"Wee House" follows no one particular style of architecture. In its ancestry is a little of the Norman farmhouse, a trace of the Pennsylvania Colonial, a dash of Georgian and a good deal of the small English country home of to-day

Homes that Architects Have Built for Themselves

THE RESIDENCE OF EDMUND C. EVANS AT ARDMORE, PA., IS AN EXAMPLE OF THE DWELLING WITH ITS BACK TO THE PUBLIC—ITS PROBLEMS AND THEIR SOLUTION

BY BARTON F. THURSTON

VARIETY is the spice of life. This truism we willingly admit. Variety is also the spice of architecture. That we admit if we stop to think about it. Well-mannered architecture, that does what you expect it to do, of course we must have, just as we must have well-mannered people about us if the wheels of social or business life are to run smoothly. But good manners do not necessarily imply flat and arid conventionality of behavior, and it is always vastly refreshing to find people who can shake off all the trammels of rigid convention without transgressing the canons of good breeding. Just so, in matters architectural, it is a

truly grateful thing to find a building where the bounds of fixed types have been gracefully overstepped in reaching a result of combined distinction and comeliness.

Such a place is "Wee House," Ardmore. It belongs to no one particular type of architecture, but the lines of its descent are mixed. In its make-up there is a little of the Norman farmhouse, a little of the early Pennsylvania barn, a dash of Georgian here and there, a good deal of the small English country house of to-day, a trace of the modern French country seat, and a sunny note of old Pompeian ornament—all fitly joined together in one

congruous whole by the cement of discreet selection. But before further discussing the house itself we must look at the site and see what problems of location had to be solved.

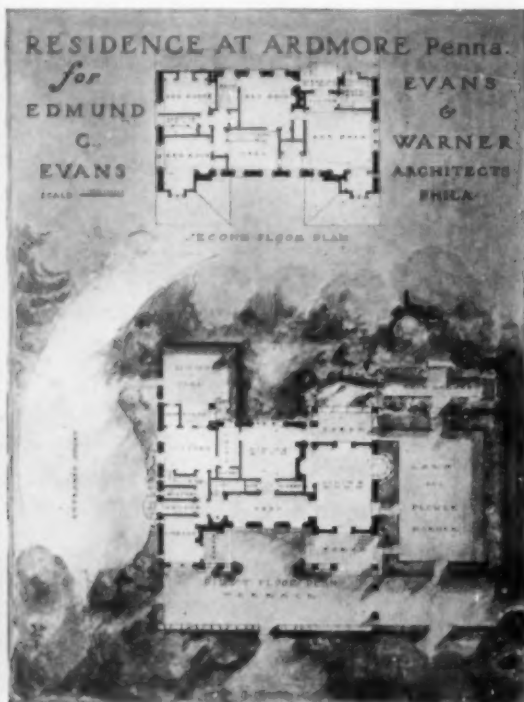
The whole place is on a steep western hillside, thickly wooded below, falling rapidly to a brook-bordered meadow at the foot. There was not a rod of level ground above the meadow, and the meadow was not the spot for the house. The problem was still further complicated by a funnel-shaped combe that started wide near the top of the hill and furrowed the slope, dipping sharply to the brook at the bottom. Clearly, this was not a place for the display of polite but platitudinous Beaux Arts conventions that could, or rather *would*, have done little else with such a site than create for it an Italian villa with ramps and flights of balustrated steps and gushing cascades—all fine and beautiful enough, but far more ambitious than conditions permitted, and, besides, there was no water at the top of the hill to be let loose in cascades. The ground itself was full of individuality and rustic vigor, and demanded sincerity of purpose, free from all artificial re-



The vaulted and tiled gallery across the front of the house was an inspiration

straint, to get the best out of it by adapting the house proposed to its peculiar requirements. There was no other practicable means of entrance but at the hilltop. A road could have been engineered up from the meadow, but this would have been a thankless task, in a way, for there is nothing that eats up so much money with so little apparent result to show for it as road building, especially when there is a difficult grade to surmount. The most desirable view, however, was down the hill towards the west and the meadow. Plainly, then, there was only one thing to do—back the house to the entrance. And done this was without the least compunction at overturning one of the pet notions of the people who follow meekly in the wake of Mrs. Grundy. The house was for the comfort and pleasure of the occu-

pants and such friends as they chose to have with them, and not for the benefit of the general public or what portion of it might find its way in from the highway and over the break of the hill. What, then, could be more sensible than to front the house away from the approach, and by so doing have the finest outlook and all the added privacy in the place where one would naturally spend



Architect's drawing and plans for the first and second floor, showing the approach to the house and its environs



Dormers with arched hoods have been countersunk in the roof. Square, white chimneys with red pots lend color



The house sits down well on the ground, as it ought. At the eaves the roof has a little flaring kick-up

most of the time? Another excellent feature of such an arrangement is that it effectually demolishes the wretched practice, all too common, of neglecting the back of a place on the ground that nobody will see it but the tradespeople, anyhow.

Site and facing disposed of, we come naturally to inspect the exterior aspect of the structure. In the first place, it is built of the native grey mica stone, and therein lies the first element of its success. Whatever latitude there may be in the choice of possible building materials—and it is at all times pleasant to have a choice open to one's discretion—it will never be a mistake to choose the material that nature has provided readiest at hand; that is, if one regards the underlying subtleties of local tradition and wishes the house to appear indigenous to the soil and not present a fanciful, exotic aspect. The texture of quarry-faced rubble walls, laid in the traditional Pennsylvania manner that has so faithfully preserved the spirit of Colonial masonry, is always agreeable. A note of contrast to the vivid green of the surroundings has been given by applying to the stone a coat of whitewash with which a proper portion of cement has been mixed to ensure its durability.

The house sits down on the ground as it ought. Even the porches, which are on a level with the living-room floor, are but two or three inches above the level of the lawn. The difficulties presented by the slope of the lands have been overcome by making the dining-room and kitchen three steps above the rest of the first floor. This device keeps the intimate contact with the soil all round, permits the house to look well rooted, and is not at all inconvenient. From

the dining-room, wide steps descend to a tile-paved porch on the south or to the broad gallery that runs along the west between the house-door and the living-room. The ground excavated from the hillside for the rear of the house and a part of the lawn has been made into a walled terrace in front, on a level with the gallery and west rooms. The small English country-house source of in-

spiration is more perceptible from the west, perhaps, than from any other point. Without being in any sense a copy, the arrangement of the two fore-reaching roof projections cannot fail to suggest one of Mr. Lutyens's most successful countryside creations. Those who are familiar with his work will recognize the point of resemblance. The employment of suggested motifs, be it remembered, is in no sense an admission of incapacity or lack of originality. The best and most original architectural manifestations have resulted from an interchange of inspirations, and the adoption and incorporation of some worthy feature from an outside source are evidences of superior discrimination. Indeed, there is no surer test of originality than the ability to adapt and combine successfully a variety of elements derived from different sources. If Mr.

Lutyens has supplied inspiration to many American architects he is also their debtor on the same score.

At the eaves, the roof has a little flaring kick-up that agreeably calls to mind the old Norman and French Canadian farmhouse. To allude once more to architectural sources and show how largely we are all debtors to the past, Mr. Lutyens, who often uses this same device to mollify hard lines, and many of his most able



The living-room is finished in darkwood and the walls are rough sand-finished and toned. The generous fireplace, inglenook, and built-in bookcases are attractive features



The color scheme in the dining-room is blue and white, and here as much light as possible is afforded by the casement and from the long gallery



Several problems were involved in the site, which is on a steep western hillside, with a roadway at the top. These were met by backing the house to the entrance with the front to the west, and building low and snug along the ridge with native materials

British contemporaries, too, owe not a few of their felicitous forms of expression to Norman origins.

Nearly all the way around the house, except at the gable ends, a small part of the back and the middle portion of the west front, the slope of the roof descends to the first floor, contributing thereby to the general air of repose. The arrangement by which all the dormers are countersunk with only their low-arched hoods projecting above the surface of the roof is most admirable, and eliminates the fussy restlessness that dormers almost invariably create. Fortunately, the roof has been let severely alone, and in the course of two years sun and weather have had chance enough to warp and stain, so that texture and tone are good. Red earthen pots surmounting the square, white chimneys lend a welcome bit of color diversity, which is further harmoniously increased by the fascinating green-blue of the doors and shutters.

The broad step before the house-door is made of the undressed flat sides of picked building stones laid randomwise. A rounded hood above, reminiscent partly of Germantown and partly of Queen Anne's Gate or Grosvenor Road, joins forces with the broad-paneled doors and shutters, the arched dormer heads and a long, straight, six-light transom in the living-room to represent the

full extent of the structure's architectural affinity with early Eighteenth-Century modes. Crossing the threshold, one comes into a vestibule, and then up two steps into a barrel-vaulted, tile-paved gallery that extends across the front of the house and ends at the living-room door. "Wee House," as its name implies, is not large, but this broad, sunny gallery, lighted by three wide French windows that open on the terrace, gives an impression of amplitude and space and dignity that many a far larger dwelling completely lacks. This bit of arrangement is truly ingenious, and, small as the house is, the space occupied can be readily afforded. One great secret of the ground-floor plan which makes this gallery both possible and convenient, a luxury and a necessity at one and the same time, is that no unnecessary rooms have been included in the design. There is a kitchen, a pantry, a dining-room and a living room, and, if one wishes to escape to privacy and quiet, they can take refuge in the master's snug little study in the northwest wing.

The gallery walls are rough sand-finished in their natural tone, but in the rectangular recessed panels over the radiators a delightful bit of color is introduced that stands out all the more

(Continued on page 321)



The scarlet of common barberry

The Variety of Colors in SHRUB BERRIES



Steel blue of the Symplocos

A SURPRISING RANGE OF COLOR AND STRUCTURE UNCONVENTIONALLY DESCRIBED
AND INTERPRETED—WHAT A BERRY IS—THE WHEREFORE OF ITS PECULIAR
ARRANGEMENT—HOW TO DISPOSE OF BERRIES BOTH INDOORS AND OUTDOORS

BY ANTOINETTE REHMANN PERRETT

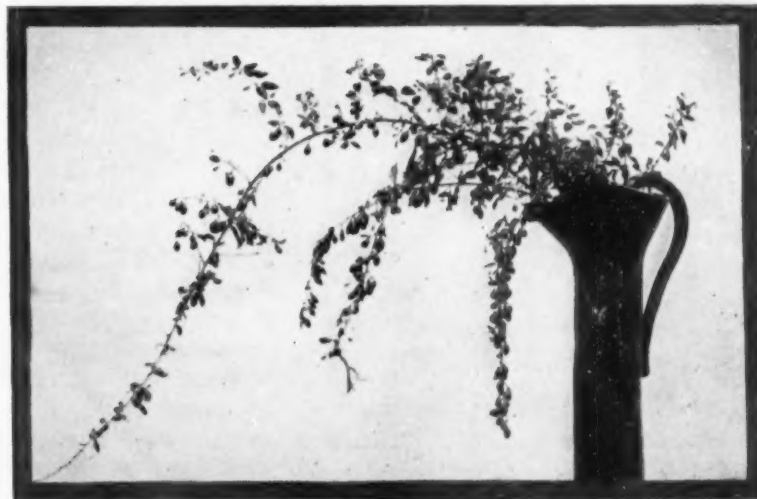
VERY few people have any idea of the great variety of colored berries that follow the succession of bloom of the flowering shrubs, and yet this is knowledge that yields much pleasurable return both in the house and garden. We have taken photographs of some of the berries as we arranged them in our home vases to suggest their decorative value in the house, and in doing so we are only sorry that their lovely color is lost. There are, for instance, the steel blue berries of the *Symplocos*, such a wondrously brilliant blue it fairly makes your heart beat higher. There are the flat clusters of the *Viburnum cassinoides*, in September a warm cream tinged with rose, and in October a bright rose alternating with the blue of the ripened berries. We have placed them in a vase of light golden brown streaked with darker browns and then again softened by a misty haze of grey, a vase that not only adds significance to the rose and blue of the berries, but heightens the charm of the thick olive-green leaves. The wands of coral-berries growing in the axils of the flight-poised leaves are in a German jug of blue and white. The scarlet Japanese barberries in a hammered copper, the dull black berries of Regel's privet in a common ginger jar of bluish green lightened around the top with gleams of turquoise. The brilliant scarlet of the black alder is in a pewter-topped vase of green and blue pottery.

You will notice that a number of the berries like the sumach spikes, the graceful wands of the snowberries, the haze-covered, rose red of the common barberry and the deep red, translucent, pearl-shaped fruit of the matrimony vine are all in curious-shaped vases of this same pottery. We happened upon it one time while we were visiting the quaint, mediæval city of Bruges, and brought it home with us because its various soft coloring, including all sorts of soft greens, browns and purples, makes a quiet and yet not monotonous color scheme against our grey-green burlap walls and our dark-brown oak woodwork. It is in quiet rooms of this kind and in simple pottery and metal vases that the shrub berries are, perhaps, most effective.

One of the surprising things, at first acquaintance, about the berries is their variety of colors. Of course, a great many, like the Japanese barberry, the black alder, the chokeberry, the high-bush cranberry, the June-berry, the matrimony vine, the American yew, like the haws of the thorns and the hips of the roses, are red. Many, too, like the various privet berries, the inkberry, the dogberry, like the berries of the honeysuckle vine and the *Rhodotypos*, are black. The snowberries are white, and so are the berries of the red-stemmed and panicked dogwoods. The *Eleagnus* is a kind of greyish white. The *Hyppophæa*, or sea-buckthorn, is a trans-



Trailing stems and clustered hips, packed with tiny fruit, characterize the *Rosa setigera*



The matrimony vine bears abundant deep-red, translucent fruit, shaped like drop pearls



The Indian currant has wand-like sprays of coral-colored berries



In autumn the scarlet sumach flames with leaves and spikes of red fruit



Viburnum cassinoides: in September, cream tinged with rose; in October, bright rose alternating with the blue of ripened berries

lucent yellow, deepening at times to orange, the evergreen thorn orange deepening later in the season into orange red, the *Callicarpa* is lavender, the *Kinnikinnik* a silvery blue. The Tartarian bush honeysuckles have translucent berries in yellow, orange and red. The bitter-sweet has a yellow-orange capsule opening upon a crimson seed. So that you can carry out various colors in your decorative schemes.

The berries have, however, not only a surprising range of color, but of structure. We are calling all the gaily-colored fruits of the shrubs berries. This is well enough in a general way, but as soon as we become more intimately acquainted we come upon other names, like hips and haws, drupes and pomes, while a berry means only the fruit that is thin-skinned and has its seeds loosely imbedded in a soft or succulent material like,

for instance, the currant and huckleberry, the Tartarian bush honeysuckle, the coralberry and the snowberry, Hercules' club and matrimony vine. Some, like the privets and black alders, are berry-like drupes. Some, like the American elder, the buckthorn, are very juicy, berry-like drupes. Some, like the shadbush, or June-berry, and the chokeberry, are berry-like pomes. The fruits of the viburnums and the dogwoods are all drupes. Drupes have for their

distinguishing feature a stone enclosing the kernel, like the familiar peach, coconut or walnut, whereas pomes have carpels enclosed in a fleshy mass, like the familiar apple, pear or quince. Haws are drupe-like pomes. Hips are the invariable fruits of the rose, and are peculiar, consisting of a hollow cup within which are packed many dry, one-seeded fruits that do not open to emit their contents, but have walls fitting closely round.

Each shrub has its distinct personality, a thing you would hardly suspect in many a garden where the shrubs have been trimmed or unintelligently pruned. In arranging the berries, we have tried to respect this personality. We have tried, for instance, to show the way the snowberries droop on their wand-like stems, how the scarlet berries of the straight, black alder are silhouetted solitary on their tiny stems among the dark twigs and branches; how the sumach grows in terminal spikes among great leaves; how the *Viburnum cassinoides* is a stocky bush with fruit that grows in large, flat clusters; how the hips of the *Rosa setigera* grow in clusters, with the trailing stems extending out beyond. We have tried to show the difference between the Japanese and the common barberry. As far as we have been able we have kept away from conventional placing, in an effort to interpret the shrub.

There are shrub berries, like the June berries, that ripen very early in the summer, but it is with the beginning of September that the berries take an all-important place among the shrubberries. In September the dogwoods are laden with fruit. The familiar *Cornus Florida*, with its abundant bunches of bright red, egg-shaped berries, makes fine showing among the changing red of the foliage. Then there are the convex clusters of white berries, small, flattened, round berries with conspicuous red stems clinging to smooth, grey twigs that fairly laden the panicked dogwood. The other white-fruited dogwood bears its ripe clusters as early as June, and then again as late as November, as it is the one that has the brilliant red stems in winter time. Then there is the *Kinnikinnik*, or silky dogwood, full of pale-blue berries tinged with a kind of silvery sheen, and the dogberry, full of small, black



Study of the Japanese barberry proves it to have distinctive structure and personality



Bitter-sweet, with its yellow-orange capsules and crimson seed, is always a favorite



The branches of Regel's privet have decorative possibilities both inside and outside the house



In October the snowberry is at its whitest, though in July its pink flowers are quite plain-looking. It is effective when planted with Indian currant

clusters. Of these bushes, the red-stemmed dogwood needs to be grown in masses in a park, to be effective, but the others can well be grouped in a garden shrubbery, and are especially valuable if you want an effective display in September, for most of them do not stay on long after that. In October the red chokeberries are especially brilliant and abundant, and so are the various haws. If you want berries that stay on all winter, there are the Japanese barberries that are just as bright when next year's leaves appear as they are in the fall. The dull black berries of the privet, too, after a winter's wear, stay on to look decorative amid the new spring green, while the shiny black fruit of the *Rhodotypos* often makes it a point to outstay its welcome long after the new fruit has appeared.

Among the shrubs which we illustrate, the snowberry is at its whitest in September and October before the later rains and frosts brown and bedraggle it. The snowberry is a familiar and graceful old garden favorite, with the most conspicuous of the white berries. Its family name is *Symphoricarpos*, fruit-grown together, and the name well characterizes the habits of its berries, all huddled together close to their twigs. Another attraction is their various sizes, ranging from peas to marbles, and often tipped with a late wee pink flower. In July the small, pink flowers are insignificant, what you would call decidedly plain-looking, and yet all the while they have the power of transforming themselves into this beautiful white fruit. In our park the snowberries are planted with stretches of Indian currants or coral-berries. In a garden this combination can well be used for an informal hedge or wherever shrubs with delicate, wand-like stems are needed.

The Indian currants keep their leaves much later than the snowberries, curiously poised as if for flight. Their coral berries are most attractive after the leaves fall, sometimes all crimson, and then again the palest coral pink, and so full and crowded that they surround the stem.

The photograph of the matrimony vine in the tall pitcher with the flaring top does not really do it justice, but we have included

characteristic of the low hills in Connecticut. So much can be done to make even the smallest back yard interesting by planting vines like the woodbine, with its clusters of dull black fruit; honeysuckle, with its shiniest and roundest of black berries; the matrimony that we have just mentioned; the grape, with its beautiful blue fruit; trailing roses like the *Wichuriana*, with its charming clusters of small red hips, or our own native climbing rose, with its larger fruit that stays fresh-looking well into the winter. It is our only native climbing rose. You can distinguish it from our other native roses not only by its trailing stems, but by its three leaflets. In (Cont. on page 312)



The scarlet berries of the black alder are silhouetted solitary on their tiny stems

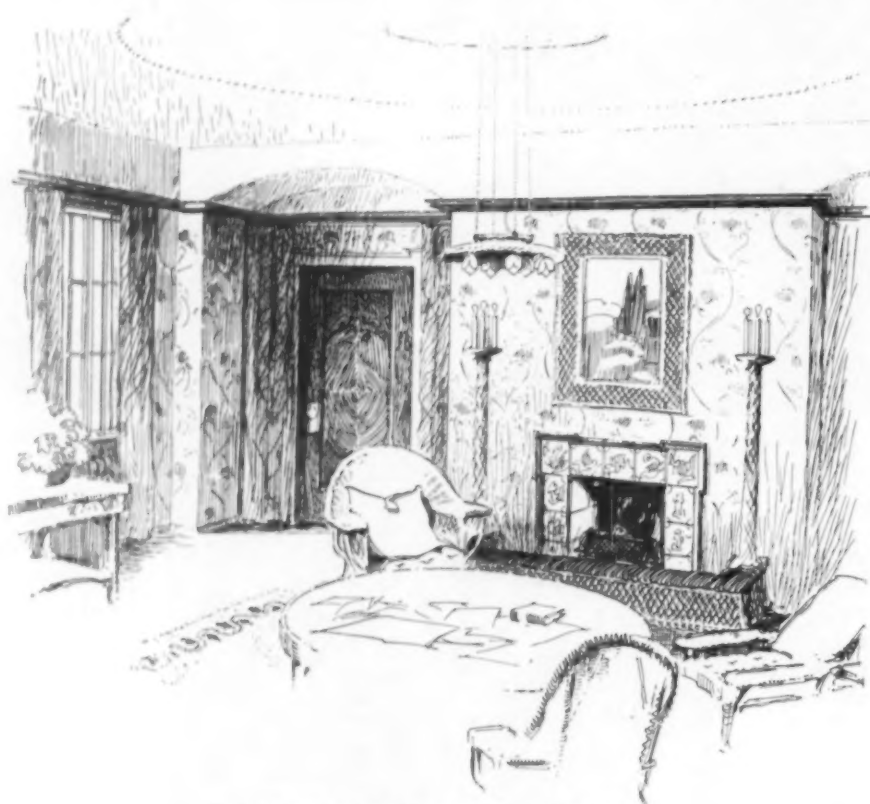
The Uses of Woodwork in Interior Decoration

LAST month we illustrated our bare room as it would be if finished to accord with Mission or Craftsman furniture; but without touching on historic or Period styles, there are other qualities modern furniture may demand. Mission is crude, heavy, strong, not easily injured; much of the modern work, however, is delicate in form, though not necessarily in wearing qualities. Wicker is an instance, and perhaps the best to take as illustration and to design our room around, as it were; though such decorative treatment as we shall choose will be equally suited to the recent work of the English Arts and Crafts, and not inharmonious with the German or Austrian secession.

We must have a character utterly different from the "Pioneer" of last month; a light joyousness instead of sombre solidity; bright colors, instead of browns and yellows; wall paper, perhaps, in place of dark oak wainscot. The Colonial may have its white woodwork; Jacobean its dark oak; we can do what we like; adopt any color scheme whatever. Samples of the wall paper and the hangings must be brought together; our color scheme in detail, our palette, as it were, most carefully chosen, and must include walls, ceiling, floor, woodwork, curtains, hangings, rugs or carpets, electric fixtures, furniture, upholstery, and even vases or mantel ornaments.

Success or failure will depend more on the color scheme than on anything else, yet description of color is so ineffectual that there is no use in attempting such a thing here. We can merely indicate the preparation for the color.

The walls and ceiling should be finished in smooth plaster, either by the old three-coat method or by two coats of a good patent plaster. There is little difference in cost, and the choice may be left to the contractor. If the old lime plaster is used it should



The solution in English Arts and Crafts style

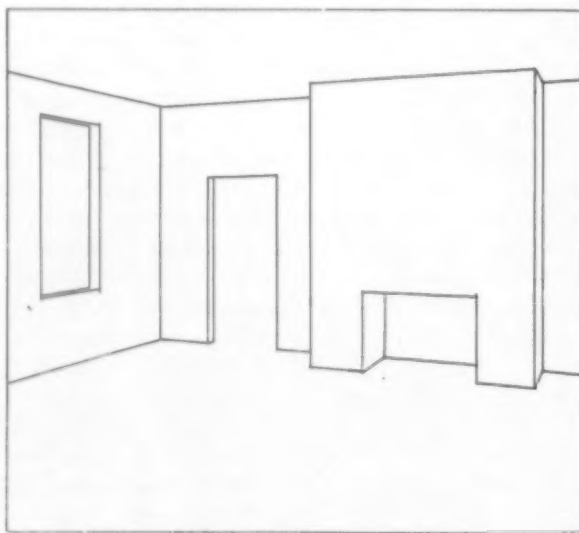
THE PART PLAYED IN THE COLOR SCHEME OF A ROOM BY THE VARIOUS WOOD FINISHES—GETTING RESULTS WITH WOOD—WHERE AND HOW TO USE PATENT FLOORS

BY ALFRED M. GITHENS

by any competent workman on a good concrete or wood foundation; they are about an inch thick, and to compare them in cost with a wood floor we will assume the beams and rough board underflooring in place, serving as foundation for either the patent asbestos or the wood. A fair grade of oak, oiled or shellaced and waxed, costs 14 cents per square foot, and the patent floor 30 cents, both based on cost for a single room in New York City.

The patent flooring may be curved upward at the walls to form what they call a "sanitary base." Such a floor is pleasant to walk on, most easily kept clean, and generally satisfactory; though there is possible danger if it is not laid properly that long, irregular shrinkage cracks may form in time, particularly if the room be large.

The general wood finish, we said, might be white pine. Oregon pine, whitewood or poplar, smoothed, primed and painted three coats of whatever color we choose, or else one of the hardwoods, such as maple,



This time the phase of the problem considered is how to create a cheerful atmosphere by working from the floor up

ash, red gum, birch, or even oak, filled with a light filler and waxed or varnished.

To fit a more radical color scheme, the wood might be stained a pale, clear color or a brilliant color, or an opaque white filler might be rubbed into the pores of the wood after the initial stain, or without a stain at all.

The subject of wood-finishing is complex, but, with the help of a painter who is not too opinionated and is willing to experiment a little, almost any effect may be produced.

Small pieces of wood, stained and finished, are gladly given by any of the large varnish houses, who show their products in this way; or a small piece of picture-frame given to the painter may serve as guide for the color and finish. He should make a sample himself, copying the other, and, if satisfactory, this should be broken in two, the pieces signed by the owner as "approved," and one piece returned to the painter.

Now, wood is finished in many ways, and we will describe a few of them:

The woodwork must first be scraped with an iron scraper, with steel shavings or with sandpaper, so there are no rough places, such as the plane leaves when it happens to go even, for a short space, against the grain. All wood as it comes from the mill has portions like this, and hand-planed wood is apt to have them, too. The stain will sink more deeply there and form dark blotches.

After this, the finishing may begin, and first in order is the *Staining*. This is not only to give the desired color, but also to bring out the grain or intensify the natural markings. Wood is in layers of soft and hard, and the stain sinks more deeply into the soft parts and colors them

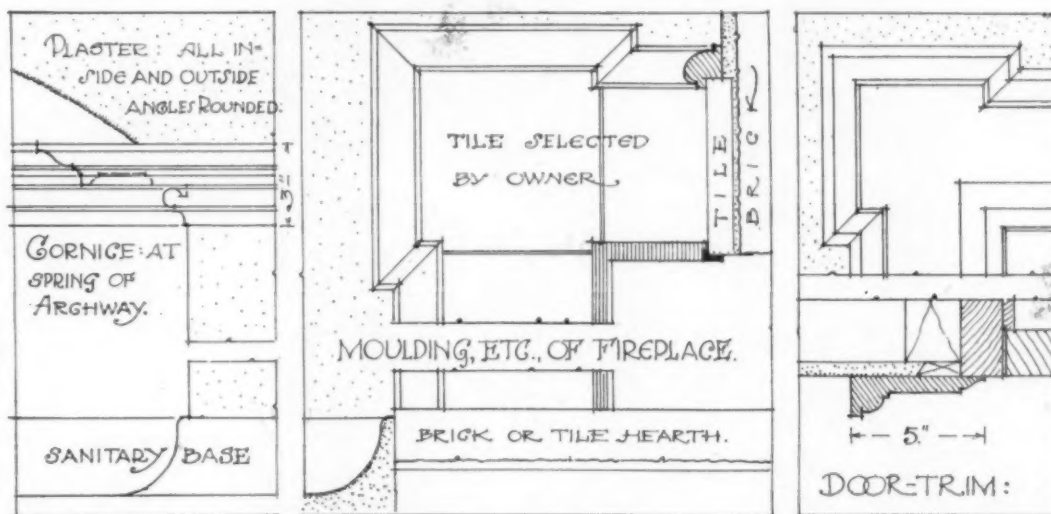
darkly. There are *pigment stains*, in which a powdered pigment, such as umber, is used; *vegetable stains*, such as a solution of log-wood, coffee, or one of the lakes; and *aniline stains*. The pigment stains are somewhat opaque; the aniline not permanent, as sunlight may fade them, but the best vegetable stains are both clear and permanent, the most satisfactory of the three. For the close-grained woods, such as any of the pines, poplars or white-woods, the stains are dissolved in oil and known as "oil stains;" for the open-grained hardwoods, in water, and called "water stains," better than oil for the following coats of shellac or varnish.

The *acid stains* or *alkali stains* act on the tannic acid in the wood and so produce the color. The commonest are bichromate of potash, picric acid, caustic soda or potash, fresh-slaked lime or ammonia. There is nothing in them, of course, to hide the most delicate fibres, but, like the other water stains, they have a tendency to "raise the grain" of the wood or cause certain fibres to swell, so when dry the surface is no longer smooth to the touch. A little turpentine added counteracts this to a certain extent.

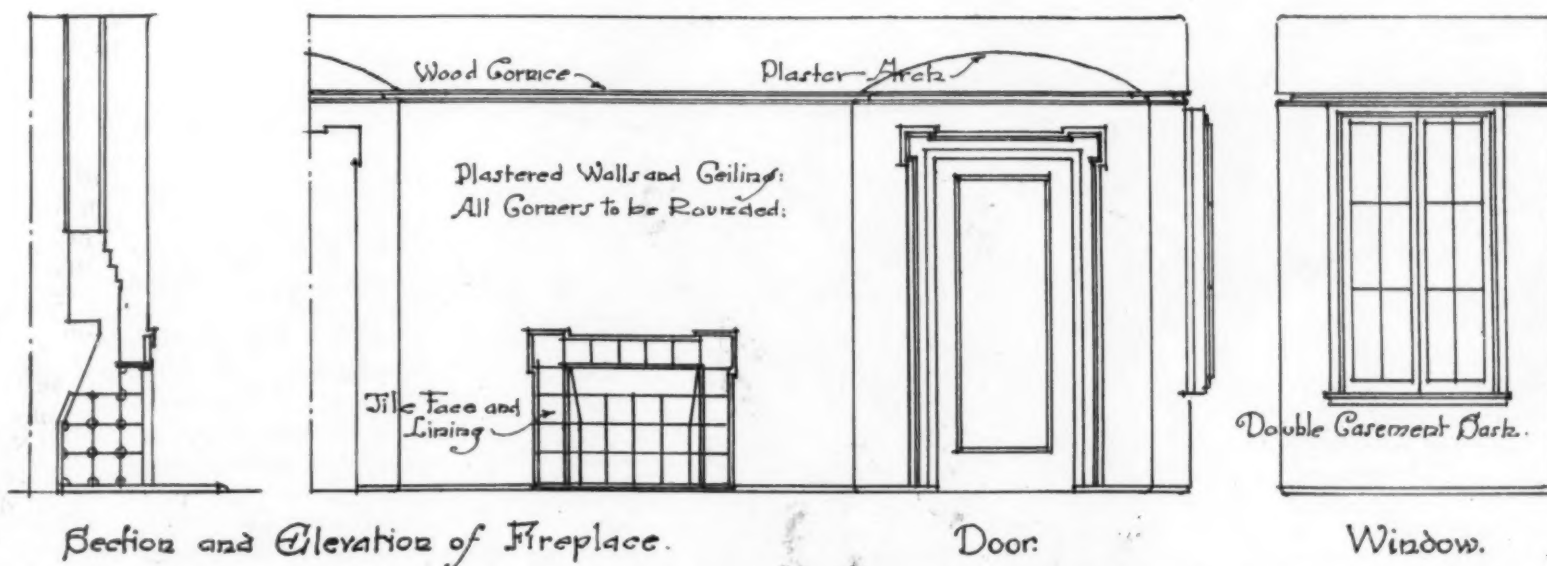
All these stains are put on with a brush, and, after standing a while, the excess is rubbed off with a rag; in the case of chemical stains, washed also with water.

The *creosote stains*, carbolic acid largely, have in part the qualities of both chemical and pigment stains. They also act as preservatives against dampness and rot, and can be had in good colors, but are slow in drying. Until dry they have a strong, penetrating odor; therefore, they are seldom used inside a house, but are excellent outside. The better shingle stains are examples.

(Cont. on p. 324)



For such a style of room, the walls and ceiling should be finished in smooth plaster. A patent floor, with rounded corners, giving a "sanitary base," may be used with good results



Section and Elevation of Fireplace.

Door.

Window.

There is no mantel in this instance, the tiles of the fireplace being but slightly raised above the plaster. Casement windows, with small panes, lend distinction. A door of the standard make is suitable



KING TURKEY

BREEDING, RAISING AND FATTENING
THE THANKSGIVING TURKEY

BY E. K. PARKINSON

THE accidental choice by our Puritan forebears of the wild turkey for the Thanksgiving dinner eventually established the custom of always associating turkeys with Thanksgiving Day, and now the patriotic American feels the national day is incomplete without at least a bit of the bird.

There are six varieties of turkeys in this country: the Bronze, Buff, Narragansett, Slate, White Holland, Black, and Bourbon Red, and of these the Bronze, Narragansett and White Holland are the most popular; the Bronze has the first place when it comes to size, the cocks weighing 36 pounds and the hens 20 pounds; next on the list are the Bourbon Reds, with a 30-pound cock and 20-pound hen; then come the Narragansetts, Buffs, Slates, Black, and White Hollands in the order given. But the turkey lover and breeder has real cause for alarm in the rapid deterioration in all the popular

To the smallest pinfeather, a
royal fowl, and fit to grace
a king's table

varieties, through inbreeding. The fact that one fecundation is sufficient to render fertile all the eggs of one laying hen has caused the undermining of the health and vigor of some of our finest flocks, as the farmers depend on their neighbors' birds for the services of a male, and pay no attention whatever to their breeding stock, except to keep a few hen turkeys. The outcome of this policy is the worst kind of inbreeding, and, if continued, will sooner or later end in the extermination of our turkeys.

Despite his close association with civilization for many years, the turkey still retains many of his original characteristics. He is a great rover, prefers an outdoor sleeping room and dislikes confinement. Although, if space for raising turkeys is limited, they will do well if their range is planned with a view to giving at least the appearance of spaciousness; that is, build a wire fence around it and encourage wild shrubs, such as sumac, alder, willows, cedars, etc., along the fence line; weeds, grasses, some grain and corn should be included in the enclosure, thus giving the same conditions to be found in the open fields. If there are no trees in the enclosure provide a high artificial perch at least 10 or 12 feet above the ground and

roofed with a light thatch of corn stalks or evergreen boughs, and it will also be well to place a lower perch in front of it for the birds to use in flying up. The selection of breeding stock is of vital importance, for on it depends success or failure; the males should be yearlings or older, and the best is none too good, but never buy males and females from the same section of the country. For example, if the females are ordered from a breeder in Rhode Island, send to Pennsylvania or Virginia for the male, thus eliminating all chances of inbreeding.

The points to be considered in a cock are constitutional vigor, plenty of bone, a full, round breast, long body and a medium size. His consorts (four or five is the general rule) should be over a year old, strong, active, well matured and of fair size. If there is unlimited range, several flocks of five may be kept, but it is wise to keep them on different parts of the farm, especially during the breeding season, when the

cocks become very pugnacious. The breeding cocks should not be too fat, and, to avoid such a possibility, keep them away from the hens. It is safer not to raise turkeys on the ground where hens have been or are kept, for they are then subject to the same diseases, and are very susceptible. If the novice will bear this in mind many unfortunate experiences will be avoided.

An excellent feed for the breeders during the autumn and winter months may consist of boiled oats well drained, some wheat and corn, with the oats fed in the morning and the wheat and corn at night. As the laying season approaches, about the middle of March to the first of April, the feed should be changed, adding to the boiled oats equal proportions of high-grade meat scraps, bran, middlings, cornmeal and about a teaspoonful of powdered charcoal. Mix this into a crumbly mash, and give only what the birds will clean

Enclosures may be planted with shrubs, grasses, or corn

up in ten minutes; oyster shells should also be kept where they may get them.

Madam Turkey likes to hide her nest, but by skillfully placing coops, or barrels laid on their sides, under bushes in secluded spots she may be induced to lay in them, and by watching her the nests may easily be found. As the nights at this season are cold, the eggs should be collected daily and china ones substituted. Should a hen select a place not suitably protected it will be wise to make an A-shaped coop without a floor and set it over the nest. If two "clutches" of eggs from each hen are wanted, they may be discouraged from setting after they have laid the first 15 or 20, which may be sold for "settings" at fancy prices, or set under chicken hens and the little poults given to the turkey hens later. When the hens have laid their second clutch they should be

allowed to set, giving each as many eggs as can be properly covered. While incubating, the hens should be fed good wheat and corn, with plenty of water and grit near the nest.

Up to this point the turkey raiser will experience but few difficulties, but from the time the little poults are hatched eternal vigilance should be the watchword. Provide a large, comfortable, well-ventilated coop, with ample room for the hen to stand up,



The turkey is a great roamer and prefers the outdoors to a confined yard



The Bronze is one of the most popular breeds and averages about thirty-five pounds

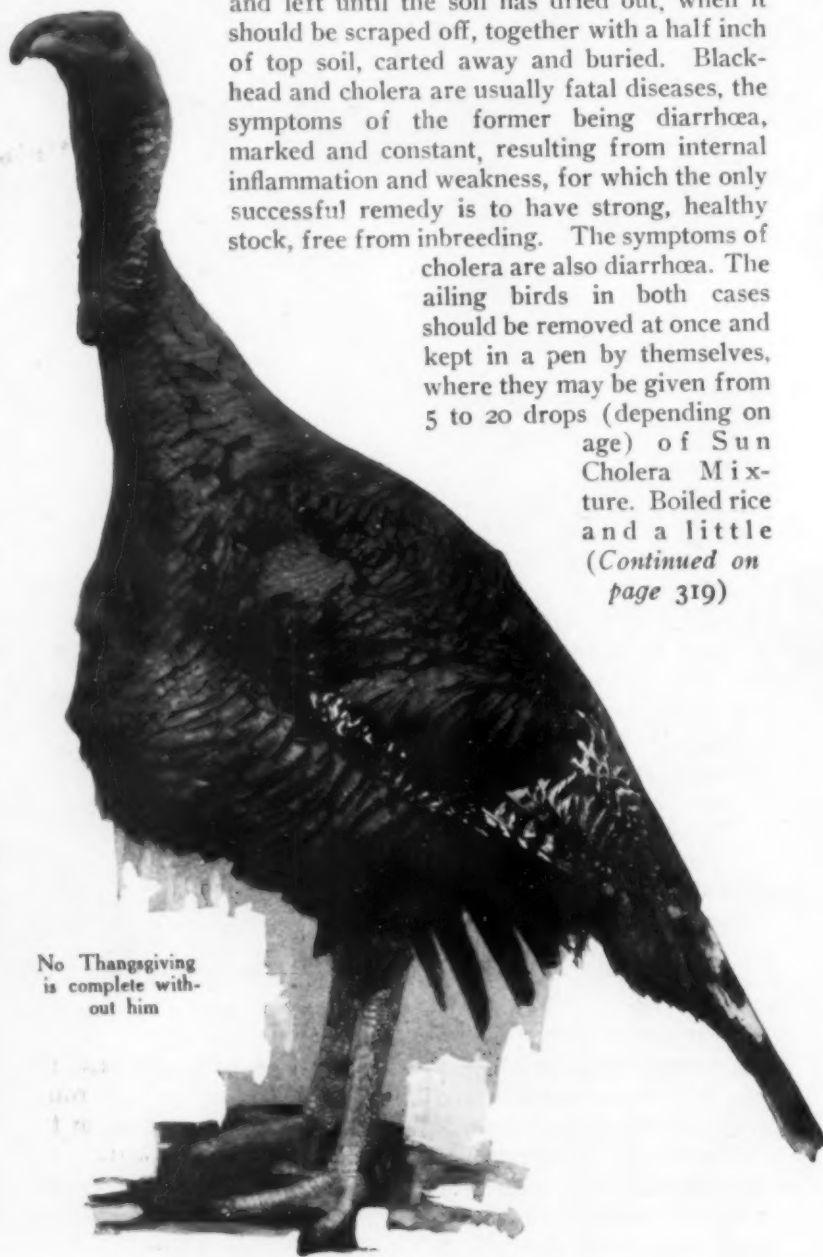
stretch her neck and walk about; also a small, slatted yard for the little ones. The floor must be both clean and dry, and, while it may be of boards, the natural, dry earth is the best. To avoid dampness, fatal to young turkeys, set the coop where the drainage is good, and dig a small trench about it, filling it with cinders or gravel, which will take care of any heavy rainfall. Don't coddle the poults; on the other hand, don't neglect them; the middle course is the safe one. When the mother and her brood have been moved (24 to 48 hours after hatching) to the brooding coop, leave them alone until they begin to move about a little, and as soon as they show an inclination, let the poults out on the grass (when dry) to run about and exercise. As they progress, give them a plentiful supply of food and keep a vigilant eye for lice. In fact, it will be wise to rub a few drops of olive oil on the head and under the throat of each poult while moving them to the coop; direct exposure to the sun's rays will seriously injure the youngsters, and, if already weakened by lice, the chances are they will all die. A dry place in their yards should be provided for them to run about on by spreading a load of coarse sand near the coop, which should be gone over daily with a fine rake so as to keep it thoroughly dry.

In feeding, copy nature as far as possible. In their wild state the turkey's food consisted of seeds, insects and worms, and, as the mother turkey had to provide for her entire brood, each received but a very small portion at a time. Thus the raiser will do well to start in by feeding finely cracked wheat and corn, together with a very small amount of the best granulated meat scraps, a little finely broken charcoal and some fine grit, or some of the regular commercial chick food may be substituted. For the first few days food should be given every two hours on a clean board, and green food in the form of lettuce leaves, tender grass or chopped onion tops, should be provided. Be careful not to overfeed; let a little and often be the rule. Many of our most

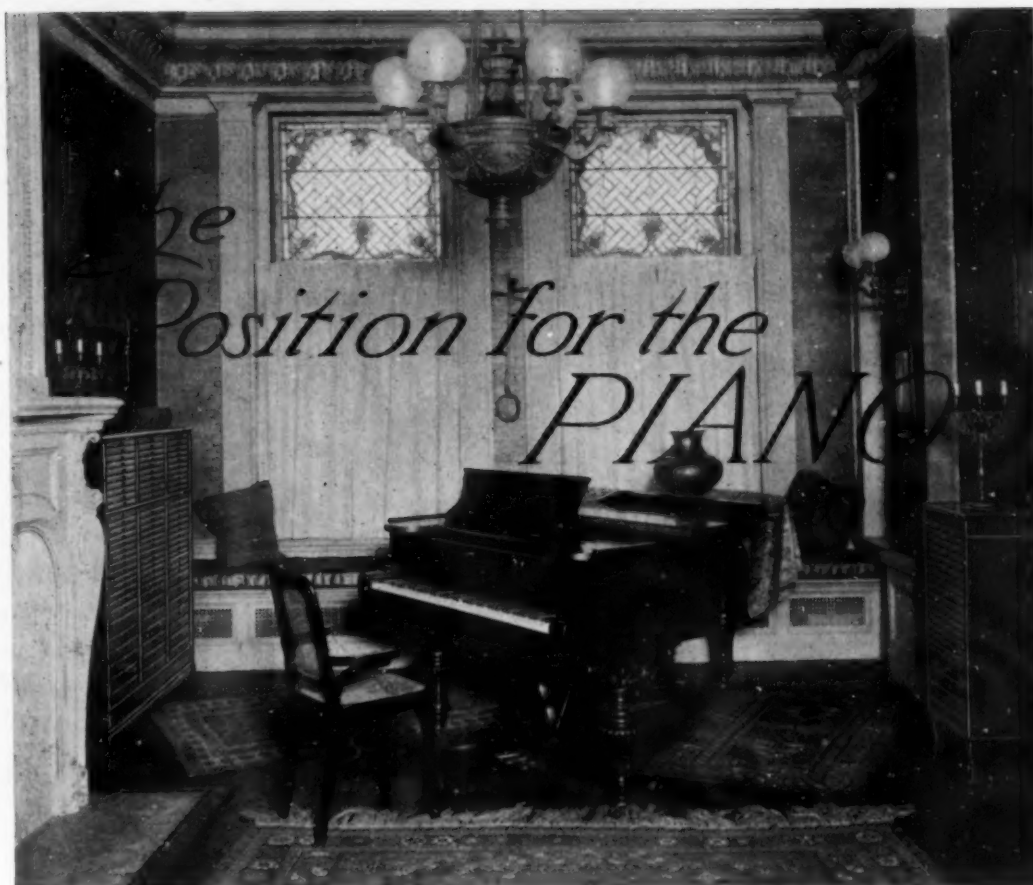
successful turkey raisers advocate hand-feeding the little poults for a few days, claiming that the labor is more than repaid by the splendid start they get, to say nothing of the advantages derived from having the poults grow up gentle and fearless. After the poults are ten days old the number of meals may be cut to four, and gradually to three, and finally, when a month to six weeks old, to two feeds—morning and night. By this time the poults and their mother may be given their liberty and taught to come to the barn or any suitable place for their feed, which should consist of whole wheat, hulled oats, cracked corn and millet, in addition to their other feed. In wet weather, hunt up the flock wherever they may be, and be sure they get their two rations; this is important, as the rain reduces the supply of insects, and the wet and tangled grass retards their movements, so that they cannot get sufficient food. If these simple directions are followed, the beginner may count on raising most of the poults.

The diseases to which turkeys are most liable are five in number: gapes, caused by a small worm attaching itself to the windpipe and strangling the little turkeys, the remedy for which is to keep moving the coop onto fresh ground every few days, while each spring the land where the brood coops stood should be given a thin coating of slaked lime before the frost leaves the ground, and left until the soil has dried out, when it should be scraped off, together with a half inch of top soil, carted away and buried. Black-head and cholera are usually fatal diseases, the symptoms of the former being diarrhoea, marked and constant, resulting from internal inflammation and weakness, for which the only successful remedy is to have strong, healthy stock, free from inbreeding. The symptoms of

cholera are also diarrhoea. The ailing birds in both cases should be removed at once and kept in a pen by themselves, where they may be given from 5 to 20 drops (depending on age) of Sun Cholera Mixture. Boiled rice and a little
(Continued on page 319)



No Thanksgiving is complete without him



A good decorative arrangement of piano and cabinets, but necessitating a dull light for the player

THE PROPER PLACING OF THE PIANO FROM THE STANDPOINTS OF EFFECTIVENESS, COMFORT AND DECORATION

BY HAROLD DONALDSON EBERLEIN

THE proper placing of the piano is a matter that usually receives too scant attention. It presents several problems for solution, and the problems are usually left unsolved. The piano is ordinarily an awkward thing to manage, and its weight makes it difficult to shift, so that when it is once established in a position that seems to answer tolerably well, in nine cases out of ten it is allowed to remain there, and the owners do not trouble their heads over the fact that there are positively *right* and wholly *wrong* places for pianos, and that the rightness and wrongness are determined by fixed principles based upon sound reasons.

The fixed reasons that ought to govern piano placing are to be considered under two aspects—first, the purely practical, regarding the preservation of the instrument in the best possible and most effective condition and at the same time the convenience and comfort of the player; second, the decorative aspect, which is highly important and not to be

neglected if the appearance of the room in which the piano stands is a matter of any concern to the possessors. Common disregard

of both practical and decorative principles in piano placing is responsible for completely ruining many a good instrument and spoiling many a room whose arrangement would otherwise have decorative merit. It is scarcely too much to say that in the majority of houses, pianos are either in a poor or distinctly bad position from one point of view or the other, and, not infrequently, both the physically practical and decorative considerations seem to have been altogether ignored.

A piano is an exceedingly delicate and sensitive mechanism and strongly susceptible to all atmospheric variations. Heat and cold, dampness and dryness, affect it to a marked degree, and not only does it get out of tune through ordinary expansion and contraction induced by changes in temperature, but the well-being of its whole physical condition is jeopardized when those



From every aspect of decoration, light and efficiency, the position shown here is ideal

changes are too sudden or violent. One instance of the influence of temperature changes may be noted in every piano, no matter how carefully its position has been considered. In spring, when artificial heat is shut off, and in the autumn, when it is started again, the piano evidences a need of tuning. If the temperature or amount of moisture in the air were always approximately the same, the need of tuning would not become so suddenly obvious.

It can be readily seen, therefore, how injurious sudden violent changes must be, and any instrument so placed that it is subject to changes of that nature is unquestionably in a wrong position. Besides the mischief wrought by too sudden expansion or contraction there is the damage from dampness or extreme dryness to be guarded against. Excessive dampness will rust the strings and cause the wooden hammer connections and supports to swell, making the keys stick and the action sluggish. On the other hand, extreme dryness, such as that produced by too close proximity to a steam radiator, will occasion undue contraction and impair the glue, and as a result the sounding-board sometimes cracks. All these dangers by which pianos are beset are so well known to pianists that it seems as though they ought to be self-evident to any



While the instrument is here removed from the heat of the fireplace, its position against the wall is bad for acoustic effect



There is a positively right and a wholly wrong way to place a piano in a room. Factors of temperature, light, sound and decoration all enter into the problem

intelligent person and that there should be no need of mentioning them. As a matter of fact, however, so many people appear to be oblivious of them and to forget that a piano is a nicely adjusted and sensitive piece of mechanism and not an ordinary piece of cabinet work, that specific reference has been made.

The prudent person forewarned should therefore be forearmed, and, knowing the things to be avoided, will endeavor so to place a piano that the requirements for keeping it in good condi-

tion may be met. To begin with, the room in which a piano stands will be kept as nearly as may be at an even temperature. Do not place an instrument close beside or over a register or near a radiator. Be careful, also, if the piano is in a room on the ground floor, to avoid placing it directly above the heating plant in the cellar, for that portion of the room is apt to become unduly warm and dry. If, for any reason, it is not possible to avoid such a position, the under side of the floor should be protected by a sheathing of asbestos board or paper fastened to the rafters.

Do not, on the other hand, place a piano immediately next a window, for there the changes in temperature and atmospheric conditions will be more sudden and pronounced than anywhere else. Another disadvantage in having a piano close beside either a window or a heater is

that one part of the instrument will be either colder or hotter than the other, and this unevenness will be disastrous to keeping it in tune and to its general physical well-being. It is also unwise, if one can avoid doing so, to place a piano against an outside wall, which always reflects external weather conditions much more noticeably than does a partition wall.

From what has just been said, it is plain to be seen that the ideal position for a piano will ensure an equable temperature



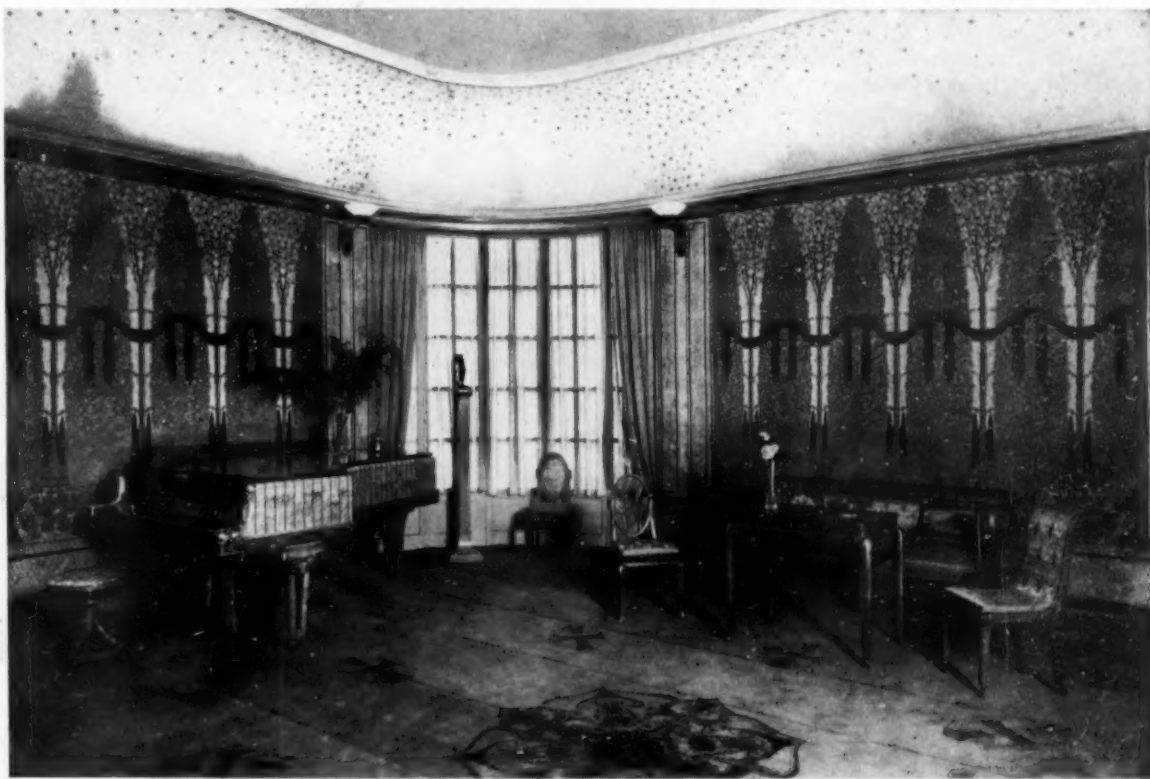
The practice of making the piano a repository for bric-a-brac and knick-knacks argues a lack of sense as well as of taste

and a happy atmospheric medium free from extremes. The ideal position will also involve one other consideration of great importance to the comfort and convenience of the player, and that is a good light. The light, of course, should come from the left and either from the side or slightly from the rear of the player. A careful examination of the requirements noted for the ideal position for a piano will make it evident that comparatively few rooms offer a position satisfactory in this respect, so that a good deal of ingenuity must often be brought to bear in reaching a judicious decision. It will also appear that it is easier to find suitable positions for grand pianos than for up-rights, which people are in the habit of putting against the wall. There is no compelling reason, nevertheless, why upright pianos should be so set, and some attention will be given to this particular aspect of the subject in a subsequent paragraph devoted to the decorative considerations of piano placing.

Before passing directly to that phase, however, it will not be amiss to direct the reader's attention to a few practical hints regarding the care of pianos. In this connection it will be well to note that lack of proper care is much harder upon pianos than excessive use. A well-made piano that is constantly used and properly cared for will wear better than precisely the same sort

of piano that is little used, but neglected. The chief item of piano care, of course, consists in avoiding the unfavorable conditions alluded to in the foregoing paragraphs; but certain helpful minor items are not to be overlooked. For one thing, when the room is being cleaned the piano should be completely covered to keep out all injurious dust. Likewise, when the room is being aired in cold weather, especially when the air is damp, the piano ought to be protected with some sort of soft, warm woolen cover. In dusting, it is best to use a soft duster of uncut feathers. Cases are usually so highly varnished that rubbing, even with a fine cloth or piece of silk, is apt to leave cloudy, smear marks and minute scratches from gritty particles of dust.

The best way of cleaning the case is to use a little olive oil on a slightly dampened piece of cotton flannel. Only a small part of the surface should be rubbed at a time. Then wipe off all oil with a dry piece of cotton flannel, breathing on the surface from time to time. All finger-marks and the haze resulting from dust and dampness are thus wholly removed. Last of all, put a little fine white flour on another soft, dry cloth, and go over the whole surface of the case. The keys unavoidably become stained by the oil in the skin of the fingers, but the ivory may be



A careful study of the question will harmonize the piano not only with the general group arrangement of the room, but also, as here, in color scheme and decoration

restored to its pure white condition by cleaning with a linen cloth moistened with alcohol. Be careful, however, not to let this cloth touch the case anywhere, for alcohol will dissolve the varnish.

One other matter ought to be adverted to in this place while commenting on the care of a piano, although not actually affecting the piano itself, and that is the manner of keeping music. Too often do we see it piled about in disorderly, tattered heaps that

(Continued on page 310)



After iris, comes the roses

CHOOSING PLANTS AND FLOWERS FOR FRAGRANCE AND PERFUME

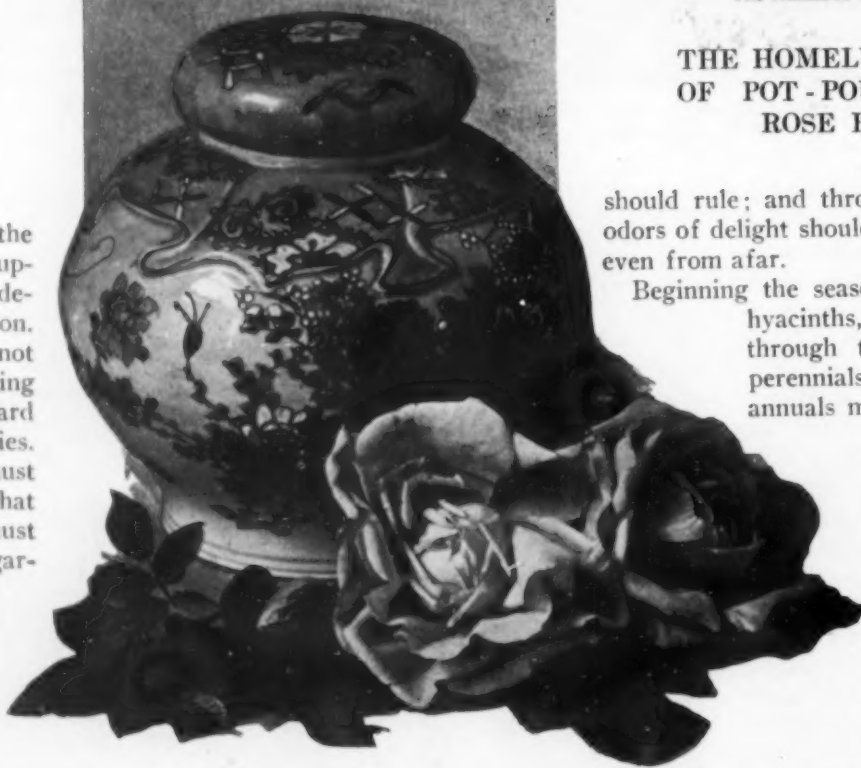
BY GRACE TABOR

THERE is no bit of garden in the world that is not scented, I suppose we may say—for earth has its delectable odors, and so has all vegetation. But for our human nostrils, which are not overly sensitive, a veritable sweet-smelling garden must be planned with due regard for this deficiency in our olfactories. Faint flavors are not enough; we must have a weight of heavy fragrance that shall rest upon us and penetrate: we must be drenched in perfume. The scented garden that has to be sniffed is a failure. We must not be obliged to go after the scent; it must pervade all the atmosphere and come after us.

There are many flowers with such odors, of course; but they are not very often assembled with their fragrance as the principle motive for gathering them together. We plant honeysuckle and enjoy its lovely breath as it comes stealing in on the night wind; and the good, old-fashioned day lilies of many a dooryard pour from their golden chalices most refreshing odors that saturate the air all about; and a sweet briar rose stings pleasantly with its delectable pungence if it is given a pillar to climb near which we may sit. But these and other sweeter flowers are almost never brought together into a harmony arranged for the nose as color harmony is arranged for the eye.

The scented garden aims to do just this. All fragrance will mingle and combine into delicious pot-pourri, of course; but, to get the best out of each fragrant flower, it should be brought into a place distinctly its own, and not left to fight a battle for supremacy with others stronger than itself or more pungent, or for some reason or other more assertive. Each plant in its season

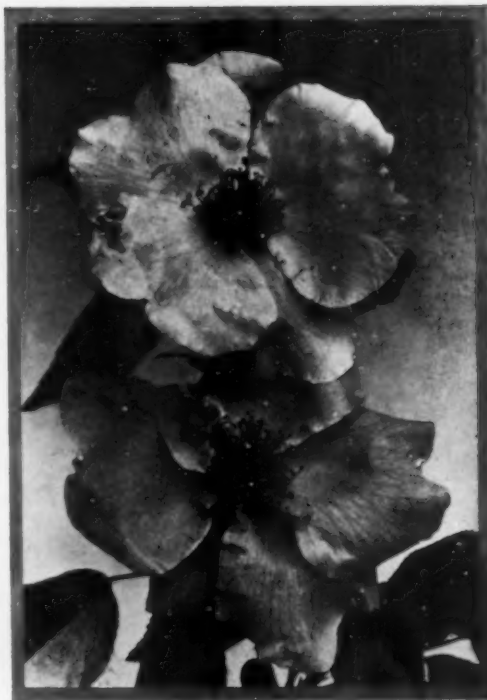
FLOWERS *for the* SCENTED GARDEN



Though the making of rose pot-pourri seems to have gone out of fashion, it is a garden practice that deserves reviving. The work entailed is simple

phlox, however, to take the place of many things less permanent—for phlox extends over a long period if properly selected, and has a spicy fragrance that charges the air as definitely as the odor of hay, fresh cut, upon a hay-field. And, of course, annuals alone will leave a gap, unless some have been made ready for setting outdoors in blossom or ready to blossom as soon as the weather grows sufficiently settled.

In selecting fragrant flowers, bear in mind that many which have the sweetest smell when held to the nose, are yet not air perfumers; that is, they do not give off odors that remain in the air, saturating it; while others that are not so delightful when sniffed, do give off a rich and heavy fragrance into the air, where it remains suspended. Many very sweet roses, for example, do



The Anemone rose has a pungent perfume

THE HOMELY VIRTUES OF POT-POURRI AND ROSE BEADS

should rule; and throughout the season, odors of delight should assail the nostrils, even from afar.

Beginning the season's fragrance with hyacinths, it may be carried through the summer with perennials or with these and annuals mixed—or altogether with annuals, after the bulbs and fragrant shrubs have gone by. Annuals, indeed, have some of the sweetest-smelling flowers among them, and I personally feel that without stocks, for example, the scented garden would lack one of its most delightful odors. There is

not scent the air around them, as a single plant of day lily will do; and this makes a great difference in selecting for a scented garden.

Following the hyacinths, lilacs are almost the only thing to fill the interval of May before the herbaceous blooms of June are open, although iris in sufficient quantity may be depended upon to provide some sweetness. Iris are among the delicate-scented flowers, however, and unless there is room to have many, the garden will not be appreciably sweetened by them. Their very delicacy when they are massed in sufficient numbers to be perceptible makes them one of the most delightful of the scented garden's possibilities; but where space is limited they will take up so much that there will not be enough left for the other things which the other seasons require.

Roses of the old-fashioned kind are the roses for fragrance—the damask rose, or what is called the cabbage, or Provence, rose—in either pink or white form. Usually red roses are sweeter than the pink or any other color, but in this particular the rule does not hold. It applies especially to hybrid teas and the hybrid perpetuals, I have observed; and, of course, these old-time garden roses are not of this

type. Rugosa roses are likewise very fragrant; a single bush perfumes to a marked degree the air all around it. Then there are the sweetbriars, which make effective trellis plants, and scent the air wonderfully when thus raised up in the midst of a garden.

"Meg Merrilies" is one of the best hybrids of these, while "Refulgence" is a really lovely rose, with flowers partially doubled and three inches across. Both are crimson, and the foliage of the former is large and robust.

On the heels of the roses come the first of the day lilies—*Hemerocallis flava*—which should be planted in masses, for the odor of this is one of the most delicious the garden will know. Day lilies are not particular about soil, and will usually thrive anywhere, as the old clumps in old dooryards bear witness. This early flowering variety is followed by *Hemerocallis aurantiaca*, and this still later by *H. Thunbergii*,

which carries the bloom up to the end of July. So the phloxes have begun before the day lilies leave off—and a combination of the white and gold of phlox, "Mrs. Jenkins" and "Miss Lingard" and "Jeanne d'Arc," with the three varieties of lilies, is as lovely to the eye as the fragrance of the two is to the nose.



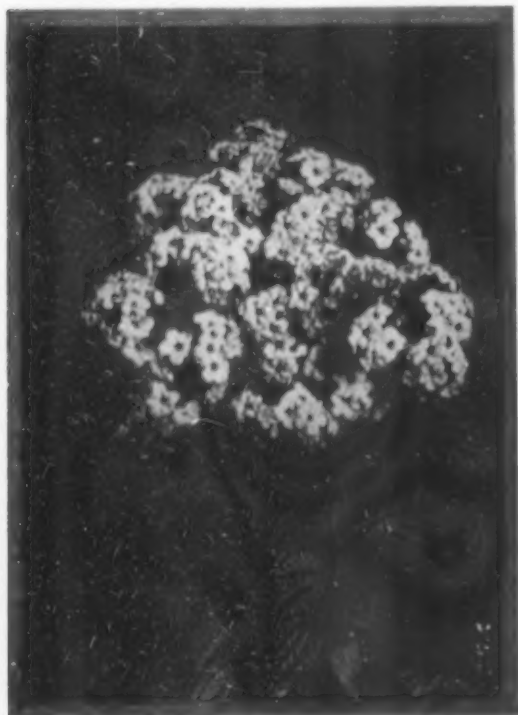
By cutting out the dwarf strain of spice pinks, their close-scented flower may be lengthened for a time



Mignonette rather keeps its fragrance to itself. It grows readily from seed and will bloom all summer



Nicotiana affinis, a constant blooming annual, is excellent for background massing and combined with the evening-scented stock will form as satisfactory a scented garden if time and space restrict the scheme to annuals

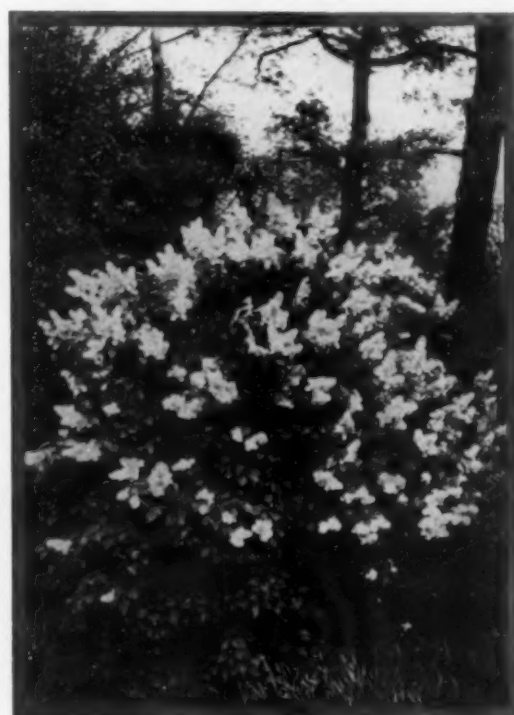


Heliotrope should be allowed plenty of water. It is easily propagated from both cuttings and seeds

Lavender and heliotrope, while both perennials, are not sufficiently hardy to be grown in the North out of doors throughout the year. And, as heliotrope resents transplanting more perhaps than almost any other plant, extensive use of this is not practicable unless one is willing to sacrifice the plants annually, treating them as merely annuals. They are so easily propagated by cuttings and so easily raised from seed that there is really no extravagance in doing

and unusual and lovely when massed with care in the selection of the surrounding colors—the heliotrope variety "Chieftain" is delightful, the general mass of color being cool and refreshing. No scarlets nor magentas should come within seeing distance of this delicate motif, however, else it will be instantly overridden and made commonplace.

Heliotropes must never be allowed to suffer for water—and they suffer for it much sooner than most other plants. Good drainage they must have—but always plenty of water—so that they go on growing all the time without check.



Following the hyacinths come the lilacs which fill in, together with iris, the interval of May

this if one has space in which to raise the young plants and make them ready to go out in the garden when the out of doors is ready and warm enough for them.

For summer-blooming plants cuttings should be made indoors in January—or seed should be sown then if this method is chosen. Two or three old plants will furnish a goodly number of "slips" for new ones, the tender ends of the shoots being the part selected by florists for this purpose. They root them in pure sand, and they usually "strike"—that is, take root—in about ten days. They must be put into pots when the roots are not more than half an inch long, for if they are allowed to grow larger the difficulties of handling and transplanting are great. Paper pots may be used, filled with a light, rich earth; and it is better to put them directly into the pot they will occupy until they go out of doors than it is to use a small-size pot and transplant twice. A five-inch pot will be large enough to carry them up to the planting-out time, when it may be stripped off and the plants set into the ground without disturbing the roots in the least.

There are the violet-blue shades, a light and dark, and white, to be had in this plant—and it is therefore available for combination in color, as well as for its scent. All are fragrant; plant in masses, before a taller-growing species. Banked against one of the tall phloxes of the same color tone—"Mme. Paul Dutrie" is a pink-lilac shade, very soft



Only iris in abundance provide appreciable scent. Where space is limited it were not wise to count on their contribution to the succession of scents

Lavender is essentially a garden plant, tender though it is. It comes readily from seed, although not true to variety always; therefore, it is better to purchase from a reliable dealer a few plants of it, *Lavendula vera* being the true shrub lavender of old-time association. It does not root as readily as heliotrope, yet there is no reason why propagation should not be undertaken, for it is by no means difficult. Cuttings must be made of the season's growth, with a "heel" of older wood attached, if the straightest plants are to be obtained. They can be taken either now or in the spring quite early—now, of course, if the plants are to bloom out of doors next summer—and set in moist soil in flats or boxes, and kept shaded until rooted. Move them into pots, the same as the heliotrope, and set them outdoors when all chance of frost is gone.

Plants may be left out during the winter if they are protected the same as tender roses would be. Their preference is for a light and open soil, well drained; and, where they grow wild in Spain, Italy and Southern France, they choose dry and hilly land—"wastes," one writer says. Dry, calcareous soil that is stony suits them if they have full sun and plenty of air in circula-

(Continued on page 314)

THE neighborhood garden behind the jail was a great success this summer, and Mr. Parke Gladden has planted three splendid plane trees there this fall—great, big things that I should have been afraid to transplant, but he was not. Next year we are looking forward to doing a good bit more along this line—not children's gardens, nor anything of that sort, but just neighborhood "parklets" where there are rubbish-filled vacant lots that the

owners will let us handle. To be sure, we run the risk of their selling or wanting to build just when our greenery is established; but we feel we can assume a risk on places that have stood still for from five to ten years. They are not likely to start off suddenly with a boom.

This month it was Mr. Gladden himself that entertained us at "Stone Acres"—something which we never dreamed of his doing. For no one ever has gone there, and there has always been a great mystery about his unhappy, mad wife; and it was supposed that no one would ever be asked to go there. There were no evidences of anything peculiar anywhere; and he seemed to enjoy having the Club there so much that the pathos of his solitary, lonely life, and hers, stood out all the more. Really, the Garden Club has been a great boon to him—and to several of its members, if I mistake not.

The subject was the renovation of old fruit trees—something that I had never thought much about, never having had any to renovate. Mr. Gladden himself had suggested it, for it seems there was an old-fashioned, down-at-the-heel and dejected orchard at "Stone Acres" when he took the place, and it is one of his great triumphs that he has successfully renovated it and brought it up to present-day standards of form and health and bearing. The man who helped him do this was the lecturer—a young agricultural college man in those days, fresh from the inspiration of the class room, and the class field and orchard—to-day a famous grower himself.

His lecture told us really the story of this orchard at "Stone Acres"—described its appearance first and the reasons why it had fallen into such a state, explained the faults in handling that had provoked its seemingly hopeless condition, contrasted the old ways with the newer scientific methods of pruning and general orchard practice; and then proceeded to show, out in the orchard and by means of the trees themselves, just what had been the first step towards correcting and rehabilitating, and the second step, and so on through all the process. With this concrete example before us, it was a very vivid and illuminating afternoon indeed.

The old-fashioned methods of pruning—or lack of method in pruning—came in first for explanation and condemnation. Really, it seems curious that they didn't know better than to do some of



EDITOR'S NOTE: The garden club is a great factor in neighborhood betterment. Here is a true story of the work of a certain such club and its accomplishments, taken from the diary of one of its members. What this club actually did should be a stimulus to all who love gardens, and a guide to the ways and means of improving our towns and villages. These chapters began in the February issue, when the organization of the Club was discussed. Each installment shows how the program of activities was followed out.

use some gumption and intelligence about taking growth away! That the trees towered up to the skies where no one could get at their topmost fruits, even from tall ladders, was a secondary consideration; never mind about getting all the fruit if in order to do so a different and bit more fussy method of pruning must be resorted to! That seems to have been the idea!

Old and neglected orchards are pretty certain to show high, lanky trees—so said the gentleman—resulting from this shiftless habit of pruning. The first thing to be overcome, then, is this height, when the pruning which is to restore and renovate is started. But to correct the ancient fault and at the same time to secure a little fruit the very first year the work is undertaken, he recommended as an ideal. There is absolutely no necessity for sacrificing everything for two or three years just for the sake of the tree's form, according to him; for a fair amount of fruit may be secured by going at the task with restraint, and at the same time the tree will be really more stimulated and benefited than is the case when a general holocaust of branches is brought down all at one time.

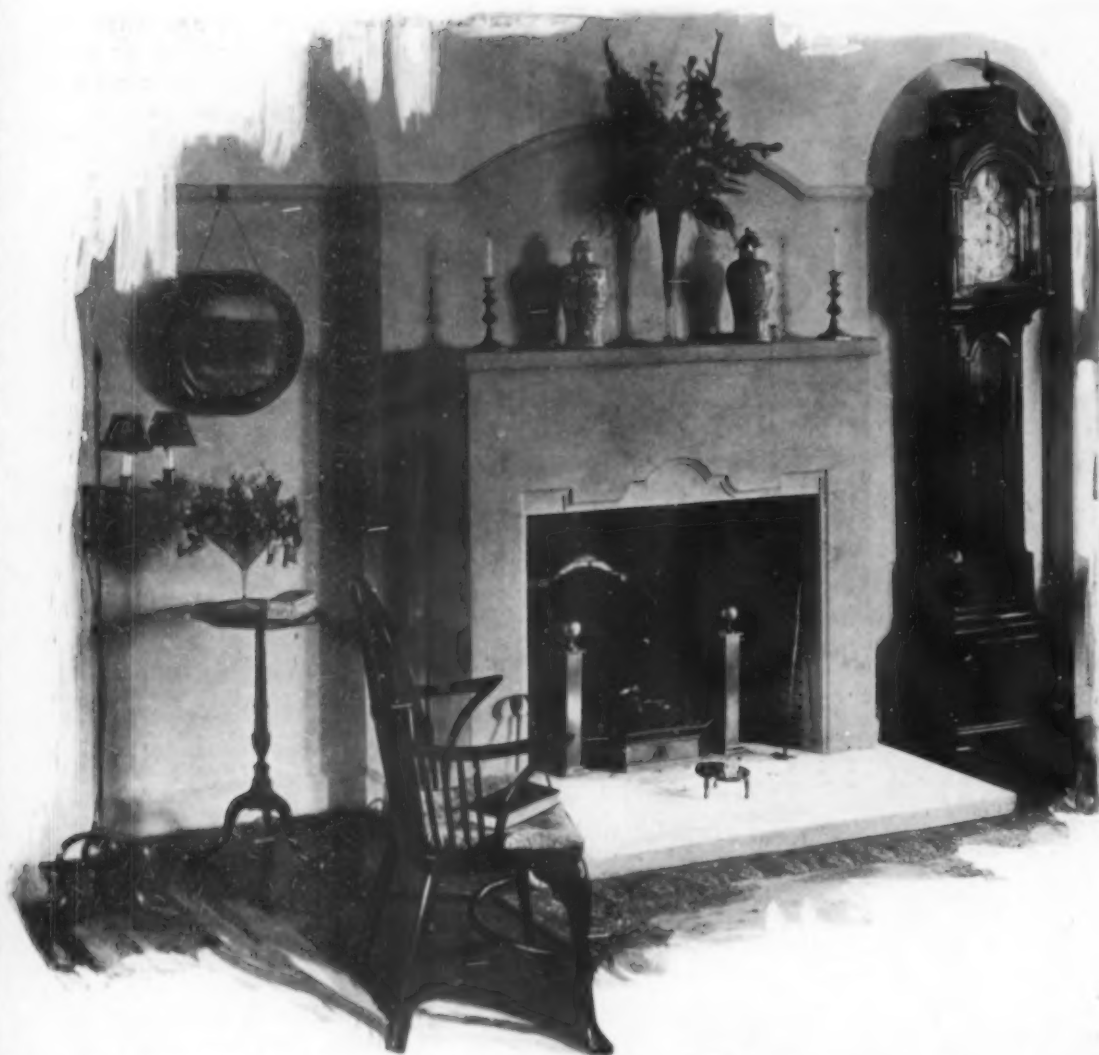
So about one-third of the advance towards the ideal of a low-headed tree, open enough to give the sun and air free access to every fruit it bears, consisting of three to four main limbs or branches which shall be the source of the smaller ones that bear the fruit, may be traveled the first year; the second third the second year, and the final third the third year; while a moderate crop of fruit is being harvested each year.

With the orchard at "Stone Acres" they had proceeded in this way by three stages. The first year they cut out all water-sprouts and cleaned up the limbs, as well as shortening two of the four branches selected to become the main framework of each tree. The second year they cut back the remaining two similarly selected, and cut away altogether two of the large branches condemned utterly. And the third year they cut away the others, except in some instances where there were more of these than they cared to eliminate in the one season.

Every tree bore, and bore fairly well, each year—for pruning stimulates fruiting. And these old trees were so astonished, I fancy, at finding themselves the objects of anyone's care and

(Continued on page 318)

the things they did, and the evidence certainly would seem to indicate that less thought was devoted to farming—real though intelligent, serious and constructive—by the average farmer than a chicken devotes to scratching for worms! Fancy their standing on the ground when they pruned their trees, for example, and just cutting branches off as high up as they could reach, because that way was "handier" than to get up and into the trees with a ladder and



On this mantel shelf are shown both simplicity and symmetry. The Oriental vases find themselves quite at home. A novel effect has been obtained by the arched picture moulding on the chimney breast

THE problem of what to put above the mantel often resolves itself into a negative question of what not to put above it, for it would seem a trait characteristic to most of us to follow no guide other than that of feeling that a thing "looks pretty." Such a guide is scarcely dependable in the decoration of an important factor as is a mantel shelf. To put the matter in homely simile, the above-mantel decorations are to a fireplace what the trimmings are to a woman's hat; a misplaced feather in the latter instance will destroy the entire effectiveness of the whole; a misplaced ornament on the former would have practically the same effect.

Just as the fireplace is the focal point of family life—or should be—so the mantel becomes the focal point for the eyes of those who are of the family or are entertained by it. Yet the mantel and what goes over it are the only parts susceptible to embellishment. The fireback and the hearth both eventually become discolored from the fire, so that efforts at decoration are impossible to any but the mantel and the space above it.

Two cardinal principles obtain for those who desire the best effect: simplicity, have a few things; and symmetry, make the ends balance. Both warrant detailed consideration.

Because the fireplace has always been the focal point of family life it need not be considered a place to deposit all the *lares* and *penates*. The result of such treatment would invariably be a jumble of junk, a preponderance of many things that distract the eye and detract from what should be an honorable architectural feature.

What goes on the mantel depends upon the character of the room. Thus, the dining-room is quite different in character from

the living-room, and deserves different treatment. The mantel of the parlor or reception hall, for example, should carry but few objects, and those of a rather formal style, something that is beautiful in itself without personal association, and that will give enjoyment to the visitor. Any amount of expense may be put into such ornaments, the smaller and more refined workmanship often necessitating the largest outlay. Oriental objects of distinguished line, like Oriental rugs, are always in place. There is a balance and poise of color, tone and line about Oriental things that give them an urbanity, a cosmopolitan air, that fits them for use in this important place. Canton ginger jars, for example, have decided decorative value. Added distinction will be lent them if they are placed on low teak wood stands.

The library mantel should receive a characteristic treatment. Use the bust of a favorite author in bronze or bronzed plaster, giving it the place of honor. Or one may use a piece of that delightful Florentine bronze. If none of these are available, a piece of lacquered tin, such as an old tea caddy, will answer the purpose admirably. The mantel of the living-room, on the other hand, should express the changing

What Should Go Above the Mantel

TWO CARDINAL PRINCIPLES OF SIMPLICITY AND SYMMETRY IN THE WORKING—THE REQUIREMENTS OF THE PERIODS—TREATMENT OF THE CHIMNEY BREAST

BY HENRY H. KENNARD

the living-room, and deserves different treatment. The mantel of the parlor or reception hall, for example, should carry but few objects, and those of a rather formal style, something that is beautiful in itself without personal association, and that will give enjoyment to the visitor. Any amount of expense may be put into such ornaments, the smaller and more refined workmanship often necessitating the largest outlay. Oriental objects of distinguished line, like Oriental rugs, are always in place. There is a balance and poise of color, tone and line about Oriental things that give them an urbanity, a cosmopolitan air, that fits them for use in this important place. Canton ginger jars, for example, have decided decorative value.



The niche and its flanking panels are sufficiently decorative as to require only a pair of vases or candlesticks

interests of the household—perhaps, better, its past. As mentioned above, miscellaneous curios are deadly. Should one be so fortunate as to possess a complete set of old Lowestoft mantel garniture, or a set of old blue-and-white Delft, nothing could be better. When they are used, however, nothing else should be included. The use of a clock as centerpiece has always been a debated point. A clock is a restless thing, and the mantel should carry no atmosphere of activity. It should spell rest, comfort and the sense of abiding safety, where the denizen of the world can find peace and comfort without being eternally reminded that time flies.

Bedroom mantels are a perplexing matter to treat when they are clumsily built. A white marble mantel that is ugly in shape and unpleasantly cold-looking may be improved by painting it to match the color of the woodwork. A glaring, smooth-tiled mantel may also be changed for the better by applying the flat-finish brick paint. A very simple covering for a mantel may add to the daintiness of the furnishings. The mantel of a bedroom is the personal property of the owner of the room, and naturally takes on a more significant expression of individuality than in rooms used for other purposes. Here familiar and personal belongings may be displayed, and a glance at such a mantel will reveal the tastes of the occupant of the room more than an acquaintance of months or years.

The laws governing symmetry are almost obvious, so just a suggestion in what should be used is necessary. Vases and candlesticks both lend themselves to this effort of making the ends of the mantel balance. Here the Orientals are of especial value. If, by any chance, there are two vases or jars nearly of a size, and it is impossible to obtain pieces of exactly the size, the larger should be put on the right-hand side. It is a curious fact of optical illusion that pieces so placed will appear approximately the same; whereas, if the position is reversed, the disparity

in size will be greatly intensified. If vases are not used, candlesticks are always in order. Single candlesticks are generally preferable to branch candles. Again, the old fluid lamps of the Empire Period, with a pair of vase-shaped shades or globes and glass pendants, are deservedly highly esteemed. When such are used there is generally a central piece of similar character.

Should one be decorating a room according to an historic period there are, of course, the well-defined laws governing the mantel dressing. The Empire demands formal treatment, a clock or vase, and at the ends candlesticks or candelabra. These are usually backed by a mirror. The whole effect is extremely

formal, rather heavy and depressing. The Adam requires shapely vases—Wedgwood especially. William and Mary usually has no mantel shelf, or if there is one, it is so narrow as to accom-



An arrangement of recessed gradines often provides space for massed decoration. On this mantel a certain unity has been preserved, whilst the objects themselves reflect the atmosphere of the room



There is undisputed character to the treatment of this fireplace, yet one feels that fewer of the historic lares and penates would have been more effective, giving less of the air of an antique shop



The picture in this instance detracts from the severity of the bricked chimney, with an effect in good taste and pleasing



If one has good paneling over the mantel it should not be hidden behind objects of less interest. Lack of symmetry here is noticeable

moderate only candlesticks. Since nowadays one rarely thinks of hanging a cover over the mantel-shelf, mention of it as an example of poor taste is scarcely necessary. There can be used, however, a narrow runner: an old ecclesiastical stole, for example, spread lengthwise with the broad ends left to hang, or under the central figure a piece of cloth of gold or rich brocade with a narrow edge hanging over the front of the mantel shelf.

Another phase of mantel decoration is the treatment of the chimney breast itself. The varieties are legion. First of all, brick, decorative or plain, or plaster, rough and toned to the general color scale of the room. The latter may be elaborated by the insertion in cement of decorative tiles covering either a part or the entirety of the chimney breast. Again, a tapestry or brocade hung against it will give color if it fits in well with the tone of the plaster. Often a very ornately carved mantel is sufficiently decorative in itself. In many instances there is no mantel at all, the hood extending from the front edge to well up toward the ceiling.

When the chimney face is paneled with some finely grained wood the barest simplicity in mantel decoration should obtain. The objects on the shelf should in no wise be so elaborate as to detract from the interest given by

the graining itself, nor should they be so high as to obstruct the view of it. And *en passant*, when will folks come to know that nothing in this world can be more beautiful than a finely-grained piece of wood? Finished with a natural stain, left there to be beauty itself, nothing more lovely, more interesting, more genuinely attractive, can be conceived. And if such a panel finishes the woodwork above the mantel, let it reign supreme—for it is worthy the place of honor in the room.

A picture or mirror may be hung against the chimney breast, or be inserted as a part of the paneling. If it is set flush with the woodwork no frame is necessary save a narrow beading. Should the picture be hung separate, then the woodwork of the frame ought to conform with the character of the rest of the woodwork in the room.

The indented chimney breast arranged in a series of gradines will carry many objects, though both the character of the room should be expressed in those objects and a certain unity through them all, to prevent the whole looking like a curio collection.

As a final word, it is the good bric-a-brac, wrongly placed through lack of knowledge or judgment, that most needs "taming." Bad bric-a-brac merits destruction. The good kind and its proper arrangement should be the only kind considered for use above the mantel.



An interesting Queen Anne or early Georgian fireplace. While it is dignified in line, detail in the painting relieves the formality. The fire curtains deserve attention

A Record of Backyard Opportunity

THE REFORMATION OF A SUBURBANITE AND HOW HE MADE HIS BACKYARD GIVE ITS INCREASE OF ENJOYMENT, EXERCISE AND ECONOMY—SOME ENCOURAGING FIGURES

BY C. A. LE CLAIRE

A CONVINCING majority of men who are engaged in business or professional work reside midway between the heart of the city and the center of the suburban population. Our home is something on the bungalow or cottage order, built a few paces from the street, leaving a small green strip of lawn to the front with a disproportionately large "eyesore" expanse at the rear. This piece of ground, which abuts the alley on one side and the neighbor's back porch on the other, is often a dumping ground, the harbor and breeding place of all kinds of disease germs and noxious weeds. Continually warring against such conditions, the city endeavors to enforce laws which make it criminal to let the filth accumulate beyond certain limits or the weeds grow above a certain height. "City Beautiful" clean-up days have been inaugurated in which, if the refuse be conveyed to the street, it will be removed by the city at the expense of the public at large. Good as they are, such methods have never yet resulted in completely solving the problem of back-yard sanitation. As a result, the space in the rear of the house becomes a nuisance rather than a blessing.

This is not so apparent to the business man, however, for his day begins at seven in the morning, the mid-day meal is secured during the rush half hour at noon, and rarely does he find himself homeward bound until six in the evening. Consequently he so relishes the evening on the lawn pushing the lawn-mower in preference to entering the house for dinner. The toils of the day seem to have a peculiarly depressing effect; one finds it difficult to secure restful sleep. Did it never seem strange to you that about once fortnightly, on the evenings when you mowed the lawn, slumber came without effort? It simply means that the endless strain of mental exertion we pass through each day results in such fatigue that even sleep is not restful. The walk to and from work is not enough; it was the extra exertion with the mower which gave you an occasional restful night.

One day my wife suggested how nice it would be if we had

our own vegetable garden. I assented, but I had hardly the energy sufficient to attempt to carry out my vision. Something, however, stirred new life in me. In two evenings my plans were all made, and the cleaning-up process of the back yard was begun. We had changed the usual six o'clock dinner hour to eight, in order that every available moment of twilight might be utilized. The rake did wonders in the way of improvement, and by the third evening the little plot was ready for the spade. The work agreed with my humor exceptionally well, and as the lot yielded to the spade, my enthusiasm became more and more intense. Soon I found myself arising at five in the morning and

putting in an hour or so before work, in addition to the evening exertion. Shortly, this double-time schedule became the daily practice, and each morning the erstwhile frown with which I had grown to greet a dull seven o'clock breakfast was changed to a cheery whistle and a welcoming smile for the pleasant appetizer before me. The nights, which before had been a burden—at times almost a torture—of an incessant tossing and a wearing search for rest, now became blessings of good, sound, health-giving slumber. As my



Putting system into the garden: the same sort of cataloging and intensive, efficient work that paid in the office was tried in the garden—with obvious results

garden grew, my health increased, and even the routine of the office was no longer dull, for each hour brought me nearer to the beautiful evening times at home in my garden.

The soil in the rear of the house was somewhat rolling, and it seems that the best of it had been removed to grade up the front lawn at the time the house was built. This left the heavy, cold subsoil clay exposed each time a spadeful was turned over. But, by beginning the work when the moisture content of the soil was ideal, so that it crumbled without puddling, and making it an absolute rule to hoe and rake down to a fine mulch each day's spading before the clods dried out, a fine seed-bed resulted. By about the beginning of the third week everything was in good shape for planting. I measured off the spaded plot and found it to be about one-seventh of an acre. There was room for six rows of Irish potatoes, three of sweet potatoes (although the

heavy soil was not ideally adapted to them), one and one-half dozen tomato plants, three dozen cabbage plants, a dozen eggplants and half a dozen peppers. The weather at this time was exceptionally dry, and it was necessary to use the garden hose in order to keep the plants growing. At the second week after planting it was an easy matter to tell the thrifty from the weaker plants, and, as it had been my aim to work the spot intensively, the replanting was begun. Every available space was utilized, and sweet corn, string beans and miscellaneous small truck was seeded in and between the rows originally set. Rains finally came, and soon the rear of the house grew more inviting than the front.

When the crop had acquired a good start I began to find it difficult to keep as busy as was the case earlier in the season. Accidentally my eye hit upon the extreme slope, which was too thin of soil and too steep to cultivate. At once I seeded it to grass, with the idea of fencing the remaining two sides of the inner fence to form a poultry run. Although it was getting late in the season, there was no harm in trying; therefore, a friend's incubator was borrowed, in which 142 pure-bred White Leghorn eggs were set. In the meantime, as the days flew by, a dry-goods box was molded into a neat little brooder house, which, under the mild conditions of the weather, needed no artificial heat. The hatch came off beyond all expectations, and 75 chicks, all whole and hearty, were the result. Their growth was so rapid that it was but a short time before larger quarters for them were required. The building of the larger coop, together with the cultivation of the garden after every rain, gave a goodly allowance of things to do until the winter months and harvest approached.

In calculating the returns from the enterprise I tried to be honest, and, to make exaggeration impossible, I charged against the respective place where same were used the entire cost of tools and other accessories purchased. My books showed the following:

SEED		Dr.
Potatoes (Early Ohio), 1 pk.		\$0.25
Potatoes, sweet, plants.		.35
Cabbage, two dozen plants.		.20
Eggplant, one dozen plants.		.25
Pepper plants.		.10
Sweet corn seed.		.05
Beans.		.10
Tomatoes, three dozen plants.		.50
Lettuce, radishes, onions, etc.		.20

TOOLS

1 spading fork	\$1.00
1 rake	.75
1 hoe	.75
1 spray for hose.	.75
	\$5.15

HARVEST

	Cr.
Potatoes, 10 bushels.	\$5.00
Potatoes, sweet, 3 bushels.	4.00
Cabbage	1.20
Eggplant	2.00
Peppers	1.50
Sweet corn	3.40
Beans	1.60
Tomatoes	5.30
Lettuce, radishes, onions, etc.	3.00

Result of harvest	\$27.00
Expenses, seeds and tools.	5.15

Balance net return on garden..... \$21.85

EQUIPMENT

	Dr.
Eggs for hatch.	\$3.00
Cheese cloth	.25
Nails	.25
Wire, 30 yards	2.60
2 by 2 lumber	2.00
Siding, 250 feet	3.00
Roofing	1.60
Feed for five months (table refuse excluded)	3.00

\$15.70

	Cr.
Chickens hatched and raised, value to date (60, at 15 cents per pound), weight, 2 pounds each	\$18.00

Realized	\$18.00
Cost of equipment	15.70

Balance in favor of chickens..... \$2.30



Pole beans were trained to be accessible—on strings connecting the poles, which also prevented the vines from slipping down



After a day in the office there was nothing to compare with an hour or so of pecking at the soil in the garden. It brought a hundred per cent appetite and a corresponding reduction in the high cost of living

This statement should reveal beyond doubt that back-yard gardening yields, under most unfavorable conditions, over 100 per cent. The keeping of home poultry, disregarding the egg factor, warranted in this case about 10 per cent. on the money invested.

These truths, though not miraculous, should bring the message home to every city man that his back lot can be improved at a profit to himself in a personal, as well as in a financial, way. If this be true under adverse conditions in the initial year, it is easy to estimate the possibilities thereafter when the soil, enriched by proper care and culture, will yield far more abundantly.

Further original outlay is greatly reduced, and with it comes a corresponding net return increase. It is entirely possible for the urbanite to add to his earning capacity by at least ten per cent. and in part solve the "high cost of living" in a healthful, pleasurable way.

The secret of the experiment was system, not only in selecting seed, but also in preparing the ground, and, finally, in the determination to allow a specified time each day to cultivation.

Where Concrete Pays

A HUNDRED PER CENT MATERIAL WHEN EMPLOYED SKILFULLY AROUND THE GARDEN—WHAT THINGS CAN BE MADE—THE KNACK OF MAKING THEM

BY F. F. ROCKWELL

EXCEPTIONAL indeed is the place whose owner cannot think of some improvement, or some dozen improvements, that he would like to see made. Walks, culverts, troughs, hitching-posts, fence-posts, fountains, retaining walls, hot-beds, vegetable pits, steps, foundations and supports for buildings, floors, pergolas, summer-houses, hand-rails, to say nothing of more elaborate things, such as ice-houses, root-cellars, tanks, and so forth, are all within his reach when he has at his disposal concrete and iron pipe. For undertaking such jobs no time of the year is better than the present.

The use of concrete is simplicity itself. The only ingredients required are Portland cement, clean, medium-coarse sand, gravel and water. In place of gravel, clean cinders or crushed stone may be used. Sometimes it is possible to get gravel that is mixed with sand in the proper proportion as it comes from the bank. Ordinarily, however, it should be screened, so that the sand and gravel may be measured separately. Having the ingredients accurately proportioned is one of the most important factors in achieving

successful results with concrete, and requires some attention.

The mixture of the ingredients is based on the principle of having the particles of sand of sufficient number to fill the spaces in the gravel or crushed stone, and the particles of cement—which is ground to a microscopic fineness—fill the minute spaces between the grains of sand. After such a mixture has "set" or hardened the result is a monolithic compound so strong that if it is broken with a hammer the fracture will be found to run across the stones. It is practically solid rock.

The proportions of the ingredients are varied according to the nature of the work for which the concrete is to be used. There are three standard formulas, known respectively as "lean," "medium" and "rich" mixtures. The former is used for thick retaining walls, floors, sub-bases and anywhere where bulk and



The making of a concrete chicken-coop is a simple job, and the results are sanitary and permanent



In the greenhouse the possibilities of concrete are almost limitless. No material is better for shelves, supports and flooring

weight, rather than strength, are required. A medium mixture is used for ordinary purposes, such as walks, curbs, steps, walls, etc., and a rich mixture where great strength, fine finish or imperviousness to moisture are needed, such as for more elaborate forms of walls, garden furniture, supporting posts, thin walls, etc. "Reinforced" concrete is simply concrete with some material, usually metal in the shape of wires, rods or woven-wire netting, to give it extra strength for such uses as complicated forms, thin walls, floors, and anywhere where special stress and strain may be encountered.

The proportions for these several mixtures are usually as follows, though, of course, they may be varied after one has a little experience, as the requirements of the job suggest:

Lean mixture: One part cement; three parts sand; six parts gravel.

Medium mixture: One cement; two and one-half sand; five gravel.

Rich mixture: One cement; two sand; four gravel.

Finishing mixture: Three shovelful of clean, sharp sand to ten pounds of cement.

The latter mixture is used for finishing off curbs and gutters, surfacing walks or walls, etc. It should always be applied before the first form has set hard.

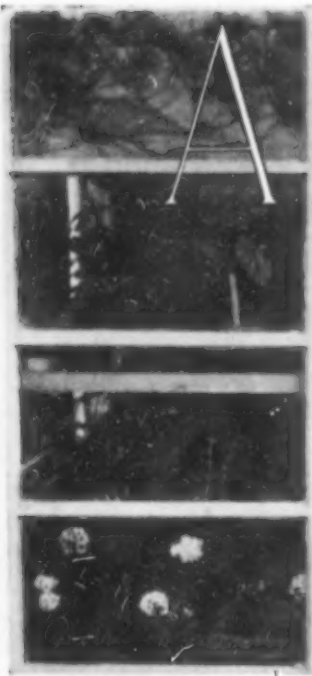
After the materials are got together, and you know exactly what you want to construct, the forms must be prepared. For most work they are made of wood. The "form" is simply a casing to hold the wet cement in shape until it hardens. For any job that requires considerable concrete, the forms are generally made in sectional units, which can be used over and over. In making up the forms, two things are necessary: They must be rigid; any "give," bulge or leak will leave a corresponding defacement on the finished job that cannot be rectified afterward. And the "face" of the form, which comes next to the wet con-

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A Conservatory on a Side Porch

THE SIMPLE TRANSFORMATION THAT MADE POSSIBLE A WINTER INSIDE GARDEN—HOW THE PROPER DEGREES OF HEAT AND HUMIDITY WERE MAINTAINED—THE COSTS AND THE RESULTS

BY C. M. SHIPMAN



As the winter cold comes on and we see our outdoor flower friends frosted and disappear, the desire possesses us to take some in and save them, so we fill our windowsills with geraniums and the family cactus.

Then we try experimenting with bulbs and possibly cyclamen and Easter lilies, and, after a few years, if we have no success, we tire of the game, but if these plants do well for us we possibly go to dreaming of a small conservatory or putting glass around the side porch.

We went through all this process, and the flowers did very well; the house being heated by steam, there were no gases to injure them. But we were not satisfied. Finally came a time when there was not room for all our desires, so we decided to enclose the side

porch. This side porch was on the southwest corner of the house; it would have been better on the southeast corner, but it did very well. It measured seven by fourteen, and, like the rest of the house, was of solid concrete—floor, wall and ceiling—so that water could be used freely and injure nothing.

At a neighboring factory three heavy sashes were obtained, measuring four feet six inches by five feet, and two were put in the side and one at the end, giving about sixty-six square feet of glass; the sashes were held in place by a cypress strip $\frac{3}{4}$ " by 4", fastened to the concrete by anchor bolts screwed in lead, and to these the sashes were

screwed so they could be removed in summer, leaving the strips permanently there.

Below the sashes were wooden panels 34" high, filling in the rest of the space and fastened to the inside of the porch rail; these panels were also removable.

The sashes were odd ones in stock, and just what we wanted. They cost only \$2.20 each. A handy-man carpenter got out the cypress in a day and was another day putting it up, at three dollars a day.

A laborer helped and drilled the holes in the concrete. His time was about nine hours, at twenty cents an hour.

The lumber was odd material the carpenter had; he said: "A dollar will square that."

Drilling holes in the concrete was quite a difficulty; twenty-seven holes $\frac{5}{16}$ " in diameter and $1\frac{1}{4}$ " deep—it took five hours. Had the columns been wood, as are the usual piazza columns, this would be no expense.

All the strips and panels were painted before putting up, with a paint made of white lead and oil, to which just enough lamp-black and yellow ochre were added to exactly match the concrete. We then put up a miniature hot-house bench, fourteen inches wide, around two sides of the conservatory, and at the top of the panels, so that the bench came at the bottom of the glass. Midway up the windows a shelf was put up. It had a rim puttied inside and out and painted so as to be water-proof. Thus, in wetting flowers, the excess water could not drip down

on the flowers below.

As cold weather came on, the two oleanders were put on the porch, and the windows and other parts put up as described, and a connection made to a radiator just inside the door of the house by running a pipe as shown in the picture. This was made of three lengths of two-inch pipe for the main part, and reduced to $1\frac{1}{4}$ " where it passes through the doorway and connects to the radiator in the house. An important factor is to have the radiator exactly level; from there to the connection inside



Good, rustic effects were obtained by covering the sides of the window boxes with bark strips. The hanging baskets and orchids lend a genuine conservatory atmosphere

the pipe should slope gently so as to carry the condensation back to the boiler, otherwise the radiator will get a "water-pocket" and make a great deal more noise than heat.

Some difficulty might be found in making this connection. I did it in this way: I disconnected the union holding the radiator and raised the radiator up four inches on two arched blocks of oak; then I connected a $1\frac{1}{4}$ " tee and a close nipple; then on this the valve of the radiator; then connected up the union again to the radiator, which now sits up four inches on legs. All is as it was before, and we have an opening from the tee to run a pipe to the radiator out on the porch.

In this pipe we connect a valve so we may shut off the steam at any time. To take the place of the air valve usually used on the regular house radiator, I used a $\frac{1}{4}$ " pet cock. In this way steam could be used to keep moisture in the air at all times.

The porch door was taken down and stored away, and the two windows which opened on the porch were thrown open.

A mixture of soil from an old hot-bed, together with sand and rotted sod, was put in the window boxes. In this we planted our flowers. This was a mistake, as we soon discovered. The plants should be potted and stood in a little sand in the window boxes so they could be turned and receive the amount of moisture each individual plant needs. When planted together they all get the same treatment, and aphids are hard to combat. From the ceiling we hung a Boston fern in a box of white birch pieces about a foot long, log-cabin fashion, the spaces chinked with moss.

On a wire stretched across the south side we hung six orchids: two of them *cyprapediums*, two *dendrobiums*, a *cattleya* and a *laelia*.



Extension from the steam radiator supplied sufficient heat and moisture to the air



Showing the simple manner in which the porch was enclosed and how readily it can be thrown open for summer use

In the window boxes, we put in front on the south some primroses and cinerarias, and back of them a row of geraniums of different colors. On the west we set in front primroses and geraniums, and back a row of six chrysanthemums, different kinds. After the last had bloomed, as they did with satisfactory results, we put them in pots to divide for next year, and in their places geraniums and some odd plants. On the

shelf we put twenty-six potted plants, mainly begonias, cinerarias, cyclamen, geraniums, wall flowers, etc.

In the soil, among all the flowers, we planted one of the stone crops, which soon obscured the soil and looked very pretty.

For watering, a garden spray-pump was used, and everything sprayed like a summer shower. If more was needed, a watering can was used. In winter the watering should be done as near

noon as convenient, and usually only on sunny days. The humidity is kept at about 60° relative humidity, although just after spraying it will run up to 80°. The humidity was maintained by the pet-cock in the radiator, from which about three or four gallons per day of water was allowed to escape into the air as steam. A hygrometer is used to watch the humidity, which made some startling revelations on how our houses simply dry up in winter while outdoors the air may be nearly saturated. Incidentally, this may cause more colds than we realize. Watch the humidity as carefully as you do the temperature.

The window boxes were covered with bark from a dead chestnut tree, which made a very pretty rustic effect; the boxes were painted with hot paraffin wax before they were put up, so they would not rot easily.

The pictures were taken at the Christmas season, and a Christmas tree is seen through the window looking into the house. The drop wire was used to supply current to the small lamps on the tree and for

a wrought-iron lamp hung from the ceiling of the conservatory. And, by the bye, the smoker who is not welcome in the house may go and smoke in the conservatory, where his only enemy will be the tiny aphid.

As spring advances, the flowers are taken outside and plunged in beds; late in the summer cuttings are made from the geraniums and begonias. In this way our stock is maintained. The small plants are thrown away and a new supply purchased in the fall.

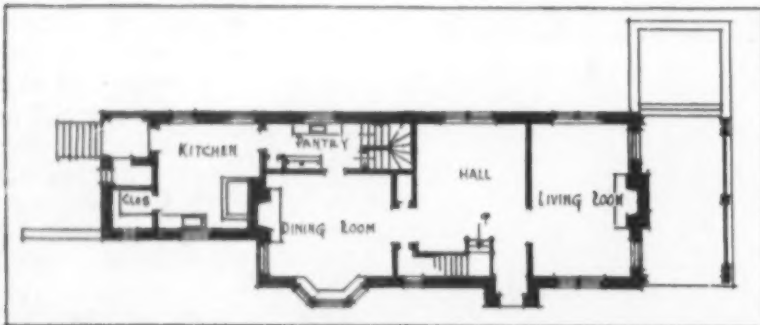
During the hot weather the orchids are kept in a cool place. The radiator is removed, the door rehung, the window boxes cleaned and put away, and the conservatory becomes a thing of the out-of-doors, with no inconvenience.



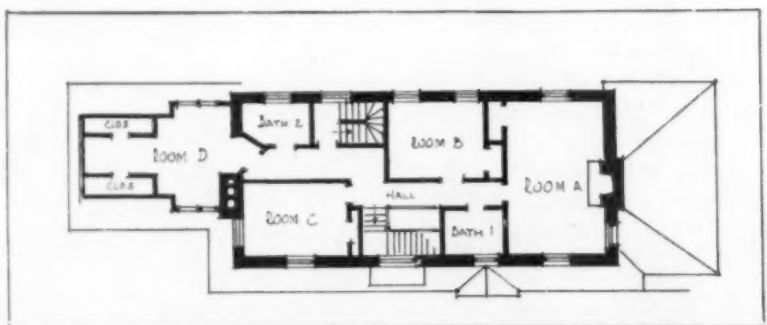
By elevating the radiator, a water pocket was avoided and the proper drainage assured



This moderate cost dwelling-house relies for its distinction on the use of native material. Architecturally it embodies several traditional local features



First floor plan, showing convenient arrangement of service wing



Comfort and compactness characterize the second floor plan

A HOUSE
AT
CHESTNUT HILL,
PHILADELPHIA



There is a quiet dignity about the exterior. The treatment of the doorway is particularly inviting

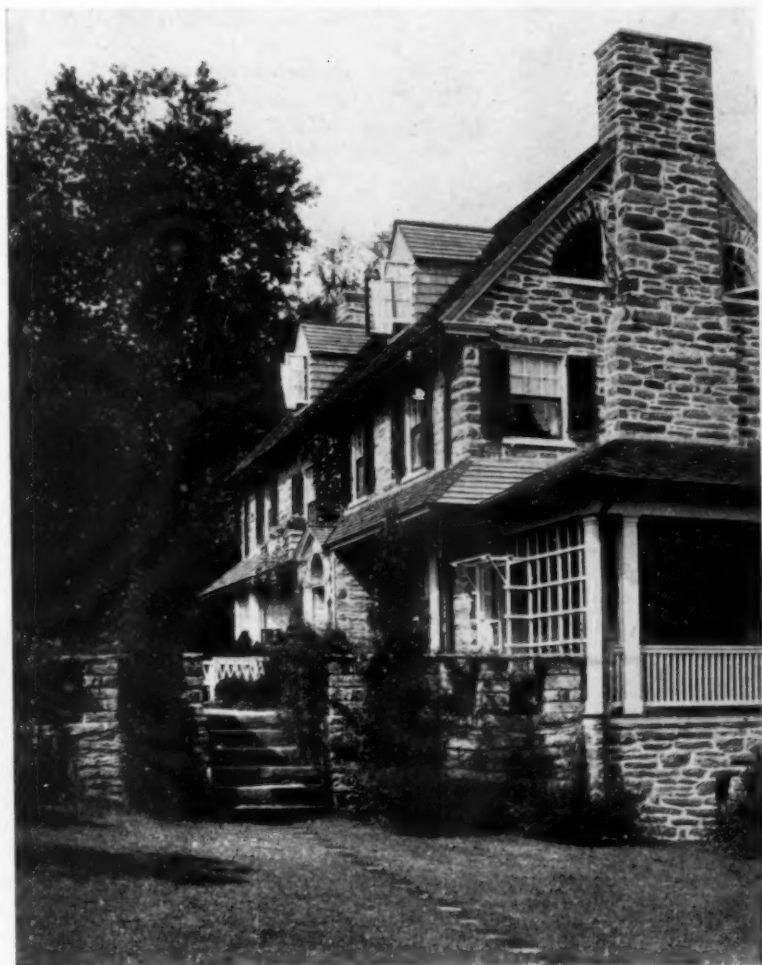
Charles Willing
of
Furness, Evans & Co.,
architect



The living-room stretches across the end of the house with a southern exposure



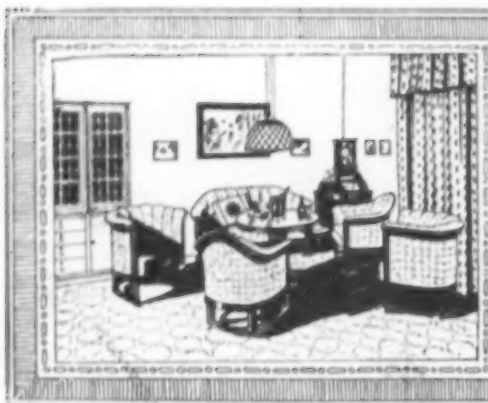
All the larger rooms of the house have brick fireplaces with attractive mantels



An especially good color has been obtained by the rubble walls of quarry stone

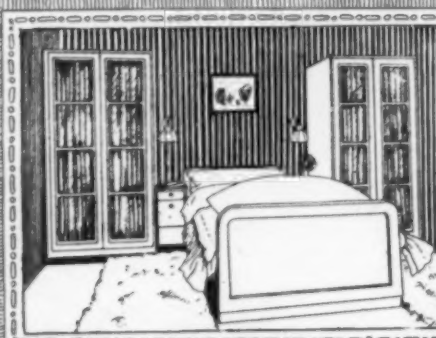


House and garden are effectively joined by the flowering shrubs and hedgerows



INSIDE THE HOUSE

Timely Suggestions and
Answers to Correspondents



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.

Treating Damp Walls

ONE of the more or less serious problems that confronts many a house owner lies in the dampness of the walls. Sometimes it is merely a surface moisture that seems to be absorbed from the atmosphere in certain localities, the result of frequent and prolonged rains; or it may be a more serious matter, due to some faulty construction or material in the house. Once it gathers in the plaster it is difficult to eliminate; it appears continually, staining the surface treatment, peeling and buckling the best and most carefully applied wall paper.

The difficulty frequently rises from poor foundations. Often the loose rocks on the estate have been simply piled together to build the cellar walls, and the dampness of the earth seeps between them, rises to the upper stories and into the plaster. The stone should be cemented, the cellar perfectly drained and a good concrete waterproof flooring laid.

Again it is a faulty roof that is responsible for the trouble. It may need a few shingles, a better shingling or an entirely different kind of roofing. The tin-work along the valleys of the roof may be defective and cause leakage, or perhaps the drain gutters have sagged and collect the water in pools that drip through the wood-work. Sometimes the rain and moisture filter through the window jambs; then a careful refitting of the frames and replacing of the shrunken wood is necessary. Imperfect work around a chimney construction is another source of the trouble, frequently causing the appearance of a damp line across the front or on either side of the chimney breast.

After the obvious causes have been removed it is not hard to keep the walls in good condition. If the plaster is already much moisture-soaked it is better to tear it out completely at once, or it will eventually crumble and fall.

There are several methods, all good, to refinish the damp foundation wall. Sometimes it will suffice to coat the walls with a waterproof paint. Many builders find that a mixture of tallow, oil and rosin applied hot to the wall will produce a thoroughly satisfactory result. Others advocate the

application of a soap and water mixture supplemented by a coat of alum and water. Again it is advisable to back the plaster with a layer of roofing paper, leaving a perfectly dry air space between the wall and laths.

Where walls seem irremediably damp and hard to dry out, use a cement of good quality, mixed thin enough to put on with a brush. Wet the outside wall and then apply a thick coat of the cement. It may be



In instances such as this panel board is the best solution against the dampness

necessary to add a second coat, but in the end the wall will be perfectly waterproofed.

Instead of replastering, one of the many forms of panel-board now on the market can be applied. This costs less than replastering and papering, and a good quality

is moisture-proof, it will not crack or deteriorate, and is a non-conductor of heat, cold and sound. It is put directly on the supporting beams without plaster and finished with a narrow molding.

When the old walls have not become moist enough to demand their being torn down, the panel-board can be applied directly on a cheap framework built over the plaster. In localities where lumber is not inordinately expensive this may be found to be cheaper, quicker and entail much less labor than removing the plaster.

Should you decide that it is better to replaster, do not make the mistake of papering while the plaster is still green. This will often result in the paper buckling and having to be done over again. It is a good thing to kalsomine or paint the walls until they are thoroughly dry.

If the wall has not been badly affected it is possible to use a thin tar paper. It costs fifty cents a roll and is put on like any ordinary wall paper. The regular paper is applied on top exactly as it is ordinarily on the plaster. This has been found to be an absolutely satisfactory treatment. It will entail less expense to apply two coats of shellac on the plaster, which will generally make the surface moisture-proof.

If but a very small part of the wall has been water-stained, such as occurs around a window or from the leaking of a pipe, it will be sufficient to give it a good scraping and sanding, coat with a flat paint and shellac. Then it is ready for repapering or applying whatever finish may have been selected.

There is a very little choice between the kinds of paper or paint in relation to their affaction by dampness. If the dampness is there it will eventually saturate either one. Certain colors seem more susceptible to disfigurement by moisture than others. Dark reds will stain very quickly, and all deep, bright colors change more than pale ones by the very fact that there is greater amount of pigment in them.

It is well to try out several samples of the paper that are under consideration, by wetting them and watching the results. A selection can then more surely be made from the ones which show the least effect of the water.

Forcing Rhubarb in the Cellar

RHUBARB pie in January is a luxury which need be denied nobody who has a fairly warm cellar. Large, strong plants, preferably three years old, should be dug from the garden late in the fall and allowed to freeze solid. Forcing clumps may be bought of seedsmen if the garden is without rhubarb. To force them into growth it is necessary only to bury them in a box or tub in a basement or cellar where the temperature is from 50 to 65 degrees and to protect them from strong light. Commonly, they are simply covered an inch or two with sand, but the results will be quicker if a layer of fresh horse manure is placed under the roots and covered with two inches of loam. Water must be given freely, but it is well to have holes in the bottom of the box so that excess moisture will escape. From one to three months will elapse before the rhubarb will be ready for use, and then the stalks will be nicely blanched instead of being green or red, as when grown in the garden, and there will be very much less leaf growth.

Asparagus may be forced in much the same manner, except that it should not be frozen, and if a few roots are started at a time the season will be extended to last several months. The first yield should be secured at the end of six weeks. Sea kale is another vegetable easily forced, and in flavor much resembles celery. The crown should be set in good soil, with the eye just above the surface, and if kept warm and moist, growth will be rapid. Although sea kale is not often found in the garden in this country, the seedsmen sell forcing crowns.

A New Outside Meter

ACLEVER device being used in many of the houses now building provides for gas and electric meters in a new and very advantageous way. Under the new arrangement, meters are set in the exterior wall of the house, face outward; when the meter is to be read by the public-service company's employee he has no occasion to come inside the house or make his presence known in any way; he reads the meter from the outside and goes his way.

The time-saving, trouble-saving features of this method are instantly apparent, and are not counterbalanced by disadvantages of any sort. The cost is low—\$6 to \$10 for each meter so housed, if boxes are built in when the house is erected.

Meter men are not only an annoyance to the housewife, but, in the case of many timid women, are regarded as dangerous in providing imposters easy access to the house. The meter boxes do away entirely with these conditions, and at the same time save basement space the meters would occupy, and protect the meters against ac-

cident that might have troublesome results. The manufacturers say that these advantages impress householders so strongly that installations are often made in houses already built—the owners being willing to incur extra trouble and some labor expense in order to do away with the nuisances which accompany meters placed in the basement. Certainly, conveniences of this character add greatly to ultimate comfort and security.



After three months the stalks are blanched, and the leaf growth small

The Necessity for Humidity

FEW people realize the true condition of the atmosphere in our living rooms during the period when the furnace is in operation. Many people know in a general way that the air is excessively dry, but it is only beginning to be generally understood the injurious results of this dry air on health and comfort. The average humidity at Yuma, Arizona, is about 42°; at Santa Fe, New Mexico, about 44°; in the Desert of Sahara, about 33°. The average relative humidity in the home during the winter months ranges from 20 to 28°. These facts in themselves are of the utmost significance, and this condition of the atmosphere explains the reason why colds, throat and glandular troubles are so prevalent in winter, and it explains why furniture and woodwork crack and break, musical instruments get out of tune and plants fail to thrive in the home during the cold weather.

A satisfactory heating of the home is, of course, necessary. A proper amount of pure air is also recognized as being required. The leading health experts are to-day demanding that, in addition to proper heat and ventilation, the atmosphere must contain a sufficient amount of moisture to be healthful. Attention must,

therefore, be given to the subject of obtaining humidity in the home during the winter months. No heating system in and of itself adds any moisture. As temperatures are raised, moisture must be added or else relative humidity decreases, and, consequently, means for furnishing this necessary moisture must be provided independent of, but working in connection with, the heating plant.

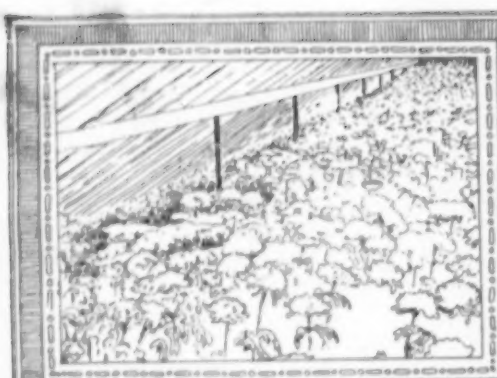
A simple and economical device that supplies the necessary moisture working in conjunction with the heating plant consists of two porous silica plates installed vertically inside the furnace casing. The principle of the moistener is based upon the capillary power of these plates. They take up water and become completely saturated as quickly as a lump of sugar. The surface of the plates, therefore, becomes immediately an evaporating surface, in direct contact with the heated air, and this evaporation continues as long as the water is supplied to the plates. As the plates are always installed at the point of greatest heat, and since evaporation is dependent upon heat and ore, water vapor is thrown off rapidly. The detail of installation, of course, varies a little with different types of heating plants, but in most cases it simply means cutting an opening through the furnace casing. The smallest moistener manufactured has, it is stated, an evaporating area of over 300 square inches. They can be installed quickly in any furnace, or any steam or hot-water system.

Iron Rust on Stucco

WHERE the ironwork on a stucco house has rusted and the rust discolored the stucco, there are two ways of treating it. If these stains are purely of surface discoloration it should be possible to remove them with a wire brush; if, on the contrary, the entire thickness of the stucco has become stained, it will be necessary to put on a cement wash to cover the spots, or to cut out the stained portions and put on new stucco.

A solution of hydrochloric acid and stannous acid will remove iron rust from concrete, and will not injure the concrete if the treatment is administered rapidly and the face immediately washed with clean water. The solution mentioned has an affinity for carbonate of lime, consequently it should not be used where hydrated lime has been incorporated in the mixture. Rough finished cement stucco should be treated by spraying with the above solution, as the result will be more thorough and the work more rapid than by the use of a brush.

Very satisfactory results may also be obtained by diluting one of the commercial cement paints until it is thin enough to use in a spray pump, and painting the surface of the stucco by spraying the diluted paint upon it.



GARDEN SUGGESTIONS *and* QUERIES

CONDUCTED BY F. F. ROCKWELL



Mind the Frost!

IN spite of the damage the first hard frosts do every year, there are always some gardeners who have to learn or re-learn the lesson, "in time of frosts prepare for freezing." Frost comes, followed by a week of glorious autumn weather, and the process is repeated three or four times. The tender things are killed, but the hardy flowers and vegetables continue looking as thrifty as ever. Result: we get careless, the calendar slips along a few notches too far, and we wake up to find that some of the late root crops, or a pile of squash or a barrel of potatoes left in an open shed, or the dahlias and canna bulbs, have been frozen, and there's nothing to do but boil 'em up for the chickens and resolve we'll never get caught that way again.

The first things to attend to this month are all the odds and ends of harvesting. Parsnips and salsify may be left in the ground all winter, but if you have ever to dig out a mess when there was eight or ten inches of frost in the ground, you will agree that it is better to store all that will be required before the first of March or April, according to your climate. They may be stored in sand, soil or moss, in a cold, moist cellar, or "pitted."

Storing Outdoors

Often there is a surplus of vegetables in the fall that one does not have room for in the cellar. Do not waste these, as they will almost always prove useful before spring, and especially so when meats, flour, canned goods and other commodities are mobilized on a war basis, as seems likely to be the case this winter. Select some thoroughly well-drained place in sandy soil, or under a shed if possible, and dig a trench two to four feet deep and a little less in width. In this may be stored cabbage, parsnips, turnips, carrots, beets, salsify, potatoes and onions, if packed in some dry material, such as straw or leaves. The trench may be lined with straw or leaves, if they are perfectly dry. The success of the operation depends upon having

perfect drainage, so that no water or melted snow can get into the trench, and the method and thoroughness of the covering, which must be sufficient to prevent frost striking through in coldest weather. All vegetables should be perfectly dry when stored. Cover at first only with straw or leaves, so that any moisture forming from "sweating" may escape readily. Upon the approach of more severe weather, put on a covering of earth several inches deep. When this is frozen hard, put on a layer of straw, leaves or dead manure, and then another layer of soil, repeating the process until there are three or four layers of each. This makes a covering that will keep out very severe frosts, and a good deal of moisture, and at the same time may be readily broken through at any time. Where the vegetables are wanted for family use, they may be mixed together in about the proportions used, so that the pit will not have to be opened at more than one place.

Save Your Tender Bulbs

When the first frosts have killed down the tops of your cannas, dahlias, gladioli and tuberous begonias, take up the bulbs without delay and store them in a dry place under cover. Let the tops shrivel and the earth dry until it can be shaken off, and then store them in boxes, carefully labeled, in a dry, cool room or cellar, where the temperature never goes to freezing. Caladiums and callas should be taken up before the tops freeze; the former especially are very tender and should be kept where the thermometer stays above forty. The little "bulbels" which form around the base of the gladioli bulbs should be carefully saved. Plant them all out next year, and the year following you will have fine flowering bulbs.

Think of Next February

Now is the time, too, to store away a supply of soil for next spring's seeding time. Before the snow is off the ground, and while the garden is still like a solid

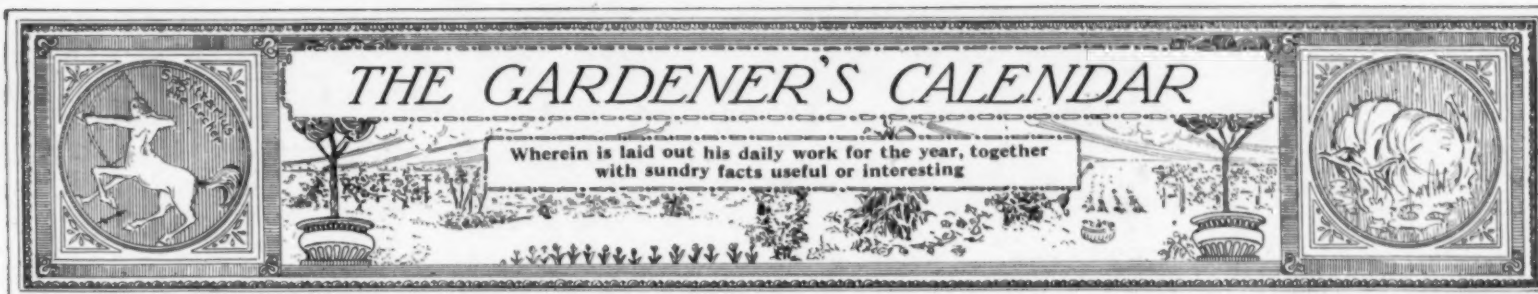
block of concrete, you will want to start flower and vegetable seeds to set out in the cold-frames and garden later. Prepare your soil now. Get some leaf-mold from the woods, some sand (or sandy wash from the road-side), and some good garden loam, and mix them together until you have a light friable soil, that will neither pack nor dry out quickly. Put away in the cellar, as far from the furnace as possible.

Drain Before the Ground Freezes

If you have a "low" spot in your garden, invest in some tile and drain it this fall. A soft, boggy spot always holds back the whole spring's operation. Let your main ditch follow the natural lay of the land. The branches, if the piece is large enough to need them, must all slope toward it, and join it at an angle, running in the same direction. Leave the "collars" of the tile open, so that the water may seep in, where the joints are laid together. Get them down below frost line, and as much deeper as possible. A single narrow open drain will often make a great difference, but tile are very much better. Where the trouble is simply an impervious clay subsoil, which will not let the water through to good natural drainage below, a few charges of agricultural dynamite may literally transform your land.

Winter Protection

If any of your raspberries or blackberries were winter-killed last year, try bending them down flat, just before the ground freezes, and cover the tips with earth to keep them in place. Then they may be mulched, although the mere tying down will protect them to a considerable extent in itself. The strawberry bed will come in for attention about this time, too. Cover the soil between the rows as well as the rows. All newly planted shrubs and perennials, and the bulb beds, should also be covered before real hard freezing weather.



Eleventh month
Morning stars—Saturn, Venus

November, 1914

Thirty days
Evening stars—Venus, Mars, Jupiter

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1. ☉ All Saints' Day. Wild geese will soon be on the wing. An old proverb warns against trusting a stranger on this day.	2. ☾ Full moon 6h. 49m. P. M. Start a mushroom bed now if you intend having one. Spawn put in now will give you this delectable vegetable during a good portion of the winter.	3. ☉ Burn up all garden litter to insure destruction of insect breeding and hibernating places. Spread the ashes of everything burned over the garden.	4. ☉ Get your mulch ready everywhere, but do not apply it to beds until the ground is frozen to 2 inches deep. Then get it on <i>quick</i>, before it thaws.	5. ☉ Guy Fawkes' Day. Strawberries may be covered 2 inches deep almost any time now, however, for with these it is tops as well as roots that are protected.	6. ☉ All fall planting ought to be done before this date, but the work may go on if the ground is in condition as long as it is in condition. Remember to mulch everything well for the first winter.	7. ☉ First newspaper printed 1663. The transit of Mercury is partly visible and affords the opportunity of studying this coy little planet.
	8. ☉ Choice bulbs are to be cheap this fall, some believe, owing to the European war reducing the market. Planting may be done as long as the ground is open.	9. ☉ Set all bulbs onto a little cushion of sand to insure perfect drainage. They cannot endure water standing around them.	10. ☉ Last Quar. 6h. 37m. P. M. Sprinkle lime through the compost heap, and turn it over occasionally to insure its disintegrating evenly.	11. ☉ Put heavy dressings of manure on rhubarb, on asparagus beds, and on peonies. All are heavy feeders.	12. ☉ Look for meteors from now to the 15th. Root vegetables, except salsify and parsnips should be out of the garden and in the cellar by now. Dry earth is a good storage medium if you have no sand.	13. ☉ Take up tender bulbs and tubers; shake them free of earth, and store in an average temperature of 40 degrees or less—never more. See that they are in the dark also.	14. ☉ Sow corn salad, kale and spinach broadcast in patches in the vegetable garden for very early spring use.
	15. ☉ Look fruit trees over carefully for borers. Hyacinths for Christmas bloom must be potted not later than now.	16. ☉ Inauguration of Suez Canal 1869. Thin out cane fruits if this has not been done earlier. Begin putting mulch of manure or leaves around roses, covering the tenderest first.	17. ☉ New moon 11h. 2m. A. M. Wild waterfowl will take refuge in protected ponds, and sometimes remain if proper conditions are provided for them.	18. ☉ Trench or store celery for spring use now. Trenches need not be covered quite yet, however, but the covering should be at hand and ready.	19. ☉ Salt hay is a most desirable mulch, being free from weed seeds and clean and dense. It is especially good for use on strawberries.	20. ☉ Do not rake up the leaves that have fallen and drifted under shrubbery, etc. They are Nature's own mulch and fertilizer, and all plants are better for having such a blanket over their roots.	21. ☉ Spinach for winter use should be mulched lightly as the cold weather advances, especially if in an exposed position.
	22. ☉ Cider and molasses steeped together on a pod or two of red pepper, drunk hot, is an old-time remedy for a cold. Hot sage tea taken at bedtime is another.	23. ☉ Mercury in the East now just before sunrise, a morning star. Deep hotbeds for winter lettuce and radishes should be made and started now.	24. ☉ First Quar. 8h. 39m. A. M. Colder weather is to be expected with this change of moon.	25. ☉ New York evacuated 1783. Ice 2 inches thick, it is said, will allow passage of a row of men single file on planks laid on it, if the rows of planks are not nearer together than 6 feet.	26. ☉ Thanksgiving Day. Ice 6 inches thick will allow horses and wagons to cross, while 10 to 12 inches is strong enough to support the heaviest load ever likely to venture on it.	27. ☉ Venus becomes a morning star. Every forest fire destroys a game cover—let us remember this. And every individual should constitute himself game warden and conservationist.	28. ☉ Bulbs for succession of winter bloom should be potted by now and brought into growth as wanted by bringing the pots successively into heat and light.
	29. ☉ The Baby Rambler rose will bloom actually twelve months of the year. Now is the time to get choicest pot plants from florist or nurseryman to have in flower at Christmas.	30. ☉ All tender roses should be quite covered by now. Oak leaves make a splendid protection for them, banked over them in a chicken wire "box" set up around the beds to a depth of 10 or 12 inches.					
Dawn breaking low on the horizon presages fine weather; breaking above the horizon and over a cloud bank indicates much wind.							Generally a pretty fair and mild autumn month; colder towards the end with rain or snow



EDITORIAL



WOMEN IN THE GARDEN

AMONG the phrases that have rather gone out of use in these late times is one which, without being consciously archaic, was employed in reference to the article, published elsewhere in this issue, on the flowers to plant for a scented garden: the cultivation of a domestic virtue.

At first sight it appears odd, old-fashioned, quaint—like a Rogers Group or a chair tidy. One is tempted to smile at it; smile with reverence, perhaps, as one smiles at the idiosyncrasies of a dottering marchioness, but still smile. Domestic virtues would seem to have passed away, together with the mother-home-and-fireside sentiments that moved to tears the good folk of Dickens' generation. Yet more and more do those who give the matter serious thought affirm that, despite efforts to the contrary, the domestic virtues still remain with us, many of them increasing in popularity, and that among them is gardening. They would even go farther and say that woman's place, if she but wills it, can be in the garden.

The first flower, legend relates, was a violet; and it is said of Eve that, on being banished from Eden, she begged permission to take with her the little plant, that she might beautify the outer barren earth where stood the angel of the flaming sword. Perhaps she did. At all events, Eves seem still to be doing it, for wherever one observes womankind—and they are much the same the world over—he finds that they take to gardening instinctively. To plant a seed, to nurture it, to watch it grow into the full burgeoning of blossom, comes naturally to a woman's hand. See a little scrawny plant reaching out for air and sunlight in some dust-powdered city backyard or on the narrow ledge of a hall bedroom window, and the chances are ten to one that a woman placed it there and tends it: a pathetic attempt to make the barren spot of city banishment habitable with a transplanted Eden bloom.

Indications pointing to an increasing belief that woman's place is in the garden are to be found on all sides, not the least of which is the fact, obvious to the passerby in life, that, whereas the "hired man" used to be employed, the mistress herself is now doing much of the gardening work. Nor does it appear incongruous. "Years ago," says a recent author, "women—always defined as ladies—plied outdoor tools in semi-shame, afraid of being considered vulgar or unfeminine; now the spade is recognized as an honorable implement in female hands."

Invariably as one works with one's hands comes pride in the work. The woman who begins by "puttering around" soon finds that she wants her garden different from her neighbor's; in fact, she wants a remarkable garden. And with telling persistency is the conviction brought to her that enthusiasm and personal attention alone create the remarkable.

From the mere "playing" with flowers in a miniature plot has grown—together with universal growth of feminine professions—a re-valuation of the garden both as a channel for humanitarian work and as a means of earning a livelihood. The growing movement to utilize city dumping grounds and open lots as gardens for children may be said to have been conceived by a woman, and certainly it has been their support which has advanced it to a healthy propaganda. In like manner, women can be found on the majority of committees in the Town Beautiful Movement.

While gardening as a profession for women can be reckoned as only in its incipency, there are promises of the interest spreading. Schools for the instruction of women gardeners have been

established both here and in England, and are in a fair way to permanent success. In addition are the isolated cases of women who have undertaken market gardening as a serious business, and made both financial and horticultural progress. From an editorial standpoint, the interest of women in the practical side of gardening reveals some illuminating facts: Ninety-five per cent of the garden problems presented to HOUSE AND GARDEN are from women (nor is it mere idle curiosity that impels their writing!), and the bulk of garden articles submitted—stories of personal experiences with a season's work or with one special plant—are from the pens of women.

Half of gardening is poetry; the other half persistence.

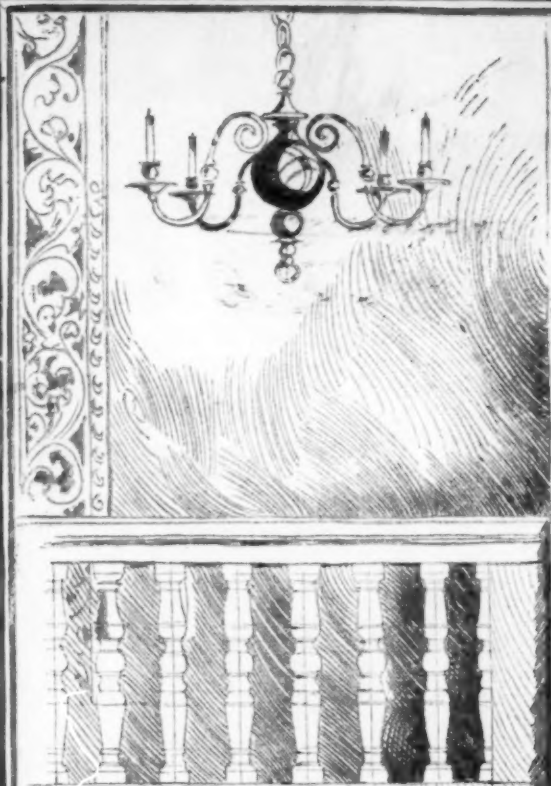
No amount of commercialism can ever rob it of its poetry; no amount of cynical materialism gainsay the forces for good that work in a garden inevitably produces. "To make a little flower," says William Blake, "is the labor of ages." To make one barren spot blossom with a flower is to align oneself with that labor, to become co-worker with the past, with all the effort, all the infinite patience that made the flower. The seeming simple process whereby a dead seed is raised up into life is, moreover, a cosmic process. The truth *elan vital*; the soul-blanching foe of the effete and the unnatural, it brings one face to face with the very titanic forces that swing the planets in space and spatter the sky with star-dust.

Even more so than men, can women appreciate the poetry of the labor that work in the garden entails. To them it is giving life, feeding—mothering. It is to them but still another channel for the expression of their maternal instinct; an expression, in the working, of the basic note of their life. Let the alleged emancipated argue as they will, the same instinct that makes women mother children impels them to mother flowers.

It is no mere pretty sentiment to say that, with gardening as a force, women possess a power for regeneration almost incalculable. To-morrow will see the work pushed forward. Like any work of "making the crowd be good," it must start with the individual. And it comes as a thought worthy of every woman's serious attention: what part can she play? If every woman in the United States took upon herself to raise one plant; if every housewife made an effort to mother one window-box of flowers through a season, the face of cities would be changed and the countryside made even more glorious. And movements for public good start just that way—by the determined effort of individuals.

Recently there came into the office a woman who related what happened to a ten-cent packet of mixed flower seeds. She had purchased it by chance, and in an inspirational moment had taken her children out into the garden and showed them how to plant the seeds. Results kept piling fast one on the other all summer long, to the astonishment of the children and her own surprise. Next year, she says, every youngster in the block is going to get his packet of mixed seeds. We wonder what that block will look like after those children have had their own gardens!

Were we to ask for personal experiences of this variety, doubtless the mails would bring us hundreds of replies. But the culture of domestic virtues is not to be spread by editorial propaganda. Like charity, it starts at home: it starts on the window ledge of a hall bedroom or in the bleached city back yard. There is work to your hand, *mes saurs*; what will you do next year toward mothering just one plant?



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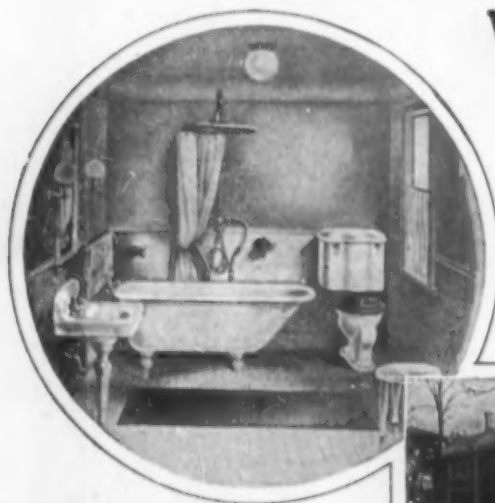
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The Position for the Piano

(Continued from page 289)

are unsightly, inconvenient and destructive. Music costs money and is presumably worth preserving. This can be done only by having a properly arranged place for it, as one would for books. The most accessible and satisfactory method of keeping it is to have a number of very shallow drawers or else thin shelves set about two and a half or three inches apart. Cabinets constructed upon this plan can be purchased ready made, or, if they do not fit in with the decorative scheme of the room, it is a simple matter to have one made to order. A collection of music well kept is a lasting comfort and convenience.

Turning to the purely decorative aspect of the piano's position, it would seem much easier to place a grand piano so that it will both meet all the practical requirements aforementioned and at the same time fit in well with the furnishing scheme of the room. It lends itself to group arrangement and, the case being presentable from all sides, it does not have to be set at any particular angle to hide an unsightly back view. A little ingenuity and care in arrangement, however, will prove the upright piano quite as tractable as the grand in this respect. There is no need at all of setting an upright piano against a wall in order to hide its unsightly back.

Put it out in the room at whatever spot will best meet the instrument's practical requirements and at whatever angle the best light is assured. You will then find that the piano sounds like another instrument when a large percentage of its tone is not smothered by a wall, and will also find enlarged possibilities of furniture arrangement. The ugly wire back can be completely hidden by a mellow-colored old India shawl, a Chinese embroidery or a piece of Japanese brocade. Almost any sort of furniture group can thus be constructed with the piano as a nucleus. A settee, for instance, may be backed up to it, or a half round table or cabinet set against it. Then, again, if it is preferred, a screen can be used to conceal the piano back instead of a hanging of brocade or embroidery. Do not use the piano itself as a repository for a multitude of bric-a-brac.

It is not the intent of this article to work out a scheme of sundry decorative treatments contingent upon the position of the piano. Its point will have been achieved if the general reader is brought to a keener realization of a piano's physical needs, which are largely met by judicious placing, and are not antagonistic to sound decorative principles.

Why not give a garden for a Christmas present? See December HOUSE AND GARDEN.

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The Variety of Colors in Shrub Berries

(Continued from page 281)

autumn the coloring of these leaves presents a bewildering confusion of lovely colors that add greatly to the wealth of the autumn garden. That is another thing to study in the planning of a garden—how you can get not only shrubs with brilliant autumn foliage, but how you can arrange this coloring for a harmonious effect.

The *Symplocos cratagoides*, with its wonderful steel blue berries, is in its prime in October. There are about 169 species of the *Symplocos* widely distributed through tropical regions, but the *Symplocos cratagoides* is the only one that is hardy North. It is tall and stately. It thrives well in any garden, in well-drained soil and sunny positions. In the spring it has a host of white flowers.

The *Viburnum cassinoides* is considered the best garden plant among the viburnums. It is an inhabitant of our northern swamps, a loose, straggling bush, but, like a number of other swamp natives, as soon as it is brought into cultivation it takes on unsuspected graces and becomes a compact, symmetrical shrub. Its flowers are cream white, borne in broad, five-branched clusters, and its fruit is as decorative as the flowering, fairly covering it with a succession of lovely color from cream to blue before it darkens and withers.

The black alder, with its scarlet berries, is a native holly which equals, if it does not surpass, in brilliancy and beauty of fruit coloring any imported plant of our gardens. Yet it is virtually unknown. We remember one winter we had armsful to decorate our rooms. It attracted continuous attention, but all the while it was a nameless stranger. It is a good sign that some of the most exclusive florists are beginning to use it among their Christmas decorations. In this way many people who have passed it by along the roadside will come to appreciate it.

Some people think a winter park or garden must necessarily be a thing of dark, uninteresting stems and bare branches, but if you are the owner of an unclipt privet hedge you know how charming this very darkness can be with its hosts of black berries and with the dark leaves clinging on as long as ever they can. And if you are the owner of a barberry hedge you know how full of interest your very boundary line is at this time of year, stretching in a graceful, undulating line at the edge of your lawn, a greyish, blackish-brown haze in the sunlight, a blacker brown in the depths, and yet so dotted and spotted with scarlet berries that from a distance it looks like a line of red. Close by the berries are interesting also, oblong in shape and crowned with a black spot, the remnant of the flower stigma. They hang

(Continued on page 314)

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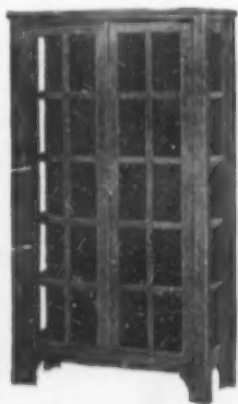


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(Continued from page 312)

on tiny stems from the axils of the spines, either solitary or in pairs. From the very host of berries you can see what a prickly bush it is; and yet its interest does not end here, for each spine guards not so much the fruit as a pair of yellow buds, and at each pair of buds the very twigs change angles, and so add character.

The common barberry is a different kind of bush, alike, to be sure, in foliage, but its thorns are much longer and its fruit hangs in drooping racemes from wand-like stems. In the garden it is not a shrub for hedges, but for sentinel positions, by the front gate, by the front steps or at the end of shrubberies. They can, of course, be planted in groups in the general shrubberies, but not where solid, flat masses are needed.

The fruit of the shrubs has been grievously neglected, both in our home decoration and in our garden plantings, and all the while it has so much to offer in beauty and variety of color, in interesting structure, in the personality of the shrubs themselves. Berries cycle the year from the time of the June-berry until a twelve-month after many a black drupe of the *Rhodotypos*, loath to leave the bush, plays at brotherhood with the new green fruit. In September the berries are very abundant, and the same is true of colorful October, but many stay on to help the evergreens and the colored stems to vivify the garden in winter time.

Give the berries a chance in your house decorations and you will be amply repaid in a new feeling for beauty, in many a fresh sensation and in the admiration of your friends. Try decorations of the *Viburnum cassinoides* or of the silvery blue dogwood berries for a September luncheon, of red chokeberries for October, or scarlet black alders for Christmas, and you'll find yourself with a reputation for originality among your friends. As for your home grounds, remember not only the continuous pageant of shrub flowers, the succession of the perennials, the grateful annuals, the changing colors of the leaves in autumn, but the host of colored berries, and select your plants with their fruiting effects in mind.

Flowers for the Scented Garden

(Continued from page 292)

tion around them. The blossoms are true "lavender" in color, and usually are at their best in August.

No scented garden would be complete without rosemary; and this grows as readily from seed as a nasturtium. Its blossoms are not its feature, however, for these are small and not conspicuous; but the bees love them, for they come in early spring and yield a precious store. Well-

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drained soil is necessary for this also, its native land being Southern France and the Mediterranean region, on chalk hills near the sea. It will live out of doors almost anywhere if such a soil is given it and winter protection provided—for it is classed among the "nearly hardy" shrubs. A heavy soil, however, and much moisture during the winter will work havoc with it, even though it is protected.

Spice pinks—*Dianthus plumarius*—must have their space. There is a dwarf strain that comes into bloom two weeks ahead of the older variety, by means of which the season of this delicious clove-scented flower may be lengthened greatly. Plant the old kind in either single or double strain at the rear of a border, with the dwarf as an edging.

The bulbs of tuberose may be scattered everywhere throughout the borders or beds of a scented garden, making the first planting as soon as the ground warms up—about the middle of May in the latitude of New York. Early outdoor flowers of this richly fragrant plant are secured by an early start indoors or in a hotbed, and a succession may be kept up all summer by successive indoor and later outdoor plantings, allowing a fortnight to elapse between each. Begin in March and keep it up until the end of July; then there will always be tuberose in bloom.

Mignonette is one of the plants that keeps its fragrance to itself rather than pouring it out for the enjoyment of the passer-by; yet it always seems that a little corner of mignonette ought to provide sprays for cutting, if nothing more. It grows easily from seed, and successive sowings will keep up the bloom all summer if you care enough for it to want it so long. There are some much better varieties now than the old-fashioned sort, as far as flower heads go. "Defiance" is really lovely, and then there is "Parson's White" that is as sweet as the older kind and has the advantage of attractive, pure-white flowers.

The tuberose-flowered tobacco shall close the list—not that there are not many more fragrant flowers, but that here are as many as any garden will be able to contain without a jumble—and more than ought to go in any but a large garden. This tobacco, or *Nicotiana affinis*, is a constant-blooming annual, white flowered and loose in habit, and excellent for background massing, as well as for cutting. A border of it in combination with evening-scented stock—which I simply must add, unattractive though its flowers are, for its odor is so entrancing when night falls—will indeed form as satisfactory a scented garden if time and space restrict the scheme to annuals as one could wish to have.

The uses of the plants of the scented garden are all to the one end of furnishing fragrance, save the rosemary. This is a delectable addition to sweet pickles, and is also used with reserve as a condiment in soups and dressings, and sometimes to im-

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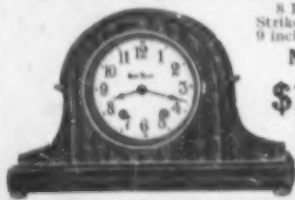
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part a suggestion of its aroma to preserves or marmalades. Many uses will, indeed, suggest themselves to the inspired cook, once it is tested cautiously, without overdoing. It is a pungent, sweet odor without a corresponding sugary quality in the taste, so it lends itself equally well either to sweet or savory—but, like all herbs, it must be used "to taste," and none can tell another how much this is. It is a matter of experiment.

Rose petals for potpourri require to be salted while fresh, and spread to dry in an airy place where they may be stirred and turned over during the curing process daily. For five days they are kept usually in just the salt; then spices are added—cinnamon, cloves, leaves of lemon verbena, if a plant of this is available, and a few sprigs of rosemary and of lavender; and some orris powder from the chemist's, unless you have the *iris Florentina*, whose root furnishes this. The process of curing the root is a long one, however, for it takes three years to bring it to its full flower, so the powder is resorted to usually. With all these ingredients stirred into the salted rose leaves, much as seasoning would be stirred into a cake, the potpourri is made, and only needs setting away in a covered jar to blend and season. After this is done, sachets filled with the mixture have always seemed to me the most satisfactory way of enjoying it; and they insure one a perfume altogether individual and unusual.

The beads made of rose petals are seldom seen nowadays, yet their manufacture is very simple. Why more rosaries are not strung of them to-day for gifts by those who have gardens and roses is one of the unanswerable questions. Perhaps it is because the making of them is so nearly a lost art. Let us revive it!

Pull the petals from the sweetest roses—dark red hybrid perpetuals, like "General Jacqueminot" and "Baron de Bonstetten," are the best of this class, while "General MacArthur" and "Rhea Reid" are good examples of fragrant hybrid teas; of course, the cabbage roses are very desirable if the garden has a specimen or two—while the roses are fresh. Put them through the finest grinder of a meat chopper—or work them in a mortar if no meat chopper is available—every day for five days, letting them stand in an iron vessel, covered, during this time. The action of the iron upon them turns them black; and when they are at last ready to mold they will have been reduced to a dark paste which will stain the fingers considerably during the molding process. If the hands are washed in water without soap, however, the stain will not persist.

Roll the beads in the palm of the hand as a chemist rolls a pill, making them any desired size. Ornament their sides with a tracery made by pressing the head of a clove against them, unless you have something else with which you can make such an imprint. Of course, any form may be used that is not too large: sometimes a



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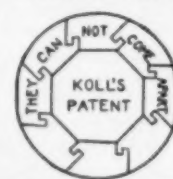
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Los Angeles, Calif.



crest such as fixes a seal of wax may be suitable. Various devices will suggest themselves, according to one's implements, and this is, of course, a matter of taste and ingenuity.

Stick a pin or a large needle—a darning-needle is about right—through each bead as it is finished, and pin it to a board or a piece of pasteboard to dry. And when they are dry, string them in the regulation rosary groupings, or string them as a necklace, long or short. It is well, in rolling, to make a few larger than the rest, so that the string may be given variety. This, too, however, is a matter of individual taste. It is perfectly possible to graduate a string from beads as large as the string's length will demand—or allow—down to little fellows at the clasp end, just as a rope of coral or a string of pearls is often graduated.

The Garden Club

(Continued from page 293)

solicitude that they fairly burst forth in flower and fruit the very first year. Of course, spraying was inaugurated at the same time, and also the loose old bark crust was scraped from their trunks, and these were sprayed along with the rest of the tree at the winter sprayings, and smartly whitewashed in the early spring to insure freedom from lichens. All cavities were cleaved out down to the living wood, and where the tree was weakened and hollow cement was filled in.

Before the trees themselves received attention, however, the ground wherein they stood was nourished. The orchard was plowed and sown with a cover crop early in the fall, and had been dynamited to break up the subsoil and also to root prune the old trees and get them a new start below ground as well as above. A stick of dynamite divided into four charges, put three feet down into the ground just at the edge of the tree's roots—which is just at the edge of the spread of its branches—was what they had used. Then the ground surface had been worked over and soy beans sowed broadcast to form the cover—which they plowed under in the spring.

They did not make use of much commercial fertilizer, it being Mr. Gladden's wish to see what might be accomplished without resort to anything save common sense, scientific handling. A dressing of potash—muriate of potash—was applied to the earth the first spring, but this sparingly, he said. Someone asked him what would be considered "sparingly," and he said it amounted to about twelve pounds to every apple tree. Lime they used also, dressing the earth with it at about a half ton per acre when the plowing was done early in the first fall.

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After the thing was begun, perfectly clean culture of the orchard was kept up, just as if it were a field of corn, with regular plowing each year, which encourages deep root growth, as well as liberates the nutriment in the soil. And each year in the fall a cover crop was seeded in—after the soy beans they used rye; after this, clover, and so on, plowing them in in the spring always. Thus the earth became rich in humus, and all the nitrogen that the trees required was added to the soil naturally instead of artificially.

He said that trees of this sort might, of course, be severely pruned their first year, and all fruit sacrificed—for sometimes it is necessary to cut them back to nothing more really than stumps of branches. But even where such severe measures are necessary he advised doing a little at a time, because very severe pruning at one time will induce a tremendous crop of the lush growth that they call "water-sprouts"—and these are not desirable. So, even at the beginning, a little every year until the desired form is reached—and then a little every year to keep this form and keep the trees toned up and healthy and alert. It is the old-fashioned way of pruning severely about every fourth year and neglecting to prune at all the years between that is largely responsible for a run-out orchard.

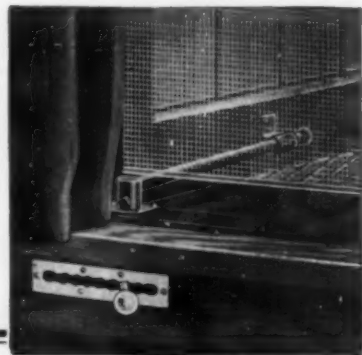
King Turkey

(Continued from page 286)

charcoal is also a good remedy. If the disease turns out to be only diarrhoea, they will recover; otherwise, they should be killed at once and the bodies burned. The fifth ailment is the tapeworm, which shows itself by the drowsy look of the birds and also in the droppings. The remedy is 15 to 30 drops of liquid extract of Male Fern given morning and evening before feeding (the small dose is for the small birds).

The young turkeys by this time are fast reaching maturity, and those that are to grace the Thanksgiving board should be separated from the others and their feed increased. They will gain more by being allowed their freedom, and given all they will eat, a corn and wheat ration proving very satisfactory. This should be increased gradually until they are having all they can eat both morning and night; in addition, provide a noon feed of ground oats, corn meal and a little buckwheat meal mixed with milk.

The English method of feeding a mixture of ground oats and milk in the morning, whole oats at night, and, in some cases, adding boiled vegetables or table scraps and a little suet and barley, produces fine, plump, hard, white flesh, which for home consumption is superior to the fat, yellow-meated birds found on the market.



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Where Concrete Pays

(Continued from page 299)

crete, must be smooth; any crack or roughness will leave a corresponding mark on the job, or the form may stick to the concrete so that it will have to be broken away, thereby spoiling the job. The forms are kept from spreading by bracing on the outside and by using bolts and washers at intervals to hold them together. In the latter case these should be well greased before the concrete is poured into the forms, and removed as soon as the concrete takes its initial set—when it has become firm, but not hard—so that it holds its own shape. For very smooth surfaces the forms should be carefully fitted and planed and oiled before each using. Bolts, braces, rings, studding for partitions, or anything of that nature, may be put in place and the concrete made around them, or holes or slots of any desired size and shape may be made by putting in a piece of wood made smooth and well greased so that it may be withdrawn after the concrete is partly set. Holes can be filled with the "finishing mixture."

Having the forms ready and the materials on hand, the job of mixing, once it is begun, should be done as expeditiously as possible. A substantial, smooth, tight platform or a shallow box of suitable size should be provided. On or in this place the gravel, sand and cement, in the order named, measuring each carefully. With a shovel or hoe mix them, dry, quite thoroughly; then add the water a little at a time, while continuing the mixing, until you get a uniform, slushy mass just wet enough to pour. The water may be added in quite large doses at first, but as the "batch" approaches the proper degree of slushiness it should be added sparingly. A mixture that is too wet will not make uniform material. As soon as the batch is mixed it should be placed at once in the forms, using for the purpose a shovel or cheap metal pails, if it has to be carried. It should be tamped down into the form sufficiently to prevent air spaces being left. If a wall is being made, a thin paddle of wood or iron passed along either side next to the form will leave a smoother surface, as the larger particles of gravel or stone are pushed back. After the form is filled it should be left absolutely undisturbed until it has set hard—usually at least twenty-four hours, though forty-eight is preferable. The forms, if carefully handled, may then be removed, to use again, although the concrete will still be "green" and easily marred or broken. If made where it will be subject to weight or stress when the forms are removed the concrete should be left to harden thoroughly with the forms in place. Be careful to mix only what can be used at once for each batch; any surplus must be

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Send 20c for "Bird Architecture."

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thrown away, as it is useless after it begins to harden. Wash up clean at once all shovels, hoes, trowels, markers, pails, forms or mixing-bed, etc., which have been in contact with the wet concrete; otherwise you will find them ruined when you go to use them again.

By taking advantage of ready-made forms a great number of difficult-looking things may be moulded with practically no trouble. Large concrete pots or vases, for instance, are easily made by getting lard-tubs or candy pails of such size that one will fit inside the other, leaving a space of an inch or two as a form, and imbedding a cork or wooden plug in the concrete bottom (which is put in the large pail before the smaller one is set inside), to be removed for a drainage hole. An ordinary cracker-box, with the bottom removed, makes a good form for a small stepping stone. Cylindrical posts or supports of any size, or rounded corners for walls, may readily be constructed by using pieces of sheet iron or tin, held in place by wire or nails or by short stakes, until the concrete sets. A machine may be purchased at a reasonable figure which makes hollow concrete blocks. They may be made a few at a time and kept indefinitely. With them almost any sort of building operation may be undertaken.

Along with concrete, one should learn the possibilities of iron pipe. Common water or gas pipe is used, and for most purposes second-hand pipe will answer as well as new. Embedded in concrete, it is practically everlasting. It is ideal to use for inexpensive arches, tressises, supporting columns, etc. Formerly it was necessary to have a set of pipe-tools to fit and thread the pieces into their various positions. Now, however, one may get "split fittings" to hold the pieces of pipe together wherever nothing is to be used inside of them. They are put on with an ordinary monkey wrench; a short bolt which passes between the ends of the pipe, or double bolts, straddling it, being used to hold the fittings in place, so that the only tool necessary is a pipe-cutter or a hacksaw to cut the pipe into required lengths.

With anything but the very simplest kinds of work it is best to make a detailed line drawing, with exact dimensions of just what you plan to construct. Otherwise you will find yourself making numerous inaccuracies and mistakes. Very often, too, it is possible to make an excavation serve as one side of the form. In making a cold-frame or a root-pit against a bank, for instance, the back and at least part of the two ends may be formed by digging the bank down square and erecting the inner form several inches in front of this. For cold-frames it is possible to buy a cast iron "cap" that fits over the concrete wall and designed especially to make a good, snug fit for the sash. There are permanent wash colors also made especially for use with concrete, with which one may get any desired "tone" to harmonize with buildings or surroundings.

Homes That Architects Have Built for Themselves

(Continued from page 278)

effectively for the central background. In the flat face of the panel at top and sides a black band two inches wide is enriched with a delicately drawn and many-hued ornament of Pompeian pattern. This modest bit of embellishment along with the virgin blue rep hangings at doors and windows creates an unusual interest and charm. The only furniture consists of two Italian stone benches that stand directly in front of the radiators. It is interesting to note how the ugly radiators are ingeniously concealed and for once put where their objectionable forms cannot mar the aspect of their surroundings. They are set back within the wall, and asbestos-coated metal hoods above them throw the heat out. In front of them, and flush with the surface of the wall, are gratings made of narrow, vertical strips of wood set close together and painted the color of the plaster. These and the stone benches standing in front of them so effectually hide the radiators that one would never suspect their presence. The only trouble is that the wooden strips get kiln-dried and sometimes rattle like chattering teeth or even drop out, but it is a simple matter to put them back and tighten them up. Metal strips, of course, could be used just as well instead.

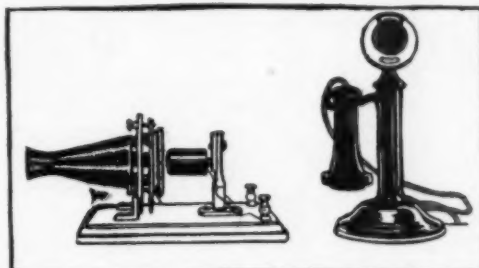
The living-room is finished in darkwood, and the walls, like those in the gallery, are rough sand-finished, but toned. At the east end of the room directly opposite the generous-sized fireplace with its ingle-nook and tile-paved hearth, is a feature that will doubtless commend itself to all plant-loving housewives in search of suitable places for window plants in winter. It is a deep, semi-circular bow window, which, by the way, presents an exterior of important architectural charm on the south side of the house, viewed from the lawn and flower garden. This bow has stone floor and stone walls up to the casement sills, so that it does not matter how much water is spilled in sprinkling. This and the sunny southern exposure make a combination that could not be improved upon for having a delightful spot of greenery and bloom during the winter months.

The ceiling is beamed with plastered panels, and the bookcases that line the walls are built in. An arrangement similar to that in the gallery is made for radiators in the lower part of several bookcases, and asbestos filling over the hoods prevents the books above from being damaged. French casement windows open upon the lawn and upon the porch paved with large, red quarry tiles.

The dining-room, where the color scheme is blue and white, has a wide, triple window opening to the east, so that

How the Public Profits By Telephone Improvements

Here is a big fact in the telephone progress of this country:



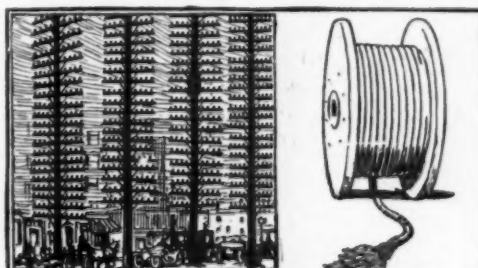
Original
Bell Telephone
1876

Standard
Bell Telephone
To-day



Early
Telephone
Exchange

Typical
Present-day
Exchange



If City Wires
Were Carried
Overhead

800 Wires
in Underground
Cable

Hand in hand with inventions and developments which have improved the service many fold have come operating economies that have greatly cut its cost.

To appreciate these betterments and their resulting economies, consider a few examples:

Your present telephone instrument had seventy-two ancestors; it is better and cheaper than any of them.

Time was when a switchboard required a room full of boys to handle the calls of a few hundred subscribers. Today, two or three girls will serve a greater number without confusion and very much more promptly.

A three-inch underground cable now carries as many as eight hundred wires. If strung in the old way, these would require four sets of poles, each with twenty cross arms—a congestion utterly prohibitive in city streets.

These are some of the familiar improvements. They have saved tens of millions of dollars. But those which have had the most radical effect, resulting in the largest economies and putting the telephone within everyone's reach, are too technical to describe here. And their value can no more be estimated than can the value of the invention of the automobile.

This progress in economy, as well as in service, has given the United States the Bell System with about ten times as many telephones, proportionate to the population, as in all Europe.



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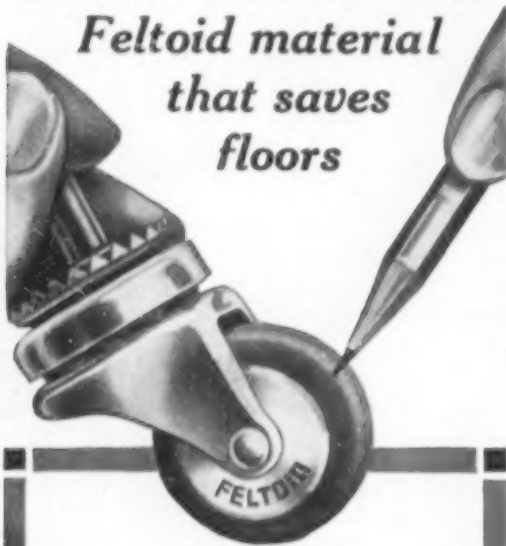
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SUCCESS MANUFACTURING COMPANY
895 Sargent Street, Gloucester, Mass.

the morning sun floods in at breakfast time, while the doorway, directly in line with one of the French windows in the gallery, commands a wide view down the hill and over the meadow to the west. In pantry and kitchen the sinks and range are well placed near windows, so that abundant light falls on them from the right direction. Beside the larder is a porch for the servants.

Before going to the second floor a word must be said about the master's little study. As the floor plan indicates, it is beside the vestibule at the end of the gallery and quite away from the rest of the house, so as to ensure absolute privacy and quiet when desired. It has an abundance of windows with a pleasant outlook, a fireplace, and the floor is paved with brick. The brick paving here and the tile paving in vestibule and gallery along with the broad tiled hearth in the living-room and the large stone-paved bow window, introduce a note in flooring considerations that is worth special heed. Common usage has so accustomed us to wooden floors all over the house that we go on putting them down from force of habit without stopping to think how much improvement might be made in various places from sanitary, decorative and economical points of view by using some other material.

One feature about this house that will strongly appeal to all housekeepers is that both up-stairs and down there is plenty of closet room. The bedrooms are all well lighted and ventilated and all have fireplaces. The room at the northeast corner, marked as a bedroom, is really a sewing room, and is the only exception to the rule of fireplaces. The plan of the second floor is worth a little special attention just to realize the ample provision for closets and see how it was made. The third floor, of which no plan is given, has three servants' bedrooms and a bath.

Like every other house, "Wee House" has its drawbacks and shortcomings. What house has not? Its many excellences so far outweigh its failures, however, that one feels quite justified in yielding it large meed of praise. The simplicity and straightforwardness of its plan are admirable, and it has achieved comfort combined with modest dignity and distinction.

Christmas was made for kiddies, and you can do no better at that season than have the kiddies' interest in mind. That's why you'll be interested in the article on furnishing the kiddies' quarters in the December HOUSE AND GARDEN.

Good goods come in little packages—and the cocker is certainly a little package. The sort of package to open on Christmas morning. Read "The Merry Little Cocker" in the Christmas HOUSE AND GARDEN.

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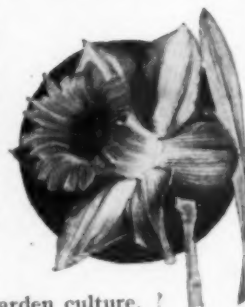
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114 K Chambers St., New York City

The Uses of Woodwork for Interior Decoration

(Continued from page 283)

"Fuming" is the best stain of all if a gray brown is desired, but impracticable for the standing woodwork of a room. It is used for the better Mission furniture, and gives the well-known color. Open vessels of ammonia are placed, with the wood to be stained, in a tightly closed room and remain for several hours until the wood is sufficiently dark.

After the staining, if the wood be open-grained (oak, ash, chestnut or red-gum, for instance) it is filled with a pasty material, which is rubbed into the pores to make a dense, smooth surface for the varnish or shellac following. The best fillers on the market are the *Silex Fillers*, made of finely ground quartz mixed with an oil, a varnish, a thinner and a drier. If the wood is stained the filler is usually stained to match, though a filler of a different color is sometimes most effective, such as the white filler used on gray oak picture-frames. The Liquid Fillers are not as effective as the Paste Fillers.

Next in order is the varnishing. In good work several coats of varnish are applied, each coat when dry, rubbed down lightly with fine sandpaper, the coat before the last rubbed with curled hair. The last coat may either be left with its natural high glaze or given a "flat finish" by being rubbed with crude oil and powdered pumice, afterward cleaned off with kerosene, and finally, if necessary, with alcohol; or else an "egg-shell gloss" by being rubbed with pumice and water, cleaned off with water.

There are quantities of different varnishes on the market, good and bad; each maker's formulas are different from all the others, and there is no use in attempting to touch on their composition here. They are made for all sorts of conditions—*Inside Varnish*, *Outside Varnish*, *Spar Varnish* (for wood exposed severely to the weather), and so forth. There seems no way of detecting whether a varnish is good or poor, though the least smell of benzine is a bad sign; it should have only the odors of turpentine plus the sweet smell of the gums. There seems only one way to be sure of a good varnish; to see the name of a responsible maker on the unopened can!

Now, all this varnishing and rubbing is expensive. There are cheaper ways of finishing the wood, though none of them are so good and lasting. There are "flat" varnishes on the market that give a dull final coat without rubbing (wax added to an ordinary varnish will have this effect, but will spoil the wearing qualities); filler and varnish may be both omitted and a floor-wax rubbed on the wood instead; it gives a beautiful finish, but the wax never hardens and may be dulled, rubbed off or



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spotted by water; in such cases it must be gone over with a cloth and perhaps the damaged portion re-waxed. Between the stain and wax it is customary to give a coat of either white or orange shellac, from which the wax may be removed should another finish be desired later. If the wax is put directly on either the natural or the stained wood it sinks into the pores and can never be entirely removed, and varnish will not stick to wax. Shellac, theoretically, is not a good under-coat for varnish, but I know of cases where it has been perfectly successful. Shellac stands well under wax, although wax will soften a varnish.

Another simple finish for wood is coating it with glycerine and alcohol, which leave it almost its natural color; still another is in simply brushing on raw linseed oil or crude oil, rubbing off the excess after the wood has soaked up all it will. The oiling darkens the wood, of course.

The different finishes might be scheduled in this manner:

- (Stain) filler varnish.
- (Stain) colored filler varnish.
- (Stain) shellac wax.
- (Stain) wax.
- Glycerine and alcohol.
- Oil.

In any of them the stain may be omitted. In all of them the material must be good, and it can be stated most forcibly that the only way to be sure of good material is to have it ordered from a manufacturer with a good reputation, and to see with one's own eyes his labels on the cans.

A Valuable Source of Potash

IF the European war should cause our large annual imports of potash to dwindle (says a report from the Department of Agriculture) many farmers will look to wood ashes, among other substances, to replenish the potash supply. While the amount of wood ashes that a farmer could accumulate on his own farm would hardly ever be sufficient to supply his need for potash, nevertheless, if they are carefully stored and not permitted to leach, they may be of considerable value to him. Wood ashes are now a factor in Canada, being considered a regular commercial commodity, and the large lumber mills and other plants using wood or sawdust for fuel in this country which at present make no use of the ashes from their furnaces or waste piles may find it profitable to store and sell them if the demand warrant it.

Wood ashes may be profitably applied as a top dressing to grass land and to pastures where they will encourage the growth of clover and better kinds of grasses, which will then crowd out inferior kinds and weeds. Wood ashes may be also used for corn and roots. Because



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of their lime content they are not so good for potatoes, although sometimes used for this crop.

In New England, where farmers have had to look more carefully to the renewing of old soils than in some of the newer sections of the country, wood ashes have long been appreciated. Ashes indirectly increase the available nitrogen of the organic matter in the soil, and have been known to do excellent service in Europe on drained moorland.

Besides the potash, ashes contain other ingredients which are of value to plants; namely, about 1 or 2 per cent of phosphoric acid, a little magnesia and a great deal of lime. The importance of these last-named elements is made plain by the esteem in which leached ashes are held by some of our farmers, although from leached ashes all but a very small portion of the potash has been washed out. The farmer who wishes to restore potash to the soil by the use of ashes should take great care that they are kept dry and are not allowed to leach at all. Many housewives save their house ashes and leach out the potash for use in making soap. They may now have an additional reason for conserving them; namely, their increased value as a garden fertilizer. But, as has just been said, ashes to be used for the improvement of the soil should not be permitted to leach.

Ashes from hardwoods (deciduous trees) are richer in both phosphorus and potash than those from pines and other softwoods (conifers). Ashes from oak, elm, maple and hickory have more potash than those from pine. The ashes of twigs (faggots, for example) are worth more for agricultural purposes than the ashes of heart-wood taken from the middle of an old tree. In general, the smaller and younger the wood burned, the better ashes. The ashes of coal do not contain enough potash to make them valuable in this connection.

Ordinary house ashes contain on the average about 8 or 9 per cent of potash and 2 per cent of phosphoric acid. Investigators have considered that there is enough potash and phosphoric acid in a bushel of ashes to make it worth 20 or 25 cents. Besides that, some 10 or 15 cents additional might be allowed for the "alkali power" of the ashes. This power is that which enables ashes to rot weeds and to ferment peat. Of course, prices vary with local conditions.

If wood ashes are purchased, the farmer should assure himself that they have neither been contaminated with coal ashes nor adulterated with leached ashes. These facts determined that the place of burning has no effect on the value of the ashes as fertilizer. They are equally satisfactory whether taken from a stove, a fireplace or a bonfire.

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I will gladly send all of these, on application. Address, Geo. F. Adams, Box 104, Fortress Monroe, Virginia.

Growing Bulbs in Sand

IT would seem that bulbs do not require a rich diet. Several sorts were grown in our window-garden in pure sand, with results as good, and in some cases better, than if ordinary soil had been used. Beach sand and sand from the roadside were mixed, half and half, and sifted, and a piece of charcoal put in the bottom of each flower pot. This was all—no earth, no manure, no plant food of any sort was used. Otherwise the bulbs were treated just as though potted in richer soil.

Clean flower pots, with clam shells to cover the soles, were prepared to receive them. The bulbs were placed so that the sand just covered their tops, then watered and set away to make root growth. A dark closet in a cellar where the thermometer stands between forty and fifty proved to be well suited to the purpose. A mouse-proof box, a little deeper than the height of the tallest flower pot, in order to allow space for the label, was made for them. Ventilation was provided by holes in its side, and these were covered with a strip of window netting to baffle the mice. Here the bulbs were left for two months, more or less, until the sand in each pot was filled with roots. They were tested by turning out the soil when it was damp enough to hold its shape, and if the roots did not show well on the surface it was left in darkness still longer. Sand dries out more quickly than other soil, so the pots had to be watered occasionally, but were not kept soaking-wet for fear of mold.

As each pot became filled with roots it was brought to the light and placed on a table built purposely for growing bulbs. This table had three shelves; the lowest, a few inches from the floor, was intended for bulbs just brought from the cellar, and they stayed here until the foliage turned from white to green. When the leaves attained their full color they were ready for the top shelf and the sunshine. A table of this sort occupies no more room than any other kind, but the three shelves provide space for bulbs in all stages of development, and relays may be brought from the cellar every few days to take the place of those that have been moved higher up. In this way a most satisfactory succession of bloom may be secured.

As soon as the buds opened the plants were placed in a cool room to prolong the blooming season, as the flowers last very much longer in a low temperature. A room for growing bulbs must be about 60 degrees, unless it is desirable to hurry the flowering, when 70 degrees is more effective. A really hot temperature will be almost sure to blast the buds. A horticultural encyclopedia says:

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For stems and leaves....	50	"
For the best flowers.....	60	"
For quick development...	70	"

The best showing is made by having several bulbs planted together. These should all be of the same variety, for if mixed bulbs are used they will flower at different times and call for diversified treatment, and some will have reached the shabby stage before others have bloomed. A six-inch pot will hold a half-dozen ordinary bulbs, as there is no harm in crowding them. Single bulbs in three-inch pots are pretty and all-sufficient for experiments, but not nearly so decorative as a half-dozen in a larger pot.

Bulbs lose their vitality when kept for late plotting. The best results come from ordering early and planting immediately. October is a good all-round month for the plotting of bulbs. They require fresh air, but cannot stand draughts. Dust also is detrimental, and at the blooming stage they demand generous watering. One authority goes so far as to say the soil should be kept as wet as mud during this period; this is especially applicable to narcissus.

Those bulbs that can be grown, especially well in sand are the following:

Orange Phoenix.—The perfect blossoms on this bulb would have been a revelation grown in any sort of soil, but were doubly remarkable as having sprung from plain sand. In size, substance, color and shape they were beyond criticism, measuring nine or ten inches in circumference. They were potted the last of October, left in the cellar about ten weeks for root growth, and bloomed two months after bringing to the light.

Grand Monarque.—This is another splendid bulb, and that grown in pure sand was a worthy specimen. This variety is of unusual size and vigor, being almost as large as a medium-sized Chinese lily bulb, but much more solid. The flowers, too, are like the lily, but more waxy and with a lighter yellow cup. They grow a dozen in a group; those that grew in sand measured one and three-quarter inches in diameter. Potted November 17, the roots were well formed by the last week in January, and the height of bloom was reached at the end of March. Unlike the Chinese lily, it is very slow to develop, but it is so attractive that it pays for the waiting.

Dutch Roman Hyacinth.—This bulb formed a normal flower-head of good size and quality with no more hearty diet than sand. This type is smaller than the regular Dutch hyacinth and much more solid and compact than the Roman hyacinth. It was potted the middle of November and bloomed the first and second week in March.

Double Roman Narcissus.—This is a quick-growing, many-flowered variety, and can easily be brought into bloom for Christmas. It thrives on a diet of sand and quite equaled the same kind grown in



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Bedroom Water Set

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earth. Potted November 17, this rapid grower had formed its roots in one month and bloomed six weeks later. One that was raised in earth for Christmas decoration was potted September 30, brought to the light November 15, and bloomed a few days before Christmas.

Van Sion Narcissus.—This gorgeous double yellow flower is one of the best on the list. It responds to a diet of earth, sand or water, and is most satisfactory, either outdoors or in. It was potted November 17 and left in the cellar till the last week in February, being a variety that permits slow forcing, and one month later it was in full bloom.

Crocus.—This is another obliging amphibious bulb, or rather corm, which shows so many attractive colors and sends up so many flowers that it should be in every sand, earth or water-garden. This was potted early, because crocus will not well survive long keeping. Started October 12, it was brought to the light December 12, and flowered from late January to early March—a long blooming season being one of its many good points. Numerous corms should be planted together in a broad seed pan or other receptacle. The very best grade, measuring four inches round, should be chosen, and imperfect ones discarded. Crocus is susceptible to mold and green aphid; the former may be avoided by not keeping the pots too damp while making roots, and the latter may be fought off with tobacco smoke or tea, though they must be attacked in the early stages or they will become too numerous to be vanquished.

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sewerage plant in concrete, which answers his purpose even better than large city works, for he has neither the tax nor repairs that always attach to a city sewer system.

The principle upon which the concrete septic tank operates is extremely interesting. It consists of a long, water-tight cistern, through which sewage passes very slowly and evenly. Located underground, it is warm and dark, thus affording perfect conditions for the development of the bacteria or germs which clarify and render harmless the sewage. After passing through the septic tank, the sewage is practically free from all suspended matter and has the appearance of water. From the septic tank this clear effluent is discharged into three lines of ordinary farm drain tile.

While the odor from a septic tank is scarcely noticeable, it is nevertheless best to locate it at some distance from the house. Choose a spot easy to excavate so that the top of the tank can be sunk 6 inches below ground level and where the lines of drain tile will have sufficient fall to carry off the discharged fluid. The tank should be large enough to hold the entire sewage for one day. For a family of eight to ten people occupying a house having two bathrooms fitted with the customary appliances in the way of tubs and stationary washstands and downstairs the kitchen sink, a concrete tank having two compartments, each 4 feet long by 4 feet wide by 4 feet high, will be required. Since the top and bottom are each 4 inches thick and the top of the tank is 6 inches below ground level, dig the pit 5 feet 2 inches in depth. The walls of the tank are 8 inches thick and the partition between the two compartments 6 inches. Therefore, the length of the pit should be 9 feet 10 inches and the width 5 feet 4 inches.

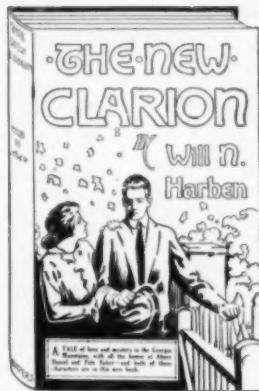
If the earthen walls of the pit stand firm, only inside forms will be needed. These inside forms are merely boxes made of 1-inch boards. Two boxes will be required to make two compartments. The outside dimensions of the boxes should be 4 feet square by 4 feet high. The boxes or forms will be placed on the freshly-laid concrete floor. Holes for taking 6-inch pipe should be made in the boxes, as shown in Fig. 1. The holes should be 4 inches from the top of the box form, measuring from the top of the hole. The concrete should be mixed in the proportion of 1 part Portland cement, 2 parts sand and 4 parts crushed rock or gravel. Place a 4-inch thickness of concrete in the bottom of the pit to form the floor of the tank. On top of this concrete set the box forms, which should be ready for immediate use. Place the forms so that there is a space of 6 inches between them and an 8-inch space between them and the earthen walls of the pit. Then commence depositing the concrete for the walls and partition. As soon as the level of the concrete reaches the holes in the forms place in the holes

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6-inch pipes, as illustrated. Then continue the concreting until even with the top of the forms.

Two ordinary iron manhole frames and covers may be obtained from a local dealer in building supplies. The manhole covers should fit tightly and should not be perforated. The manhole frames should be 10 inches high, so that when placed on top of the forms the upper edge will be even with ground level. If the manhole frame is of less height than this, it should rest on a circular piece of 1-inch board, which is nailed to the top of the form. Since the concrete roof is to be self-supporting, it will be necessary to reinforce it with a few lengths of $\frac{3}{8}$ -inch round steel rods. There will be needed four pieces of $\frac{3}{8}$ -inch rods, 9 feet 6 inches long, and eight pieces 5 feet long. The roof is now ready to be placed. Place the manhole frames in proper position on top of the form, and deposit the concrete to a depth of 1 inch and on the concrete lay the long and short bars, as shown in Fig. 2. When the bars are placed, deposit the balance of the concrete so as to bring the roof to a total thickness of 4 inches. As it will be covered with earth, it is not necessary to give this top surface a smooth finish; merely level the surface by striking off with a straight piece of board. The tank should now be allowed to rest undisturbed for at least two weeks. At the expiration of this time, saw away wooden top of the forms inside of the manhole frames. Then enter the tank and remove the wooden forms, passing the lumber out the manhole opening. While in the tank make certain that the pipes are all unobstructed and not even partially clogged with dirt or lumber. The inlet pipe is then connected to the pipe from the house and the outlet pipe joined to three lines of 3-inch concrete drain tile. The drain tile will be laid about 12 inches below the surface of the ground and the joints left open—that is to say, no mortar must be used in the joints. This permits the discharged fluids to be absorbed by the surrounding soil. The drain tile lines should be laid in the form of the letter "Y" and sufficiently extended to cover a large area of ground. Average conditions require that each arm be about 100 feet long. After this is done, cover the tank with earth to the level of the manhole covers. It is now ready for use.

It is sometimes the custom to plant a few shrubs around the manhole openings, thus effectually hiding all evidence of the tank.

A tank of the size specified will require about 4 cubic yards of crushed rock, 2 cubic yards of sand and 7 barrels of Portland cement. There will also be needed 78 feet of $\frac{3}{8}$ -inch round steel rods, which can be obtained from the local blacksmith or hardware dealer. The tank can be built without skilled labor. It requires but few tools, and construction methods are so simple that one man can easily build it.



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THE ROOT CELLAR

WHERE roots are intended to be used as feed, it is usual—as it is more convenient—to put them below the feed room, where they may be readily obtained and prepared. Such root cellars are likely to freeze in extreme cold weathers, and some method for heating them under such conditions should be provided. The best way to do this is to build a chimney containing a large flue, 16 x 10 inches, which does service as a ventilating flue when not in use as a chimney. Ventilation for the root cellar is as important in preventing undesirable conditions as ventilation for the cow barn or horse stable. Roots mold and spoil very quickly if deprived of a circulation of air, so that the root cellar must be so ventilated as to insure a circulation of air throughout every part of it. The volume of fresh air here need not approach in extent that required by the buildings for housing the animals. If the ventilation is arranged so that the air will come in at the extreme end and be taken out at the other, it will provide all that is necessary.

There seems to be a difference of opinion as to whether the floor is better of earth or concrete. Some farmers prefer the latter, for its possibilities of cleanliness, while others will tolerate nothing for the storage of roots but the soil in which they are grown. The character of the site and the position of the cellar with respect to it are important factors. A dry cellar must be assured at all times, and good drainage and a sandy soil are the necessary natural conditions. If such conditions prevail, the root cellar is best without a concrete floor. Where other considerations place the farm buildings on low ground, every precaution should be taken to provide a dry cellar—water-proofed floors and walls and careful drainage of the foundation. After a dry place has been provided, sand may be put in over the concrete floor.

The difficulty of the root cellar under the feed room is that it frequently thrusts the cellar so deep in the ground that in some localities it is difficult to keep it dry. To obviate this the author has tried several times to construct a root cellar above ground, forming the walls of three thicknesses of building tile or of studding and filling the spaces between with sawdust or granulated cork. This construction has been entirely successful in keeping the contents from freezing, but only when this room has been placed in the farm building. For the isolated root cellar the only satisfactory one is found by going into the side of a bank and constructing a chamber whose top as well as sides is completely covered by the earth. The

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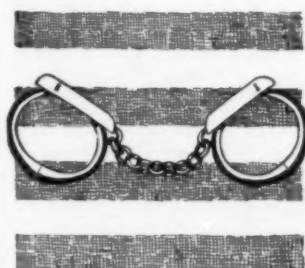
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ground above the top should be at least three feet deep; the entrance—the one side exposed to the air—had best face south, though its exposure may incline to the east or west, but never to the north. Ventilation must be provided, which can be arranged by an inlet in the door and a flue carried up above the ground at the back. Though this is a perfect type of root cellar, it is not automatic with all degrees of temperature, and some regulation of the ventilation is necessary in extreme weather conditions. A concrete roof, which must drain as shown, is the best. In fact, such a structure is practically indestructible, and should serve its purpose as long as it is put to its use.

ICE-HOUSE CONSTRUCTION

After many experiments in building ice houses of various materials and placing them in various stages between entirely above and entirely below ground, it has been pretty well demonstrated that the structure of wood, placed, if possible, in the shade, serves its purpose better than any other type of construction. The plan calls for a building of 6-inch studs, sheathed on both sides and filled between with sawdust. Upon the outside sheathing, and placed vertically, are 2 x 4-inch studs, 24 inches apart, also sheathed or clapboarded and forming a 4-inch air space around the entire building. This space, left open at the bottom and the top, allows the air as it becomes heated by the rays of the sun to pass up and out. A ceiling is formed at the level of the tie beams, insulated with sawdust in the same manner as the side wall. It is necessary to ventilate the space between the ceiling and the roof, which in small houses (under 200 tons) is adequately done by louvers at each end. In larger houses an additional ventilator—or two ventilators—on the roof is desirable. The earth itself forms the best floor, although it should be supplemented by a foot or eighteen inches of sawdust, upon which the ice is laid. The sawdust and the earth will absorb whatever water may result from melting ice. A bell trap should never be put in the floor, as this allows the air to reach the ice and invariably causes it to melt faster at that point. The nearer the mass of ice intended to be stored approaches a cube, the better it will keep. With the construction described above, the ice may be put directly against the outside wall, and with ice so placed 45 cubic feet of space is allowed for every ton.

It seems impossible to do anything with the ice house towards making it sightly. The only thing, therefore, is to keep it out of sight, and the woods—a dense woods—is the best place for it.

The author never builds an ice house, nor thinks of one, without recalling to mind an experience he had some years ago in connection with the construction of a large ice house at Skylands Farm. Wishing to obtain as much reliable information

as possible, he went to see the manager—in fact, the president—of one of the largest ice companies in New York, to profit by his experience and his advice. The author, after dwelling at somewhat greater length upon his own views than he had intended—a not infrequent occurrence with those who seek the views of others—was replied to by the managing president somewhat as follows: "Well, we have built ice houses of wood, we have built ice houses of brick, we have built ice houses of stone, and put them above ground and below ground; we have ice houses along the Hudson that hold 50,000 tons of ice, and the building which keeps ice the best is the one I have described to you. Your theories are interesting, but my grandmother used to say that one fact was worth a dozen theories."

The Care of Silver

BECAUSE there is not enough silver, perhaps, to warrant the adoption of a silver pantry or great canteen, do not fall into the error of keeping silver "anywhere." If there is no small cupboard fixed in the house which can be used for the purpose, have a silver cupboard made—a good, strong cupboard lined right through with green baize. With larger things—cake and bread baskets, cream jugs, and so on—just stand them on the shelves of such a cupboard. Small cutlery things are better if kept in baize rolls, which are quite easily made. Take two strips of baize, one wider than the other. Join them together in envelope fashion, and stitch across in a succession of pockets. Slip a fork or spoon into each of the pockets, fasten the slip over with a couple of patent clips, and the result is a thing which will keep silver much better than any baize-lined baskets. It is not wise as a rule to keep silver goods in satin or velvet-lined jewelers' cases, as frequently in time the color or friction of the lining affects the silver.

Silver must be attended to regularly—not once in three months. Keep a special china or earthenware bowl for washing the silver in each time it is used. Simply make a good soap lather with boiling water, adding a tablespoonful of broken soda for every quart of water. If any of the silver is stained, rub gently with a pad made of old flannel; then take out and wipe gently with a clean, soft towel—old white rags do excellently for the purpose—and polish up with a chamois leather.

Leona Dalrymple, author of the \$10,000 prize novel, "Diane of the Green Van," is contributing a story to the December HOUSE AND GARDEN. To tell you what it's about would spoil half the pleasure of reading it! Keep your eyes open for a story that touches the heart of Christmas.

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It is well to remember a few general rules in decoration of ceilings and cornices in which to rely when choosing color or tints. For instance, in using what are called primary colors on moulded surfaces, remember that yellow increases, while blue diminishes, in strength; the former should therefore be used in convex, and the latter on concave mouldings. All strong colors should be definitely separated from each other by light lines, fillets, or small mouldings. Colors on light grounds appear darker by contrast, while those on dark grounds appear lighter. If the cornice has any broad, flat surfaces, a simple, conventional flower or geometrical pattern can often be used to great advantage, care being taken not to make it prominent, the great aim being to keep the general work subservient and in no way to form a dark moulded frame for the mass of the light ceiling. The ordinary system of stencil decoration can be carried out at a very small expense, and with a few good patterns very good effects can be obtained in ceilings, where generally little or nothing is done; nor is it a very costly matter to lay onto the flat ceiling small pine mouldings formed into panels and painted, with the panels filled in with some very light drapers or pattern flock paper or stencil enrichment.

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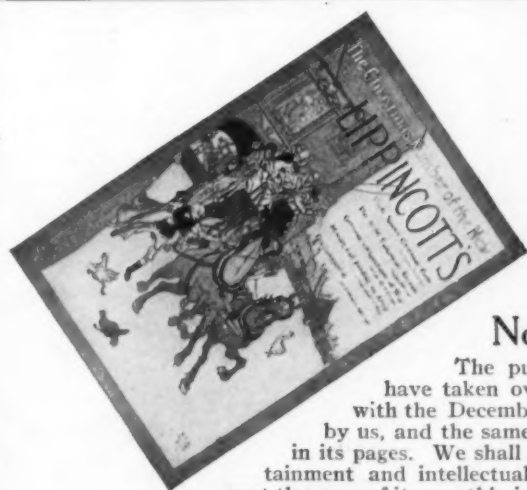
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(Continued from page 375)

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(Continued on page 342)

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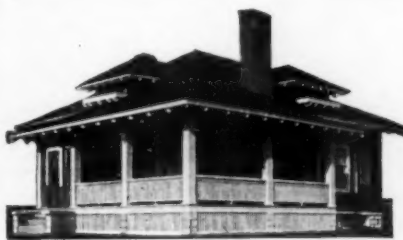
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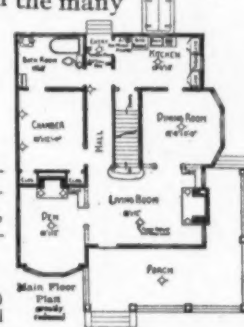
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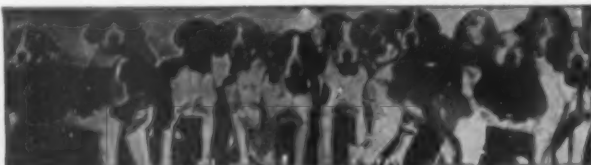
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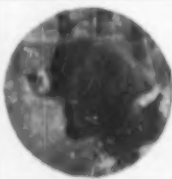
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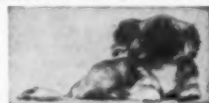
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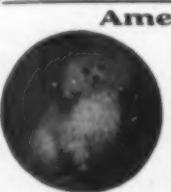
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The Merry Little Cocker

(Continued from page 356)

crease, extends half way up the skull, gradually disappearing. His muzzle should be deep, with square-cut lips. He must have clean cheeks, and his foreface, under the eyes, must be well filled in. His eyes, while large, must never be goggleey. Their expression is one of benign intelligence. His ears must be long and rounded, thin in leather and of sufficient length to just meet at his nose.

Many underbred cockers—and unfortunately the country is full of such untypical specimens—are snippy-nosed, pop-eyed, short-eared beasts, with legs a couple of sizes too long. Most of these have coats that are distinctly curly, and their ignorant owners are wont to point with pride to these ringlets, as a special mark of beauty and excellence. The cocker, like the setter, should have a flat coat with just the bare suggestion of a wave. In texture it should be like silk, and it must be dense, with well-developed feathering along the backs of the legs and the tail. The modern cocker comes in all the colors of Joseph's coat. Any color is a good color, provided only it is sound, but washy, indefinite shades are taboo. Solid blacks are always popular, and a bright, warm red is the favorite shade of many. Livers, however, have almost disappeared, and to-day find no favor. The particolors have of late years, thanks largely to the beautiful specimens shown by Mr. W. T. Payne, Mr. H. K. Bloodgood and Mrs. Frank, come to the fore. Black and whites, particularly when the white is intimately mixed with black hairs, so it seems bluish, and flecked with black spots, are a beautiful color, and red and whites are also pretty. There have been several good buff, or mustard-colored, dogs, and every now and then we hear of a pure white, but these latter have been freakish novelties, though Simcoe Purity possessed quality enough to win at the Canadian shows half a dozen years ago.

The cocker spaniel has reached a high state of perfection in America, and it is not alone because of the difference in type developed here that we have long since ceased to import show dogs and breeding stock from England. Whatever may be said against the American cocker fancier for having reduced the size of the dog, no one can deny that he has produced a better-looking dog than is met with in the British kennels. The merry little cocker stands to-day at the head of his family so far as popularity goes. His lighter, more airy disposition is more pleasing than the more sedate ways and serious character of his bigger brothers, while his superior activity and great soundness is a handicap over the delicate toys.



Keeping the Dog Healthy in Winter

BRIEFLY, the problem of keeping the dog—especially the country dog—in good condition during the winter months resolves itself into two main parts: sensible quarters and nourishing, warming food. Let us consider each in turn.

In the matter of quarters, a normally healthy dog will stand an astonishing amount of cold weather if his kennel is dry, sheltered from the wind and supplied with an abundance of good straw in which he can hollow out a sort of nest. I have seen a rather thin-coated English setter, under such circumstances, perfectly warm and comfortable in a temperature of twenty degrees below zero, and such heavy-coated dogs as Airedales, Scotties, cocker spaniels, collies, etc., are equally hardy. See that the kennel faces south or southeast, has wind-tight walls and roof, and is so protected by a kind of outer passageway leading to the entrance that the wind will not eddy inside. A few boards properly placed will accomplish this last purpose; they will not need to project more than a couple of feet from the entrance. If possible, arrange the kennel so that the sun will strike in during the morning, for sunlight and fresh air are as important to canine well-being as they are to that of humans.

While outdoor quarters in an ordinary climate are the best for almost all breeds except the more delicate toys, I suppose the majority of those who read this prefer that their dogs' homes shall be in the house. This is entirely reasonable, and tens of thousands of dogs keep perfectly healthy and happy in such circumstances. It is best, however, not to let the house dog form the habit of spending most of his time lying on the register or behind the kitchen range, or on the hearthstone of the open wood fire in the living-room; such a custom is conducive to extreme laziness and undue fat. Do not, on the other hand, chase him outdoors and force him to shiver on the doormat for hours; when he goes out in cold weather see that he exercises enough to keep warm.

Turning now to the matter of proper winter food, we find again a partial analogy between what is good for the country dog and for his master. Your dog should get plenty of meat, some cooked and some raw, with cereals, what vegetables are obtainable (except potatoes), perhaps some soup stock once in a while, and a good bone to gnaw on two or three times a week. The difference between summer and winter food is that the former should be moderately cooling, while the latter should be rich in heat-producing qualities.

For a fully matured dog, two feeds a day are ample: a light meal in the morning, and a good, substantial one the last thing before putting him away for the night.

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The Uses of Woodwork in Interior Decorations

(Continued from page 339)

self, but, unfortunately, the makers sell it cheaper to the painter, so such a course would be expensive and a distinct affront to the painter's honesty.

It must be used strictly according to directions and for the purpose intended—not "outside paint" indoors, or vice versa; nor must it be used on cement or plaster without a sizing, unless the maker mentions these substances on his labels. However, for the first coat on the bare wood, linseed oil should be added to the mixed paint, or else the raw wood will drink up the oil and leave the pigments on the surface with little to bind them. A little turpentine might be added to the body-coat to dull its surface, so the third coat may adhere firmly. It might completely spoil the paint to use anything but real turpentine, and the owner must be sure he does not get a substitute. No dryer should ever be added, the makers put in enough.

Good ready-mixed paint costs about \$2.00 per gallon; often more. An argument for the purchase of the materials direct is that a gallon of paint so made will cost the owner less, perhaps \$1.50 to \$1.75, for the materials, but cost of the time spent in mixing will offset part of this difference. The owner must be sure of his painter's honesty and ability, for, even if he could be there when all the paint is mixed, I doubt if he would presume to criticize or direct an experienced painter. He must have a man he can implicitly trust or else use ready-mixed paint from one of the best makers, and see the unopened cans. Various cheap substitutes are on the market: for turpentine, benzine is sold mixed with dissolved resin and wood extracts to change the odor; much of the "white lead" is mixed with other pigments; linseed oil is adulterated with menhaden or fish oil, corn oil, benzol or even kerosene; dryers are mixed with all sorts of rubbish. To detect these things a man must be widely experienced. As to the layman, he is absolutely in the hands of his agents; if he buy of a dishonest manufacturer or allow a dishonest or ignorant painter to mix his paint, woe to him!

He must be cautious, too, in choosing color from the color cards. All makers show the colors much warmer or yellower than the paints really are. I do not know



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why this is; perhaps the glazed finish causes it, or their being kept in the folders so no light can reach them.

Preparing the woodwork is as important as the painting. As soon as possible after delivery, all trim should be "primed" with oil paint on the side that goes against the wall. After the carpenter has finished his work of fitting it and setting it in place, all knots and sappy streaks are coated with grain-alcohol orange shellac to prevent the sap discoloring the paint; then the priming coat is applied. When dry the surface is lightly sand papered and all crevices and nail-holes filled with putty composed of equal parts whiting (which is powdered chalk) and dry white lead powder worked into a paste with linseed oil.

When the priming coat is perfectly dry—two days at the least, under the best conditions, preferably more—the body coat may go on; when it is dry, any rough or shiny places should be smoothed with fine sandpaper or powdered pumice and water, and the finishing coat applied.

We have alluded to a possible coloring of the wall plaster, instead of papering it. There are several ways to do it. First, by mixing special mortar colors in very carefully measured quantities with the last coat of plaster before applying it; beautiful and clear if well done, but it is extremely difficult to get an even mixture, and the finished wall is generally in streaks and blotches.

Second, by painting the walls in oil paint, just as we paint the woodwork. Fresh plaster is alkaline and tends to turn the oil into a sort of soap, so, if the wall is new, it must be sized. A glue size is generally used; a certain chemist of wide reputation recommends a size of soap and alum; first dissolve soap, cooled and in the form of a jelly, to be rubbed well into the wall with a stiff brush; after drying for a day, a solution of alum at the rate of a pound to a gallon, applied liberally and left to dry. If a size is used, the priming coat might be omitted.

A third treatment is with special plaster paints made with oil or varnish as a vehicle; several of them are on the market; I have used one of them with perfect success, but the formulas are not announced.

A fourth way is kalsomining; a possible fifth, cold-water paint; and a sixth, quite historically correct, is whitewash.

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