

THE SUBURBAN PRESS, PUBLISHERS

## The White Berline Limousine

## The Latest Production of the Most Progressive Motor Car Company of America

THE White Berline marks the highest development of the modern motor car, both in beauty of body design, and merit of chassis construction. Every small detail which adds to comfort, convenience, and safety of operation has been carefully and successfully executed.

The logical combination of left-side drive with right-hand control, places the driver in the proper position to handle the car with the greatest amount of safety in traffic, a very important factor in closed cars. The left-side position of the steering wheel, together with the White Electrical Starting and Lighting System, makes it possible to reach the driving seat, start, and light the car witiout the necessity of stepping into the street. When the services of the chauffeur are not required, the glass partition back of the driving seat can be instantly dropped out of sight, throwing the entire interior into one compartment.

White Berline Limousines are built in Forty and Sixty horse-power models.

## The White Company

CLEVELAND



Luxury, Beauty, Comfort and 2uality without Extravagance

## Hudson Closed Cars

## Finest Limousine and Coupe Bodies on Chassis Designed by 48 Master Builders.

 A Four-the " 37 ," and the " 54 "- a Six.If you seek beauty, comfort, quality, richness and appointment, and do not especially care for exclusiveness which is obtained only by paying a high price, these cars will appeal to you.

The bodies were designed by men who have done similar work for the builders of the most expensive cars. No expense has been spared in material or workmanship. By larger production than is possible with cars of much higher price, we are able to include all in appointment, in finish, completeness and other essentials that is to be had in any closed body automobile.

## Designed by 48 Leading Engineers

HUDSON cars are designed and built by 48 expert engineers, at the head of which body is Howard E. Coffin, America's leading automobile designer.

These men were gathered from 97 leading factories of Europe and America and have had a hand in building more than $\mathbf{2 0 0}, \mathbf{0 0 0}$ motor cars.

They have contributed all their experience and skill to the production of the HUDSON " 37 " and the " 54 " HUDSON. These cars are the best they know.

Just as much skill and experience is incorporated into the building of the bodies.

The imagination of the most fastidious buyer can suggest nothing in appointment, tone, character or completeness that these cars do not possess. Every thought has been anticipated. In choosing a HUDSON the only detail that you do not get which is found in other cars, is that uncertain quality which cost alone suggests but does not assure.

## Electric Self-Cranking-Electrically Lighted

The Limousine and Coupe bodies used are identical for both chassis. The former seats seventhe latter, three passengers. Limousines are finished in imported Bedford cord, over-stuffed upholstering. The Coupe is upholstered in pebble-grain leather.

The Limousine on the " 37 " chassis is $\$ 3,250$, and on the " 54 "-the six-chassis is $\$ 3,750$. The Coupe on the " 37 " is $\$ 2,350$, and on the " 54 " $\$ 2,950$. Prices are f. o. b. Detroit. Open bodies-either Touring, Torpedo or Roadster type-are furnished at extra charge.

## 70 SUBURBAN TRIPS WITH YOUR ELECTRIC <br>  <br> You Welcome Long Suburban Drives or Country Roads if Your Electric Has a Good Battery and is Equipped with the Westinghouse Motor <br> THE pleasure of an electric extends to every day in the year. The spirit has only to move you and you find the electric carriage at hand for pleasant drives through the suburbs-for shopping, calling, the theatre. <br> With the Westinghouse Motor and all its up-to-date features; protection <br> against dust and mud; ability to take hills, without undue drain upon batteries; strength and power combined with comparatively light weight; you can absolutely depend upon the electric in all kinds of weather and upon all kinds of roads. <br> Westinghouse Motor equipped electric trucks and delivery wagons save their cost in a few months and give the best possible service. <br> We will be glad to give you any special information about electric vehicles for any purpose upon request. The names of all electrics equipped with Westinghouse Motors may be had for a post card. <br> Westinghouse Electric \& Manufacturing Company Dept. MY, East Pittsburgh, Penna.

THE publishers of Suburban Life Magazine take pleasure in announcing that a recent postal-card canvas of subscribers showed that 47 per cent either owned an automobile or intended to purchase one in the near future.
To this fact is probably due the leading position held by this magazine among the monthly periodicals carrying any considerable amount of automobile business. Tabulated figures showing the relative amount of advertising carried by all the leading magazines during the year 1911 placed Suburban Life Magazine first in the volume of Automobile Accessory business; second in the volume of Automobile Tire business, and fifth in the volume of strictly Automobile Vehicle business. This is a record of which we are justly proud.


## The month's mork

## In the Flower Garden

C
LEAN up the borders and beds this month by removing all dead or dying tops from the annuals and perennials.

Mulch the rhododendrons and azaleas with maple or oak leaves, and secure a supply of pine, spruce, or other branches, to put over the rhododendrons for protection from the winter's sun.

Bulb beds and borders should be planned, made, and planted this month, to produce flowers early next spring.

Fallen leaves make good mulching for the protection of bulb and perennial beds and borders. Oak, maple, and chestnut leaves are particularly desirable for this purpose. They are also good for banking coldframes, hotbeds, and pits. Any residue of leaves can be placed in piles or in holes in the ground to rot, as this process produces leaf-mold, which is an excellent material for potting-soils.

Seeds or perennials sown in the summer should have made good plants by this time. They may be planted out now where they are to bloom next spring, or transplanted to other frames, if crowded.

After the first killing frosts, dig up the caladium bulbs, dry them, remove the tops, and store in a cool place. Dahlias and cannas need the same treatment, and will keep nicely in any place where potatoes will keep.

Geraniums to be kept over until next spring should be heavily cut back and potted, or they may be dug up, the soil shaken from the roots, and hung upside down in a cool cellar.

## In the Vegetable Garden

CLEAN up the garden at once! Clean each
piece of ground as fast as the crops are removed. All stumps and tops must be removed, and it is advisable to burn them, so that they will not harbor injurious insects that would help to destroy next season's crop.

If winter crops, such as rye, have not been planted to add mulch to the soil by being turned under next spring, effective work can be done against insects by spading or plowing the garden and leaving it rough, so that the frost can easily and thoroughly freeze every part of it. This will bury any grasshopper eggs so deep that they will either fail to hatch in the spring, or the young will be unable to burrow their way out.

Cutworms hibernate through the winter in little oval burrows three or four inches under the surface of the ground. Loosening up of the soil breaks the cells and kills the grub. The freezing and thawing of the loosened soil will
produce the same result. Corn-ear worm, or maggot, is mastered by the same process.

Fall spading will kill the familiar white grub, as exposure is deadly $t$. them, even though the freezing is not hard.

Cabbage stumps, i left in the ground, are excellent harbors for all the cabbage-worms and harlequin bugs. The squash-bugs and striped cucumber-beetles will live over the winter in the shelter of the vines; therefore clean up everything in the garden and burn it.

Squash-bugs can be exterminated in great quantities, in the autumn, by laying boards or shingles about the garden, under which the above pests will seek shelter during the night. Brush them into a pan having a little kerosene in the bottom.

Clean up the asparagus beds, as advised Iast month, if they have been neglected.

Asparagus can be planted at this time, as well as in the spring. It likes a warm soil and a sunny situation. Nothing is so effective as a mulching of good manure to both new and old beds.

## In the Fruit Garden

$I^{T}$
T is not too late to set out some fruits in the orchard, except, perhaps, in the extreme north, providing the ground be well drained. Stone fruits, like peaches, plums, apricots, and cherries, should be set out in the spring.

Harvesting the fruit of the apples, pears, and quinces is the one job in the orchard this month. The fruits should be handled with great care, just as if they were eggs, otherwise the slightest bruise will offset the keeping qualities of the products.

If some of the fruit be packed in dry oats or cork dust, it will keep nicely for spring use. Do not, however, use pine sawdust, otherwise the fruit will taste of it.

You can propagate blackberries now by root-cuttings. Select roots about the size of a lead pencil, and cut them into pieces two inches long; then pack them in sand in shallow boxes and bury them in a well-drained place in the garden. In the spring, they must be planted in the garden at least two inches deep.

Also make cuttings of gooseberries and currants, about three or four inches Iong, and plant them two inches apart in the garden. Set the cuttings very firmly in the ground, and just deep enough so that the top eye will be even with the top of the soil.

In most localities apples, pears, currants, and gooseberries can be safely planted in the fall, providing, however, that they are fully matured. Most other fruits do better when planted in the spring.

## In the Greenhouse

$\mathrm{B}^{\text {ULBS should be planted at once for next }}$ spring's flowers. Plant them early, as they will require all the time, now, to enable them to make substantial root-growth, which is so very necessary.

Cyclamen showing their buds in the early part of this month will produce beautiful flowers for Christmas, provided they are subjected to a night temperature of sixty degrees. Watering, however, must be done with great care. Just a little too much, or a little too shy, or allowing the crown of the bulb to become soaked, means disaster and ruination.

The beautiful begonia Gloire de Lorraine should now be growing rapidly, and at this stage the plants must not be syringed. They should be protected from the direct sunlight by a light shade, but they will require an airy and light place in which to develop to perfection. Shape the plants with stakes, to produce wellformed growths that are compact.
The poinsettia is the most desirable plant for Christmas decoration, and it must be protected against "drawing" by being grown close to the glass. Increase the temperature when the colored bracts begin to appear. This fine plant requires a warm place, like the tropics, and, to help it along, it should be encouraged with applications of manure-water on frequent occasions.

Secure a few rhododendrons, mollis and Ghent azaleas, lilacs, Deutzia gracilis, and forsythias or golden bells, for forcing purposes. They amply repay you the trouble, and should be potted as soon as they are received.

## In the Poultry Yard

$A^{\text {L }}$L repairs and winter arrangements should be completed before the end of the month, and it won't do any harm to give the interior of the coops an extra coat of whitewash before cold weather opens.

Be sure that the pullets that are expected to lay this winter are placed in winter quarters early. Let them get used to their new surroundings before they start to lay. April-hatched chicks are due to start laying this month.

Make it easy for the new layers to find the nests and be sure there is ample nest-room for all.

If you have added to the total number of your chickens since spring, be sure there is plenty of perch-room for them in your houses.

It is a wise plan to buy the different grains for feeds and do the mixing yourself.

Be sure to arrange for some green food during the winter months. An article on another page tells of one way to provide it.


## Hardware

Quality comes frrst in Sargent Hardware. The mechanism is designed for strength and perfect action. The workmanship is of the accurate kind that considers every detail.

Successful architects appreciate the splendid selection the Sargent line affords. It includes the exact designs that best fit in with each architectural and decorative scheme.
Shall we send you a copy of our Book of Designs? We also have a special book of Colonial Designs.

200 Crescent Street, HARRISBURG, PA.
THE SUBURBAN PRESS
334 Fourth Avenue, NEW YORK, N. Y.

# Chy $\mathfrak{C o u n t r y s i v e ~}$ 

THE rapid growth of our cities has so encroached on the suburbs that they in turn have crept gradually farther and farther back into the country until today the term "Countryside" more nearly represents the commuter's territory.

The call of the country is becoming increasingly insistent. Thousands of families move yearly from our big cities into the suburban districts. As the nearby suburban towns become more populous, they in turn extend their boundaries, until we have a "Countryside" peopled, for the most part, by city-bred men and women, many of them enjoying for the first time the pleasure of outdoor life and the freedom of a detached house.
The business man with a ten-acre place is a more frequent proposition, and, in many instances, the ten acres not only provide a beautiful home, but yield a profit on the investment, veritably an anchor to the windward.

An increasing number of city men are annually buying farms of varying acreage, some for pleasure and others with hope of ultimate profit, but all in the desire to get back to nature and own for themselves land which shall be reckoned in bulk, and not by the front foot.

All this has brought about a new condition of things, even within the life of this magazine. It is obvious that nothing which stands still can progress, and this is particularly true of any magazine which represents a developing idea.

## Suburban Life for 1913

WE do not promise you a new magazine for 1913, but we do promise you a magazine which will broaden into the field of the "Countryside" and be fully abreast of the great movement which we have just described.

For the past eight months we have been planning the editorial contents for next year with this thought in view, and as a result have obtained some exceptionally valuable material.

## A Farm Story

COMMENCING with the January issue, we shall begin the publication of a serial called "The Story of an American Farm." This recounts the experience of a man of affairs who felt sure that farming could be made to pay if the farm were conducted in the same systematic way as any other business proposition. His experiment was a success. A very clever story is woven through the
chapters, and, best of all, the characters are real men and women. This story will run through the twelve issues of 1913.

## Practical Farming Articles

IN line with the broader policy of the magazine, we can now promise articles from the following well-known writers:
Geo. H. Dacy, an authority on live-stock management and general farm subjects; W. H. Jenkins, an authority in the field of agricultural journalism, who has made interesting experiments in the growth of alfalfa; Sarah Savage Müler, well known as an investigator of insect pests; Chas. C. Casey, who will write on the scientific management of the country place and the business side of farming; Jos. H. Sperry, expert horticulturist, whose specialty is the greenhouse; M. Roberts Conover, a facile writer on general suburban and countrylife subjects, and who draws from his own practical experience; H. V. Tormohlen, who has long made a study of poultry-raising and the developing of fine breeds; Dr. Leonard Keene Hirschberg, who will cover the field of fruit-raising and live-stock in a practical and pleasing way.

## Farms of Business Men

$\mathrm{I}^{\mathrm{N}}$N addition to the articles above enumerated, we have in preparation a series of separate articles on "Farms of Business Men." This will tell the farm experiences of men well known in business and professional life, many of whom originally bought their farms with no thought in view other than that of pleasure, and have found, to their surprise, that both pleasure and profit were possible. This series also includes experiences of men who are employees, and have invested their savings in small farms within commuting distance of their places of business. Each has an interesting story to tell.

## House-Building and Furnishing

$\mathrm{I}_{\mathrm{con}}^{\mathrm{N}}$N this field, in which Suburban Life has come to be looked upon as an authority, we shall continue the high standard set for ourselves by the house-building issues of 1912. We are planning to have at least four issues definitely devoted to house-building and house-furnishing. These numbers will be fully abreast of the times in portraying the newest things which have developed during the year both in building and furnishing, including a series of articles on "Period Furniture" by Harold Donaldson Eberlein.

During the coming year we have planned to devote considerable space to the consideration of the remodeled farmhouse, together with suggestions for the entirely new house adapted to the suburban farm.

## The Flower and Vegetable Garden

$F^{4}$ULL measure of space will be devoted during 1913 to the Flower and Vegetable Garden. A regular department will be found in the magazine devoted exclusively to the subject of flowers. The well-known writers who have favored us during the past year with contributions on these subjects have, for the most part, been commissioned for further material for 1913. Our facilities for obtaining exceptional illustrations are well known, and the pictorial value of our horticultural articles is a distinct feature in itself.

## Landscape Gardening

THIS is a subject which is coming more and more prominently to the attention of every house-builder. In fact, the grounds surrounding the suburban home of ample proportion often require nearly as much study and careful attention as the actual building of the house. We can announce several articles, by well-known authors on landscape gardening, ranging from the small suburban place to the more ambitious estate. As this is a subject with which the average layman is unfamiliar, we hope to make these articles both practical and suggestive.

## Suburban Problems

THE popular articles on everyday problems from the pen of Margaret Woodward will be continued throughout 1913. These articles for the past year have been widely quoted by the leading newspapers and periodicals of the country, showing that there is widespread interest in the discussion of the home and community problems of the present day. We shall also continue to publish, from time to time, articles which have to do with civic welfare and improvement, based upon the things which have actually been done in suburban communities that are trying to better local conditions.

For next year we are planning a better, brighter, and broader magazine than ever before. Its editorial contents will reflect the spirit and atmosphere of the "Countryside" and all that is associated with it, while in mechanical construction it will be the peer of any magazine published in America.
While sketches in color are sufficient for the trained decorator, the layman must also see actual examples of the furniture in order to get a definite and adequate idea of how the room will look when completed.
In the Oak Room on the Second Floor of the new store of W. \& J. Sloane at Fifth Avenue and 47th Street, are displayed models of the best furniture made in England in the reigns of James I, Charles I, Charles II, James II, William and Mary, Anne.
Many of these models are the actual handiwork of Seventeenth and Eighteenth Century makers. Many are modern reproductions equal in style and finish, and superior in construction. All have marked individuality.

## W. \& J. SLOANE FURNITURE AND DECORATIONS

Fifth Avenue and Forty-seventh Street
New York

## The Contents for (Ortober, 1912

Arthur Tomalin, Managing Editor

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# SUBURBAN LIFE 


$25 y$ 2arold Donaloson ©berlein
[Edrtor's Note.-Tbis article bas to do largely with, and is from the viewpoint of the advocates of what may briefly be termed the Continental Scbool of Stained Glass Art. A second article from the viewpoint of the American Scbool, and describing and illustrating its acbievements, will appear in an early issue.]

fS the principall beautie, and countenaunce of Architecture, consistes in outward ornament of lights, so the inward partes are ever opposite to the eies of the beholder, taking more delight in the beauty thereof, being cunningly wrought, than in any other garnishing within the same." So wrote old Walter Gedde at the beginning of his "Booke of Sundry Draughtes, Principaly serving for Glassiers; And not Impertinent for Plasterers and Gardiners: besides sundry other professions,"-a most valuable store of leaded glass patterns, accompanied with a treatise on the preparation of "cullours" for painting on glass, published in London at the "signe of the Faulcon," in 1615 , and couched in the quaintest of terms.

Walter Gedde was fully alive to the paramount architectural importance of the window. He knew-as some of us moderns appear not to know, judging by our performances-that a "window is not merely a yawning hole in the wall." He knew that it is a part of the room, and he knew, too, that on the glazing depends the character and effect of the window, whether viewed from inside or from without.

Fenestration so determines the exterior appearance of a building that we may not disregard the arrangement of the windows; but, alongside of fenestration, and of equal importance in fixing the aspect, is the glazing. No better proof of the truth of this latter statement is needed than a glance at a Georgian house from whose windows the many-paned and wide-barred sashes have been


Stained Glass Cartoon That is Remarkably Rich in Coloring for a Library Window
be a source of strength, rather than of weakness. In considering the use of stained and leaded glass in the house-building of today, it is unnecessary to specify these limitations. Suffice it to say that, in houses of certain architectural types, it is not only becoming but even needful, in order to get the best artistic results, while in others it would be manifestly out of place.

To quote only two instances: In houses of Georgian or Dutch Colonial type, such glass would be grotesque and incongruous; in half-timbered Elizabethan dwellings, in Jacobean manors of brick or stone, in modern English houses, or in those that follow some of the ContinentaI styles that have flourished since the Renaissance, it is eminently desirable. Except in the rarest possible instances, and then subject to the utmost restraint, leaded glass has no place in Georgian architecture save in the fan-lights over doors and in the glazed panels at each side, features that came into vogue when the Adam influence reigned supreme.
Without for a moment impugning the claims of Georgian, or so-called Colonial, architecture to high esteem, as peculiarly suited to American conditions and feeling, a type adapted to our needs from a worthy English model at the most impressionable period of our Colonial growth, it is but fair to say that there is no reason why the domestic architecture of the country should universally conform to a single style, however excellent it be. There is room enough for all styles that are good, when used with discretion, and in places where they are in keeping, and one notes with


Leaded Glass and Device in Library Windows. The Lower Panel Appears at the Bottom of the Page
pleasure a welcome increase in the number of dwellings patterned after admirable examples built in the days of the Tudors or Stuarts, or inspired by the creations of Italian or Frenchman, German or Fleming, and adjusted to existing needs. It is for these houses, savoring as they do of medieval traditions, that leaded and stained glass -the product of an art essentially medieval in its origin and best develop-ment-is fitting, and oftentimes positively indispensable, to give the final sense of finish.

Before going further, let us understand precisely what we mean by the terms "leaded" and "stained" glass. By "leaded glass" is understood that system of glazing wherein all the pieces of glass in a window, whether set in simple geometric figures or arranged in more elaborate pattern, are joined together and held in place by grooved strips of Iead, or lead-lines, as they are called. By "stained glass" is to be understood, strictly speaking, a window or panel composed of bits of colored glasses put together with strips of lead; not a picture painted on glass with different-hued


Leaded Glass Used Effectively in an Unpretentious House
ordinarily used together from very early days. While interesting and richly varied windows can be made of Ieaded glass without any colored enrichment, stained and painted cartoons, roundels and quarries, are often added for their "special glory of illuminated color."
A prejudice undeniably exists against the domestic use of stained glass, and because of this prejudice-needless, it is true, but nevertheless existent-hundreds of people, well able to afford the Iuxury, deprive themselves of this source of lasting pleasure and satisfaction. The prejudice is twofold in its origin. In the first. place, there seems to be a deeprooted feeling that stained glass is essentially ecclesiastical-which it is not-and that, if used at all, it is necessary to run to the utmost abominations in opalescent horrors to escape far enough from the shadow of ecclesiasticism.
In the second place, a great many as the term is commonly employed, is taken to include also paintings upon glass, and there is some reason for so grouping both sorts under one title, for the two processes of work have been
people associate domestic stained glass with the "pink, purple and sauterne" monstrosities with which misguided builders in the early ' 80 's disfigured the windows of the houses they built, a


Leaded Glass in Library Windows. This is the Lower Panel; the Upper One is at the Top of This Page
species of vitreous ornamentation that has now descended to barber shops and beer saloons in obscure country districts. This sort of decoration was so offensive that the residuum of hate that still lingers is scarcely to be wondered at. The great pity is that so many, content within thei wall of prejudice, never try to look over it, and inform themselves of the real resources of Iegitimate embellishment at their disposal, and so the matter is passed by with mischievous indifference.

In certain positions, nothing can serve more to enrich an interior than the wealth of color glowing from a stained window; it is a perfectly allowable bit of gor- or lozenge-shaped panes, which were used from geousness, no matter how severely plain the rest of the apartment may be. Our ordinary surroundings, for the most part, are singularly lacking in robust, virile color-this lack is a real loss to us in more ways than one -and windows afford an excellent chance to supply some of the chromatic deficiency without disturbing our timid, conventional sense of propriety. With a proper architectural setting, a good stained-glass window diffuses an opulent charm to which few are insensible. The Iiving, vibrant color is ever fresh, and the figures are quick with tireIess spirit. A window either wholly or partly filled with worthy glass will always arrest attention and supply the roving mind with food for thought.

The degree of ornamentation in stained and leaded glass is widely varied. A window may be entirely filled with stained or painted glass, or the color may be confined to cartoons, roundels, or even scattered quarries. Again, Ieaded designs without any color, and wholly dependent on the leadlines for expression, are often extremely effective, especially when the lines of the object depicted are few, bold, and rich in suggestion, as, for instance, the sails of windmills or ships, the hulls of boats or the waves of the sea. Last of all, the leading may be confined to geometrical patterns of much or little elaboration, as occasion requires

When the leading is geometrical, the simplest

form of glazing and the easiest and thriftiest for the cutter, as well as the most straight - forward for the glazier, is to set together parallel-sided pieces of glass in a Iead lattice. These little square


Ship Panel in Leaded and Stained Glass in Color older word quarrel, which comes from quadrellum, "a small square." Ordinarily, these quarries were set on end so as to form diamonds which, as time went on, were lengthened in proportion to their breadth.

When it was desired to ornament them, they were painted with simple patterns traced in brown; on the discovery of silver stain, yellow tinting was added to the brown tracing. Some of these decorated quarries possess great beauty and are well worthy of reproduction. Another attractive form of leading without color is seen in the "roundel" or "bull's-eye" windows, especially useful for shutting out unpleasant views, for it is quite impossible to see through them. A window of plain leaded glass, on the other hand, in no wise obscures the view.


Printers' Marks in Monotint for the Windows of a Library

As to the cost of win dows of leaded glass, or even of leaded glass adorned with painted and stained cartoon and heraldic devices, they are not prohibitive in price even for people of moderate means. In a house costing $\$ 15,000$, leaded glass in some of the rooms could not be counted a piece of unwarrantable extravagance. When we consider how much character the windows impart to the whole edifice, surely it is worth while to spend something upon them to make them as comely as possible. Of course, the degree of elaboration in the pattern will govern the cost: the more leading and cutting, the higher the price.
When cartoons of either vari-colored or monotint glass are added, or when some of the quarries are decorated, the cost increases materially, although not to the extent that some people imagine, and not beyond the reach of a moderate income For the cost of stained and painted glass it is impossible to give any general estimate, and it would be misleading to attempt to do so. Here the relation between dollars and square feet ends; the value of such work can be gauged only by the design and the quality of craftsmanship bestowed upon its execution. The same remark applies equally in the case of windows composed wholly of stained glass. Like good pictures, good windows are worth their price; but here again popular notions as to excessive cost are often erroneous. Like pictures, too, windows can be put in place at any time. They are worth saving up for and acquiring gradually.
The placing of leaded or stained windows must be determined by the exigencies of each particular case, but some suggestions can be made on general principles. To begin with, if there is an obnoxious view to be blocked out, the logical thing to do is to put in either a stained, or else a "roundel" or "bull'seye" window. Dining-rooms, libraries, and halls are also particularly appropriate places for leaded glass windows, which may or may not be enriched with color, just as fancy dictates. If the dash of color or the quaint device is added, there is still plenty of plain glass to see through. Oftentimes, in libraries and halls there are windows that lend themselves especially to a stained-glass treatment.

Stained or painted windows, it should be re[Con'd on page 226


# Heating the Country House Properly 

## THE ADVANTAGES AND DISADVANTAGES OF EACH OF THE THREE WAYS OF DOING IT, WITH A DISCUSSION OF SOME NEW METHODS

By JOSEPH F. McGINITY

THE home-builder and owner has many important questions to decide, but there is none more important than the problem of heat. House-heating must be worked out along the proper lines to secure correct results, and results are important when the thermometer is at the zero point. Home comfort depends upon the correct solution of the heating problem. Everything about the house is really secondary to the heat. The heat must be ample, readily obtained, and easily maintained. Cleanliness must be considered, health must be looked after, and, finally, it must be economical.

There is no rule that can successfully be applied to all houses, as each house forms its own individual problem, and the heating plant must be especially designed for each particular home. There are many conditions which must be considered in designing the plant-the climate of the country in which the home is located, the situation of the house as regards its relation with other buildings, the points of the compass, the nature of the building material, its exposures, and the size and arrangement of the rooms. One would judge from this that the heating problem is a difficult one, but such is not the case. A house of any given size may be thoroughly and economically heated, if the heating apparatus is properly designed by capable parties. Heating has been practically reduced to a science, and all conditions can be met with our modern heating methods.

Practically speaking there are but three kinds of heat, and from these three we find many additions and changes so that we have scores of heating systems.

THE most generally known method of heating is by hot air. This method has been in use for a number of years and has been used with a degree of success. There are many points to be scored against hot air, which probably are not the fault of the method. Hot air can be made a satisfactory heat and deserves a better place in the public minds than it has occupied in recent years. This method brings the heatmaking apparatus to the cellar, and with the aid of pipes conducts the heat to the separate rooms. The manufacturing plant is called a furnace, and the construction of it is such that when a fire is built in the central portion, or better known as the fire-box, it gives off the heat to the air which is in the chamber that surrounds the fire-box. The air thus heated becomes lighter in weight and immediately rises. The air is brought to this chamber from an opening at the outside of the building, and as it is heated it rises through the pipes to the several rooms; thus the air that was brought from the outside is made to act as the heating agent.

Now, here is where the science comes in: The outlets to each room must have sufficient area to admit enough air to the room to heat it thoroughly, and the pipe which conducts the heated air must be sufficiently large to supply this opening with all the air that it requires, and, likewise, the furnace must have ample air-space to enable it to furnish the several pipes with all the heated air that they require. Then again, the flue or chimney must be a good one, as this is a most vital point not only in hot-air heat but in all the methods later described. It is better to spend a few extra dollars on the chimney at the start than to spend it later on a sick heating system.

With these items well taken care of, the question of cost now arises. We often hear that hot-air heat costs less to install than the other methods. This is probably true of many hot-air systems, but if the plant is properly installed the cost is brought close up to the other methods, and good heating results can be obtained only from a well-designed plant. Too much care cannot be taken, and it is no more than proper to advise against the installation of the lowpriced hot-air system. If the apparatus is well constructed, the chance for dust and germs to come into the rooms is diminished. As for fuel economy, Iittle can be said, as a hot-air system is much more susceptible to the atmospheric changes than other methods of heating.

$S^{T}$TEAM heating is the method that is today in most general use, and it has been used with much success in the modern dwelling. There are many things that can be said in favor of this style of heat. This time the manufacturing plant is called a boiler and the heating medium is obtained by converting water into steam, and generating a low pressure, generally about two pounds. This steam is conveyed through pipes to radiators which are placed in the several rooms. Each radiator has a valve for opening or closing the supply of steam, and is also equipped with an air-valve which allows the air to escape from the radiator, so that the steam may enter. The air does not leave the radiator of its own accord, but is forced out by the steam. These small air-valves are so constructed that just as soon as the air has been expelled and the steam comes in contact with them, a small part of their mechanism is expanded by the heat and the air-valve is closed so that the steam cannot escape.

Steam, as it comes into contact with the iron of the radiators, gives up its heat to the iron, and the iron in turn radiates this heat to the air of the room. When the steam gives up its heat, it immediately condenses into water, and drops to the bottom of the radiator, finally flowing back to the boiler in the basement. This leads us to one other point, and you might question why this water of condensation would not be forced out of the air-valves the same as is the air. The air-valve is just provided for such conditions. It has a small float so that, should any water accumulate in the air-valve or the radiator, it causes the float to rise and again close the airvalve so that the water could not be injected into the room. These air-valves are important factors in the ssuccessful working of any steam system.

There are two kinds of steam-heating systems. One is called the one-pipe system and the other the two-pipe system. The one-pipe system is the one most commonly used. By one-pipe system is meant that the steam in going to the radiators is passed through the same pipe that the water of condensation flows back through to the boiler. This is quite practical, still it does not seem reasonable that the steam should flow one direction while the water flows in the opposite direction in the same pipe. This becomes much simpler when you consider that a cubic inch of water becomes a cubic foot of steam when its temperature is raised above $212^{\circ}$, and likewise a cubic foot of steam would become but a cubic inch of water when condensed. The pipes are so graded that the water falls to the bottom of the pipe while the steam, being lighter, is crowding itself to the top of the pipe.

In the two-pipe system the water is passed to the boiler through an extra pipe. It is not so well adapted for use in residences as it is for larger buildings. The pipes in the steam system are very small as compared with those used in the hot-air system, and can be readily concealed in the partitions so that there could be no objection to their appearance in the rooms. The radiators in this style of heating are small and do not take up much floor-space. They can be decorated in harmony with the rest of the room, and become an adornment rather than an objection. There is not the slightest opportunity for dust to be conducted into the rooms with this method of heating, and for economy, the correct regulation of the steam pressure makes this a very desirable heating arrangement. Damper regulation is extremely important, and too much care cannot be exercised in adjusting the automatic regulator which is furnished with all low-pressure steam boilers. These boilers are also provided with a safety device so that, in case of carelessness, should an excessive steam pressure be generated, proper vent is given and the steam is exhausted in the basement.

Next to the hot-air system the one-pipe steam method is the least expensive at installation. In the use of fuel it is quite economical, and, when one is looking for a moderate cost and still a satisfactory heat, low-pressure steam is an excellent selection. The chief drawback to the low-pressure steam system is the air in the radiators and the regulation. These drawbacks have been recognized by the modern fitters with the result that we have seen the advent of great improvements in the question of air-venting and of automatic regulation. There are at present several well-designed heat-regulators which can be adjusted "to any heating-system and so arranged that the temperature of the livingroom will operate the dampers of the heater so that a given temperature is maintained at all times.

$\mathrm{H}^{\circ}$OT-WATER heating has been a very successfuI method, and has always been closely identified with steam, although they are vastly different. The reason of their close identity probably comes from the fact that the samestyle boiler can be used and the same piping is employed. Some change is necessary in the radiators and other fittings, but in certain respects the materials used are almost the same. In the water system the whole plant is filled with water up to the highest radiator in the house, and the system must always be kept filled to secure proper results.

The water, after it has been heated, rises to the different radiators through the house and there gives off its heat the same as was the case with the steam. The water in the system is generally figured to produce the proper heat at $180^{\circ}$. The radiators will naturally have to be larger than the steam plant, there being a difference in the heating medium of over $32^{\circ}$, as you cannot have steam until water reaches the boiling point. It can be easily understood why larger radiators are necessary for this style of heating. The radiators are of slightly different construction so as to allow for the free circulation of the heated water. AII air must be removed from the radiators, the same as in the steam system, but in this case it is removed through a positive valve which must be opened and closed by hand. This process, however, does not often
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It Always Takes the Little Finishing Touches to Complete the Picture

## Practical Decoration for the Home Interior

## A FEW PRACTICAL SUGGESTIONS FOR THOSE WHO LIKE TO DO THINGS THEMSELVES - PAINTS AND FINISHES THAT ANYONE CAN APPLY

## By GARRETT WINSLOW

THERE is nothing that gives greater pleasure than redecorating the home, purchasing new pieces of furniture, refinishing woodwork and floors, giving the rooms a different appearance. It is indeed surprising how much interest is shown by every member of the family, and how we are all affected by the newness of things. The change of color here and there, the brightening of worn surfaces, certainly does put new life into everyone.
There is surely no better time than the fall tothink of these things. When the family is about to take up its coldweather work, when we are all looking forward to spending the greater part of our leisure time indoors, everything should be brightened up and made as cheerful as possible. As the psychologist tells us, we do not realize how much we are influenced by our surroundings. Bright and cheerful rooms will certainly help all of us in getting a good start for the fall. It is a comparatively easy matter to send our families away for a late vacation, and tell our favorite decorator to go through the house and rearrange and redecorate to suit his taste, but there is ten times the satisfaction if one stays right there on the job and does most of the renewing and rearranging himself. The feeling that this time one has superintended his own decoration is certainly a great satisfaction.


Simple Effects are Best-Simple Decorations and Furnishings
in working out the little details which will come up from time to time. We do not realize how up from time to time. We do not realize how
much some of the surfaces are worn, how badly the wall-papers have faded, how much the floors have been scrubbed, until all of the furnishings have been taken out of the room. It is then that a general survey can be taken and more of the details worked out. What are we going to do with this worn surface? How can we overcome the badly marred appearance of that surface? These are all questions which will be coming up and which, after one really gets into the work, will be found very easy to overcome. Let us take up the treatment for the different surfaces to be refinished.

DON'T BE AFRAID OF THE WALLS
Just because the walls happen tobe the most important surface to be redecorated in the room, and becausethey are in a badly worn and faded condition, let us not give up hope at the start. There are so many different ways of finishing walls, so many attractive shades to be had, that this is one of the most interesting features of the work. Its success, too, means so much in getting a satisfactory final result. Of course, there is a dark spot where every picture hung, as well as a stronger wall-color back of all pieces of furniture that have been standing in the same place for any length of time. Wall-paper cleaners won't do. The color has badly faded. Let us


Just a Little Occasional Refurnishing will Keep an Attractive Room Always Attractive
get after this wall with the determination to make it of such a character that it will not fade around the pictures, and that it can be cleaned with soap and water.

This is going to be "Do-it-yourself" decoration, and so wall-paper is out of the question. Everyone, however, can wield a brush, and so paint is the thing to use. Water paints are not to be considered in this case, because here we want a finish that is washable and durable. There are a number of satisfactory flat oil paints which will produce these desired effects. The paints are made in a number of attractive colors, and color cards can be obtained from the local dealer. Finishes of this kind have been very frequently applied directly over the wallpaper with good results. It is, of course, important that the wallpaper be fastened firmly to the wall when a material of this kind is used over it. It is better, however, to remove the wall-paper, and this is an operation which can very easily beaccomplished. A very wide wall-brush should be used, and either hot paste or hot water applied to the wall-paper. This very shortly softens the paste, and the paper can be scraped off easily with a putty knife or a flat piece of metal. It is well to wash off the wall with clear


Two Kitchens Made Practical Because Every Surface can be Washed with Soap and Water
for such decoration. Many different kinds of effects are possible in decoration of this kind. A simple little stencil design around the room at the ceiling corners gives an attractive effect, and does not in any way interfere with the pictures. It is, of course, possible to apply an all-over pattern by stenciling, as well as attractive striping. Such effects, of course, require a little more time. If the ceiling is unusually high and a lower effect is desired, this can be very easily obtained by wall divisions, either with a wainscoting or with a drop-ceiling, both of which can be obtained by means of stenciling without any additions to the woodwork.

In some of the chambers, it may be desirable to use a less expensive wall-finish. In such cases, some of the best water paints can be selected. These paints cover well, and are quickly applied when a wide wall-brush is used. With the wall effect completed, we can turn our attention to the woodwork.

Just because the woodwork may be finished in an ugly natural yellowish tone, is ne reason for discouragement. In fact, when changes wrought are of a radical nature, one gets much more satisfaction out of the final resuIts. Yellowish natural woodwork can be satisfactorily [Continued on page 227

## How to Choose Light Fixtures

## By ROBERT H. VAN COURT



Light Fixtures for the Side-walls Are the Thing of the Moment

THIS is the age of electricity, and in none of thefields in which it is so successfully employed is its use so universal and preëminent as in the field of illumination. In a way, methods of lighting may be regarded as an index of the state of general culture of those in whose homes they are found. The age of the candle was followed by the age of lamps with oil of various kinds as the source of light; then came the age of gas which has been followed by the present period when electricity has been tried and proved to be the best of illuminants and adaptable in countless ways where other kinds of lighting could not be used. In passing from one to another of these successive stages, however, the older methods of lighting have not been discarded; the thought and care which had been lavished upon their application had produced results so practical and beautiful that they could not be wholly given up, and in homes today one often finds candles, lamps, gas, and electricity all in use, frequently at the same time.

But no dwelling-place of any kind is being built today without due provision for the use of the electric light. As yet, electricity as a source of heat has not attained general use, and, in the average home, gas is used for cooking, and sometimes for the heating of the house. Its use in the kitchen makes necessary the piping of this room of the house, and gas is sometimes here used for lighting purposes also; often the entire service portion of a home will be arranged for the use of gas for lighting, even though the rest of the house be wired for electricity. Then too, some people who for various reasons, may prefer to have two sources of light available, may have their houses piped for gas as well as wired for electricity. In many houses already built the use of electric lighting is sometimes desired in addition to gas. The necessary wiring is much less expensive and difficult than is generally supposed, and the wiring need not mean the complete tearing up of the house or the interference with domestic life which it is sometimes thought to involve.

But no part of the planning of a home is usually approached in so careIess a manner as the question of lighting, upon the success of which all of the beauty and much of the comfort of the house is dependent. Of course, one may decide to have the building lighted by electricity and the actual wiring be made an item of the building contract, but the general practice is to postpone the selection of the lighting fixtures until the house is ready to receive them. When this time is reached it usually happens that the building appropriation is completely exhausted, or that the indulging in various "extras" has already absorbed any reserve which may originally have been laid aside, and, for various reasons, the question of proper lighting fitments, the choice of which means so much, is hampered when it is not made impossible.

Most architects have a sufficient grasp upon the problems of illumination to make their advice safe to follow, and if
the selection of lighting fixtures be left to the archiect or the decorator, the results are apt to be satisfactory. Much of the success of the lighting of a house depends upon the judgment with which the subject


A Modern Adaptation of an Old Design in a Wall Bracket Light is treated, and, for this reason, the solving of the lighting problem should certainly be regarded as one of the functions of architect or decorator. This is not only on account of the scientific details involved but also because the decorative treatment which the rooms are to receive has a very important bearing upon the amount of light required and upon its distribution, and consequently upon the wiring which must be done. Few people realize that the treatment of walls, ceilings, and floors has so great an effect upon the quantity of light used.

Rooms where light paint, wall-coverings, and rugs are used require vastly less light than similar rooms where the walls are covered with dark paper or fabrics, and where rugs dark in tone and deep in texture are used. This is to say that where four ordinary brackets, each having, say, one electric burner, suffice for illuminating a room where white paint, light wall-paper and rugs are used; twice or three times the quantity of light must be provided where a darkcolored paper and "mission" woodwork are employed. Light-colored surfaces have a tendency to reflect illumination where dark surfaces absorb the light.
Now the most skilful designers have for centuries been at work upon the making of lighting fixtures. Even in the earliest of colonial days in America the settlers possessed candlesticks and lamps of wonderful beauty, and designers today, with the rich store of centuries of careful designing to draw upon, and with a source of light as adaptable as electricity for use, have made the most of their opportunities, and the dealers in fixtures for lighting offer their wares in an assortment so varied and complete that they may be had in designs suitable for any use and in keeping with decorations of any period. Where the selection is not made by decorator or architect, or by some one of trained taste and judgment, the result is apt to be the expenditure of much money upon fixtures which are unsatisfactory from a decorative viewpoint.
With such a wealth of really beautifuI designs to choose from, there can be no excuse for using fixtures which will destroy the beauty of the interior. Here, as in every other department of decoration, the simplest treatment is apt to be the most successful. There are a few broad and fundamental principles upon which to base a safe and wise selection. The use of copper or wrought-iron in fixtures is recommended chiefly in rooms finished in dark wood, and such metals are particularly desirable where the finish is in the "mission" or "craftsman" styles with wall-coverings presumably of wall-paper or fabrics in keeping. Fixtures of ormolu or crystal, upon the other hand, are appropriate only where the rooms are in such light and graceful styles as the various French periods.
There are, however, many kinds of fix-

Typical of the Beauwith Fixtures for the The Electric Bulbs are New Inverted Lights alabaster Bowl or Dish, and the Light is Thrown Up, ward and its Rays Diffused. The Effect is Wonderfully Soft. tures so simple in character that they may be safely used in any but the most strictly formal interior, and they are chiefly of brass in some of the many finishes in which this
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THE painted mantel, that is, the wooden mantel painted white, or, in some instances, containing panels of a dark wood, has come into its own once more. It was the popular, and, for most people, the only sort of mantel in use in the early days of the Republic. The beautiful, chaste designs were for many years crowded into the background by the many varieties of stained woods, natural finishes, and the like. Today, so leading mantel-makers declare, fully ninety per cent of the mantels sold are of the painted description. It is time, of course, that there is a demand for certain styles of natural finished woods. A dining-room or library paneled or finished in oak or mahogany, for instance, requires a mantel of that wood. But wherever they can get away from it, architects, designers, and decorators are abandoning the natural-finish mantel.
There isn't anything new about any of the designs from which the painted mantels that are being made today are fashioned. All of them are copies or adaptations of the old mantels which adorned (that's the only proper word to use) the beautiful colonial dwellings of old Salem in Massaehusetts, or old Alexandria in Virginia, or old Germantown in Pennsylvania, or any of the old settlements in which colonial living was at its best. In these beautiful homes, so largely of the Georgian type, are found the patterns for the really beautiful productions in painted mantles that are being offered to the house-building public of the present time.

Contrary to general belief, the latter-day productions are not so expensive as one would suppose. As a matter of fact, they cost no more, mantelmakers tell me, than chestnut mantels of the same size and general pattern. Certainly they look better-by a very large

## percentage.

The secret probably lies in the fact that they are of uniformly simple design. They have to be to be true to the period from which most of the designs are copied. Then the wood need not be especially selected for the grain. Again, the apparent elaborate carving isn't carving at all, but wonderfully clever reproductions of the real carving. It is either in papier maché or of a putty composition.

Of course, the more expensive mantels that are to be painted come with real wood carving at very much higher prices than the composition designs; but few want them, and only those who have used them, and those who make them, know how durable and otherwise thoroughly satisfactory the composition designs have proved to be.


White-painted Mantel, Dutch Tiled Fireplace and Adaptation of the English Hob Grate

As noted before, there is often a variance from the whitepainted plain mantel. These are intended for rooms in which furniture of the Adam period is to be installed. The panels are of dark-finished wood, inserted just above the fireplace proper, and their appearance in a room with proper surroundings is decidedly striking. But, for the most part, the painted mantels are the plain white of our own colonial period.
A particularly fine combination that I saw recently consisted of a white-painted mantel in a singularly severe pattern, and a grate that was an American adaptation of the English hob grate, with brass-finished fittings. The fireplace was built of Dutch tile of a light bue pattern. The whole might have been lifted out of a home of a hundred years ago, instead of being an up-to-the-minute product of today's factories.

Those who built the old fireplaces had not a great variety to choose from when the question of materials for the fireplace came up. There were the Dutch tile, the small bricks, and the marble slabs in various colorings, and aII three are found in colonial fireplace work, and all three are today being used in exactly the same way.

Another evidence of the growing regard for things Colonial is the revival of popularity of the Franklin stove, reputed to be the invention of the philosopher and statesman of Revolutionary days. This is what might be called an open fireplace on Iegs, and with a stove chimney. It fits compactly into a fireplace that is not of great depth, or it stands out in a room. Its most noteworthy feature is that it throws heat out into a room better than does the average open fireplace, and still gives the same effect as the fireplace. The Franklin stove has never quite gone out of use since its invention, but in recent years it has again become very popular. Architects are specifying them for rooms in which there is no chance to build a fireplace and in which it is desired to have one. Those engaged in reconstructing old houses find them of aid in providing an open fireplace effect where it is possible only to provide a stove-chimney outlet.

In connection with one of the modern painted mantels, the modern Franklin stove gives, at a comparatively moderate cost, quite as good service as most open fireplaces, and an infinitely better appearance than some of the stained monstrosities in mantels that seemed to be so popular only a few years ago.

[Edror's Note.-Tbis is the second of two articles embodying the warnings and suggestions of people who bave recently built bouses, to a couple who are planning to build. The first article appeared in the September issue.]

SEVERAL definite warnings have reached me in regard to very generally accepted floor plans. The most vital of these is to avoid, if possible, that commonly met arrangement by which a nearly square foundation is cut into four sections, as in diagram III. The main objections to this plan are the opening between the dining-room and the living-room, and the impossibility of putting the door into the kitchen at any point except directly opposite the entrance. The vista-into-the-dining-room


Diagram III
effect, always found in New York apartments, has manifold bad features; chief among them is the clatter of table-setting, or -unsetting, which the visitor is sure to hear, and which completely destroys the illusion of "atmosphere" which every house should strive to possess. The decoration of these two rooms must be alike if the eye is to be pleased; but the color scheme suited to the furniture of the one may not harmonize with the other. Diagrams IV and V offer a better layout of the same space.

Porches are in so many instances wrongly placed by the well-meaning amateur. Privately entered porches, not accessible from the street, and consequently not receiving their modicum of dirt and mud, are in every case to be preferred. The actual entrance to the house need not be over the porch at aII. I have seen some charming doorways, sheltered only by a little slanting scrap of roof, or framed in the dignified pillared style of the colonial architecture. Western porches are, as a rule, sunny in the afternoon, just the time one could be most free to enjoy
them. East, southeast or south is the best exposure. We use our porches chiefly in summertime, and ought to think of them as summer rooms.

The use of one porch as a hot-weather diningroom was a universal suggestion, but only in one case was a solution offered of the question of getting the food out. In this instance, the plan called for an east porch across the entire end of the dining-room. It was to be reached by French windows, and the food was to be passed out of the pantry window. Such makeshift arrangements point the necessity for thinking all these little details out with far greater care.

The sleeping-porch is so popular that it needs no comment. None of my friends had one, but everyone wanted one or more. I have already noted the need of a porch for the servant.

The greatest variety of opinion I found respecting the entrance-hall and the stairway. No two ideas were alike about them. One insisted on a small hall and boxed stairs; the next on a large hall and sweeping, imposing stairs; a third wanted the extra space consumed by the hall put into her living-room, so opened her front door directly into the room, and carried the stairs up from one corner. A fourth had a tiny vestibule jutting into the large room; the stairs were invisible, as they turned at right angles and ascended as a boxed stair from the room.

Amid such a variety of preferences, I can only give my own. I do not like my front door to open directly into the living-room. It makes the room cold in winter, always muddy, and


Diagram IV
when evening guests are gathered together, a newcomer has no opportunity to divest himself of wraps. I find also that the stairway out of the living-room is more picturesque than useful. When sweeping above stairs is being done, all the dust settles below, making additional work. Without' a separate back stairs, the living-room stairway is worse than useless-it is an effectual trap. Servants cannot get back and forth if there are guests, private interviews with any member of the family keep all the others impris-

oned upstairs, and, with children in the house, the whole picturesqueness is subordinated to the inevitable dirt.

The ideal plan for a house is some modification of the old-fashioned central-hall arrangement With the living and entertaining division on one side, the dining- and cooking-rooms on the other, a logical separation is effected. On a narrow lot, it is possible, by having a path lead up to a side entrance, to place this floor plan. Greater width in the dining-room can be secured if the kitchen can be extended out at one side. (See diagrams VI and VII.)

The boxed stairway is used to advantage where space must be economized-in the very little house, the bungalow or cottage. I have lived in a comfortable cottage with a stairway like diagram VIII, having two steps down into the kitchen, as well as those the other way. The
boxed stairway is safer in case of fire, if it can be shut off at the floors by a door.
"In a small house," writes one of my friends, who has built a very successful one, after eliminating the expensive features already tried out by her father and married sister, who have large establishments in the same town, "economy of space is the thing: no halls, vestibules or hallways except where absolutely unavoidable." She goes on to say that her separate back stairs, which is constructed directly over the cellar stairway, thus taking no more wall space out of the house, goes right up into the maid's room. The maid has a separate bathroom, next to that


Diagram VI
of the family, to keep the plumbing connection in one section, but shut off by a door:

If you decide to use a vestibule, put down a composition floor, which is easy to keep clean. A box-seat in the entrance-hall serves one family as a toy-box, and will later keep out of sight the inevitable skates, baseball bats, and other paraphernalia peculiar to growing boys. I have seen a spacious entrance-hall which had a beautiful freplace in it; there were two windows, one each side of the chimney, and beneath them windowboxes which concealed the kindling and logs. A bay-window in the dining-room with a windowseat offers an attractive place to put flowers during the winter months.

Wainscoting in living-room, dining-room, and hallway is probably the most artistic finish that can be used. In the long run, it will be found less expensive than wall-paper or tinting, as it is permanent. If you cannot afford wainscoting anywhere else, it is worth while, should you be planning a house to be used by cbildren, to wainscot the stairs to a height above the handrail. Anyone who has ever had to live down the awful impression of a finger-marked track all the way up the stairs on the wall-paper will appreciate the economy of this advice. One mother has put up a temporary handrail at the right height for the little folks' use, and they naturally tend to that side of the stairway, instead of fingering the tinted wall.

The best suggestion that has come to me as an improvement in the living-room is from this mother. She has built-in bookcases across the end of the room, under casement-windows; instead of beginning them at the floor (who wants to stoop all the way down to the floor for books, anyway?) she has six large drawerstwo below each bookcase-built in for the children. "I want the children to feel that this not a 'parlor,' but a room for them: they are provided with this place for their belongings,toys now, but books later,-and from the start they must learn to help keep the atmosphere of quiet orderliness by putting things away." I cannot be too emphatic about this planning for the children. I have been in scores of houses, and I cannot recall one that was honestly planned with any consideration for their needs. An elaborate nursery is once in a while installed, but usually it is discarded by the children as soon as they go to school, and somehow no other place in the house is made to welcome them.

If you have pictures to hang in the living-room, insist that the molding be nailed up strongly. Plan a place for the piano, and install side lights
in preference to a chandelier. But exercise the greatest thought on the placing of these lights. Electric switches are a convenience. A man suggests to me that he would like to be able to turn on the hall light from the outside when he returns late at night. This is worth thinking of.

On no account should a hall closet be dispensed with. If the stairs enter the living-room direct, there will be a space under them for the closet. Hat-trees are no longer desirable, but overcoats and school wraps must hang somewhere accessible. In the upper hall most houses have a linen-closet; to my mind, part of this space should be cut off and devoted to a far more important use, but one which I have never seen. As near to the head of the stairs as possible I would build a narrow, high closet containing three shelves-eighteen inches square would be plenty large enough. On them I would keep, always filled with water, three red fire pails, and the outside of the closet would inform the public neatly, but unmistakably, that they were there. Fire pails are unsightly, but no house should be without them. The little space sacrificed to this purpose would be put to no more important use. Needless to say, the door of this closet should have no lock, and no one should be permitted to put anything else in the place.

A good place for the upstairs linen-closet is in the bathroom, so that towels are always within reach. If you can, put some kind of closet, shelves, or drawers in the bathroom, in addition to the usual medicine cabinet.

Dutch doors, instead of French windows, to open from the bedroom to the upstairs porch, which is of course screened for sleeping, are suggested because they let in less of a cold blast in

wintertime. I have said a great deal about screens; the value of them is not only to keep out the mosquitos that annoy everyone living in the New York vicinity, but also to exclude the flies. We Americans are just waking up to the danger that lurks in the feet of the fly. Copper screening pays, with metal frames. The fitting of the screens should be done when the house is built, or it will be found an expensive item later.

I have purposely left the discussion of the cellar and its extremely important furnishing, the furnace, until almost the last. I find some one to advocate heartily every form of heat-steam, hot water and hot air. One prefers hot air from purely esthetic considerations; the ugly radiators do not appeal to her; another is delighted with steam heat, because she couldn't afford the higher cost of hot water; a third says hot water is the only heat to have. I leave the question to the individual preference of the reader. No matter what kind of heat you install, have your cellar whitewashed, and line the ceiling with metal. These are fire precautions which will reduce your insurance rate, even if you never have a fire. See that the cold-air box is installed on the south side, if possible. Have the woodand coal-bins elevated, for easier handling of the fuel, and placed as conveniently as possible with respect to the furnace. I have lived in a house where the only spot by which the coal could be chuted in was fully twenty feet from the fire.

Look out for the angle of the cellar stairs. It is often unnecessarily steep-a hardship for the person who has to carry hods of coal to the kitchen. If you have ash-chutes, they must
enter the ash-barrel under cover, or the cellar will be filled with disagreeable ash-dust. A tinclad door at the top of the cellar stairs is another fire-preventive measure, almost indispensable. Most bad dwelling-house fires start in the cellar, and in the families of insurance people you will invariably find the additional protection of a sprinkler system installed in the basement.

A separate water-heater for the laundry will keep the rest of the house cool in summer. A mangle in the laundry, and shelves, are valuable. One house I saw had shelves all the way around the cellar. They were used for preserves, fruit, vegetables, and other supplies not wanted in the kitchen. They kept the ice-cream freezer and similar large utensils off the basement floor, and had one section screened as a food-closet. This device alone meant order and cleanliness.

A laundry chute from the bedroom floor to the basement is the greatest convenience in the house. It should have a metal top, and a self-closing door in the laundry. Upstairs it need not be more than four feet high, permitting another closet to be built over it. Saving steps and the carrying of heavy bundles is always worth planning for.

Unusual comforts of various sorts which will add to the enjoyment of a home can be built into houses, but as a rule these features are limited by the amount of money the home-builder is prepared to spend. In a recent suburban development near New York City, for example, there is a colony of extremely high-grade and expensive homes in which may be found dozens of improvements beyond the means of the average man. Ventilated radiator recesses under the windows, concrete hearths, steps and porches, the latter paved with tile, serving and storage pantries with separate vent flues, enameled brick chimneys, terra-cotta-tiled roofs, beamed dining-room ceilings, ivory enameled woodwork and hardwood, and hardwood floors throughout, are but a few of the interesting modern finishing touches.

An apparent luxury that saves money in the Iong run is to pipe the house throughout for a permanent vacuum cleaner in the cellar. One woman I know who bought a little cottage over forty years old and remodeled it in many respects, installed a stationary vacuum cleaner extended to every room without greatly disturbing the walls and floors. The house was too small to permit the sacrifice of any space to a servant, and with this valuable mechanical assistant this woman managed, in spite of fastidious tastes, to maintain her household standards unassisted.

The number of little conveniences one may put in, and the points one must keep in mind, are

without end. Clothes-poles in the closets, to receive the coat-hangers, a platform about one foot high for trunks in the cellar, full-length mirrors on the bedroom doors, are a few such suggestions. Remembering not to have any two doors interfere with each other, to provide a separate entrance at the side of the house for the children, to put cleats on the roof for access to the tops of the chimneys are additional details. These can be enlarged upon indefinitely.

To sum the subject up as I have looked at it: The intending house-builder must use the best possible materials as an economy; must build a house in which work can be done easily, in which his cbildren can grow up, but not out of, in which his family will be safe. Such a house will cost money, and much tbougbt; and the one accomplishes little without the other.

# Fixing Up the Attic 

HOW TO UTILIZE WHAT IS, GENERALLY, WASTED SPACE-NURSERIES, COZY CORNERS, AND BEDROOMS

HAND in hand with the high cost of against the wall. Flat living has come the necessity for economizing space, and suburban householders, in particular, are Iooking to attic and cellar to supply them with extra rooms. The latter can almost always share a bil-liard-room with the coal-bins, and the former can be converted into one or more cozy bedrooms, a playroom for children, or a quiet sitting-room, in which the mistress of a household may sew or write, free from the disturbances that beset her elsewhere.

Strangely enough, few people realize the possibilities of an attic save as a place in which to store trunks and trash. Unfinished beams and flooring, spaces of sloping roof and high windows, discourage the possessor of an attic from trying to do anything with it. The problem, too, becomes complicated to the householder of small means by reason of the costliness of timber and labor.
One family solved the problem, so far as a playroom was concerned, by stretching burlap from one upright to another in the center of half an attic, divided from the other half by a hallway. The center of the unfinished attic was enclosed on each side by walls of light brown burlap, and the same material was employed to cover the rough surfaces of side walls around the door and windows. From the roof was suspended a swing, and trunks were piled under the window and on one side of the room, and covered with burlap, to form broad benches upon which the children could arrange their toys and play the ever-delightsome game of "teaparty."

Attic rooms suggest all sorts of economies, and this one had its floor covered with several thicknesses of newspapers, over which was tacked matting. A few rugs were added, to give a cosy appearance to a warmly covered floor, and carry out a color scheme of brown and blue. Three feet above the floor, a brownstained strip of wood extended around the wall, and below this the children were allowed to paste cut-out pictures at their pleasure, with a kaleidoscopic result by no means unpleasing.

Dear to the heart of every child are its picture-books, and two shallow boxes furnished enough strips of wood to cover with burlap, and nail in the shape of bookshelves, to place
brass tacks, along the front edges of the shelves, not. only held the burlap in place but also supplied a decorative note to the attractive bit of furniture From a brass rod at the top of the bookcase was suspended a delft-blue curtain of scrim, stenciled in brown, and procured for ten cents a yard.

The scheme of blue and brown was further carried out by a strip of scrim on each side of the group of windows, over which hung curtains of dotted white swiss.

Neither rest nor convenience was forgotten in the arrangement of this playroom, for a comfortable divan, with blue-stenciled brown covering, made not only a place for children to nap on, but also a bed where one could sleep when the house was filled with guests.

In this cozy playroom were disposed such pieces of furniture as would contribute to the pleasure and comfort of children, and its very aloofness from the rest of the dwelling made it possible for them to indulge their own ideas in minor decorations without affecting the pleasing color plan of the whole.

Much more elaborate treatment was employed to construct two bedrooms in the other side of the attic. Doors were fitted into the partitionwall between hall and attic, and then uprights were set at intervals from this wall to the opposite one, dividing the space in half. From one of the manufacturers of composition-board-a material that resembles and is treated like wood-were ordered large panels, eight feet in height, and of a convenient width to cover the uprights and form a partition-wall. Where the roof sloped, panels not more than six feet and


Rough Plastered Walls Finished up the Attic, of Which This is an Attractive Corner
half were required, and strips of wood, extending from the uprights in the middle of the attic to the beams of the roof on each side, supplied a ceiling foundation on which to nail large panels of imitation-wood. This material can be ordered in any size that may be desired, and scantlings for uprights are easily sawed and nailed into place, so that the veriest tyro in room-construction can put up a well-built apartment with very little effort. There is nothing heavy to lift, since composition-board, although thick, is very light, and nothing thicker to saw than seantling about three inches square.

With warmly constructed walls of this sort the householder who planned these attic rooms next papered them, one in a gold and cream paper, and the other in cream and pink, so that all the light obtainable from one window in each room might be caught and held to brighten them. In the sloping side of each room one panel was omitted from the wall, and the open space formed a door into roomy closets, built of


Two Cosy Attic Dens in Which Builders' Paper was Used Effectively to Make Ceilings and Walls. It was Tacked on the Exposed Beams


Before-An Unattractive Catch-all


After-A Very Attractive Nursery

Composition Wall Boards Were Used for the Ceilings and Walls in this Transformation
panels of composition-board, fitted with hooks for clothing. In the yellow room a brass rod, and in the pink room a white one, supported curtains of corresponding color over the closet doors and curtains of white scrim at the windows. Here the color note was furnished by one width of flowered chintz, cut in half to drape each side the window, and with a slightly gathered valance draped above the window, so as to give it an appearance of greater height.

Where one can afford little extras in atticroom furnishings, it adds much to the appearance of the chintz draperies if they can be edged with a narrow cotton fringe of yellow, in the yellow room, and have a cord and tassels, or ribbon of the same color, around, but not drawing back, the hangings.

Simplicity and coziness should be the keynotes in attic-room furnishings, therefore only curtains of the simplest kind should be used. Lace is quite out of place, and swisses and scrim suggest themselves as being not only eminently suitable but cheap.

The interval of space between the imitationboard walls and the roof makes the rooms cooler in summer and warmer in winter; and, where one can afford the outlay, it is wise to insure quiet by having two rows of uprights and composition-walls through the middle of the attic, with clothes-closets arranged between the partition walls. This is of particular advantage where one room is dedicated to the use of a maid, as is usually the case. Whether closets are between or at the sides of rooms, however, they should be fitted with at least one set of broad shelves upon which may be placed bed-linen and blankets. Such shelves may be constructed of the same imitation-board that is used in the walls, and can be ordered in the exact size wanted. It is always well to order any of the various composi-tion-boards by measurements.

Perhaps one of the most useful features in an attic room is the window-seat, which may be a neat, cabi-net-made box-seat, or two grocery boxes, with a top of compo-sition-board attached by hinges to the back, and the whole covered with cretonne, chintz, denim, burlap, or any similar material. A cushioned seat is easily


Burlap Has Been Used Effectively in Making This Attic into a Dainty Bedroom
lapping, until several layers of paper insure a warm covering for the floor. Over this, drugget or matting may be tacked, and then the floor finished with a large cotton or jute rug in gold and white coloring. If the nine-dollar rug is not available, one may lay a small rug beside the bed and another before the washstand.

A very charming and fashionable paper to use in an attic bedroom, where ceilings are wont to be low, is one of the new papers that have sprays of flowers extending up from the baseboard upon a plain surface, and are fmished with a narrow border of the same flowers just below the ceiling. This gives an effect of height to a room.

Now that cretonnes and chintzes are brought out with the same decorative designs as ornament papers, it is perfectly possible for hangings, wall-paper, table-scarf, washstand splasher, coverlet, and upholstery to match in color and pattern.

Pictures that are hung in a room of this character add most to their surroundings if framed in black and gold or narrow black frames. The touch of black accentuates the cheerfuI yellow tones of the room. All-white, with a mixture of white and gold frames are also charming in a room of this character; but it would not look well to mingle picture-frames of various colors and kinds in a room decorated as this one is.

For the attic room furnished in pink and cream, it would be well to cover the floor with light matting, or else stain the borders a dark brown, so that the unlovely planks which usually floor attic rooms will not appear conspicuously. Over the center of the floor could then be spread a big rag rug in pink and gray tones, or else one of thick cotton, with a pink center, and border in pink and white.

While white furniture of wood, wicker, or rush would be prettiest, dark-wood pieces look well in a pink room; and both of these sorts of furniture are inexpensive.

It is astonishing, when one looks into the subject, how much may be done at a really small outlay, in transforming the waste places of a country home into rooms that will be useful and very satisfactory.

"There Is Nothing which Fits More Completely into the Pleasures and Economies of Suburban Life than the Electric Vehicle"

## The Country Woman and the Electric-Motor Car

THE proportion of women who operate their own cars becomes greater each year, and there is no type of mechanically propelled vehicle more suited to feminine use than the electric car. One of the most notable developments of the motor-car industry is the prominence of the electric vehicle, and its merits are so considerable, and its appeal so strong to the feminine sex, that its continued popularity is assured. It is not a rash prophecy to declare that, in a few years' time, it will be the vehicle most commonly met with in suburban towns, country villages, and the cities.

In many respects, the advantages of the electric car over the car of larger proportions are enormous, when considered as a means of locomotion for the average woman. While there are scores of women expertly operating the gasolene car, there is, of course, always a possibility of complication that is quite beyond the average woman driver to meet successfully; and there are also many women who do not possess the interest, enthusiasm and intelligence to undertake the study of mechanics. A woman must also sacrifice, to a very great extent, her appearance when she becomes the driver of a gasolene car, and must wear special clothing if she wishes to remain Looking trim and sportsmanIike, while the electric vehicle affords one the opportunity to wear attractive and picturesque raiment, and not have it ruined by the dust of the road and the wear and tear of travel.

The accommodation of the electric car is necessarily smaller; but, from an economical standpoint, that is a strong factor in its favor. A greater number of passengers

"She is Inhaling the Pure, Fresh Air of the Country, and Admiring Beautiful Scenery Round About Her"

The use of the electric car is indeed general. It has crept into the favor of royalty, being che especially liked vehicle of queens of many countries, and nobility has fallen completely beneath its charms. The club-woman and the suffragette have been drawn into the vortex. The society leader, the actress, the woman physician, the business woman, all enthuse over the respective benefits they derive from the use of their little electrics. The seeker after health and recreation obtains both with the aid of the electric, at little expense and no exertion. Innumerable phases of rural life are opened to the woman owner of the electric; she is inhaling the pure, fresh air of the country, and admiring beautiful scenery round about her.

When a woman becomes the owner of any car, she is desirous of driving as much and as frequently as possible. With the male portion of the family at business during the day, the woman often cannot enjoy motoring as she desires; the driving must be largely done in the evening, when vision is restricted, and the beauties of nature cannot be enjoyed in their fullness. The electric vehicle seems, therefore, particularly adapted to woman's use and needs It can be driven daily to a large annual mileage, and the cost of maintenance and upkeep is surprisingly small.

The cleanliness of the electric car is one of the chief recom. mendations that could not be overlooked by the women motorists. It is especially adapted for making calls, for shopping expeditions, is ideal for carrying its owner to and from the theater, receptions, teas, Iuncheons, etc. It is perfectly adapted to juveniles and adults of both sexes and dil classes. For the aged
and the invalid the electric has great possibilities. Life is very dreary and monotonous for an invalid. It is all very well to be taken in an invalid-chair to the solarium of a hospital, or to be wheeled out on a lawn; but how much better is a drive in a little car that runs with perfect smoothness, that does not stop or start with a jerk, out through the parks, or over a beautiful road in the country.

There is nothing which fits more completely into the pleasures and economies of suburban life than the electric vehicle. Any suburbanite having a lot of modest proportions will have room for a storage and charging plant. It is advisable, when possible, to be absolutely independent in the use and up-keep of the electric car. A small house for the car can be built, and a small motor generator installed therein. Any woman can easily charge the batteries, and it is a most excellent thing to prepare and keep one's own car ready for use. It is very simple to learn to operate, and the whole instruction really sums up in "turn the switch and leave it alone."

The time is rapidly approaching when there will be scarcely a suburban home which will not have its private garage, and one or more of the ever-ready, always safe and sufficiently speedy electrics, and these cars will be as prevalent upon the country highways as any other type of car. Then, too, the suburbanite values the electric as it deserves, and it is not deserted in the winter. The electric is essentially an all-the-year-round conveyance. Frost has no terrors for it; it slips but slightly on snow, its starting ability is excellent, especially with good nonskid tires, and with either good non-skid tircs or the easily attached anti-skid tire chains, it is not liable to side-slip. For winter use, it can be operated from inside if desired, can be well lighted, is always ready to go in rain or shine, and will continue going until its battery charge is exhausted; and, when recharged, will continue satisfactory service.

A woman of my acquaintance, living in a suburban town, and owning her own electric car, has found very lucrative employment for herself. It was suggested to her by an elderly woman who had Iocomotor ataxia, and who possessed a great longing to go out in an electric motor car. She could easily afford a car of her own, but she had no confidence in the average driver, and had no one of her own to drive for her. She would not go out in the electric for drives unless she were allowed to pay well for the pleasure. The result was, she was wheeled to the car, helped in, and enjoyed a daily spin. The idea so appealed to the owner of the car that she decided to make a business of it, and in a remarkably short time had more calls than she could possibly attend to. She figured carefully and decided just what she should charge per hour for the service, and she now owns three cars and has two women assistants. She visited the physicians near-by, explained her project and asked them to send her any business that came their way. Each and every physician that she visited heartily approved of her plan, and recommended her to their well-to-do patients, and her success was assured.
When a woman makes up her mind to become the owner of an electric

"Accommodation for Two People is Most Frequently Required for the Majority of Spins"
car, she has a wide selection before her. Her choice is influenced largely by the use she intends to give her car. The victoria-phaëton, coupé, stanhope, brougham, Iandaulet, and others, all come in for their share of approval.

In the selection of a car, the battery is decidedly important, and while, under a condition of test and in the hands of an expert driver, an electric car may make exceptional mileage, the real demonstration is the result by the owner under perfectly normal circumstances. The electric battery has a certain life, and the deterioration is in proportion to the demands made upon it, but care and attention will have much to do with this life. An electric cannot be neglected and still continue to give good service; but the attention required is so little and of such simplicity that very many women care for their own cars, and are capable of doing all that is necessary to thoroughly maintain them.

The electric car has mechanism that must be oiled and greased, just the same as every other vehicle, but the parts are accessible. The Iubrication is for the purpose of lessening the friction of the parts in motion, instead of minimizing the heat by oil and the use of cooling mediums. Under no circumstances do complications exist.

The mechanism should always be left as adjusted-except in cases when conditions are manifest that indicate wear, and then there is really little that can be done. The wheels and rear construction are packed with grease, and do not need attention. The dynamo should never be molested; it was constructed to be let

"It is Especially Adapted for Calls and Shopping Expeditions"
alone, and is always admirably tested before leaving the factory.

A few drops of oil will be required occasionally in the joints of the steering mechanism, the controls, etc. The commutator should always be left to the hands of an electrician. It will probably require a little fine oil at the end of seven or eight hundred miles.

The electric vehicle is, of course, almost noiseless, the odor of smoke and oil is wholly absent and the vibration is minimized. The novice finds no difficulty in learning to drive the electric car. She learns to steer the car, the movement of the controller handle, which gives varying speeds forward and backward, and the application of the brake. She cannot make an error with the controller handle, because of the interlocking devices; it is simply a matter of progression from one to the other, or reverse.

Observation of the ampere-meter is the only attention necessary. This indicates the condition of the battery and the energy. Knowledge of the motor and the wiring is necessary, as it will enable the operator to overcome difficulties which, though trifling, are possible causes of delay or loss of use of the car. A short circuit, a broken connection, or some other breakage or derangement, may require but a few minutes' time to remedy; but, unless one has the requisite knowledge, these trifling troubles are just as serious as a broken part.

Invaluable knowledge to the operator of a car is being familiar with each part, and the relation of each part to the whole, so that one is safeguarded against any conditions which may eventuate. Perfect understanding of her electric motor means contimued service, reduction of expense in operation, and increased satisfaction to the woman purchaser.

Should there be loss of power or incapacity. it would probably be the result of a broken circuit or a short circuit, which should be immediately attended to. If the trouble cannot be located, the car should be taken to the nearest garage. Under no circumstances should the batteries be permitted to stand when near exhaustion. On the contrary, they should always be kept fully charged when not in service. It should be remembered that just as over-exertion affects a person, so, in proportion, may an electric battery be affected by over-discharging or over-exertion. The result may be the same from over-charging the battery.

It is advisable to keep the vehicle in a garage where there are charging facilities, so that it may be inspected and known if the batteries are holding their full charge of energy. The woman operator should bear in mind that a battery can be damaged materially by failure to observe ordinary care and discretion.
If women could only realize the keen pleasure of driving therr own cars, the pleasure to themselves and the pleasure they can give to others, they would take up driving at once. The electricmotor car can be driven with perfect safety by a woman, with its absence of cranking, sparking, changing of gears, clutches or throttle. With only steering and controlling levers and brakes, nothing could be more simple and yet give so much pleasure and comfort, and all the work of shopping, marketing and calling is made a delight. [Continued on page 225

# Tramping in the New York City District 

# THE CRISP DAYS OF OCTOBER AND NOVEMBER CALL THOSE WHO HAVE NOT FORGOTTEN HOW TO WALK-PLACES TO GO TO AND WHAT TO WEAR <br> By frances cheney dawson 

[Edror's Note.-Altbougb tbis article deals with places to go to in the vicinage of New York City, the advice regarding walking and attire is good anywbere. Almost every city and town in the country offer as good tramping districts.]

WE Americans are somewhat justly accused of not knowing how to play-not getting the full meed of recreation and joy out of the brief hours we have away from our work. Part of the trouble is this very brevity of playtime, but not all of it. Another reason is that we do not make plans in advance for our half-holidays and our Sundays-God's rest-days; we wait till the free time is upon us and then waste a lot of precious minutes deciding what to do, how to do it, and whom to share our pleasure with. Most of all our national extravagance and discontent are responsible for this accusation. We are no longer satisfied with simple pleasures and inexpensive outings. We are spoiled by motoring and motor-clothes and roadside restaurants. The cost of the entertainment offered is too apt to determine the estimation in which we hold it.

That is-to some of us. Fortunately, however, there are a good many people who cannot go motoring when they choose, and who nevertheless manage to be happy. They are the ones who have to count up their pennies before they can count on their pleasures, to whom the garb of the out-of-doors is more interesting than that of their acquaintances, and they are generally the ones who have mastered the art of playing well in spirit and in practice. To those who have not forgotten how to walk, who have learned that no better medicine for tired heads and nerves was ever devised than a simple tramp in bracing air, over beautiful roads, there is a particular call in the crisp days of October and November. Can any costly machinery give us the tonic return that we get for no expense but that of effort?

In October and November the atmosphere is ideally cool, the breeze just stimulating enough for a swinging tramp. And what has Dame Fashion to offer in comparison with the gorgeousness of the Indian summer? Trouble enough we take to have a glimpse of the clothes parade in our cities on gala days, but the most splendid costume of them all could not approach the ever-changing loveliness of the autumn trees. In Europe, whole families go off for tramps together; in England, every Saturday halfholiday sees loaded trains of walking parties starting out of London, making for Epping Forest, or Burnham Beeches, for the hills of Surrey or the river banks. Not to walk on a holiday is the exceptional thing. A club of people meeting for regular walks finds it possible to have a delightful interchange of conversation amid the pure joyousness of the open air and beautiful wood lands. This community of thought and interest is, after all, the finest thing society has to give us. The charm of the slow revealing of another's tastes and character, under the most inspiring conditions, is a pleasure to which we allow too little opportunity in these hasty days of ours.

For business girls, no wiser or more delightful way of spending Saturday afternoon or Sundays could possibly be devised than a few hours in the open. A group of from four to ten girls is a congenial foundation for a walking-club. The girl who lives in the smaller town seldom has difficulty in finding a beautiful road on the outskirts of her neighborhood. Getting the walkers together will be her chief problem. For the city


On an October Day Along the Bronx River, New York City
girl, especially the New York business girl, therefore, I have the greater number of suggestions to make. Properly equipped in dress, information, and lunch, such a club can find a dozen profitable and delightful ways to spend a Sunday of rest and worship, too.

Four or five miles is enough to plan at first, for those who have walked but little. Longer walks up to ten miles can be attempted after trying one's strength and getting into training. Wear heavy, low-heeled boots, preferably laced to support the ankles, if you can, rather than Oxford ties; never pumps or thin-soled shoes. This is very important. Heavy-soled boots are worn by all long-distance walkers, not only because they protect the feet from burning, but also because one swings along at a more even and less fatiguing gait when wearing footgear that moves by its own momentum. A short skirt of rough mixed or washable material, a loose blouse, free at the neck, and a large simple shade hat, form the most satisfactory costume. In November, a jacket or sweater will be wanted most of the time. A tennis waist of china or pongee silk or soft flannel will be as fresh at the end of the day as at the beginning; the popular "middy" blouse is comfortable and appropriate, but tailored shirtwaists with high collars will scarcely stand the informality which is inevitable if the expedition is to be any fun.

So much for what to wear: the main question, after all, is where to go. Any cyclists' map of the environs of New York will yield suggestions to the metropolitan girl. The matter of carfare is a consideration; but sometimes, when a place can be reached by both train and trolley it is worth while to save time by paying a few cents extra on the train. At the information bureau of the large railroad stations descriptive
folders can be obtained for the asking, covering most of the suburban district around New York, and there are booklets published by various real-estate companies and newspapers that carry real-estate advertising, from which one may learn of attractive roads. If the plan is to walk through a historical district like Tarrytown or Flushing, a little time spent in the library beforehand will be well repaid in understanding and enjoyment.

Here are some walks I have tried many times and can recommend; once started on regular walking holidays, however, you will find out many more delightful districts for yourselves.
FIVE-MILE WALKS FOR A SATURDAY AFTERNOON
Van Cortlandt Park.-Go by subway or train from 155 th street to the entrance by the golfo links; find the grass-grown path on the top of the aqueduct and follow it to Yonkers. Return by train or trolley and subway. Or simply follow the beautiful roads to another entrance, crossing the park to the Jerome Avenue side.

The Palisades.-Take the Fort Lee Ferry to Edgewater; walk north along the water-edge till the road rises on the top of the Palisades. Englewood is reached by Palisade Avenue, opposite Spuyten Duyvil, and the return from there to the ferry by trolley is an exhilarating ride. The walk may be shortened by turning inland from the river at Coytesville or Leonia.

In the spring and summer, there is a little motor-boat ferry from the foot of Dyckman street across to the Palisades at the foot of Palisade Avenue. A walk on the top of the bluff may well be begun from this point in either direction, or the walking party which has started from Fort Lee may get home by this pleasant route.

Without leaving Manbattan Island.-Take the
[Continued on page 223


Photograph by Eugene F. Hals

## AN AUTUMN DAY

"What visionary tints the year puts on,
When falling leaves falter through motionless air
Or numbly cling and shiver to be gone."
-James Russell Lowell

# The Problem of "New Thought" 

# WHY THE LATEST OF FADS HAS OBTAINED SUCH A FOOTHOLD IN AMERICATHE QUESTION OF HEALTH IN OLDEN TIMES - PHYSICAL FRAILTY TODAY <br> By MARGARET WOODWARD 

Editor's Note.- These articles on problems of suburban living are based on actual experience and observations of the autbor. Tbe views are tbose of the autbor, and not necessarily those of this magazine.

THE average American is fond of fads He exploits them on every possible occasion, to his own supreme gratification and to the discomfort of his friends. Fortunately for the well-being of the general public, fads are, as a rule, short-lived. The enthusiasm of the fad-seeker usually wanes when he finds that his diamonds are but quartz crystals, and that the planet he has discovered is simply an ordinary asteroid. Nothing daunted, however the fad-seeker pursues other will-o'-the-wisps, even though they prove as intangible in substance as the fabric of a dream.
The most important fad which has struck the American people, and the one which has clung to the race like the OId Man of the Sea, is the health fad-how to get health and how to keep it. 'Tis sad, but true, that for several generations we Americans have been sick. The ast generation reveled in doctors, in herb teas, in patent medicines, hot-water bags, and poultices. Noxious drugs were the panacea for every iII. People demanded them. They kept the race going.
The American of today has advanced a step further. He has kept the fad, but is developing it along up-to-date lines. Sickness has now become a recognized commercial product. The prolific advertisements in papers and magazines, in pamphlets and publicity letters, feed the fad and keep it well nourished. Thousands of dollars are spent annually informing the American public of its sick and dying condition, and offering "sure cures" at a great discount.

There are sanatoriums perched on every hill, with outstretched arms, seeking to embrace invalids by the score. Health-parlors, faithcures, mud-baths, Christian Science, New Thought, mental psychology, auto-suggestion, and hundreds of other so-called cults and sciences, invite the indisposed and the nervous to come hither and be healed. Someone has remarked facetiously that a good way to take a rest cure is to wait in the ante-room of some fashionable city physician's office three hours every day for a few days.

F
OR a long time I have wondered what has happened to cause such decadence in the American people. The original stock was certainly robust. We proudly trace our ancestry to the Anglo-Saxon race, which, for a thousand years or more, by personal prowess and an uncompromising independence of action, was easily the dominant race of the world. Our immediate kin, those sturdy English yeomen who breasted the rough Atlantic and founded a nation on this "bare and rock-bound coast," were certainly not pill-takers, neither were they fed with a pap-spoon. They did not spend their leisure hours (if they had any, which is doubtful) wrapped in blankets, reclining on sofa pillows, or calling loudly for the doctor. The men were tremendously healthy, while the women were strong and the mothers of heroes.

Somewhere along the onward march of the years something has robbed the race of physical vigor. There is an old axiom which applies to every condition of life: "For everything that is given something is taken." There is no success without failure, no gain without a corresponding loss. Civilization has been the growth of centuries of endeavor, but it has been bought at a
heavy price. We have gained immeasurably on the side of education, culture, and refinement. We have sloughed off our barbarous instincts, and replaced them with social graces. We no longer dress in skins, or live in mounds, caves, or huts. We are fine-looking, well-groomed specimens of humanity. But for all this gain on the side of what we are pleased to call civilization, we have lost in physical stamina. We have culture, but at the expense of health. "The civilized man has built a coach, but lost the use of his feet. He is supported on crutches, but lacks so much support of muscle."

C
COMPARE the native Anglo-Saxon, in the prime of aboriginal strength, with the strongest native American of today. To the former, the felling of a mighty forest giant was as child's play. The strength of the Anglo-Saxon was prodigious. His endurance was nothing short of remarkable. At any trial of strength, he would have worsted our puny American at short notice. These primitive races had wonderfuI powers of recuperation. A savage, let us suppose, receives on his body a blow from some sharp cutting instrument. In a few days the skin will unite naturally, with no recourse to any outside help. Nature, working through the splendid organism of the savage does the work. The same blow would probably have killed the American outright. If not, the process of recuperation would have been exceedingly slow. Surgeons and nurses would have been summoned to his aid, and the man, as likely as not, would have been maimed for life.

Contrast, if you please, from a physical standpoint, the cave woman with the average American woman of today. Study the splendid physique of the dark-eyed woman of the forest. Erect, of massive build, but of perfect proportions, she looks down from her stately height upon our poor American woman. There is strength and elasticity in her every movement. Her biceps are well developed, her backbone able to support her body. With the agility and suppleness of a panther, she runs, Ieaps, or jumps, as occasion requires. Every sense is alert. She possesses the sagacity and the cunning common to all wild creatures. She hunts, fishes, or traps for her daily food. Her dress is of a peculiar interest in so much as it is perfectly adapted to her mode of living. As may be expected from so simple a creature, the gown is made from the skins of the animals she has slain. The waist is draped in a manner known to all women, wherewhereby the right arm is left bare. No tight sleeves for our cave ancestress. The skirt is fashioned from these same skins sewed neatly together, sinews being used for thread. It is not Iong, reaching from the waist half-way to the knees. This insures a freedom of action extremely necessary in these days, when wild beasts stalked their prey daily. The cave.woman did not know from one minute to another when she would have to climb a tree and swing from branch to branch, in order to escape from the savage bear or panther. Comfort and good sense regulated the styles of these far-off days. A skirt too scant to walk in, or too tight about the hips to allow the muscles and sinews full play, was boycotted. Above all things, the cave woman wanted to be unhampered in the proper performance of her duties.

BESIDE the superb health of our remote kinswoman, we poor American women are as sickly children. Nervous, with little physical stamina, restless, and unsatisfied, we crawl at a snail's pace through our short lives. "But we are civilized beings, and not cave women," says some woman triumphantly. Granted, but we have acquired civilization at the expense of health. Has it paid?

Out of the depths of his misery one unfortunate writes: "Surround the sick man with the pomp of kings; let his chair be a throne and his crutch a scepter; he will look with contemptuous eye on marble or gold, or purple robes of royalty, and would deem himself happy could he enjoy, even under a thatched roof, the health of the meanest of his subjects." As we note the general stampede of seekers after health, we are inclined to believe Bonaparte's sarcastic remark: "It is the pit of the stomach which rules the worId."

It was just at this point in the history of our race that "New Thought," and the multiform varieties of metaphysical science sprang into existence. They, one and all, claimed to meet the ever-increasing demand for physical and moral health. The name "New Thought" is a misnomer. New Thought is simply "the oldest of thoughts cast into the mold of these new times." Its claims, like those of similar cults, are stupendous. It appears upon the horizon like the one bright and shining light, which shall lead all men into a glorious existence free from evil or disease of any kind. It claims Jesus as a prophet of New Thought, possibly the greatest the world has ever seen. Buddha, however, is rated as a close second, and there are even those who think that the highest seat should be given Emerson. The more important psychological cults have taken a stand before the world as the exponents of a new religion. In fact, they recognize no other religion outside their folds. These cults have promptly taken the initative by retiring Christianity to a back seat as a religion which, like the plant, served its purpose in flowering and has now gone to seed.

IDO not think, however, that Christian people need fear that the Rock of Ages will be swept from its foundation by the beating of the waves of New Thought upon it. Many people are attracted to New Thought as the moth is attracted to the dazzling arc-light. I do not wish to criticize any faith or any system of ethics which has alleviated human suffering and brought men and women to a higher plane of thought and action. But it passes my comprehension how a religion indirectly founded on, and receiving its coloring from, Hindu philosophy, could have been born in New England, and have numbered among its adherents the descendants of the Mayflower. I hardly think the modest prophet of Concord would thank the New Thoughtist for designating him as "The Master," and I am confident he would repudiate any claims to worship. It is simply another instance of our American tendency to follow will-o'-the-wisps; our restless longing for something new and occult that has furnished New Thought and other philosophies with disciples. To be just to all concerned, New Thought has scattered through its literature grains of truth, even nuggets of pure gold. Because of
[Continued on page 216


THE TWO VETERANS

# Alfalfa for the Country Place 

# THE WONDERFUL PLANT THAT MAKES A NEW SOIL AND FEEDS POULTRY, HORSES AND CATTLE-HOW TO PREPARE THE GROUND AND PLANT AND HARVEST THE CROP 

Ey W. H. JENKINS

TODAY we had on our table that which we produced on our little farm, Jersey milk, butter, cream, and cottage cheese, eggs, fine strawberries, salads, white mealy potatoes, and other vegetables. All these, to a large extent, are the different kinds of food into which the alfalfa which grows on our farm is transformed. Alfalfa fed to the cow is changed into milk, to poultry into eggs. The alfalfa roots in the soil furnish the fertility for the strawberry and other fruits, also for the potatoes and garden vegetables.

All the above comes to us with little cash outlay. The alfalfafed cow requires but little grain for maximum milk-production. With green alfalfa for poultry in summer, and cut alfalfa hay in winter, the grain ration can be reduced onehalf the usual amount, and, when other conditions are right, the hen kept up to her full capacity for laying eggs. When fruit and vegetables, or any crop, is grown on an old alfalfa field, the soil being completely filled to its Iowest depth with large roots, which have a large nitrogen content, these decomposing roots feed the growing plants far better than commercial fertilizers that contain no humus, and the roots cost little or no money.

The economical production of the best foods is the end we wish to work for when we have soil. We want the science that tells us how to rightly use natural resources, and so direct great natural forces that they work for us. We are making progress in this direction when we learn to grow the alfalfa plant.

What we pay the most money for is nitrogen; and yet the atmosphere contains an inexhaustible supply, and, in fact, the main constituents of foods for animal or human bodies, for it also contains the carbon. The other elements are the comparatively small quantities of mineral matter in the soil. The alfalfa plant is constituted to go to the atmosphere for its nitrogen, which most other plants do not, and its large, Iong tap-roots go to the lowest depth of soil for mineral matter, and for the vehicle (water) which carries them through the plants, as they are needed. The root system of some plants is near the surface of the soil, and the store of mineral food a few inches below the surface is unavailable to them, and they take only carbon, the cheapest element in food, from the atmosphere. The alfalfa can work for us as no other plant can, as I have indicated. To Iearn how to grow alfalfa is a step toward solving the problem of using great natural resources and forces so as to obtain very cheaply the foods mentioned in the first paragraph.

I do not think I could get the most out of life without a good piece of land. Somewhere on the earth, I would try to find a fair depth
of alluvial soil, having sufficient humus to make it a mellow loam. If the soil were underlaid by a strata of gravel or porous drift rock that made natural drainage, it would save artificial drainage. In some way, I want to own some good soil with good drainage. Having this, I would study to establish in it the alfalfa plant.

For our city friends who are "Countryminded," and who are thinking about vegetable and fruit gardens, and for farmers who are

I should know I had the conditions almost ideal if all the above were added to the kind of soil I have mentioned.

To go further into detail, I will need to describe the preparation of the soil, application of lime, etc. If the soil was not well cultivated last year, and is not clean of weeds, I would plant it to some crop, as corn, that could easily be given clean and thorough cultivation, and make the soil rich enough to grow a large crop. At the last cultivation of corn I would sow rye or vetch through it, to. make a cover-crop for winter, and add humus to the soil. Early the next spring I would plow the ground, and either broadcast two tons of air-slaked, or ground, lime per acre, or I would slake one ton of stone lime by covering it with soil, then spread it evenly over the ground. It is largely a matter of convenience which method is used; I have always had good results with the latter, Next I would spread the soil containing the alfalfa bacteria, and harrow it well.

The best time for sowing alfalfa north of the latitude of New
spending a large part of their income for purchased food-stuffs, to feed animals so the animals will feed and clothe them, I wish to tell some things I have learned in about twenty years' experience in growing alfalfa.

Alfalfa belongs to the clover family, and needs more lime for food than most other plants. It is believed that it takes nitrogen from the atmosphere by a process that needs a certain kind of bacteria which are found in nodules on alfalfa roots. It is also thought that fresh animal manure in the soil, by its fermentation and decay,


Alfalfa Bed in Poultry Yard Covered with Wire Netting Through Which the Chickens Eat
makes more favorable conditions for the bacteria to work.

Having a good depth of good, loamy soil that was fairly fertile, I would add to it lime, soil from an old alfalfa field containing the alfalfa bacteria, and fresh stable manure,the latter if convenient, for, although desirable, it is not necessary. If I kept animals and composted the manure with raw ground phosphate rock, by using it in the stable as an absorbent,
plant to start a new crop from the roots, when one. develops to nearly the blossoming stage. Not to cut the crop when another starts from the roots is to injure both crops, and perhaps the plant for future use.

Having given space to detailed directions for alfalfa culture, I wish to assure my readers who have soil like that described that they cannot possibly fail to grow it successfully if every essential for success is well complied with. If one is left out, or not done at the right time, it may fail. Alfalfa growing in the East, not on the Imestone soil, means thorough work, and is a high type of agriculture The compensation for overcoming difficulties is the building up of your soil until it is an asset you can draw upon as you can upon a bank account.

A few acres of land on which alfalfa has been established, used for small farming, fruit-culture, or gardening, makes possible a living for those who will work for it, by keeping some animals, cultivating a good family fruit- and vegetable-


The Fourth Crop of Alfalfa in One Year on the Author's Farm. The Small Plot of $1 / 8$ of an Acre Nearly Fed the Family Cow One Summer
garden, or perhaps growing some money-crops; because alfalfa will so feed the cows and poultry as to get maximum production, when balanced with some of the cheaper carbonaceous foods, and the roots in the soil will feed the plants in the garden, and these give you the best possible living, and save you the cash you would pay for poorer articles.

## Alfalfa is the best

 forage - crop on the earth for the summer soiling of animals. An acre or two will go very far toward feeding a cow and horse, on the small place, if handled just right. It should be well understood that green alfalfa, especialy if fed when wet, may cause bloat in animals if they eat too much. If one depends on cutting the alfalfa every day, it may be necessary to mow it in the rain and feed it when both wet and green. Amuch better way is to mow sufficient to feed the animals for four or five days, after the dew is off on a bright sunshiny day, and spread it well, and let it wilt until night, then put it up in quite Iarge, high, oval-shaped heaps, and cover with hay caps. The alfalfa partly cured in the shade is much more valuable, and safe and convenient to feed any time. A yard square of muslin (better if dipped in linseed oil) and a weight, preferably a cast-iron washer, on the corners, I have found, will make a cheap hay cap.
## Look Out for the Tree Borer!

By SARA SAVAGE MÜLLER

AMONG the largest and most destructive of the tree-borers are the larvæ of the leopard- and goat-moths. These caterpillars are commonly called borers, because they bore into the wood and feed upon the very heart of the tree.

Like most of our deadly pests, the leopardand goat-moths are natives of the Old World. Some time prior to the year 1879, they were introduced into the United States. Since then they have been steadily increasing in numbers until now they are well established in certain parts of the country; for instance, New Jersey, Connecticut, Staten Island, Long Island, New York, and Massachusetts.

These moths belong to the same genus Cassidx, and their life history is similar. The larvæ of both species are indiscriminate feeders,

## Photographs by ERNEST W. MÜLLER

attacking such shade trees as the elm, ash, beech, birch, walnut, oak, chestnut, poplar, alder, maples, mountain-ash, tulip, aspen, willows; and among the orchard trees the pear, apple, and plum; also, such shrubs as the privet, lilac, and honeysuckle. The moths appear in July. During the day they remain motionless upon the trunks of trees; although in plain view, they are difficult to see, since their protective coloring conceals them.

The females lay their eggs in the cracks of the bark, near the ground, and occasionally on the roots of the tree. As many as 300 eggs have been counted in a mass, but it is believed that they often exceed this number.

The young caterpillars soon hatch and penetrate the tree, burrowing long tunnels, which increase in diameter as the caterpillars increase in size. The fullgrown Iarva of the leop-ard-moth attains the length of two inches, and the circumference of an inch, while the larva of the goat-moth grows to be three inches long.

The caterpillars do not always burrow lengthwise of the branch; frequently they girdle it, thus weakening the branch so much that it breaks off, especially dur-
ing storms. Dr. L. O. Howard, Chief of the Bureau of Entomology at Washington, D. C., states that in 1893 the trees in Central Park,


Goat-Moth Resting on Tree Trunk (Two-thirds Natural Size). The Moth and the Gray Bark were so Alike that the Moth had to be Outlined.


A Pupa Skin Sticking Out of the Trunk of a Tree
New York City, were so badly damaged by the borers that after every storm great quantities of limbs were broken off.

The caterpillars feed in summer, and rest during the winter months. About two years are required for them to reach their maximum growth. Then comes the pupal stage, which is passed near the opening of the tunnel. When metamorphosis is completed, the pupa works its way to the mouth of the tunnel, when the thin skin splits open and the moth escapes, leaving the empty pupa-skin protruding from the deserted tunnel.

Trees are often seriously injured before the borers are discovered. The signs that indicate their presence are the small holes in the trees, the oozing sap, and the empty pupa-skins stickmg out of the trees.

These insects are so destructive that a single one can seriously damage a tree. Indeed, a single one will sometimes kill a tree.

The goat-moth, genus Cossus Linnæus, has done great damage to the trees of Europe. Mr. W. J. Holland, in his book on moths, tells the following interesting story. "My friend, Dr. Ortman, entering my study while I was writing, relates that when he was a boy of eleven, living in his native village in Thuringia, his attention was called to a notice posted by the Burger-


Cross-section of a Small Tree Trunk, Showing How the Tree Borer Feeds on the Heart of a Tree (One-third Natural Size).


The Tree Borer or Larva of the Leopard-Moth (Natural Size)
meister, offering a reward for information which would lead to the detection and punishment of the individuals who, by boring into the trunks of a certain fine avenue of birch trees, upon which the place prided itself, had caused great injury to them. Already the instincts of the naturalist had asserted themselves, and the prying eyes of the lad had found out the cause of the trouble. He went, accordingly, to the office of the Burgermeister, and informed him that he could tell him all about the injury to the trees.
"The official sat wide-mouthed and eager to hear. 'But you must assure me, before I tell you, that the reward you offer will surely be paid to me.' 'Yes, yes, my little man; do not be in doubt on that score. You shall certainly be paid.' 'Well then, Herr Burgermeister, the holes from which the sap is flowing were not made by boys who were after the birch-sap to make beer, but by the weidenborer' [the common German name for the Cossus]. A small explosion of official dignity followed. The act of the presumptuous boy was reported to a stern parent, and the result was, in Yankee phrase, a 'licking,' which was certainly undeserved."

Let us not be like the Burgermeister. Let us heed a timely warning and examine our trees, and wherever the tell-tale holes are found, search for the deadly borer and destroy it, lest it continue to increase and work great havoc among the trees of this country.

It requirres patience to fight the borers, for they are so well protected in their burrows inside the trees that they are difficult to get at.

The simplest method, however, is to insert into the holes a long pliable wire, hooked at one end, and draw out the insect. Then by means of a small glass syringe, inject into each hole one teaspoonfuI of carbon bisulphid. This is a deadly poison, and should be used with the greatest care against fire (smoking is dangerous when using this chemical). After the solution has been injected, securely close the holes with wax or putty. In case of badly infested trees,


Open Cavity in a Tree, Showing Ravages of the Tree Borer
the safest way is to cut them down and burn them; thus destroying all larvæ and pupæ.

When it is desired to save a rare and valuable tree at any cost, consult an expert. Much can be done by the so-called "tree-doctor" to save a tree that seems to be doomed. Many trees in our city parks are evidences of his skilled labor.

Trees that were in such a condition that one would suppose that they were hardly worth attention have been rescued and given back to man for many additional years of usefuIness.

If all realized the great destructiveness of which these pests are capable, I am sure all would be on the look-out for them and wage unending war. The method of destroying them is comparatively simple, but requires patience.


A Broken Branch, the Result of a Borer's Girdling Tunnel

"The Garden Glows with Dablias Large and New"

# THE DEPARTMENT OF <br> FLOWERS 

# The Human Pedigree of Flowers and Trees 

By HARRIETTE WILBUR
PART I
(Part I.-Tbis is the first of two articles concerning the legends of the transformation of buman-kind into flowers and trees. The second article will appear in the November issue.]
 RIMITIVE man naturally interpreted all phenomena in terms of his own capabilities and limitations. And because, in common with humankind, a plant possesses life and is subject to disease, accident, and death, metempsychosis has been an important factor in flower legends.

Keats has given us another reason for these legends in his lines on the narcissus:

What first inspired a bard of old to sing Narcissus pining o'er the untainted spring? In some delicious ramble, he had found A little space, with boughs all woven round; And, in the midst of all, a clearer pool
That e'er reflected in its pleasant cool
The blue sky here and there, serenely peeping Through tendril wreaths fantastically creeping; And on the bank a lonely flower he spied, A meek and forlorn flower, with naught of pride, Drooping in its beauty o'er the watery clearness, To woo its own sad image into nearness. Deaf to light Zephyrus, it would not move; But still would seem to droop, to pine, to love. So, while the poet stood in this sweet spot, Some fainter gleamings o'er his fancy shot; Nor was it long ere he had told the tale Of young Narcissus, and sad Echo's tale.

This legend of Narcissus' inordinate vanity has been worked over and over by the poets, but it has remained for William Canton to give it a new interpretation:

The white-leaved flower, with heart of gold, Delighted Homer long ago;
Yet nature thinks it not so old
But that it still with grace may grow.
Why, if the flower may bloom anew,
May not the flower's old legend, too?
That darling face, that gold-curled head, Are not the living, but the dead.
The lad's fine image is a maid,
His sweet twin sister, who was laid
Last year beneath the ilex shade.
The white snow fell, the cold wind blew,
The flowers died, and she died too.
In contradistinction to the head-hanging Narcissus, we have the story of Clytie, the fair young maiden who gazed upward so longingly at Apollo, the sun, that she became a sunflower. This is a favorite theme with poets, and has called forth many comments from them, according to their humor:
"Where is she?" ask'st thou? - "Watch all looks As cent'ring to one point they bear,
Like sunflowers by the sides of brooks,
Turned to the sun-and she is there."
-Thomas Moore, "The Summer Fete."
No, the heart that has truly loved never forgets, But as truly loves on to the close;
As the sunflower turns on her god, when he sets,
The same look that she gave when he rose.
-Thomas Moore, Believe Me, if All Those.

Light-enchanted sunflower, thou Who gazest, ever true and tender, On the sun's revolving splendor, Follow not his faithless glance With thy faded countenance; Nor teach my beating heart to fear, If leaves can mourn without a tear, How eyes must weep! -Percy Bysshe Shelley, "Magico Prodigioso."

I will not have the mad Clytie,
Whose head is turned by the sun. -Thomas Hood, "Flowers,"

Eagle of flowers! I see thee stand, And on the sun's noon-glory gaze; With eye like his, thy lids expand, And fringe their disk with golden rays;
Though fixed on earth, in darkness rooted there,
Light is thine element, thy dwelling, air;
Thy prospect, heaven.
-James Montcomery, "The Sunflower."
And underneath the mount, a flower I know, (The sun) cannot have perceived, that changes ever At his approach; and, in the lost endeavor To live his life, has parted, one by one, With all a flower's true graces, for the grace Of being but a foolish mimic sun, With ray-like florets round a disk-like face.

> And now the tender, timid maid
> Flew trembling to the kindly shade,
> Resign'd a form, alas, too fair,
> And grew a verdant laurel there,
> Whose leaves, with sympathetic thrill,
> In terror seem'd to tremble still!
> -ANAcReon's ODE LX (Moore's translation)
> Still the green laurel springs to life the while, Beneath her own Apollo's golden smile.
> -RoaErT S. HAwKER, "Pompeii."

Another mortal whom Apollo loved was the young hunter Cyparissus, who, having accidently killed Apollo's pet stag, grieved into a metamorphosis over the mishap and became the mournful cypress, which Apollo declared should henceforth be used to shade the graves of those who had been greatly beloved through life.

Hyacinthus was a young mortal so fortunate, or rather unfortunate, as it turned out, to be loved by two gods, the Sun and the West Wind.

One day Apollo was playing a game of quoits with Hyacinthus, when Zephyrus, the god of the west, passed by. Zephyrus jealously blew Apollo's quoit aside, but with the dire consequence that it struck his playmate and felled
[Continued on page 21 I
Men call the flower the sunflower, sportively.
-Robert Browning, "Rudel to the Lady of Tripoli."

The marsh-marigold, Caltha palustris, according to René Rapin, has a similar origin:

Calthaque, Solis amans, Solem dum spectat amatum
Duxit eum, quem fert, ipso de Sole colorem.

The modern Italian name for the marsh-marigold is "sposa di sole," spouse of tbe sun-or the moon, which shines by his light.

Apollo, though a mighty god, was most unfortunate in his friendships; though it is to these mishaps that we owe some of our most beautiful and useful plants, so mythology saith. The nymph Daphne, in escaping him, became the laurel tree:

The gods, who mortal beauty chase,
Still in a tree end their race:
Apollo hunted Daphne so
Only that she might laurel grow.

- "Thoughts in a Garden."

"The Rose was Once Rhodanthe, a Beautiful Greek Maiden"


AFTER we had graduated from coldframes and hotbeds, and our conservatory, we thought we must have a greenhouse. I say "we," for unless "the captain's captain," as well as the captain himself, and their children, too, take some interest in the private greenhouse, it is far better, when the employment of a private gardener is beyond the means of the suburbanite, to leave the greenhouse unbuilt. Some prefatory remarks will make the whole matter of greenhouse-building more interesting and instructive to the suburbanite who contemplates building.

A greenhouse which has one end toward the north and the other toward the south is called a north-and-south house, and the name east-and-west house is given to a house whose ends extend in those directions. When the two roofs of a greenhouse are of equal length, it is called an even-span house, and when an east-andwest house has the south roof longer than the north, in such houses the north wall being higher usually than the south wall, it is called a three-quarter-span house. A lean-to is a greenhouse with one roof, the higher side of which, usually, though not necessarily, the north, is formed by some building, or by some wall of stone or concrete, already built on the home grounds.

Again, any of the above-named houses whose roofs are curved are called curvilinear houses; those whose eaves only are curved, curved-eaved houses; and those whose roofs and eaves are without a curve, straight-roofed houses.

$I^{\Gamma}$T is pretty generally conceded that for forcing roses, carnations, and other plants, which are set out in benches of soil for cut-flowers during midwinter, a three-quarter-span east-and-west house gives the largest results in blooms during that season of the year; and, furthermore, the north side of a three-quarter-span house is a good location for a propagating bench. During the remainder of the year, the evenspan north-and-south house is better, not only for growing plants, giving to these a more symmetrical growth, but also for growing cutflowers and vegetables. Probably the best of all greenhouses for general use is an even-span house, one end of which points a little east of south and the other a little west of north; since such a house will receive more of the forenoon sun in the short days of the winter months, when, according to statistics, there are more sunny forenoons than afternoons, and since it
has not the objectionable features of a three-quarter-span house during the summer, which then receives the direct rays of the sun, and hence is intensely hot.

The curvilinear greenhouse is the most ornamental of all, on account of its graceful lines, and it has more head-room over its sidebenches. The curved-eave house is lightest of all, as it has no gutter at its eaves, and makes a beautiful appearance. For growing purposes, neither of these is superior to the straight-roof house except in the two points indicated above.

THE first and most important step in building a greenhouse, after deciding upon the style of house, is the selection of a location. Whether an attached or detached greenhouse is decided upon, the site must be where no surface water gathers and stands at any season of the year, and where a cellar may be dug at least seven feet deep-better still eight-under the workhouse part of the greenhouse, or the already existing building to which the greenhouse is attached, in which the heating apparatus may be installed and the supply of coal be kept.

It cannot be too emphatically stated that it is of paramount importance that the earth, or the concrete floor of the greenhouse, and the boiler-pit be always free from water. Unless this rule is observed, a greenhouse during the wet season is a continual worriment. If, however, the surface where the greenhouse is to be built is always dry, but there is danger that during some seasons of the year the boiler-pit will be wet, as can be easily ascertained from an inspection of the cellars of dwelling-houses in the immediate neighborhood, this difficulty may be overcome by laying a tile drain from the bottom of the pit to some point lower than its bottom where the water may flow out. A burnt child dreads the fire, and the writer once had a world of trouble from a wet boiler-pit, and his trouble is far from being an isolated case, as he has learned since from personal observation. The greenhouse should be located, if possible, where it receives the full light of the sun all day.

There are three methods of heating a greenhouse: by hot water, by steam, and by the two combined. Hot-water heating is preferable for a moderate-sized greenhouse, or range of greenhouses, especially on a private place. With a hot-water system, the air in the greenhouse begins to grow warm as soon as the water begins to warm, and loses its heat gradually as the
water grows cold; and, furthermore, with the hot-water system, the fire may be left many hours without attention, and a night fireman is not required except in very extreme weather.

Where steam heat is used, there is no heat in the greenhouse until steam is up, and none after steams runs down, and a night fireman is usually required; but in extremely large greenhouse ranges steam is preferred by many, especially in rose-growing, and even in moder-ate-sized ranges devoted to rose-growing, a combination of hot water, as the main dependence, and steam, used at certain seasons of the year and for the application of sulphur to prevent mildew, gives the most satisfactory results.
Had the writer, when he began to build his first very modest and inexpensive greenhouse, known that which he has since learned by experience, and a somewhat wide observation, and which he has written into this rather long preface, he would have been saved some unnecessary expense, and not a few mistakes, failures, and disappointments. Were he, with his present knowledge, to build again a greenhouse even for private use, he would dodge the local carpenter, glazier, plumber, and boiler-man, and at once get into connection with some wellknown greenhouse-building company, and contract with it for an iron-frame, concrete-walled greenhouse, with a hot-water heating equipment.

THHAT is what we, in building our first greenhouse, did not do, and what we did do, mistakes and all, is as follows: We selected a site north and east of our dwelling-house, and on the east end of our garden; a high board fence about fifteen feet north formed a wind-break. We planned and built there a north-and-south evenspan greenhouse, which we thought could be economically heated and easily managed. Thesize decided upon was thirty-two feet long and twelve feet wide. Red cedar posts, eight inches in diameter at the top, were set four feet apart along each side of the proposed greenhouse, three and one-half feet deep into the ground, with two and one-half feet of post above the ground. This required eighteen posts, each six feet long. At each end of the proposed house were set two posts of the same diameter, the same depth in the ground, and about the same distance apart, but with enough post above ground so that these posts would support the gable-end rafters of the roof when set up later. Lengthwise through the center of the rectangle formed by these posts, a trench
[Continued on page 218

## Flowers to be Eaten

## By A. TEGNIER

THE usefuIness of flowers as edible delicacies is practically not known in this country, though abroad they are used as ingredients in many dishes.
Candied violets are now a staple product of several districts in France. At Grasse, for instance, in which neighborhood immense quantities of them are raised, all the old and stale violets are purchased by the confectionery manufacturers, who steam them, dip them in boiling sugar, and sell them in commerce at a high price as "confiture de violette." Rose buds boiled in sugar and made into a preserve form a sweetmeat popular among the Turks and Greeks. In Roumania, roses, lime flowers, and violets are much used for flavoring preserves of various kinds; and are also utilized in Turkey, Persia, and Arabia, in the preparation of sherbets. The famous violet sherbet of the Caliph is of a greenish color, and to this day is called the "Grand Signor's sherbet."

That species of lily known to botanists as "Thunbergi" is, in China, one of the most choice delicacies of the native kitchen. It is dried, and used for seasoning ragouts and other dishes. The lilies are grown for market in many provinces of China, and usually are dug up just before they open. Cooked as a fresh vegetable, they have a singularly agreeable taste and fragrance. The Chinese also candy dried rosebuds, violets and jasmine, and pomegranate blossoms, while out of the yellow water-lily they make a delicious jelly. The Turks also utilize this common water-Iily in the preparation of a very favorite cooling drink.

BUT by far the most remarkable of edible flowers is that culled from the butter-tree of India. The blossoms of this singular tree are the chief means of subsistence with the Bhils and other Indian hill tribes. An average tree yields from two hundred to three hundred and fifty pounds of pulpy, bell-shaped flowers, that, when they drop off during March and April, the hot months of the Indian year, are eagerly gathered by the natives. They have, when fresh, a peculiar and Iuscious taste, but the fragrance of them is not pleasant, and is best and most briefly described as "mousy." Usually they are cured in the sun, shrivel to one-fourth of their size, and then resemble nothing so much as raisins. The natives prepare them for food by boiling, or using them in sweetmeats.

Vast quantities of these flowers are to be found throughout the forests of the hilly parts of India. They produce more then half their weight of saccharine matter, and a large yield of that substance is obtained from them for domestic uses. From them there is distilled, too, a strong alcoholic liquor, rather like whisky in flavor.

In Afghanistan, also in Scinde and the Punjaub, grows a shrub known to botanists as the Calligonum polygonides. Its beatifuI reddish pink blossoms are dried and eaten by the inhabitants there, rich and poor, who relish the rich, aromatic taste of them. The withered blooms are also pounded up, and made into cakes, or cooked with butter. The flowers, when ripening, have an exceedingly agreeable flavor, rather like the fimest strawberry.

In the West Incies, the blossoms of the shaddock are used for flavoring, and there, too, the unfolding flowers of the banana are made into a pleasing sweetmeat. The Chinese use the banana blossoms by pickling them in vinegar.

It may be wrong to say that the usefuIness of flowers as food is not known throughout Anglo-Saxondom. Both in Great Britain and the United States, the blossom of the garden nasturtium is used for salads, and also primroses, and violets, and the flowers of marjoram and sage: while some skillful connoisseurs in things of the palate are aware of the capital properties of the marigold as an ingredient in soups.


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## Pot-bound Plants

KINDLY send information how I can find out when large pot-plants are pot-bound, such as aucuba and other palms and ferns that require large pots. (A. B., N. Y.)

Turn the pot upside down, with the plant stalk between the fingers to hold the ball of earth. Tap the edge of the upturned pot smartly against some wooden projection and, if the roots are all exposed and some dead and twisted, your plant is pot-bound and badly so. Remove all the dead roots and repot
carefully. This is an expert's job, and should be carefully. This is an expert's job, and she
done by one who understands his business.

## Getting Rid of Dead Grass

I SHOULD be pleased to be advised how I can
1 best get rid of the dead grass on a lawn that is naturally good, but which has been neglected from about last August until the present time. It is, at present, about half good, and if I can be told how I am to care for it to bring it back to its normal condition, I shall be much obliged. (G. E. H., Maine.)

Sprinkle the barren spots with air-slaked lime. Rake the surface of the bad places deeply. Wet it thoroughly. Sprinkle it well with good lawn grass seed containing a large proportion of Kentucky blue grass. Roll it firmly and smooth.

## Ants on Peonies

IN my mother's home is a big row of peonies which bear bounteously each year, but, from the moment the plant appears until late in the fall, they are covered continually with ants,big black ones. Can you tell me what is the cause of this, and whether they are detrimental to the plant, and how best to get rid of them? (G McH., Iowa.)

Spray the peonies with a good insecticide or with kerosene and soap emulsion. A nicotine spray will also put an end to your troubles. Of course the ants are very detrimental. Peonies are great feeders, and require great quantities of liquid manure and water. Work a lot of air-slaked lime and hardwood ashes into the surface of the soil
twice a week while the flowers are in bud and bloom.

## Peonies not Blooming Freely

I HAVE a row of peonies-white, pink and red, which are in a slightly sloping bed on rather dry gravelly sandy soil which is fairly rich on top; but the peonies have been set out three years and do not blossom at all freely or in large size. Will you kindly tell me how to improve them-what kind of fertilizer to use, and at what season to use it? (S. W.T., Mass.)

Peonies produce the most and largest flowers when planted where the soil retains a moderate degree of moisture, but is not swampy or ever flooded with water. Peonies are heavy feeders, and require a rich soil. The location where the
inquirer has planted his peonies is not a favorable one. This may be overcome, in a measure, by applying around each plant, after cultivation, two or three times during the summer, a heavy application of well-decomposed cow manure, or, if that is not obtainable, horse or sheep manure, and working it lightly into the soil. In the autumn, after the ground is frozen, and the peony tops have been cut off and thrown down on the plant, cover the plant with a thick mulch of strawy manure. In apply bone meal, and work it into the soil lightly. If small, freshly cut peony roots were used at the time of planting three years ago, that also will explain in a measure why they have produced only a few small blooms, as such roots usually give good results only several years after planting. Quicker and more satisfactory results are obtained from one-, two- or three-year-old roots, the twoand three-year-old being preferable.

S

## Repotting Rex Begonias

SHOULD the rex begonia be repotted every year? We had hot-water heat put into our house last fall, and the begonia has shed its leaves and branches. Do you think the room is too warm, or does it need new earth? I keep it well watered. What kind of soil is best? Can I use any fertilizer? Is it advisable to stop watering the plant and let it rest for a time? (I never let it blossom.) I have tried to give it liquid fertilizer, but it made it sick. (G. D. M., Pa.)

Yes, repot the rex begonias annually. Your heat is probably too dry, and will cause red spider, white fly, and what not, in the disease line. It will spot, turn yellow, and fall off. Any good garden Ioam is good for soil. Use liquid manure for fertilizing. Let them rest after blooming.

## Aster Plants Affected with Yellows

ABOUT half of my China Asters, grown from seed started early, seem to be afflicted in some way. They were very robust, healthy plants, and aII the old big leaves and first growth seem as healthy as ever, but, now that they are about to bloom, the buds and little Ieaves about them, all the new growth, in fact, is a sickly yellow green, that later gives way to brown spots, and the leaves curl up and shrivel. The buds get no farther-although, as I say, the big leaves are as green as at any stage. I hate to Iose plants that are aIready two feet tall and fuII of buds; can this trouble be arrested? Is it what I have heard called "aster rust?" I don't think it is aphis at the roots, as I have used tobacco dust to prevent that, and I don't think it is stem rot, since the stalk is apparently untouched at its base, or elsewhere, nor are there any visible insects. You will greatly oblige me if you will diagnose the situation for me. (F. G., N. J.)

The aster plants in question have the disease known as "Yellows." It causes the parts of the plant attacked to become a sickly yellowish green. Sometimes the entire plant is affected. Sometimes half of the plant from bottom to top, even to the flowers, will be diseased, and the other half healthy; and in other cases the entire lower part of the plant will be of a normal color, and only the upper part of the plant, including the flower-stems and flowers, e diseased. Investigation has shown that this disease is not carried over in the seed, and is not caused by a fungous or bacterial organism, and is not contagious, but is a bilious attack caused by an irregular supply of moisture. Plants in greenhouses under control are rarely affected with this disease.

The only known remedies are frequent cultivation of the surface of the soil about the aster plants, to conserve the moisture, or mulching with freshly cut grass, hay, straw, or strawy manure, for the same purpose. Even these are preventives, rather than cures, for, when a plant is once thoroughly affected with the "Yellows" there is no cure.

## Cutting Back Iris and Roses

II AM a lady of seventy years with a little city garden back of our house, twenty-five feet wide and ninety feet Iong. Eight years ago it was a clay hole; now I myself, with constant work and little expense, by resowing vines all over my fences and borders on each side, after each cutting, have built up the worn sod. Last week, a lady visiting next door said it was a "perfect little park to look at," and I think it is, myself. Does it hurt Iris to cut it back after it stops blooming, and also roses? I am pretty successful with my flowers; have just been putting a pinch of pulverized tobacco around my


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asters-two hundred and fifteen of them. A big worm, also black aphis, have troubled my calendulas. Is there a safe remedy? (F. L. R., New York.)

After iris has finished blooming, the flowerstalks, both those which are producing seed-pods and those which are not, should be cut off close to the ground; the former, because the production of seeds takes away the strength, and the latter because they are useless and unsightly. The dead foliage also should be cut away, and where the tips of the leaves are brown they may be trimmed off. On the other hand, the green foliage should not be cut back at all; but a strong, growth of foliage should be encouraged by fertilizing and cultivating throughout the summer. Thus treated, the iris will be kept in good condition, and produce an abundant crop of blooms next season. The leaves of the plant are its lungs, through which it breathes and lives

The treatment of rose bushes after blooming is quite different from that of hardy herbaceous plants, like iris. A proper pruning of hybrid perpetual, or hybrid tea and tea rose bushes during the summer causes them to bloom more freely. The following treatment will give best results: When cutting a bloom, always use a sharp knife, and take off with the bloom, or cluster of blooms, a stem long enough so as to leave a stub with only one leaf on it between its end and the hard-wood branch, or main body of the bush, as the case may be. Furthermore, cut back all the blind wood-that is the branches which ha
produced blooms-in exactly the same way.
roduced blooms-in exactly the same way.
The surest way to destroy the large worms on calendulas is to pick them off and kill them. They are usually found at work in the cool of the morning are usually found at work in the cooil
or toward evening. Another remedy is to dust the or toward evening. Another remedy is is dust
under side of the leaves, when the dew is on them under side of the leaves, when the dew is on
with white hellebore powder or tobacco dust.
To destroy the black aphis, dissolve one ounce of ivory soap in five quarts of boiling water, and when this solution is cool enough, so that the hand can be held in it, put it on the calendulas with a sprayer, water sprinkler, or whisk broom. A
few hours afterward wash off the soap solution in few hours afterward wash off the soap solution in
the same manner in which it was applied, using the same manner in which it was applied, using clear cold wher, dusting the plants methods of destroying aphis are dusting the plants
with any of the powders mentioned above, or spraying with a tobacco solution.

## The Best Double Violet

## I

 SHOULD like to know if the double violets require any different treatment in culture from the singles. Is it best to frost violets in the fall, to check the growth of the foliage? Will the doubles stand for this treatment? What is the best variety to grow? How about the Campbell variety? (L. M. B., Wyoming.)Lady Hume Campbell is a very reliable variety to grow, and will give more pleasing results than many others. The old Marie Louise is a fine double violet, and of excellent color. Yes, you will find that double violets require very different treatment from singles. They will positively not stand any exposure to frost and should be housed early in September. Singles do better in a winter-night temperature of about forty degrees, but doubles
require at least forty-five. They produce flowers until the middle of May. After March 15, reduce the night temperature about five degrees. Give plenty of ventilation, and shade the glass, if warm. This will keep the house cooler, and cause the violets to retain their color.

## Germinating Shasta Daisy Seed

AYEAR ago I sowed a packet of Shasta daisy seed. I think every seed germinated. At the proper time I thinned out the plants to about four inches apart, and in the fall had a fine stand of more than a hundred vigorous plants. I was quite proud of them, and looked forward with pleasure to the handsome border I should have this year. At the beginning of winter I covered the plants with dead leaves to a depth of three or four inches. My "handsome border" now consists of four fairly healthylooking plants, and five weaklings. Would the plants have lived without any mulching, or was my "protection" too deep? There are a great many large worms in my garden. Do they do any harm, and should they be destroyed? (A. F. B., N. Y.)

Your seedlings should have been transplanted into pots, and plunged into sand in a coldframe for the winter. Your garden would be a sickly
affair without the large worms. They keep the soil aërated and open.

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## The Human Pedigree of Flowers and Trees

## (Continued from page 205)

him to the ground. Vainly Apollo strove to check the stream of blood which flowed from the ghastly wound; but to keep some reminder of his friend, Apollo changed the fallen drops into clusters of flowers, ever since called by the youth's name. Zephyrus, perceiving too late the fatal effects of his jealousy, hovered inconsolably over the spot, and tenderly caressed the dainty flowers which had sprung from his friend's lifeblood:

> Zephyr, penitent,

Who now, ere Phoebus mounts the firmament, Fondles the flower. $\qquad$

BOTANISTS do not consider the species of garden hyacinths as the plant meant by the Greeks in this Iegend, but rather the Turk's cap lily, the iris, the larkspur, or the gladiolus. Whatever the plant, it should bear on its petals the exclamation of woe uttered again and again by Apollo: "Ail" These letters, supposed to be discernible in the Gladiolus Byzantinus, were interpreted by Ovid either as the wail of Apollo for Hyacinthus, or as the first letters in the name of Ajax, one legend very appropriately stating that the gladiolus, or sword-lily, sprang from the blood of this mighty warrior, and not from that of the princely Hyacinthus!

> Hyacinth dwells no more in his brilliant abode, and the stranger
> Reads the memorial sighs he has left with a stolid amazement.
> -Lord Houguron, "Greek Mythology."

Come, hyacinths, chime your sapphire bells,
Toll $a i$, $a i$ no more.
-Elizabeth M. Johnstone, "A Spring Song."
Drooping grace unfurls,
Still, Hyacinthus' curls.
-Leigh Hunt, "Chorus of the Flowers."

APOLLO suffered a more personal loss in that of his son Phaëthon. This reckless youth demanded one day to take his father's place in the sun-chariot, and, before the journey across the heavens was completed, Jupiter wrathfully slew the young driver with one of his fierce thunderbolts. Phaëthon's three sisters mourned him deeply, spending their days by the riverside, shedding tears, wringing their white hands, and bewailing their loss, until the gods, in pity, transformed them into poplar trees, and their tears into amber, which substance was supposed by the ancients to flow from the poplar iike teardrops.

And the famed tree, that wept, with sister love, The youth destroyed by the red bolts of Jove.
-Catullus.
Rapin states that the violet was a nymph who, unable to escape Apollo, changed to a violet; a legend easily interpreted as the daylight changing into the purple twilight, to escape the sun that has pursued her all day.

ACCORDING to Rapin, too, the rose owes its origin to Apollo, though this time by incurring his wrath. "The rose was once Rhodanthe, a beautiful Greek maiden, of whose many suitors the principal were Halesus, Brias, and Orcas. Entering the temple with her parents and people, one day, and being pursued by her suitors, the excitement of the contest so enhanced her beauty that the people shouted 'Let Rhodanthe be a goddess, and let the image of Diana give place to her!' Rhodanthe being thereupon raised upon the altar, Phoebus, Diana's brother, was so incensed at the insult that he turned his rays against the new-made goddess. Then it soon repented Rhodanthe of her divinity, for her feet became fixed to the altar as roots, and the hands she stretched out became branches, whilst the people defending her became protect-


The horizon of vision, the circle which bounds our sight, has not changed.

It is best observed at sea. Though the ships of today are larger than the ships of fifty years ago, you cannot see them until they come up over the edge of the world, fifteen or twenty miles away.
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ing thorns, and her too-ardent lovers a convolvulus, a drone, and a butterfly."

Rapin's "Horotorum" contains many of these transformations. The anemone was a nymph changed by the jealous Flora into a flower. The peony, named for the god of medicine, Iapis, was a nymph whose deep red color after her transmogrification was not the blush of modesty but the proof of her flagrant $\sin$. The daisies were also once nymphs; the nasturtium and cytisus were beautiful youths; the tulip was a Dalmatian virgin beloved by Vertumnus, god of orchards; and an Apaulian shepherd became the oleaster. How far these transformations were Rapin's own fancies, or traditions of his time, cannot be easily ascertained. They are not found in Ovid, though they closely resemble that poet's fanciful legends of Daphne, Clytie, and others.

Another nymph to seek protection in a change of form was Lotis:
Lotis, the nymph (if rural tales be true),
As from Priapus' lawless love she flew,
Forsook her form, and, fixing here, became
A flowery plant, which still preserves her name.
The beautiful young princess, Dryope, was so unfortunate as to pluck a blossom from this lotus plant, as a punishment for which she was changed into a tree.

But, when she backward would have fled, she found
Her stiff'ning feet were rooted in the ground; In vain to free her fastened feet she strove, And, as she struggles, only moves above; She feels th' encroaching bark around her grow By quick degrees, and cover all below;
Surprised at this, her trembling hand she heaves To rend her hair; her hand is filled with leaves: Where late was hair, the shooting leaves are seen To rise, and shed her with a sudden green.

THE reed had its origin in the prayer of the nymph Syrinx for protection from Pan. Even after her metamorphosis, the god's love did not die, but, fashioning pieces of the beloved reeds together, he invented the panpipes, or syrinx, the earliest form of the mouth-organ:
Evermore a sound shall be
In the reeds of Arcady,
Evermore a low lament
Of unrest and discontent,
As the story is retold
Of the nymph so coy and cold,
Who with frightened feet outran
The pursuing steps of Pan.
-Henry W. Longfellow, "The Masque of Pandora."
And Pan did after Syrinx speed,
Not as a nymph, but for a reed.
-Andrew Maryel, "Thoughts in a Garden."
Ovid gives an interesting legend of metamorphosis: One day Jupiter and Mercury took the forms of needy travelers and entered the lowly hut of a worthy old couple, Philemon and Baucis. These poor people were eager to offer their best to the strangers, and decided to kill their sole remaining goose; but their efforts to secure it were vain, and finally the persecuted fowl took refuge between Jupiters' knees. Touched by their zeal, yet anxious to prevent the death of the confiding goose, Jupiter revealed himself to his faithful worshipers, and in gratitude for their intended sacrifice bade them ask any boon. They made the timid request that they might serve the gods as long as life and strength endured, and finally die together. Jupiter granted the request, and moreover, changed their humble abode into a superb temple, where they could offer daily sacrifices on his altars. After many faithful years of service, when age had made them long for death, Jupiter fulfilled the last part of their wish:

Then, when their hour was come, while they relate
These past adventures at the temple gate,
Old Baucis is by old Philemon seen
Sprouting with sudden leaves of sprightly green;

Old Baucis look'd where Old Philemon stood And saw his lengthened arms a sprouting wood; New roots their fastened feet begin to bind, Their bodies stiffen in a rising rind;
Then, ere the bark above their shoulders grew, Then, ere the bark above their shoulders gre
They give and take at once their last adieu. "At once, Farewell, O faithful spouse," they said At once the enroaching rinds their closing lips invade.
Even yet an ancient Tyanæan shows A spreading oak, that near a linden grows. The neighborhood confirm the prodigy, The neighborhood confirm the prodigy,
Grave men, not vain of tongue, or like to lie. Grave men, not vain of tongue, or like to lie
I saw myself the garlands on their boughs, And tablets hung for gifts of granted vows. -"Ovid" (Dryden's translation).
Swift, in his humorous version of this legend, says:

Thus happy in their change of life,
Were several years this man and wife;
When, on a day which proved their last, Discoursing o'er old stories past,
They went by chance, amid their talk, To the churchyard to take a walk;
When Baucis hastily cried out,
"My dear, I see your forehead sprout"" -
"Sprout!" quoth the man; "What's this you tell us; I hope you don't believe me jealous!
And yet, methinks I feel it true,
And really yours is budding too-
Nay,-now I cannot stir my foot; It feels as if "twere taking root." It feels as in twere taking root.
Description would but tire my Muse, In short, they both were turn'd to yews. Old Goodman Dobson of the green
Remembers he the trees has seen.
The Flowers That Grew on the Sand-Dunes

## By KATE HUDSON

FOR the true flower-lover, these are Iovely blossoms and others still lovelier, but none absolutely unattractive and uninteresting; he will not only minister to his garden-be it large or small-most religiously, but will know just where and when to greet the season's wildwood weeds, from the early hepatica and marsh marigold to the late asters and goldenrods; and will joyfully name and enumerate what he's seen growing in his particular happy hunting-ground.

For such an one-for none other would in the least care to know!-we should like to give a list of what grows in our small camp-yard-a scant acre on the banks of Long Island Creek, near Oyster Bay, and backing on the sand-dunes of Long Island Sound, in silvery sea-sand, with an occasional spot of compost-formed soil substratum.

W$\boldsymbol{N}^{\text {E p pitched camp in early June, when our }}$ nineteen scraggy firs and our seven cone-like junipers, on two of which we had left the graceful festoons of poison-ivy undisturbed, rustled their branches in the wind, reds of cactus-blossoms -great sulphur-satiny stars from one to two and a half inches in diameter-and thousands of pale pink, faintly fragrant wild roses; beyond which between camp and creek there stretched a broad border of beach grass, sea-lavender, prickle-weed, and eelgrass.

With the season's advance, the vegetation changed; and, as each weed appeared, it was jubilantly found and "made a note on"; till at the end of the summer, when the vigorous and brilliant goldenrod flourishes alone, our list comprised the following weeds: wild asparagus and mustard, yarrow, catmint, Queen Anne's lace, butter and eggs, mullein, wild primrose, milkweed, chickweed, grass of Parnassus, pimpernel (the tiniest and loveliest of blossoms!), sweet everlastings, lamb's-quarters, two kinds of white and one deep purple aster, hedge bindweed, and three kinds of the goldenrod before mentioned. A goodly showing, forsooth, for the small slice of sea-sand soil surrounding our small bungalow!


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A Natural Support for Fruit Tree Limbs By THOS. H. ROGERS

Fvarious reasons, fruit trees, more especially apple trees, are liable to split at the forks, or crotches, where the limbs join the trunk, and also higher up among the smaller branches. The cause may be too heavy a load of fruit left to ripen on the tree, instead of being properly thinned out, or it may be wind, sleet, or snow-storms that cause the damage. The liability to split at the lower crotches increases as the tree becomes older. Some orchardists use temporary poles to support heavily loaded limbs, but in an orchard of some size the job of placing the props, sometimes as many as ten or twelve to

a tree, and removing them after the crop is picked, is one of some magnitude, to say nothing about the expense for props and labor. Then, it requires skill and judgment to place the supports to the best advantage.

An improperly placed prop is liable to cause a heavily loaded limb to break, instead of preventing it. In some orchards, iron braces, or rods, connecting two or more Limbs, are used to prevent splitting or breakage. But the rods themselves are expensive, and the labor of installing them properly is a matter of considerable cost; expense, no doubt, being the principal reason why they are not more generally used. Then, too, the limbs are weakened by the holes bored through them for the iron rods. Altogether too many fruit trees are neglected so far as proper bracing is concerned.

If, within two or three years after an apple tree is set out, a little time is taken to do it, it is an exceedingly simple and inexpensive matter to provide every tree with strong, flexible and permanent natural braces, without in the slightest degree weakening any part of the tree. The branches may be so braced that each one becomes a support for every other branch. Even the casual observer cannot help but see that a tree equipped with these natural braces will be able




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to withstand the stress of storms or the weight of a heavy crop of fully developed fruit that would break down trees not possessing them They reduce the liability of loss from breakage to almost nothing at all. Portuguese fruitgrowers practice this method, and, when we consider how simple it is, we cannot help wondering why such a clever, practical horticultural device was not discovered and used in this country, or any other "apple" country, years and years ago. To some extent it may be used on well-grown trees, but best results are to be expected from young trees.

These natural braces are formed by a variation of the ordinary grafting process. The best time to perform the operation is in the spring just about the time the foliage is pushing forth but it may be done a little carlier or later, as suits convenience. Select a twig about threeeighths of an inch in diameter on each of two of the main branches, about two feet above the crotch where the lowest limbs join the trunk the twigs to be as nearly opposite one another as possible.

With a sharp knife shave off a strip of bark and a little of the wood from one side of each twig. Have the edges of the cut as clean-cut and smooth as you can. Then carefully twist the twigs one about the other with the cut sides together, as shown in Fig. I. Tie the twisted twigs with waxed cotton string, to hold them in position, cut off the ends of the twigs at "A," Fig. 1, and wrap the twigs with strips of waxed cotton cloth and tie the cloth with waxed string The twigs will unite and form a single branch extending from one limb to the other. Figure 2 shows a crotch with three branching limbs fastened together with three of the natural braces.

As the tree grows, the braces increase in size and strength, and provide good, strong flexible supports when the tree most needs it When once in place, they will last as long as the tree itself, are always ready when needed, and will save the cost of material for temporary props, and the labor of putting them in place and removing them every year. As the tree grows, similar braces may be introduced between the smaller limbs higher up, thereby strengthening the entire head, or branch system, to such an extent as to make it almost impossible for any of the principal branches to break down from any cause except a regular tornado.

Grafting wax is not expensive, and may be procured at seed stores and of nurserymen. A satisfactory wax may be made by melting together $1 / 2$ pound of tallow, I pound of beeswax and 2 pounds of resin. Pour the melted liquid into cold water to cool, when it should be pulled like molasses candy until it is light-colored. If wrapped in oiled paper and put in water, it will keep indefinitely. To wax string for tying, drop a ball of number eighteen knitting cotton into the hot melted wax. To make waxed cloth, cut old cotton cloth in strips from one to two inches wide, roll loosely into a ball, and drop the ball into the melted wax.

## A Home-Made Wine

 By Katharine girlingTAKE one gallon of grapes free from stems; one gallon of water, three pounds of sugar Mash the grapes, and let stand in the water three days, stirring and mashing down each day. Strain and pour over the sugar and leave over night. Put into a stone jar to ferment, and skim every day till fermentation ceases. Fill up with water, to make up for evap oration. It will take about a month. Bottle and seal.

Home-made wines have no large percentage of alcohol-not much over four or six per cent. They are especially pleasing to old people and invalids.
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The Problem of "New Thought"
(Continued from page 199)
this fact, and not because of its claims, it lives and flourishes. Some of its precepts are these:
"Gain self-mastery. Let your mind rule the body, and not your body the mind." This is a good rule, but not a new one, by any means. 1 was told by a friend of the case of a young wife whose husband was a millionaire. Like many of the idle rich, she was so self-centered that her health suffered, and she became practically an invalid. Her will was weakened, and she drifted from month to month with no physical gain. Being assured by the physician that the case was purely one of inertia, and not resulting from organic disease, the husband determined to resort to heroic measures. He came home one day and told his wife that he was a bankrupt, that all his possessions were in the hands of a receiver. The effect upon his wife was electrical. She rose from her couch, a feat she had not accomplished for weeks, and paced the floor in great excitement. "Never mind, dear," she said. "We will go out into the suburbs to live, and I will do my own work. Oh, yes, I am sure I can," she added eagerly as she saw consternation written on her husband's face "I feel stronger already."

Truth is stranger than fiction. The sequel to this story is this: A suburban home was secured. This woman succeeded in both doing her housework and caring for a flower garden. She regained her health by leaps and bounds, and her first child was born amid these healthful surroundings. When she learned later the fact that her husband, although he had met with some losses, was still a wealthy man, she refused emphatically to return to the city, and resume a life of luxurious idleness. She was now mistress of herself.

Another principle of New Thought is concentration of will upon something outside one's self. The effort will eliminate one's slight physical ailments. This, likewise, is no new philosophy. Soldiers have repeatedly testified that they were so carried out of themselves by the excitement of battle that they were unconscious of their wounds. President Garfield, who was no follower of any new cult, is quoted as saying: "My wife's illness cured me. In my anxiety about her, I forgot all about the prt of my stomach and the base of my brain, and when she recovered I found myself well."

Another principle found in New Thoughtwhich, like the preceding principles, is an old truth revived-is that of emphasizing optimism, being cheerful, having a large faith and hope in the ultimate triumph of good over evil. We are advised to view life as did the aged patriarch, who was asked: "How do you feel this morning?"

The reply, in its cheerful acceptance of a sorry situation, was splendid:
"My house is getting somewhat out of reparr, but I, myself, was never in better health."

If the world will not accept truth from the vantage ground of common sense, but will take it eagerly from New Thought prophets, or any others who may in the future lift up their voices, I suppose we should return thanks, and pocket our prejudices.

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## How We Built a Small Greenhouse and What We Grew in It

(Continued from page 206)
three feet two inches wide, and three feet deep was dug carefully, so as not to cave in the sides. Posts of the same size mentioned before were set in the ground three feet two inches, inside measurement, apart on each side of the trench to a depth of three and one-half feet in the ground below the bottom of the trench, and with three feet out of ground, measuring up from the bottom of the trench. This required sixteen posts, each six and one-half feet long. The total number of posts was thirty-six, all of red cedar on account of its lasting quality.
Next, matched-pine boards were nailed Iengthwise on the outside of the side and end posts to the height of two feet above ground, and extending below the surface also about six inches, with an inside lining for this boarding of roofing-paper. The inside of the posts in the trench, which was really the sunken path of the greenhouse, were also boarded up, but without paper lining. This made the smooth boards come on the inside of the posts toward the path, leaving the rough posts in what will be spoken of later as the solid beds of the greenhouse. It should be said, right here, that the posts first set to form the support for the sides of the greenhouse, after they were set and before the boards were put on, had their tops cut to a proper slant, to receive the eave-plates of the house; and, furthermore, it should be stated that one side of all the posts, and two sides of the corner posts, had been sliced off at the sawmill, before they were delivered, as far down from the top as they would be out of ground, so as to give a smooth surface for boarding. This is a very important feature, and both lessened the labor of boarding, and enabled the workman to do a smooth job. Just at this point in our building we did a wise thing; namely, went to New York City, called at the office of a large greenhouse building company, and contracted for all the material for the roof and gable-ends of the greenhouse-both the woodwork and the glass, and the ventilating sash. This material was accompanied by a blueprint plan to guide the local carpenter.

IN the roof, $16 \times 16$-inch and $16 \times 24$-inch panes 1 of double-thick glass were used, and also in the gable-ends. There were ventilators at the top of the roof, each side of which was about four feet long by two feet wide, which were lifted and closed and fastened, each separately by hand sash-lifting irons. There was a set of three or four wooden steps which led from the south end outside to the door, three feet wide and six and one-half feet high, the bottom of which was on a level with the bottom of the greenhouse path into which this door opened. This passageway, and the steps leading down into the greenhouse, were furnished with an outer door, just like the door which covers the steps leading down from outside into a cellar, which could be closed in stormy and cold weather.

As regards inside furnishings, greenhouses may be classified as raised-bench, solid-bed, and surface-bed houses. Raised benches are simply large, shallow boxes, about five inches deep, of a width adapted to the greenhouse, and raised on supports to a convenient height to work over, varying from three to four feet. Some raised benches and their supports are made entirely of wood; sometimes the supports are of iron; in some cases the bottoms are of slate tiles; and in others the entire bench and supports are made of reinforced concrete. These raised benches may be filled with soil, in which plants may be set out, or used to hold potted plants.

Solid beds vary in height from one to three feet. They are made directly on the ground.

They have from six inches to a foot of rich topsoil, with coarse material, such as coal clinkers, sand and gravel underneath, to secure a good drainage. Their sides are formed by planks nailed to posts or by reinforced concrete. Ground beds are made directly on the surface, being separated from the greenhouse paths by narrow planks set up edgewise, giving, more than either raised benches or even the solid beds, the appearance of a garden under glass.

A
PIPE was now laid by which town water was brought into the center of the greenhouse path, and a hose twenty-five feet long purchased, and a spraying nozzle. We now had a greenhouse thirty-two feet by twelve feet, with a path three feet wide through the center from end to end, and a solid bed each side four and one-half feet wide. As the surface soil where the greenhouse was built was a rich sandy loam, a foot deep, underlaid by sand, below which was gravel, there was perfect drainage. It was now October, and the greenhouse had no heating-apparatus. A friend of ours had a very small detached greenhouse which she successfully heated with an oil-stove. We purchased three first-class oil-heaters, and heated the greenhouse with these the first winter, using one or more heaters, as the outside temperature required, setting the heaters in the greenhouse path. The danger in this method of heating is that, on cold nights when all the heaters were burning, the air would become so exhausted that, toward morning when the most heat was needed, they would burn only very dimly. This was overcome by leaving some of the top ventilators open a crack, and putting in a bottom ventilator at the bottom of the north end of the path, which connected with an eight-inch drain-tile set vertically into the ground outside, down to the bottom of the path, and reaching above the ground close to the north end of the greenhouse up to the peak of the roof, and acting as a chimney to carry off the vitiated air. We got through the first winter safely with this arrangement, and obtained fairly satisfactory results in growing plants and cut-flowers. The next season, however, we built, at the north end, a boiler- and work-house twelve feet square, excavating so that the earth-floor of this house was on a level with the bottom of the greenhouse path, into which there was access through a door. There was access into the work-house also, at the west end, by a door and steps leading downward. We now bought a hot-water heater, and had it installed in the work-house, and had the greenhouse piped. This method was very satisfactory.

IN this greenhouse we grew successfully carnations, setting out the plants in the solid beds, Easter lilies, callas, Roman and Dutch hyacinths, and all the forcing varieties of narcissi in pots and pans, having started them outside, setting the pots and pans containing the bulbs close together right on the surface of the garden or in coldframes, covering them up first with sand or soil, and then later with hay or straw sufficient to keep out the frost, and bringing them in as we wanted to force them into flower through the winter, after the pots were well filled with roots, and the sprout was about an inch or two above the surface of the pot-soil. Besides these, we grew in pots or pans primroses, cinerarias, calceolarias, heliotropes, swainsonias, geraniums, and begonias, and, in the autumn, chrysanthemums in solid beds and in pots. In the solid beds we also grew head lettuce, parsley, mint, and thyme. As spring approached, we planted in the solid beds, or in seed-pans or flats, seeds of tomatoes, cauliflower, cabbage, eggplant, lettuce, and peppers, which later were transplanted into


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small pots or flats, and, still later, into the open garden.

At the north end of one of the solid beds, we placed a box about four feet by five, and four inches deep, raised a few inches above the surface of the solid bed, so as to give good drainage. This box was filled with sharp, clean sand, about as coarse as builders use in making mortar. This sand was pounded down solid, wet completely through and always kept so, and in it we placed cuttings of all kinds of potand bedding-plants, which were, as soon as rooted, potted off, and the bedding kinds set outside. This propagation by cuttings is very interesting.

A
VARIETY of flowering plants from seeds, asters, petunias, phlox, coreopsis, marigolds, stocks, mignonette, and many others, were sown in seed pans and flats, and transplanted, when large enough, first into pots, and later into the flower-beds.

Even the first year, we saw commercialism ahead, as we found a ready market for all surplus plants and blooms, and we welcomed rather than avoided it. Later, the writer retired from his profession, built two more north-andsouth houses like the first, and parallel to it, with a few feet space between the middle and each of the other houses, and extended the workhouse east and west.

Later, the work-house was remodeled into an east-and-west greenhouse, and extended a hundred feet west. This greenhouse range was several years ago, sold to a thrifty Swedish florist, who still runs it as a commercial place in the "wooden nutmeg" state. The writer has never gone back to his old profession of teaching, but has, in one way and another, been connected with the nursery and florist business, and he has never regretted the change.

## How Philoflora Made a Coldframe

by jennie bard dugdale

LIST, oh list to the true tale of Philoflora, all ye to whom the coldframe suggests naught but an array of tomato plants, lettuce, and radishes, in early spring, and for the greater part of the year a scene of desolation, with broken and disordered sashes and beds overgrown with weeds.
Philoflora fell heir to a large lawn and a slim purse. Philoflora-true flower-lover that she was--longed for blooms of every sort, for masses of shrubbery, for roses, roses, and yet more roses, for hardy old-fashioned perennials, for violets and pansies to gladden her heart, while February snow lay thick on garden beds, and florists prices soared far above the aforementioned slim purse.

During sultry September days, Philoflora made ready her coldframe. She utilized four discarded window-sashes, measuring thirty by thirty-six inches. In a sheltered corner of her garden, with a southeast exposure, a wooden frame was built, of a fit size to hold the four sashes snugly. It was sunken ten inches into the ground, rose six inches above it in front and twelve inches at the back, in order to give sufficient incline to the glass sashes. Four braces extending from front to back supplied supports for the sashes.

With this equipment, Philoflora proceeded to prepare the soil for her coldframe. The rather poor loam within it was spaded deeply, and half of it removed to make room for a wheelbarrow Ioad of wood earth, one of well-rotted manure, a bucket of clean, sharp sand, and a pint of a complete garden fertilizer. When all this was well mixed, watered, and left to mellow for several days, all was in readiness for the first planting.

With high hopes, Philoflora walked abroad among her friends with the receptive palm of
the mendicant. She returned Iaden down with spoils-long sprays from climbing roses, Crimson Rambler, Dorothy Perkins, Baltimore Belle, and other favorites, old and new. These she cut into eight-inch lengths, and planted an inch and a half apart, with two-thirds of their length underground. In such close phalanxes, sixty rose cuttings filled only a small part of the precious space in the coldframe. A simple diagram sketched in Philoflora's garden memo-randum-book served to show the location of slips by name or color.

When this was accomplished, our brave Philoflora fared forth in quest of yet other roses -the monthly, everblooming ones, teas and hybrid teas, best beloved of all the royal race of the rose.

Here the very embarrassment of riches awaited Philoflora. Strong was the temptation to give over the whole coldframe space to the goodly company. How could one make choice between Kaiserin Augusta Victoria and La France, Duchesse de Brabant and My Maryland, Safrano and Marie Van Houtte, Killarney and the Cochets?

But Philoflora wore the armor of high courage. Heroically she contented herself with some twoscore selections from the fascinating multitude, taking the precaution to plant two or three cuttings of each variety. As soon as the planting was finished, the soil was well watered, and the glass sashes tightly closed, and kept so except when further watering seemed necessary. Partial shade was provided on sunny days by cornstalks loosely crisscrossed upon the glass, and these were removed toward evening and on cloudy days.
$A_{\text {another section of the colion the rese department, }}^{\text {FTER }}$ another section of the coldframe was devoted to cuttings from hardy shrubs. The beautiful Spirxa Van Houttei proved especially adaptable to this method of propagation, as also did the weigela, the philadelphus, the Forsytbia suspensa, Berberis Tbunbergii, and even the slips of the unaccommodating boxwood. The hardy carnation took kindly to life under glass, and every joint which was given any opportunity, grew into a sturdy plant. Gaillardia and delphinium, transferred from an outdoor seed-bed, reveled in the winter climate of the coldframe, and became stocky and vigorous by springtime.

But we anticipate, and must return to September and Philoflora. One section of the coldframe she filled with young plants of the sweet violet, and with the first days of February the buds began to open, and the fragrance and beauty of the exquisite flowers blessed many a duII, snowy day, their season ending in April, just as their hardy outdoor sisters made their appearance.

In the last section of the coldframe Philoflora sowed pansy seed in late September. As the autumn wore on, wee, winsome pansy plants dotted the surface of the ground. They grew steadily stronger with the lengthening days and strengthening sunshine of mid-February, and in March became a glory of purple and gold. Unusual size of petal and length of stem distinguished these flowers, and the heart of Philoflora was full of joy.
$W_{\text {began to lift the glass sashes for a few }}^{\text {ITH the first balmy days of spring, Philoflora }}$ hours, increasing the time as the plants in the coldframe grew accustomed to the outside air. When danger from frost was past, the pansies were set out in beds and borders, and the roses and hardy shrubs and perennials were transferred to the places awaiting them. As they could be moved without delay and with ample balls of earth left on the roots, Philoflora found they had a great advantage over plants which came to her by mail or express. They made rapid growth, and so generously rewarded her toil that she returned each year to the preparation of her coldframe with increased zeal and interest in its possiwith inc
bilities.

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## Tramping in the New York City District

(Continued from page 197)
subway to 157 th street and Broadway; walk up the Lafayette Boulevard, across Dyckman Street and down the Speedway. For a very limited time, there is always Central Park, with guideposts and policemen to direct one from one point to another. Go in at East 72 d Street and cross diagonally north through the Ramble to West 81st Street. You will then have difficulty in believing that you are in the heart of a great city.

Bronx Park has become almost too well known as a picnic ground; but it is easy to reach, and the district near the old Lorillard mansion is very lovely.

From Yonkers up Warburton Avenue to Hastings is another good Hudson River walk.

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A good plan is to take a train to a chosen point, and walk from there to another stationperhaps across country to a different railroad line, thus varying the return.

Alpine to Englewood.-Make an early startalways, of course - to Yonkers, and take the little motor-boat ferry to Alpine. It is about eight miles down into Englewood, along the top of the Palisades. This trip is best for a good-sized or mixed company, as the district is sparsely settled. By breaking the walk with lunch, it is not too long, and is one of the most beautifuI near New York.

Staten Island.-This is a district all too little known-the most logical place for those who live far down town to set out for. The ferry trip of about twenty-five minutes from South Ferry to St. George is a treat in itself; a ticket for the South Shore Railroad (Tottenville line) is bought in New York. The northern end of the island from Tompkinsville toward Rosebank and Fort Wadsworth is pretty, though thickly settled. It is worth while, however, to go as far as Great Kills or Eltingville on the train, and turn immediately toward the ocean boulevard. A stretch known as the "Woods of Arden" borders the water for nearly two miles, between Eltingville and Annadale. The boulevard is not cut through, but there is a well-defined path over the heather fields, or one may walk directly on the sands as far as Prince's Bay. Again, it is possible to turn back to Amboy Road at several points, following it to Huguenot or Prince's Bay. The railroad runs about a mile from the water.

Long Island.- One must go farther out to find good walks on Long Island. The district near New York is in a bare, ugly, and torn-up condition, under development, and one must go beyond Jamaica to the Huntington vicinity on the north shore, or far down on the southern coast, to find real country and lovely surroundings. This is apt to be too Iong a preliminary trip for those who live in up-town New York.

North of New York there is the famous road from Irvington to Tarrytown or Ossining, through Sleepy Hollow. Like all the Hudson river walks, the scenery is incomparable, but the train-fare makes the trip a little expensive.

A train ride of an hour and a half brings one to CoId Spring or Cornwall, and the wonderful Highlands of the Hudson-Storm King, Anthony's Nose, and other peaks easily surmounted by those who rejoice in the hills. This district, and a score of others equally far from New York, are best for family trips, or large parties properly chaperoned. Girls should not undertake them alone.

Find out in advance about each trip you propose to take-the carfare needed, the train service, and, if possible, any objectionable features which it is well to avoid. A long stretch of lonesome woods is an unwise selection, unless the walking party is very large or includes some older and responsible woman. Districts settled by foreign laborers and factory employees are


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By all means, carry your own lunches and enjoy them out-of-doors. Let the lunch include a beverage of some kind, as you may not be able to get water that is safe to drink. Grape-juice is easily carried and pleasing. Lemonade syrup can be taken if you are sure of getting good water to dilute it with. It is always a splendid provision for hot weather, as it can be made and bottled at any time. Here is the recipe:

Boil together two cups of water and three cups of sugar for ten minutes; add the juice of three Iemons and the grated rind of one; bottle in sterilized jars, or set away in the ice-box to cool, 'f wanted at once. A tablespoonful in a glars ef ice-water is a good proportion.

Try to haye as little thirst-provoking food as possible. Cakes, candies, fudge, crackers, and sweets will all make you thirsty; also olives, nuts, and chocolate, except milk chocolate, and olivenut sandwiches well buttered. Lettuce, lobster and chicken-salad sandwiches are refreshing and successful, also cheese and nut, olive-nut, pimento-cheese, and peanut butter, for variety. Oranges relieve thirst, but bananas and appies will produce it. Think about this point in preparing your lunches. Ham and corned-beef sandwiches always taste good, but the salt is a disadvantage. Substitute stuffed eggs, prepared with French dressing very lightly seasoned, if the ordinary meat sandwiches seem too flat.

Invent some means other than your hands for carrying your lunch, and perhaps your sweater, suspending them either from your shoulders or your waist. If you are fortunate enough to own a camera, your pleasure will be doubled. And for the midday loafing time which every walk should include, a tiny vest-pocket book of poems, a story to read aloud, or a sheaf of interesting clippings, will stimulate conversation, bringing out the intimate side of each member of the party-one of the most fascinating features of the whole program. But do not make the mistake of trying to walk under too heavy a burden. It can be done in the mountains by experienced climbers, but the novice: : better off untrammeled. You would be astonished to know how little I have carried for a three weeks' walking trip in the Alps. It's all in knowing bow to do it.

## A Poultry Hopper <br> by george e, brown

Aenterprising poultryman has just put into use a new-style hopper, which gives admirable service. The old hoppers accommodated only a few hens at a time, but this new one makes a fine feed-pen for a large number of fowls at one time.

The new hopper consists of two boxes, the


A Home-made Poultry Hopper
upper one placed inside the lower, as shown in the accompanying diagram. Of course, the lower one makes the feed-pen, while the upper is filled with the fowl's rations. The upper box has a hinged top, and is raised on pegs one and one-half inches from the lower, or base-box.


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## (Continued from page 196)

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## Poultry-House Ventilation

## by M. ROBERTS CONOVER

WHILE the ventilation of the poultryhouse is rarely a serious problem in the summer, the dryness and purity of the air in winter is of vital importance to the welfare of poultry.

To keep the air above the freezing-point, and yet have it pure, has long been a vexing problem in poultry-raising. Where the air is cold and damp, the birds will eventually sicken. Combs will become frost-bitten. Egg-production will decrease, or cease altogether. Drafts of cold air, even if the coop is dry, are likewise dangerous; but a dry, pure atmosphere, with the birds in motion during the day, and with a roostingplace which gives them the benefit of their own warmth at night, will go far toward keeping the birds healthy and vigorous.

Ventilators which promise much in theory often fail in practice. Pure air, admitted through ventilators near the floor, often becomes vitiated before it reaches the roosting birds; moreover, this method is drafty. Ventilation at or near the top of the building often carries out too much warm air and too little of the impure air.


A Well-ventilated Colony House
There is always a corner where foul air remains undisturbed, or a place on the floor which is not thoroughly dried. To maintain comparative purity of air near the floor, its surface must be dry. This can be accomplished only by flooding the floor with sunlight. The supply of fresh air must be of such volume as to give a complete change in a short space of time, without the drafts which result when the air moves faster than three feet per second.

A method of ventilation which is standing the test of wide usage is to make a broad opening on the south side of the building two or three feet above the floor and extending almost to the roof, curtaining it with some fabric which retards the velocity of the air. The three other walls of the building are made perfectly airtight. In pleasant weather, this curtain is raised during the day, but is kept over the window at night or during stormy weather.
For a building twenty-five feet long by ten feet high and ten feet wide, such an opening, five by six feet, placed horizontally, gives excellent results. If preferred, one may use two openings, each two and one-half by six feet, with equal effect. In large buildings, some practical poultrymen advocate using the curtained window alternately with one of glass.


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## Practical Decoration for the Home Interior

(Continued from page 188)

changed by a number of methods. The most common method is, probably, that of coating this woodwork over with white enamel. On work of this kind, it is best frrst to have the woodwork thoroughly washed and then lightly sanded, so that all little rough spots and scratches are entirely eliminated. Then a covering of flat white paint should be first applied in one or two coats, sufficient to give a satisfactory white surface for the enamel. Usually one coat of enameI will be quite sufficient, and, if this enamel finish is rubbed with pumice stone and oil to a dull finish, it will be much more satisfactory at the start. Of course, the white-enamel finish will get dull after repeated washing. By the use of pumice-stone and oil one gets the dull effect at once. There are many chambers as well as dining-rooms finished in the yellowish natural effect that can be very greatly improved by white enameling the woodwork. This, of course, covers up all imperfections in the wood, and gives the room a most thoroughly bright-ened-up effect.

Oftentimes the woodwork can be most effectively treated by using a coat of stain and varnish combined. This will, of course, produce a darker effect than the present finish. Oftentimes these lighter pine and oak effects would harmonize better with the general color scheme of the room if they were darker. There are attractive colors in stains of this character. The browns are especially good, while the greens and mahoganies are used with equally good results. One coat of such material will be found quite sufficient, after going over the woodwork and sanding it lightly, in order to be sure that there are no rough spots on it. A very simple method of getting the dull effect on woodwork of this kind is to use a velvet-finish varnish, which produces the duII effect without the necessity of rubbing with pumice-stone and oil.

A
THIRD method which is often employed for the refinishing of woodwork is to remove all of the old varnish and stain, and start in exactly the same as on new work. In cases of this kind, it is, of course, necessary to start the refinishing with a coat of stain, and follow that with shellac and one or two coats of some good interior varnish. It is well to sand between coats and rub the last coat with pumice-stone and oil, unless a mission finish is desired, in which case only the stain and a light body varnish are necessary. Such a finish can also be waxed satisfactorily. Oftentimes it is only necesary to go over woodwork with a coat of varnish, and rub that varnish down with pumice-stone and oil, or leave it in the gloss as desired. A little light sanding before applying such a coat will always give better results. It is really surprising how much such a coat of material will brighten up the woodwork. It is often very important that the baseboards be finished with varnish, since it is around the lower part of the baseboard that gets the most wear. Oftentimes the varnish has been entirely worn off from this part of the woodwork, and by applying a coat of varnish to the entire baseboard one brings back the woodwork into its former condition. The window-sills should be treated in the same way.

White-enamel woodwork often gets badly scuffed, and it is very easily renewed by applying another coat on the most badly worn parts. A little sandpaper will often clean off spots and scratches. This should be done before the enamel is applied. Otherwise it will often take two coats to cover up these dark spots; whereas, when they are first sandpapered, one coat will be quite sufficient.

After the rugs have been removed from the floor, the worn parts always show up very badly. We must not let this discourage us, since there is no floor but that can be brought
into a fairly satisfactory condition. Even the worst floor will show up surprisingly well after a coat of inside floor paint has been applied. Such a material, of course, is opaque, and covers up the floor or the grain of the wood entirely. It is a very easy material to apply, and two coats of it will give excellent results. Oftentimes such a finish is used only as a border, and it is used in connection with Greek key stencils which give the appearance of parquet flooring. Attractive floors give all of us wonderful satisfaction, and it is well worth while to give this matter very serious study. If everyone who has to deal with varnished floors would realize that an occasional coat of varnish over the worn parts would keep the floor in excellent condition at all times, the necessity of scraping worn floors and refinishing them entirely would never develop. When a varnished floor has been allowed to stand hard wear, month after month, the dirt seems to get ground down into the wood in such a way that it cannot be gotten out by ordinary washing or scrubbing, but requires deep scraping. This is always a big expense, and is not to be compared with the small cost of applying an occasional coat of varnish over only the worn parts.
A NOTHER method of getting a satisfactory floor-finish over a floor which has been rather badly scrubbed and washed, is to first apply a coat of ground finish and follow this with a coat of stain and varnish combined. In this way the badly worn and black spots of the original floor are first covered up entirely by means of the ground coat. Then the new finish is stained and treated in an entirely new color which will conform with the decorations planned.

In nearly every room there will be found one or two pieces of furniture which need renewing. These pieces can be easily brightened up with a number of different finishes, which can be purchased from your local dealer. Take, as an example, the wicker chair which was originally light in color, but has now become badly spotted and worn. This can be treated with one coat of stain, which will change the color, and give it new brilliancy and new life. Oftentimes a coat of varnish on pieces of furniture, after first sanding them, can be followed with rubbing with pumice-stone and oil, and will produce wonderful results. The greatest pleasure in all of this operation of redecorating, of course, comes when we have the walls, woodwork, and floors all finished, and reach the point of bringing in the furniture, hanging the draperies, arranging the pictures, etc. This, of course, is a very important part of the work, since the arrangement of furnishings will very easily make or mar any room. Do not hastily place things about the room. Use some definite plan in all of this work. Use great care in hanging the pictures, grouping similar subjects together, and having some variety in size on the different walls. The pictures should be arranged so that there is a perfect balance on each wall. This can be easily experimented with until the position of each picture seems to satisfy one in every respect. Oftentimes a wonderful improvement can be wrought in one's rooms by eliminating superfluous bric-a-brac, pictures, etc. Avoid overcrowding in the furnishings.

This placing of furniture, hanging of draperies, hanging of pictures, etc., should correspond to the final touches in the painting of the pictures. While they cannot be said to be the most important feature, they are a very important part of the picture. It is these little bright touches that give color to the room, and just as the final "touching in" of the picture is the most enjoyable part of the work for the artist, so the final furnishing of the room is the most enjoyable part of the redecorating for those who have the spirit of doing things themselves.

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Heating the Country House Properly

(Continued from 186 )

occupy a person's time, as the air once removed does not get back into the system, and the only air which accumulates is that which the water gives off.

Water, when heated, expands, and the hotwater system must be provided with a method of relieving expansion. This is generally done with a small tank placed in the attic where it will not freeze, above the highest radiator. An outlet is taken from this tank through the roof and emptied into the down-spout, so, should the expansion be excessive, the water can flow out of the tank. Great care must be exercised and the outlet always kept free and never allowed to freeze. The expansion tank is provided with a sight-glass which always shows the height of the water in the system, and this is also shown in the basement by means of what is called an altitude gage. A thermometer should always be provided, to indicate at just what temperature the system is being operated.

The principal advantages of hot water are its ease of control and its economy in the use of fuel. The first cost is probably higher than of any of the other methods, but this is readily offset by its fuel economy. A properly constructed hot-water system is a source of much comfort, and, while there are some objections which can be raised, there is little that can be claimed against the method. Return pipes must be provided for each radiator and a good circulation must be had to insure proper results.

Many hot-water systems have been condemned because of poor circulation. This fault is not with the method but rather with the construction. Devices have been produced which can be attached to hot-water heating-systems that will insure a perfect circulation. These devices are simple and inexpensive, and have produced some excellent results. Their function is to put the system under a pressure of ten pounds. This causes the water to flow more freely and permits it to absorb a greater amount of heat.

VAPOR heat is the newest, and its advocates say it will probably be the most successful, of the different methods which are in use at the present time. The object is to combine the good qualities of steam and hot water and omit some of the disadvantages of the older methods.

Vapor heat embraces the speed of the steam system and omits the difficulty of regulation. It is claimed to produce the delightful evenness of hot water without the use of the large radiators and the great body of water with which the water system is filled. Vapor heat is yet in its youth, and there are still many improvements to be added. There are a number of styles of vapor heating on the market, and to attempt to describe each would go far beyond the limits of this article. All of them attempt to arrive at the same solution, only through different routes.

The chief difficulty with steam heat is the air which accumulates in the radiators. In vapor heat this difficulty is dispelled. In the steam-heating system, the air is forced out of the radiators by the steam which has been generated to a pressure. To produce this pressure, it can readily be seen that there is an amount of energy which is wasted before the actual heating process begins, and this energy requires the consumption of coal.

In vapor heating this air is removed by other methods, so that no pressure of steam is necessary, because with the air removed the rising vapors of the heated water eagerly seek to fill the space in the radiators left vacant by the removal of the air. The heater and the piping are identical with those used in steam heating, while the radiators are the same as those used in hot water, only their size is somewhat smaller.

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so graduated that the radiators can be heated by sections. Instead of having the whole of the radiator either hot or cold, as the case may be, it is possible to heat a quarter or half of the radiator during the mild weather and use the whole radiator when it is necessary. This is a decided advantage, as the temperature in each room can be arranged to suit the weather conditions. No air-valves are necessary with this system, and the working of the heating apparatus goes quietly on without the usual hissing noise that the air-valves on the steam system make.
The manner of extracting the air from the radiator is where the different styles of vapor differ. One of the prominent ways is by running an air-line from the radiators into the chimney so that when the heater is in action the draft in the chimney pulls the air from the radiators. Of course the system must be sealed so as to prevent the waste of the vapor (which is nothing more than steam without pressure), and this is taken care of through a separate appliance which is generally controlled by government patents.

A NOTHER well-known style uses the water of A condensation to extract the air. Other styles employ the use of pumps, either operated by electricity or by water-pressure from the city water-supply, No matter which method is used, the object is the same and the results obtained are nearly identical. The ease of control is undoubtedly its greatest feature, and when a system is easily handled it means that it will be economical in the use of fuel. The cost at installation is slightly less than hot water, while the results obtained are claimed to be better than those obtained from its older rival.
A few words of further advice may not be amiss to the prospective house-builder. Locate the heater as near to the chimney flue as possible, and let this flue be a separate flue. Have nothing else attached to it, let it be as nearly straight as possible. A smooth-tiled flue is always best. The chimney should rise well above the building and should be in all directions free from any obstructions, such as trees. The construction of the system is of as great importance as the proper selection of the style of heating, and a competent person should do this work.
Hot water for domestic use can be obtained from the heating appratus by the introduction of a coil or small waterback in the fire-box of the heater. When this is done, however, ample allowance must be made for same. In all cases select a heater slightly larger than is necessary, and the question of heat will be solved by a cozy and comfortable home when the winter winds are blowing bleak and chill.

## Finding a Use for the Unused Door

## By kate hudson

WE who board or lodge and do light housekeeping are often confronted by doors leading, so far as we are concerned, to nowhere; doors locked tight and unused, unsightly and unprofitable. With slight trouble and small expense, such a door may be most advantageously converted into a bookcase by having a carpenter set up a vertical board on each side of the door-jamb and upon these boards-to the saving of the door-frame itself-nail the cross-pieces upon which the book-shelves are to rest. Then have your woodwork painted or stained to match the door behind it, and hang a curtain of canton flannel, denim, or a more ornamental and serviceable material from a rod fastened just inside the door-jambs, if the recess be good and deep; if shallow, as the door-settings are apt to be in our newer houses, have the rod fastened across the outside of the door-recess. A door thus treated will accommodate a surprising number of books.


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 39 CORTLANDT STREET NEW YORKHow to Choose Light Fixtures (Continued from page 189)
very useful metal is produced. The fixtures having imitation candles, either for gas or electricity, are useful in many places and in rooms of almost any period, for, as real candles have been used for centuries, their imitations seem to fit in and to be at home in almost any environment. The fixtures having glass pendents, and shades of cut-glass are not appropriate to such general use and are suitable only in rooms in the Georgian style which, in a somewhat modified form, in America is called the "colonial."

Architects and decorators everywhere are encouraging the use of side-lights, or brackets, often to the giving up of chandeliers, excepting in very large and formal rooms. The chandelier, to tell the truth, has been sadly overworked and abused for many years, and has been used in so many places where it never should have appeared that its prestige has diminished, and its populanity waned so that it is now losing ground. As a means for brightly illuminating the ceiling of a room nothing could have been more successful than the old-fashioned chandelier, the number of lights of which might vary from two to eight, but it had an unpleasant habit of leaving much of the room in twilight or semi-darkness, and only rarely could it be made to cast the light down, which is necessary for comfort in rooms used for living purposes. How much more satisfactory in most rooms is the use of side-lights carefully placed. They are becoming increasingly popular for all the rooms of the house, and have always been in demand for bedrooms and for any but the most important master rooms. Properly arranged, they will illuminate a room sufficiently without creating the glare and unequal distribution of a chandelier, and, with the use of shades, their light may be softened and tempered to any extent desired.

BUT even in houses from which chandeliers have been abolished, the idea survives in the slightly altered form of a "dome" in the diningroom. After all its popularity and firm hold upon the affection of housekeepers is the result of much merit, for it casts its radiance not upon the ceiling but upon the dining-table, as it should. If it be made of glass which is not too dark, a soft and sufficient light will illuminate the room, while only upon the table will a bright light be cast, and the dome is generally hung low enough to avoid casting its light upon the faces of those sitting at the table, which is perhaps another reason for its popularity. A hanging dome, however, has its drawbacks as well as its advantages, for it renders impossible the placing of the table in any position other than directly under it and the dining-room cannot be used for any other purpose, as the low-hanging lighting fixture would be hopelessly in the way

But the dome is giving way to what may be briefly described as the "shower," a form of the chandelier with the lights hanging downward, and which is being made in many attractive forms.

Just now there is a growing tendency to employ lighting arrangements where the source of the light is concealed and where only a soft glow is seen. This is accomplished often by placing lights behind cornices or heavy moldings so that the radiance is diffused without the eye detecting the electric bulbs which are used to produce the effect. The alabaster bowls which are sometimes used for holding the lighting arrangements are exceedingly beautiful and may be mounted upon tall standards or placed upon mantels or in other positions where, being somewhat above the level of the eye, the incandescent lights which they hold are not visible.

Another form is that of the inverted bowl suspended from the ceiling in which are placed the electric bulbs. Until one has used this method of lighting, or has seen it in operation, the wonderfully soft diffusion of light that is


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We imported a large collection of Paris Models for the Fall Season from such well-known designers as Drecoll, Beer, Poiret, Martial et Armand, Bernard, Agnes, and others, all of which are represented in modified form in the October number of Pictorial Review. In that issue you will find the new Pannier and Directoire effects, the picturesque Robespierre styles in blouses, dresses, and coats, the new plaited skirts, in fact everything which will be fashionable this coming season. Be sure to see this Big Fall Fashion Number before selecting your styles for fall. It costs you no more to be dressed correctly and in the most up-to-date attractive fashions. Therefore get the best.

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accomplished can scarcely be imagined. The use of inverted shades is undoubtedly a coming form of lighting arrangement, and both the shadeand fixture-makers are producing some remarkably attractive things.
Of late years the use of portable lamps, also known as "drop-lights," has become more general. This is partly because they are, in themselves, so beautiful, and partly because they are valuable as reading-lamps, and, being easily moved about, they lend themselves to many different arrangements of furniture. In wiring a house, a library or living-room is generally provided with one, or sometimes with several, "plugs" to which the wires of these portable lamps may be attached and this makes possible their use on reading-tables or wherever they may be required. These movable lamps are particularly beautiful when fitted with shades of leaded glass. The shades themselves are to be found in the most fascinating designs and in a vast array of colors, so that almost any combination may be had. Perhaps the most satisfactory shades for general use are those made of brown or amber glass, or the same material in the different shades of green, all of which are particularly beautiful when lighted. Shades, in fact, play an immensely important part in the lighting arrangements of a house-they may be used either upon gas or electric fixtures in shapes adapted for each. A much greater variety of shades is possible for use with electricity than with gas, and such shades may be of various materials so that they are highly decorative.

So important are the arrangements for lighting a house that the greatest care should be given to their selection and arrangement, and money judiciously spent upon them will be productive of large returns in the comfort and beauty which the modern home should exemplify.

## Red and Gold

## by L. d. Stearns

ONCE upon a time, the god of Summer and the god of Autumn met.
Summer sat lightly on a snowy steed, with silver mane and tail and sunlit trappings, moving slowly, dreamily, along through pathways bright with sun and flower, languorously idle, happy in the warmth and glow. But Autumn pranced along on a dark brown mare, and all bis trappings were of red and gold. No time to waste had be. His path was through bright lanes, all rich with gleam and gold. A little chill was lingering somewhere through the trees, and, as he passed, a gentle crispness seemed to touch the air.

They met and paused; clasped hands; and Summer sighed, and shook from out his pack the last sweet petals of the dying flowers.
"The land is fair," he said,-" "a land of play and warmth, of sun and shower. I leave it now for you."

But Autumn proudly raised his head. "Nay! Nay!" cried he, "a land of work! The harvests must be gathered, for $I$ reap where you have sown!"

And so they parted. And wherever Autumn drove his steed, where flower or leaf had been, a gleam of gold and red appeared in gorgeous, regal splendor.
"Work! Work!" he cried, in ringing tones; "the idling time is o'er. Up and away! The harvest calls; see ye the open door? Now is the time for striving, would ye conquer on the way. Bind and gather in your sheaves, friend. Start for the goal today!"

## For Out-Door Sleepers

TO many, the chief objection to sleeping out-of-doors is the necessity for early rising on account of the glaring morning light. If a thin, black silk scarf or a gauze stocking is bound lightly over the eyes, the morning nap may be prolonged.
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## An October Idyl

## by harriet woodward clark

WITHIN the whole circle of the twelvemonth, there is nothing to compare with a New England October day. It is the delight and despair of both the poet and the artist. Longfellow, in his immortal sonnet, sings this refrain:

Thou comest, Autumn, heralded by the rain, With banners by great gales incessant fanned, Brighter than brightest silks of Samarcand, And with stately oxen harnessed to thy wain! Thou standest, like imperial Charlemagne, Upon thy bridge of gold; thy royal hand Outstretched with benedictions o'er the land, Blessing the farms through all thy vast domain. Thy shield is the red harvest moon suspended So long beneath the heavens' o'erhanging eaves. Thy steps are by the farmers' prayers attended. Like flames upon an altar shine the sheaves, And, following these in thy ovation splendid Thine almoner, the wind, scatters the golden leaves.

The fall of the year! How often we hear the expression, and how symbolic it is,-the falling leaf, the falling of the fruits, the falling of the chestnut burs, the falling of the acorn. The words strike our ear with a melancholy sound:
Oh hear ye not a voice that comes a-singing through the trees,
Across the mead and down the dell along the dying breeze?
And hear ye not the burden of its melancholy song, Upon the lingering winds of autumn sadly borne along?
"Home, shepherds; home, sheep; winter cometh near;
Wither, flowers; fall, leaves; days will soon be drear.' -Henderson.

A UTUMN is the time of fruition; the harvest time with all its glad compensations for labor well spent in Nature's garden. The billowy fields of grain are safely garnered. We no longer hear the sound of scythe or sickle. On the prairies, the great reapers have ceased their tumult because the fields are bare. Their work is done. The luscious fruits, kissed by the summer sun and blushing rosy red under the golden haze of September, are carefully gathered into storehouses, together with the vegetables from the garden, to add to the householder's winter supply.
Bent low by autumn's wind and rain, through husks that, dry and sere,
Unfolded from their ripened charge, shone out the yellow ear;
Beneath, the turnip lay concealed in many a verdant fold,
And glistened in the slanting light the pumpkin's sphere of gold
There wrought the busy harvesters; and many a creaking wain
Bore slowly to the long barn-floor its load of husk and grain.
-Whittier.
Mother Earth, having scattered her largess with generous hand, now pauses in her beneficent work. Love and Labor have accomplished gigantic tasks.

> There's not a sparrow or a wren,
> There's not a blade of autumn grain, Which the four seasons do not tend, And tides of life and increase lend. $\qquad$
Rocked on her breast, these pines and I Alike on Nature's love rely.
-Whittier.
The climax of royal endeavor is reached in October. Nature views her completed work with impartial eye, and pronounces the verdict, "Well done." The time has now come for a cessation of the active forces of life. The strenuous efforts of millions of her willing subjects merit a reprieve. Resting-time has come. But, before the volume is completed and the word "finis" written, Nature provides another feste-
a valedictory pageant with which to set her seal upon the year's work. We recognize this feste in the carnival of the trees. "The beauty that shimmers in the yellow afternoons of October, who can clutch it?" What, in the whole calendar of the year, can compare with a bright October day? Observe the clear blue of the skies; the fresh tang to the air, with its hint of frost. Listen to the music of Nature's orchestra.

Hedge crickets sing; and now, with treble soft, The red-breast whistles from a garden-croft, And gathering swallows twitter in the skies.

OCTOBER days are short and the nights cool. But what they lack in length they make up in breadth. At the close of one of these bright days we feel at eventide as having enjoyed, as Hawthorne expresses it, "a big armful of life since morning." The sunshine is especially warm and golden. It wears a benignant aspect. It lacks the scorching heat of July, or the pale chilliness of May, and envelops one with a feeling of comfort.

As we walk abroad, the landscape all about is glorified by the hues of autumn. Every common weed and shrub by the wayside has become transformed as by a magic wand. The sumachs are flaming torches. The patch of huckleberry bushes in yonder pasture is an island done in reds. The trees in their coats of many colors are beautiful beyond all words. Art can never reproduce the pomp of crimson and purple and yellow of an October day. It defies the genius even of a Corot or a Rubens.

And now comes Autumn-artist bold and free, Exceeding rich in brightest tints that be, And, with a skill that tells of power divine, Paints a vast landscape wonderfully fine. Over the chestnut cloth of gold he throws, Turns the ash purple, cheers with scarlet glows The lovely sumach, that erewhile was seen Clad in dull foliage of a somber green, Where daisies bloomed gives goldenrod instead, Stains every oak leaf with the darkest red, Sets all the woodbine's waving sprays on fire, And leaves them flaming from the cedar's spire. -Extinge.
IN the autumn there is an individuality about the trees which is not noticeable earlier in the season when they all appear in shades of green. Each now wears its own peculiar livery, and we can easily recognize the maple, oak, poplar, walnut, chestnut, and other trees, by their fall dress. The somber pines, with their evergreen coverings, form a rich background for their more brilliant neighbors. At the foot of the great forest trees, the feathery fronds of many ferns wave their delicate bronze streamers in the breeze. The gray lichen in the dense shade of the deep woods clings to the smooth bole of the beech for support. By the brook, the alders and willows change into varying shades of amber. Lowell writes of them:

And under it full often have I stretched,
This willow is as JId to me as life;
Feeling the warm earth like a thing alive.
Of the forest of Arden, in "As you Like It," Shakespeare represents the banished duke as saying:
"Are not these woods more free from peril Than the envious court?"

Recognizing the spiritual healthfuIness to be gained from cultivating a closer acquantance with Nature, Wordsworth says:

> One impulse from a vernal wood
> May teach you more of man,
> Of moral evil and of good,
> Than all the sages can.

I am not surprised that English visitors are greatly impressed at the gorgeous display presented by our New England woods in October. Their island home lacks the vivid coloring which

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By
PARKER THAYER BARNES

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The most helpful magazine for home-builder
is the chief glory of our American woods in the autumn.

It is a pleasure to watch the delight of citybred children as they take trips into the suburbs, and enjoy-some of them for the first time-the carnival of the trees. To them Nature has opened a grand Arabian Nights' Entertainment-for their especial benefit. They need no Aladdin's lamp to explore this wonderful palace. The sun illumines the spot, and adds immeasurably to the brilliancy of the scene. With their vivid imaginations, they readily people the place with fairies and gnomes, with knights and ladies.

Walled in with fire on either hand, I walk the lonely wood-road through.
The maples flame above my head,
And spaces whence the wind has shed
About my feet the living red
Are filled with broken blue.
$\qquad$
AS I stand in awe before our great forest trees, symbols of strength and steadfastness, typifying the "procession of human life in their grand march," I do not wonder that Bryant found here a theme for his "Forest Hymn:"

The groves were God's first temples. Ere man learned
To hew the shatt, and lay the architrave, And spread the roof above them, in the darkling wood,
Amidst the cool and silence, he knelt down, And offered to the Mightiest solemn thanks And supplication.

The whispering winds-those penetrating voices of the wood-break the silence and murmur: "We all do fade as a Ieaf!" Granted. But is this a cause for sadness? The leaf fades in glory. The seed falls into the ground that it may spring up again into a newer, fresher life.

When will the clouds be aweary of fleeting?
When will the heart be aweary of beating? And nature die?
The stream flows,
The wind blows,
The cloud fleets,
The heart beats
Nothing will die.

## How to Start Hard-W ooded

 Plants
## By ELizabeth grega

OLEANDERS, olives, and other plants of a similar character, are often dif:cult to grow from cuttings. If taken when the wood is in just the right condition, the slips will generally start in sand; but, if they have gone beyond this "just right" stage, they will refuse to do so.

I have often succeeded in rooting them in water when I could root them by no other method. Fill a wide-mouthed bottle or fruit-jar with rain-water, and drop the cuttings into it, after removing the leaves at the bottom. Allow the tops to project above the water, always. Place the vessel in a window where the sun can strike it, and add water as evaporation goes on. In two or three weeks' time you will generally notice tiny white roots starting from the base of the cuttings. When these have grown to the length of an inch and a half, or two inches, crumble soil into the water and let it settle among the roots until they are covered, then pour off most of the water and allow evaporation to go on before more water is given, until the soil is of about the same consistency as that in pots of growing plants.

After a week or two, the young roots will have filled the soil, and the plants can be removed by breaking the bottle, without the least injury, or set back and potted off singly. Ivy is rooted in this way with much more certainty of success than by any other method.

## Green Food-A Necessity for the Laying Hen

 HOW TO PROVIDE FOR A SUPPLY DURING THEWINTER MONTHS-SPROUTED OATS AND WHEAT

By H. V. TORMOHLEN

CHICKENS must have some kind of green food along with their grain and meat food during the cold months, if many eggs are expected. Beef-scraps, green cut-bone, blood-meal, or chopped raw beef will take the place of the bugs and worms they pick up during the summer, but something must also be provided to take the place of the tender blades of grass picked here and there. Grains are too concentrated in themselves to form the whole diet for domesticated fowls. With a crop filled with nothing but grains, the starch in them
cow-beet, or mangel wurzel, forms a very cheap and efficient green food for poultry, but can scarcely ever be purchased on the market. If you want a supply of green food for your fowls for next year, sow a small quantity of the seed along in July, or engage some farmer to grow some for you. If you live in the suburbs, possibly there is a hothouse near which grows lettuce during the winter. The waste leaves may be obtained at small cost.
Sprouted oats or wheat makes another good form of green food for winter use. The grain is


Sprouting-box for Green-food Supply to be Used at Any Time During the Year when Green Food Cannot be Grown in the Open
becomes pasty and sticky after becoming moist, and will not move along easily through the fowl's peculiarly formed alimentary canal unless there is some bulky substance mixed with the food. In fact, it requires very much less food if bulky green foods of some kind are fed regularly, and, of course, they are much cheaper.

$\mathrm{A}^{\mathrm{T}}$T first thought, it would seem almost impossible to have a supply of green food during the winter in our northern and central states, without considerable cost. Yet there are several different ways of supplying this part of the ration. Apple-parings and cabbage leaves, which would otherwise be wasted in the kitchen, can be chopped up with a vegetable-cutter into pieces small enough for the fowls to swallow, and they form an excellent substitute for the grasses of summer. Heads of cabbage may be hung up in the scratch-ing-shed, so the fowls will be required to jump for them. This also provides exercise. Care should be taken, though, not to feed too much cabbage, as it will give the eggs a peculiar flavor. If turnips are plentifuI, they also may be fed in this manner. In the Iast few years, alfalfa has been placed upon the market in the form of a dry, bulky meal for poultry. Aquantity of the meal is scalded with hot water the night before it is intended for use. It turns as green as grass as soon as it is scalded, but it should be left covered tightly for several hours. It should then be mixed with mash-food, so that it will form about one-fourth of the quantity of the bulk.

Pure, clean clover hay is equally good chopped up and scalded, and fed in this manner; or a bale of clover hay may be left in some out-of-theway place for the fowls, when it will soon be found that the leaves will all be picked from the stems; then the bale may be torn apart. It will surprise some to think of fowls eating hay, but they will actually eat all the leaves off the clover stems, so much do they relish bulky food. The
soaked in Iukewarm water overnight, and then placed in a shallow box or pan in a two-inch layer, and the box kept in a moderately warm temperature for ten days or two weeks, or until the young plants reach a height of two or three inches. Several boxes should be used, so that the fowls will have green food every other day.

$T$HE drawing is an illustration of a sproutingbox, to be used any time of the year when green food cannot be grown in the open for fowls. The box is 36 inches Iong by 13 inches wide, and is 4 inches deep. The small boxes, or pans, are made of galvanized tin. They are 5 inches by 7 inches, and about 4 inches deep. Oats and wheat are soaked overnight in Iukewarm water, the water drained off in the morning, and one of these pans one-third filled with the soaked grain. Every other day then, after this, soaked grain is placed in another pan. The box is placed in a warm, light place. In fifteen or eighteen days, the first pan of sprouts will be ready for the fowls, and every two or three days thereafter. The sprouts are sprinkled once or twice a day, care being taken that they are kept reasonably moist.
Thesproutinggrains form a mass of matted roots. The fowls eat these, and the few remaining grains as greedily as the sprouts. The roots form such a compact mass that they are lifted bodily out of the pans when being fed. This is the reason separate receptacles must be used for each growth of sprouts, as otherwise they would mat so tightly that they could not be fed a little at a time, and when needed.

A pint tin of oats and wheat, soaked and placed in one of the pans, as shown in the drawing, in two or three weeks makes a mass of green, succulent, tender sprouts, sufficient for a pen of fowls and highly relished by them. They will materially increase the egg-yield, to say the least, and wonderfully tone up the flock and improve it in every way.


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