House Plants
Michigan State University Agricultural Experiment Station
Circular Bulletin Series
Alex Laurie, Horticulture
Reprinted December 1930
17 pages

Oakley Gardis

Circular Bulletin No. 99, Reprint December, 1930

HOUSE PLANTS

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HORTICULTURAL SECTION

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HOUSE PLANTS

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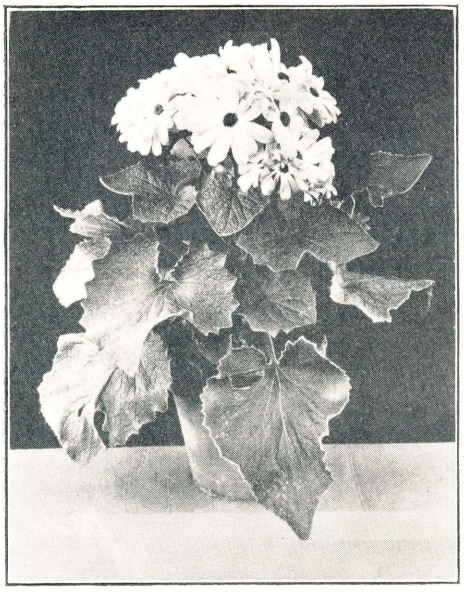
Plants grown in dwellings are generally exposed to conditions adverse to their best development and to successfully develop them in such places is a triumph of art, conscious or accidental. Knowledge of their requirements, particularly in regard to light, moisture, temperature, soils, and pest control, is certain to be helpful in removing or reducing the handicaps which plants encounter in most houses.

Light—All plants do best when exposed to a relatively large amount of light, though the amount of direct sunlight which they require varies considerably. Generally, their ability to manufacture foods and to utilize them in making rapid growth depends on the abundance of their light supply. On the other hand, many of the "shade enduring" kinds are retarded in their growth by strong light. Flowering plants like geraniums, roses, and begonias thrive best in a sunny south window; while those grown chiefly for their foliage, like Aspidistra, ferns, palms, and vines succeed better in an east or west window where they receive more subdued light. North windows admit too little light for healthy growth of almost all plants.

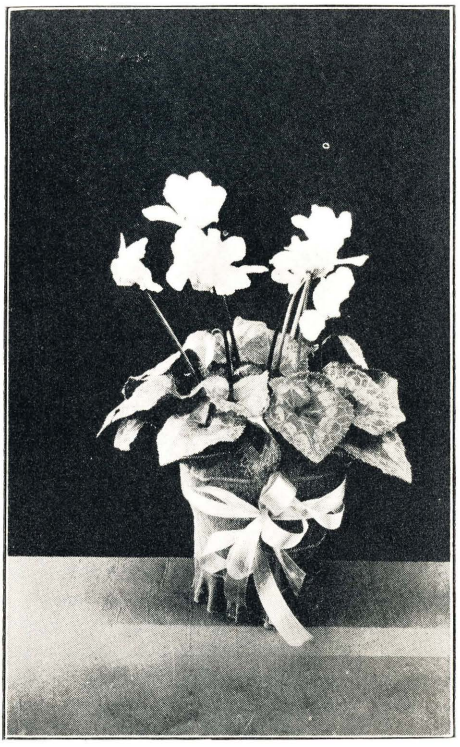
Moisture—A moist atmosphere is important to healthy plant development but such atmosphere is rather difficult to provide under the ordinary methods of heating dwellings. Under the usual conditions of low humidity, plants suffer repeatedly both from the drying out of the soil and from the effects of the dry atmosphere upon the plants themselves. Gradually, they become unhealthy and are then more susceptible to the attacks of certain insects and diseases. To alleviate this condition, spraying of the foliage with water applied with an atomizer once or twice a day is beneficial. Humidity may also be increased by providing a shallow copper or galvanized iron tray in which to set the plants. The bottom of the tray is covered with pebbles or gravel so as to hold the pots off the bottom and then enough water is poured in to cover the bottom and wet the surface of the pebbles. Plants standing on such a support but above its water level are freed of the danger of injury from overwatering, while evaporation from the tray keeps the atmosphere much more humid. The soil should not be permitted to dry out at anytime. The function of the soil water is to dissolve the soluble portions of the soil so that they may be absorbed by the roots. Lack of water checks the growth of house plants, makes them shed their leaves, and causes them to become woody, hard, and unsightly. Superabundance of water, however, interferes with proper aeration of the soil. The oxygen of the air is necessary to the life of the roots. When the soil cavities



Cineraria—A satisfactory, short season plant, requiring abundance of water.

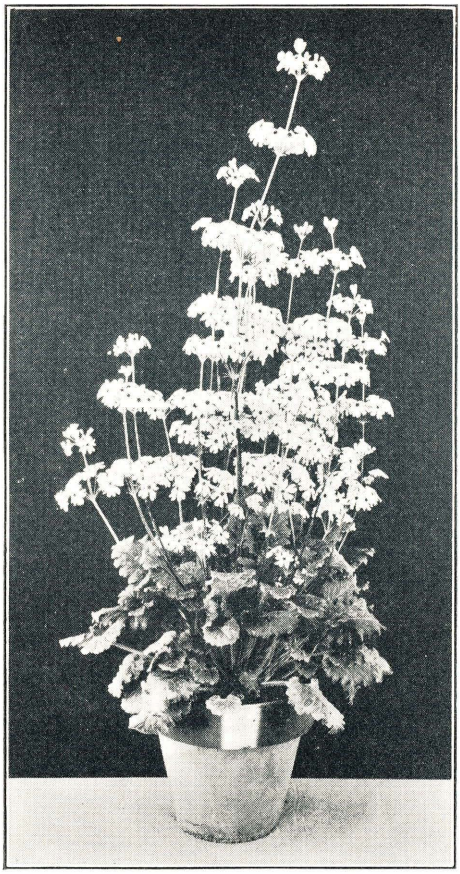
roots to offset the low humidity. Potted plants require more watering than those in boxes because of greater evaporation through the porous clay, and the smaller the container in which the plants are growing the more frequent should be the watering. Rapidly growing plants like cinerarias require more water and are less susceptible to injury from overwatering than the slower growing Cyclamen. The native habitat of a plant often is a guide to the amount of water needed. Plants of arid regions such as Cacti and Euphorbias require very little water. The Christmas Cactus (Epiphyllum truncatum) is the most popular in this group. Excessive watering will nearly always cause the dropping of this plant's flowering buds. Plants with broad, leathery leaves, such as the rubber are filled continuously with water, the roots are soon deprived of oxygen, because the amount contained in the water is soon exhausted. Smothering and decay of roots follow. For most plants, the ideal condition from the standpoint of soil moisture is that condition, which is obtained just after watering when all the surplus water has drained away.

Some plants thrive better in a comparatively dry medium. The atmosphere of the room has some effect upon the amount of watering required. The drier the room is, the greater is the evaporation from the plant surfaces, and more water is required at the



Cyclamen—The peer of house plants.

plant has, prefer a damp atmosphere but are not so tolerant of a large amount of moisture at the roots. On the other hand, the Aspidistra is tolerant of dry air and little water and yet it will grow reasonably well under the reverse conditions. Ferns require an abundance of water but poor drainage should be carefully avoided. To be kept healthy, frequent spraying of the foliage with water is necessary. The maidenhair fern is usually a failure in the house due to its requiring high humidity. When the top of the soil in the pot shows signs of dryness, it is usually safe to water; this should be done thoroughly, so that the water runs through the entire ball of earth and comes out of the drainage opening at the base. When a considerable quantity of water is poured upon the surface soil of a potted plant, the water passes downward and not only moistens the soil particles thoroughly but also forces the air of the soil



Baby Primrose—Dainty and easily grown.

Aspidistra—Tolerant of abuse.

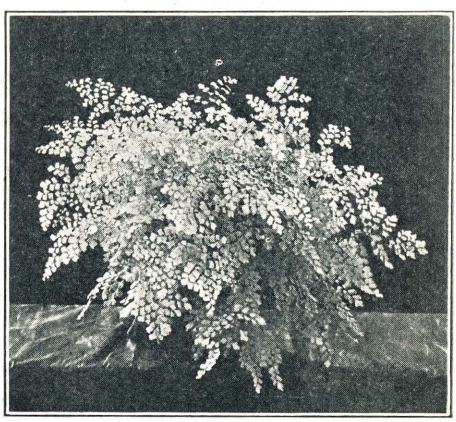
cavities out ahead of it and through the drainage hole, while fresh air enters the soil from above. The practice of setting pots in a dish of water and allowing the water to be drawn to the surface through the pot is advisable only if precautions are taken against keeping the soil saturated at all times. During the resting stage of plants, very little moisture is needed and they may be allowed to remain "on the dry side." Rain water is to be preferred to well water or chemically treated city

water for watering plants. The various mineral salts which form a part of the well and city water are often present in such proportions and combinations as to be deleterious to healthy root development. Rain water is comparatively free of such material and it carries small amounts of nitrogen in a state readily available to plants.

Rubber Plant.

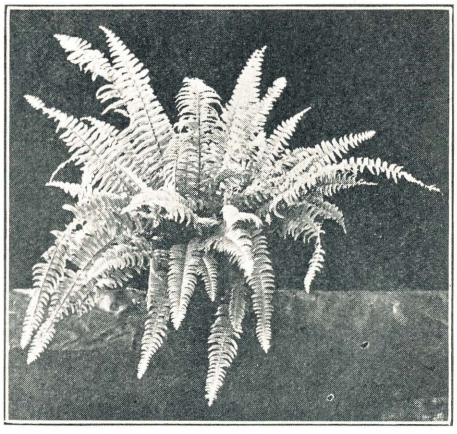
Ventilation—Ventilation is a necessary factor in keeping house plants in good condition. Open windows on bright days furnish fresh air but discretion must be used in avoiding drafts. The night temperature need not exceed 50° F. and 65° F. is sufficient for most plants during the winter days. However, the primrose, cineraria, hydrangea, and cyclamen will not thrive in this range of temperature. They prefer a cooler atmosphere. When plants stand near windows, precaution against freezing should be taken on cold nights by pulling down the curtains or placing a layer of paper between the plants and the window.

Soil—Even when other conditions are ideal, good soil is necessary for the growth of good plants. The assumption that each kind of plant requires a special type of soil is fallacious. Plants adapt themselves readily to various soils provided the nutrient elements are present in available form. A good soil mixture is composed of one-half garden loam, one-quarter clean sand, and one-quarter leaf mold of well rotted manure. The loam may be any soil containing considerable clay and some decayed organic matter. Sand is necessary to provide drainage and to prevent packing and caking. Leaf mold and manure supply in part the nutrients in a readily available form. The addition of six level tablespoons of bonemeal to each peck of potting soil, when it is mixed, will be found beneficial. Usually, the plants bought from a reliable florist are potted in a mixture which requires no immediate addition



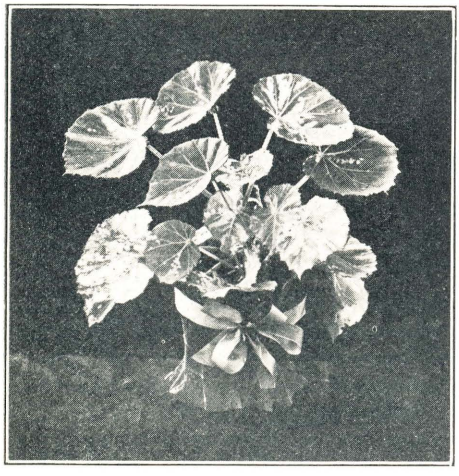
Maidenhair Fern—Feathery, dainty, but difficult to grow.

of fertilizer; later when the supply of the available nutrient material becomes exhausted, fertilizers in concentrated form may be obtained from a seed house or florist, and these may be applied in accordance with the directions given. Though it is true that leaf mold is desirable for the proper development of cyclamens and ferns, the impression that muck soil is good as a potting medium is erroneous. The usual acidity of muck soils is detrimental to root action. "Chip dirt" may be placed in the same category.



Boston Fern—Should be present in every home. Beware of wet Feet.

Potting—The potting operations needed by the home plant grower may be classified into three groups: first, the potting of seedlings or newly rooted cuttings; second, the potting of plants lifted from the garden in the fall, and third, the transfer of plants from one pot to another to provide more soil and more opportunity for root growth. For potting seedlings or rooted cuttings, the soil should contain only a small portion of manure, which if present in considerable quantity is likely to injure the tender roots. Two and a half inch pots should be used for this purpose. First, a piece of broken pot is placed in the bottom, convex side up, to insure proper drainage. A little soil is sifted on top of that, the seedling placed in the middle of the pot, and more soil filled around it and the roots. The pot should not be filled to the brim, half an inch of space being left for retention of the water which is used. After the soil is packed firmly, the pots are watered thoroughly and placed in a shaded spot until the roots have become established. The plants that are lifted from the garden should be placed in a pot large enough to accommodate the roots as well as the ball of earth which should be retained in digging. The subsequent procedure is similar to that used with the seedlings. In transfer from one pot to another, one size larger pot is commonly used. The need of



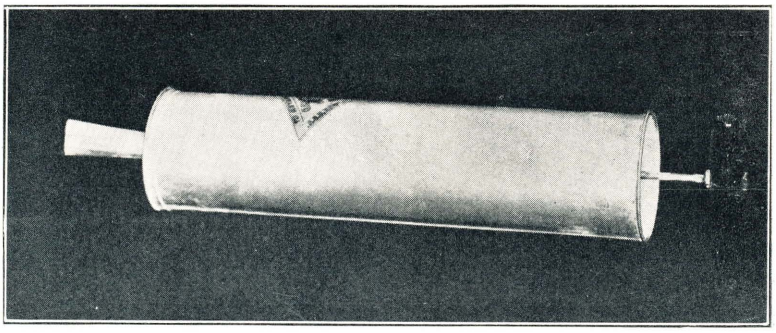
Foliage Begonia—Easily grown and propagated.

repotting is indicated by the plants becoming "pot bound" which means that the roots fill the entire mass of soil and form a veritable network on the inside of the pot. The yellowing of plant foliage is often a sign of the need for repoting. The old plant is removed from the pot by turning it bottom side up and tapping the rim upon the table, thus loosening the soil mass without injury to the roots. A new pot is provided with drainage as before, filled partially with fresh soil, the plant inserted and the ground packed thoroughly around the sides. It is usually advisable to break off the "shoulders" of the compact mass of soil and loosen the top, thus eliminating algal growth and providing better aeration. Most persons use pots that are too large. Oversized pots usually result in sour soil because the pot holds too much water and the roots fail to get the necessary amount of air. Since plants need air at the roots, the best container is the porous clay pot. The use of painted and glazed pots, or other containers impervious to air defeats this purpose. Pots that have been used from year to year become covered with algal and fungous growth and thus lose their porosity. They should be soaked in water and then cleaned with a brush before being used again. During the season of growth, an occasional washing of the outside of the pot is beneficial. Brass jardinieres and other metal receptacles are unsatisfactory from the standpoint of the plants' welfare. The frequent watering usually results in water standing in the bottom of the jardiniere, where it gets deeper and deeper and finally causes injury to the plant because of "wet feet." If the receptacle is regularly emptied and the pot is placed on something which holds it off the bottom of the jardiniere, the danger of injury is lessened. Large plants require large receptacles and for this purpose wooden tubs are satisfactory. They are not as porous as clay pots and are more likely to harbor plant parasites, but they are less unwieldly, and are not as liable to break. Palms of medium or large size are usually planted in tubs.

Coleus—The "Old Standby."

Pests—House plants frequently become diseased and infested with insect pests. Most of the surface infestations, such as leaf spots and mildews, may be held in check by spraying with liver of sulphur (potassium sulphide) mixed in the proportion of one ounce to three gallons of water. Dusting of plants with sulphur is effective for mildew. The more common insects which cause trouble are the green aphids, meally bugs, red spiders, white flies, and scales. Aphids may be eradicated by the use of nicotine sulphate which can be obtained in concentrated form from the florist or seedman. To be effective

this spray should come into direct contact with the insects. Nicotine-impregnated dusts are also effective, and are easily applied with a dust gun. The mealy bug is somewhat harder to control due to its cottony covering which is hard to penetrate. For this purpose, a commercial preparation named "Volck" has been tested and found very effective as a spray. Forcible washing with water is efficacious. The



Dust Gun—Inexpensive and effective.

red spider is a minute reddish mite, not readily observed, but recognizable from its injury to the leaves, which turn yellow in spots. Dry atmosphere is conducive to its greatest development and it may be

The Following Plants Are Suitable For House Culture

Common Name	Botanical Name	Temperature	Exposure	Method of Propagation
*Areca Palm	Chrysalidocarpus lutescens	Warm	Medium light	Seed
*Asparagus	Asparagus sprengeri	Warm	Medium light	Seed
*Asparagus plummed	Asparagus plumosus	Warm	Medium light	Seed
*Aspidistra	Aspidistra lurida	Warm	Medium light	Seed
Begonia Rex	Begonia Rex	Warm	Medium light	Leaf cuttings
Begonia Steel	Begonia Metallica	Warm	Medium light	Leaf cuttings
Begonia Spotted	Begonia Maculata	Warm	Medium light	Leaf cuttings
Begonia Red	Begonia Coccinea	Warm	Medium light	Leaf cuttings
Begonia Wax	Begonia Semperflorens Var	Medium	Strong light	Stem cuttings
*Boston Fern	Nephrolepis Exaltata Bostoniensis	Warm	Medium light	Division
*Whitman Fern	Nephrolepis Exaltata Bostoniensis Var. Whitmani	Warm	Medium light	Runners
*Bird Nest Fern	Asplenium Nidus	Warm	Medium light	Spores
Cyclamen	Cyclamen Persicum	Cool	Strong light	Seed
Christmas Cherry	Solanum Pseudocapsicum	Cool	Strong light	Seed
*Date Palm	Phoenix Roebeleni	Warm	Medium light	Seed
*Dracaena	Dracaena Fragrans	Warm	Medium	Stem cuttings
English Ivy	Hedera Helix	Medium	Medium light	Stem cuttings
Fuchsia	Fuchsia Magellanica	Medium	Strong light	Stem cuttings
*Geranium	Pelargonium Zonale	Cool	Strong light	Stem cuttings
German Ivy	Senecio Mikaniodes	Medium	Medium light	Stem cuttings
Hydrangea	Hydrangea Opuloides	Cool	Strong light	Stem cuttings
*Holly Fern	Cyrtomium Falcatum	Warm	Medium light	Spores
*Kentia Palm	Howea Belmoreana	Warm	Medium light	Seed
Leopard Plant	Ligularia Kaempferi	Warm	Medium light	Leaf cuttings
*Norfolk Island Pine	Araucaria Excelsa	Warm	Medium light	Stem cuttings
Primrose	Primula Obconica	Cool	Strong light	Seed
Primrose Baby	Primula Malacoides	Cool	Strong light	Seed
Rose	Rosa Hybrids	Warm	Strong light	Cuttings
*Rubber Plant	Ficus Elastica	Warm	Medium light	Stem cuttings
Rubber plant	Ficus Altissima	Warm	Medium light	Stem cuttings
*Table Ferns	Pteris Sp	Warm	Medium light	Spores
Wandering Jew	Tradescantia Fluminensis	Medium	Medium light	Stem cuttings

held in check by high pressure applications of water as a spray to the under sides of the leaves. Spraying with "Volck" is another method of control. The white fly is extremely difficult to kill by ordinary means. If it becomes troublesome, the surest remedy is fumigation with hydrocyanic gas. This fumigation, however, should be entrusted only to a competent greenhouse man, as the gas is extremely poisonous and should never be used in the home. Scale insects attack a number of the foliage plants. They are controlled by applying a thick lather of soap to the affected parts, allowing it to stay on for several minutes, and then washing off with tepid water. Angle worms do

The brass fern dish, lack of aeration and drainage makes the ferns short-lived.

some damage but can be eradicated quickly by an application of a saturated limewater solution to the soil.

The plants marked with an asterisk remain in a resting stage during the dull winter months so that care must be exercised in watering them.

Roses should be placed in the ground during the summer months and allowed to stay there until after the first freeze. Then they may be placed in a cool cellar and the water withheld to permit a resting period. In December they should be brought to light and warmth gradually to produce flowers for Easter.

Hydrangeas require a similar treatment. In each case, severe pruning back is desirable when stored in the cellar.

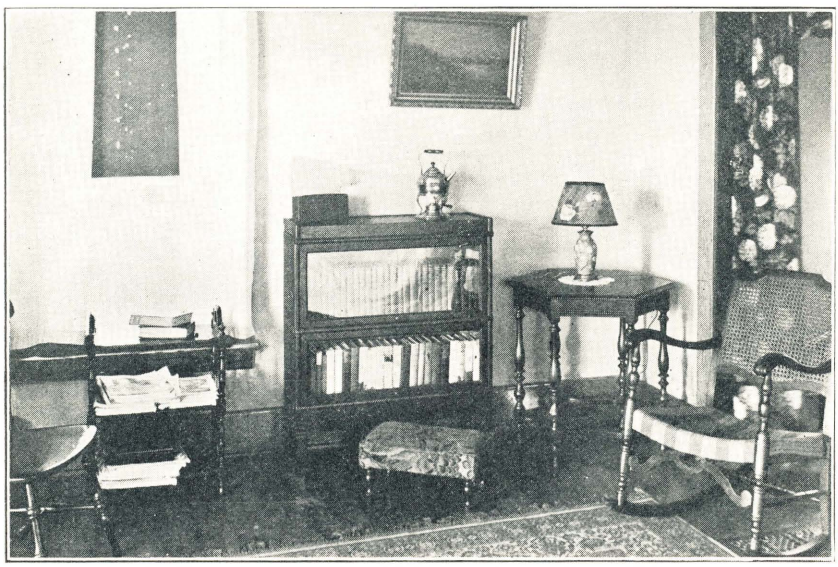
Palms prefer heavy soils, perfect drainage, and systematic watering. They should be grown in comparatively small pots. While small,

they are effective in any room, but as they grow larger they are more suitable for hotel lobbies, reception halls, and conservatories.

In spite of neglect, lack of light, and injurious gases, ferns grow reasonably well in most homes. They do not thrive in full sunlight and should not be subjected to drafts. Addition of leaf mold to the potting soil is an advantage in growing ferns.

For a particularly dark room, the wandering jew, the English ivy and the Aspidistra may be recommended.

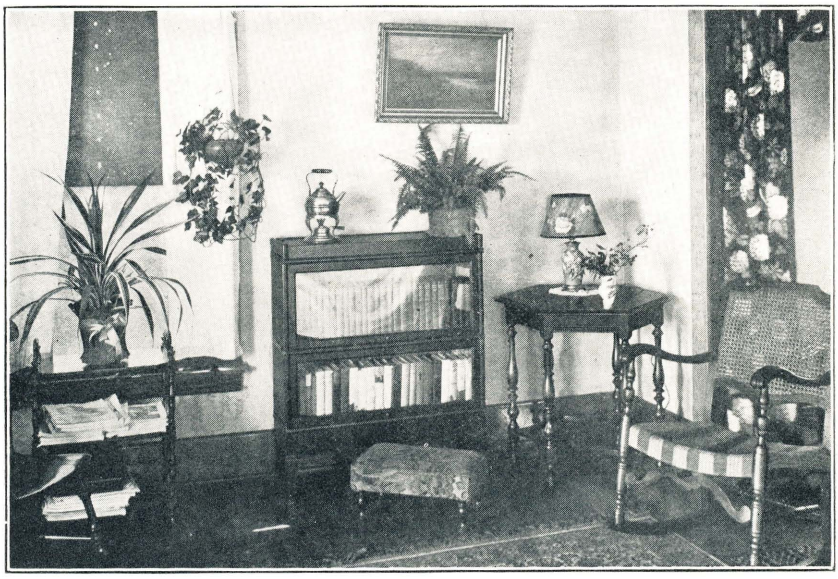
Forcing Bulbs—In addition to the plants already mentioned, the growing of various bulbous plants in the house presents no special



The average living room.

difficulties. The bulbs should be obtained in the fall and planted in six or seven inch pots or pans, using any good soil. They should be placed close together in the pot and deep enough to be covered completely with soil. After a thorough watering the pots should be buried in the ground outdoors about 18 inches deep and then covered with a mulch of straw so that the bulb will not be frozen and will form a mass of roots in the pot. The burial of the pots also helps to keep the roots from forcing the bulbs out of the pots when root growth first starts. In December, after the root system has been developed, the pots should be brought into a cool cellar and from there carried a few at a time to the window to be forced into bloom. Most of the so-called "early" kinds will not bloom much before February. Hyacinths, tulips, daffodils, and crocuses are the kinds more commonly used for this purpose. Hyacinths may also be grown in special glasses filled with water, deriving their nourishment from the content of the bulb and requiring no soil medium for their growth. As with the pot-grown bulbs, the root system of the hyacinth must be well developed before

forcing can proceed properly. When the bulb is first placed in the glass, its base should touch the water to induce root development. A few weeks stay in a cool dark cellar is essential at the start. In a similar manner, the "paper white" narcissi may be forced in water or planted among pebbles in a bowl. The bowl should be filled nearly to the rim with pebbles and the bulbs buried half their depth among them. Enough water should be placed in the bowl to reach the bases of the bulbs. Storage in a cool cellar should precede forcing in a warm room. Paper White narcissi usually require six weeks after planting to produce flowers. Since the available food supply for this



A cozy corner, just a few plants added.

class of plants is limited largely to what is contained in the bulbs themselves, only the best grades should be selected for forcing in this manner. Inferior bulbs produce foliage but seldom flowers. After forcing, hyacinths and lilies may be gradually dried off and the bulbs stored in a cool place during the summer. They will flower the second year. Tulips and daffodils usually do not flower the second year, if forced. However, they may be planted out of doors in the fall and generally they flower after the second year in the bed.

Treatment of Cut Flowers—Keeping cut flowers fresh depends on the realization that the process of evaporation continues from the surface of the foliage after the stems are cut from the parent plant. It should also be remembered that the vessels which conduct the water from the roots up through the stem are severed when the flower is removed from the plant. If allowed to remain exposed to the air, these ducts close and little absorption will take place when the stems are later immersed in water. This absorption is necessary to counterbalance evaporation from the foliage, or wilting will ensue. For these

reasons, flowers should be cut in the morning or late in the afternoon, when the stems are turgid and little wilting has taken place. After they are cut, the stems should at once be plunged as deeply as possible in cold water and set away in a cool place for a few hours. The same care should be given the flowers received from a florist except that the base of each stem should be cut off before it is placed in water to insure moisture being drawn into the stem. The one exception to this rule is the Poinsettia, in which the escape of the milky juices from the stem is prevented by dipping the cut bases of the stems into boiling water, thus searing the tissues. The absorption

A good porch box.

of water takes place largely through the surface of the stem. If the lower ends of the Poinsettias' stems are cut upon receipt, wilting is sure to follow. Dahlia, heliotrope, and oriental poppy are benefited by a treatment similar to that of Poinsettias. The water in which the flowers are kept should be changed daily and the base of all the stems cut off, except in the cases just mentioned. In general, the shorter the stems are, the longer the flowers will keep. It is often possible to revive wilted flowers by cutting their stems short, plunging them deep in cold water and storing them in a cold dark place for 12 hours.

Window Boxes and Hanging Baskets

Window boxes constitute a very desirable type of home decoration. They add a touch of color to many a drab building and serve as a link in harmonizing the lawn, house, and foundation plantings. Window and porch boxes break the monotony of bare walls. They also serve to establish greater privacy by presenting a barrier to the eyes of the passer by.

The number, size, shape, and arrangement of the boxes, and likewise the plants chosen and their arrangement within the boxes, should be in harmony with the type of building; that is the decorations should fit into the architectural scheme. This requires both that the location of the boxes shall be suitable and that their composition shall be in scale with the building. On a large building, it is often necessary, therefore, to group or mass the boxes, while on a small structure such an arrangement would be out of place. It is easy to overdo the use of certain conspicuous plants, particularly those of trailing habit. Many boxes are often described as "weepy" due to the great profusion of

Composition good—arrangement poor.

hanging vines. The lines of most buildings are strong and upright, so that a certain sturdiness and uprightness of plants will fit them better.

With respect to color, it should be said that no mixture should present a great variety of color, because this will not be as effective as a few well chosen tones. Red, purple, or scarlet which are suitable against light stone or stucco, should not be used against a red brick building. In the last mentioned situation, such contrasting colors as blues, yellows, and whites are usually better, and as much green as possible should be used to form the background and the framework for the flowers. Flowering plants used for window boxes should possess the qualities of rapid development and profuseness and continuity of bloom. Such plants will thrive only in sunny locations, with the exception of pansies, lobelia, and candytuft which are able to endure shade. For maintaining a succession of bloom, the boxes may be filled in the spring with pansies and English daisies, these to be followed by flowering and foliage plants lasting throughout the summer.

The following plants are recommended for window boxes in sunny situations.

Flowering Plants.

Kind	Use	Growth	Color
Ageratum Mexicanum	Filler	Upright	Blue, White
Geranium (Pelargonium Zonale)	Filler	Upright	Red, White, Pink
Hibiscus Coccineus	Point	Upright	Red
Heliotrope (Heliotropum Peruvianum)	Filler	Upright	Lavender
Lantana Camara	Filler	Upright	Blue, Yellow, Pink
Marigold, French (Tagetes Patula)	Filler	Upright	Orange, Yellow
Pinks (Dianthus Chinensis)	Filler	Upright	White, Red, Purple
Salvia Spendens	Filler	Upright	Red
Vinca Rosea	Filler	Upright	Pink, White
Candytuft (Iberis Amara)	Front	Prostrate	White
English Daisy (Bellis Perennis)	Front	Prostrate	White, Pink
Lobelia Erinus	Front	Prostrate	Blue
Nasturtium (Tropaeolum Majus)	Front	Prostrate	Orange, Yellow
Petunia Hybrids	Front	Prostrate	White, Pink, Red, Blue
Pansy (Viola Tricolor)	Front	Prostrate	Yellow, Purple, White
Sweet Alyssum (Alyssum Maritimum)	Front	Prostrate	White
Verbena Hybrids	Front	Prostrate	Many Shades

Foliage Plants.

Asparagus Sprengeri	Front	Trailing	Green
English Ivy (Hedera Helix)	Front	Trailing	Green
German Ivy (Senecio Mikanioides)	Front	Trailing	Green
Moneyworth (Lysimachia Numularia)	Front	Trailing	Green
Thunbergia Alata	Front	Trailing	Green
Vinca Major	Front	Trailing	Variegated
Wandering Jew (Tradescantia Fluminensis)	Front	Trailing	Variegated
Coleus Blumei	Filler	Upright	Variegated
Croton (Codiaeum Variegatum)	Point	Upright	Variegated
Dusty Miller (Centaurea Cineraria)	Filler	Upright	White
Dracaena (Cordyline Indivisa)	Point	Upright	Green
Iresene Lindeni	Filler	Upright	Red
Pandanus Veitchi	Point	Upright	Variegated
Rubber Plant (Ficus Elastica)	Point	Upright	Green

Plants Enduring Shade

Flowering.

Pansy (Viola tricolor)
Lobelia erinus
Candytuft (Iberis amara)

Foliage.

Asparagus sprengeri
Boston Fern
Cordyline indivisa
Cordyline terminalis—Red Dracaena
English Ivy
Palms
German Ivy
Pandanus
Whitman Fern
Vinca

The range of plants available makes it impossible to indicate exactly what the arrangement and combinations in each case should be, but a few examples may be suggested:

Sunny locations.

1.		2.		3.	
Vinca	front	English Ivy	front	Wandering Jew	front
Petunia	filler	Asparagus	front	Asparagus	front
Ageratum	filler	Geranium	filler	Verbena	filler
Vinca Rosea	points	Lantana	filler	Petunia	filler
		Hibiscus	points	Marigold	filler
				Croton	points

Shady locations.

1.		2.		3.	
Asparagus	front	English Ivy	front	German Ivy	front
Dracaena	points	Coleus	filler	Asparagus	front
Boston Fern	filler	Boston Fern	filler	Hibiscus	points
		Pandanus	points	Whitman Fern	filler
				Croton	filler

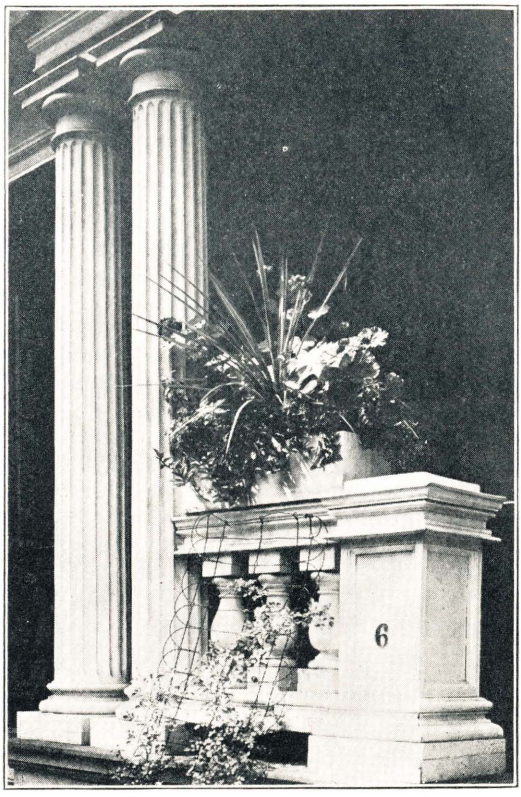
In the fall, evergreens may be substituted and with these, early spring flowering bulbs, tulips, daffodills, crocuses, or snowdrops may be planted for winter effect. Retinospora obtusa with its soft feathery foliage remains green throughout winter; the golden arborvitae with its bright yellow tinge, dwarf pine (Pinus montana), firs, Norway spruce, white spruce, Colorado blue spruce, and hemlock, produce very pleasing combinations. They may be arranged to produce a hedge-like appearance, or some points may be introduced either at the ends or in the center or both.

In selecting the type of box to be used, both cost and durability should be considered. The wooden box still predominates but is gradually being replaced by more lasting and more ornamental receptacles. Terra cotta, vitrified clay and concrete are often employed in making boxes conforming to the general architecture of the building and although the initial cost is considerable, they are practically indestructible, and in the end the least expensive. Their weight is the chief objection to boxes of this type because they require strong, durable supports. There should be no great difficulty in arranging satisfactory supports on any well constructed building. Many buildings possess ledges especially suited for such decorations. There are also a number of self-watering zinc-iron boxes which meet with favor where daily attention is impossible or impracticable. However, a box constructed of cypress or redwood and painted inside and out makes a very ornamental and satisfactory receptacle which will last several seasons.

Window boxes vary greatly in size. The length of the box should be in keeping with the size of the window, its depth should not be less than six inches deep and eight to ten inches is still better. The box may vary in width from six to nine inches. Boxes for long sills are more easily handled if they are made in sections. Where the sill is wide enough, screw eyes in the window frame and the box, connected by a wire will be sufficient to hold the box in place. Usually the ledges are sloping, so that it is necessary to place supports under the front part of the box to insure a level position. Boxes in upper story windows should have galvanized iron pans to catch the drip. These should

be about two inches wider than the box which should rest upon cleats inside the pan to allow free escape of water.

Though porch and window boxes usually suffer more from lack of moisture than from an over-abundance, if no means are provided for getting rid of the surplus water except through evaporation, the plants will suffer. A number of half inch holes should be made in the bottom of the box before it is filled. These holes should be covered with



Breaks the severity of lines.

pieces of broken pots placed convex side up. This precaution is essential to prevent the soil from sifting through the holes and occasionally clogging them. As the plants in the box are of necessity crowded, the soil should be rich enough to produce a stocky, healthy growth. One part of well rotted manure and four parts of fibrous loam is a good mixture. To allow for watering, the box should be filled with soil to within one inch of the top. During the season, it may be desirable occasionally to water the plants with liquid manure, which is made by placing a bushel of manure in a bag and suspending it in a barrel of water. If this is not available, sheep manure or complete commercial fertilizers may be applied. The success of the box depends upon the proper watering of the plants in it. The frequency of watering can be

determined only by actual experience, since it depends on atmospheric conditions, soil, sunshine, and wind. However, it is always best to water as late in the day as convenient, after sunset preferably. Washing the foliage is desirable to keep the leaves free from dust which injures the plants and also their appearance.

HANGING BASKETS

On porches, hanging baskets may be used advantageously. These are made of rustic woodwork, terra cotta, crockery, and galvanized wire. The plants used are of the same kinds as those used in window boxes; the tall upright growers being usually placed in the center with the prostrate and trailing plants along the sides. Still greater care must be given to plants in hanging baskets than to those in window or porch boxes as the space for the soil is small in these baskets and they are exposed to the action of drying winds.

The soil used in baskets need not differ from that suggested for window boxes. The wire basket, which is the most common container is lined with sheet moss before soil is placed in it. This is merely common woodland moss from rotting logs or rich damp soil. Immediate effects require plants that have already made considerable growth. A common mistake in arranging baskets is crowding or filling them too full. Plants in smaller numbers will appear more graceful, will grow more vigorously, and the basket will retain its beauty for a longer period. Care in watering is essential. After the roots have filled the basket, watering is done best by dipping the basket in a tub or barrel of water and allowing it to remain until well saturated. Application of manure water is also beneficial.