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UNITED STATES OF AMERICA.

PRIZES TO CHILDREN FOR WINDOW GARDENS.

In 1872, the Massachusetts Horticultural Society offered prizes to children of the city for window gardens. Plants were distributed by those charitably disposed and by the churches, and the good work has gone on ever since. The illustrations on our cover and on page 20, are sketches of actual scenes by D. Lothrop & Co., of Boston, publishers of *Wide Awake*, showing the children coming to the exhibition with their prize plants.

The committee's report says : "The first year, prizes were awarded to over one hundred children.
* * * It is a most beautiful sight to see the children come trooping into the hall with their little arms firmly clasping the prize plants, and testimony from the home shows that all the inmates come to claim a sort of ownership in the reward."

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WINDOW GARDENING.*

How to Make House Plants Bloom.

BY PROF. S. T. MAYNARD,

Professor of Botany and Horticulture at the Massachusetts Agricultural College.

“Who loves a garden loves a greenhouse, too.
Unconscious of a less propitious clime,
There blooms exotic beauty, warm and snug,
While the winds whistle, and the snows descend.”

—Cowper.

The growing of house plants—or “Window Gardening,” as it is happily termed—is rapidly increasing. The rich and the poor are alike engaged in this beautiful pastime; and it is gratifying that the poor, as well as the rich, can pos-

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sess and enjoy all the beauty and fragrance and refining influence which attend the cultivation of flowers by the household.

In the growing of house plants, the first aim should be healthy plants, and after that early and abundant blossoms. The latter is usually the great object, and too eagerly sought,—an object, however, which can be attained only by following certain well-established rules, and attending carefully to the many wants of the plants,—just as carefully, in short, as if they were so many children placed in one's charge. In many respects plants are like children. They must be properly fed, housed, and protected from the enemies which would destroy them. This done, they will grow and flourish, and delight the whole household. And what is more beautiful in the home than children and flowers? But, if it is not given to every family to have children, certainly every family can have a plant of some kind, even if it be only a geranium, a rose, or an ivy.

How often we hear the remark, "Her flowers

are her children"! and when one meets such a woman, he finds her full of enthusiasm and love for the plants which crowd her windows. Such a person usually needs no instruction about the growing of flowers; for she is generally well informed concerning their culture, and the suggestions we offer will not be new to her. Unfortunately, however, there is a large class who keep a few plants, which for some reason are stunted, unsightly, and a positive annoyance to their owners. They tend them well, or think they do; and yet they do not flourish. This state of things is due, not to a lack of care, but to a lack of knowledge touching a few simple rules which lie at the basis of successful window-gardening. It is for this class that the following directions and suggestions are offered, which, if carried out, will insure healthy, luxuriant, and blooming plants,—the delight and pride of the cultivator.

HOW TO WATER PLANTS.

When the soil becomes dry, which may be

"HELPING MOTHER." From the painting by Jan Verhas.

known by the appearance of the surface of the soil and the sides of the pot, water should be applied until it begins to run into the saucer. *No more water should be given until the soil again becomes dry*, or nearly so,—which will depend upon the dryness of the atmosphere, the amount of soil in the pots, and the foliage upon the plant,—when water should be used as before, the true principle being to keep the soil as nearly as possible in the same condition as for the best growth in the out-door garden. More plants are injured by *overwatering* than by underwatering; yet they should not be allowed to get so dry as to wilt. When plants are growing rapidly, they should be watered more freely than when at rest.

Pots should be washed as often as mould or fungus growth appears, to allow evaporation and a free access of air.

HOW TO PREPARE THE EARTH.

The best soil for house plants is that which contains some undecayed organic matter, like leaf-

mould or partly decayed sods, with a small admixture of sand. In potting, the soil must be pressed firmly around the roots of the plant, and the pot filled to within half an inch of the surface. Then apply a dressing of some kind, or the Ammoniated Food for Flowers, described elsewhere in this book,—about a teaspoonful (not heaping) for a two-quart pot, and at the same rate for larger or smaller sizes. It should be *thoroughly mixed with the soil* or it can be used in a liquid form by dissolving one teaspoonful in two quarts of water.

HOW TO PLANT ROOTS AND BULBS.

Bulbs of Hyacinths, Tulips, Crocuses, Lilies, etc., which naturally grow at some distance below the surface of the soil, should be planted in pots, and kept in a cool, dark place until the roots are developed, the darkness having the effect of keeping back the growth of the top until the roots have made a good growth. Oxalis, Begonias, Gloxinias, Caladiums, and other bulbous or bulbous-rooted plants, while at rest, must be kept

in a warm, dry place, in the soil in which they grew, and not watered until growth commences, when they should be potted in fresh soil, and, as soon as they begin to grow vigorously, they should be watered as directed above.

HOW TO SLIP AND ROOT PLANTS.

Nearly all kinds of plants may be easily rooted in bottles of water, or in saucers or other earthen dishes in which is placed sand that is kept very moist, so that water will stand upon the surface. These must be kept in a warm place, and occasionally in the full sunshine, but not long enough to cause them to wilt. When fully rooted, put in good soil in small pots. Cuttings should generally be made of the soft growth, about two or three inches in length, cut at any convenient point with a sharp knife.

HOW TO CUT BACK PLANTS.

Plants grown in the house are best kept in good shape by pinching the end buds of those shoots that grow too vigorously. This is much better than allowing a few shoots to grow until

they need support, and then cutting them back.

In taking up plants from the garden for house culture, it is best to cut back at least one-half, and, after potting in good soil, water at once, and put in a cool, shaded place.

TEMPERATURE.

The plants which do best in a rather cool room, never below 35° or above 70° , but averaging about 55° , are Azaleas, Daisies, Carnations, Candytuft, Sweet Alyssum, Centaurea, or Dusty Miller, Chrysanthemums, Cinerarias, Camellias, *Daphne odora*, Feverfews, Geraniums, Petunias, Primroses, Sweet-scented Violets, Verbenas, and Vincas.

Plants requiring more heat, never below 50° or above 90° , but an average of about 70° , are Abutilons, Achyranthems, Begonias, Bouvardias, Caladiums, Cannas, Cape Jessamine, Coleus, Eupatoriums, Fuchsias, Gloxinias, Heliotropes, Lantanas, Lobelias, Mahernias, Othonnas, Roses, Smilax, etc.

Plants that succeed well in the shade are Begonias, Camellias, Ferns, German and English Ivies, etc.

Those that require a very rich soil or a more liberal use of manure or the Ammoniated Food are the Calla, Rose, and Smilax.

Plants grown in small pots bloom more freely than those grown in larger ones, but are more liable to injury from drying of the earth.

WINTERING PLANTS.

Many plants not wanted for blooming may be easily preserved during the winter in a partial state of rest, in a light cellar, where there is no danger of frost. The best method of doing this is to take up such plants as Roses, Geraniums, Lantanas, Lemon Verbenas, etc., with a good quantity of soil about the roots, and place them in boxes, packing the soil closely about the roots. Place the boxes in the cellar, and do not water unless the soil becomes nearly *dust dry*, when they must be watered a very little. Should the

cellar be very warm, the plants must be less freely watered than in a cool cellar.

When the plants are desired for growth, cut back closely, give them a thorough watering, and bring into the full light in a warm room. Roses are particularly successful when brought from the cellar in January or February, after a season of two or three months' rest. In this case the soil used at the time of taking them from the ground should be rich. Cannas, Caladiums, etc., may be successfully wintered, if the cellar be warm and dry.

FROZEN PLANTS.

Should one be so unfortunate as to have plants slightly frozen, the proper thing to be done is to get the frost out as quickly as possible ; for many plants that would not be injured by freezing for a short time, would be destroyed if they were kept in a frozen condition for several hours. To remove the frost most quickly, if the plant be small, dip it into a pail of cold water, or, if large, place it in the sink and give it a good showering.

PROTECTION FROM FROSTS.

No material is better or more convenient for this purpose than ordinary newspapers. A plant wrapped in three or four thicknesses of paper may be kept in a room with the temperature down to 20° above zero all night, and not be injured.

CHANGE OF TEMPERATURE.

It is necessary to follow natural changes of temperature. Out of doors we find the temperature varying some 10° to 20° from night to day, and even more when the sun shines brightly. So in the house we must have these changes for the best growth. Plants must have pure air, also, as well as animals; and every day, when the temperature outside is above freezing, the windows must be raised, or ventilation given in such a way as to avoid a direct draught of cold air upon the plant. Sunlight is also indispensable; and, if plants cannot be placed where the sunlight will reach them some part of the day, they should be

put where the sun will strike them once or twice each week for an hour or two.

HOW TO DESTROY INSECTS AND VERMIN.

If the plants have been properly watered and enriched so as to grow healthy and strong, they will probably not be infested to any great extent with these pests. In case they are, they can only be kept down by close attention while there are but few. The best way to get rid of them is to brush them off into a basin of water with a soft, dry brush. A small paint-brush is the best for this purpose. The above remedy is by far the safest and causes the least trouble, and, if taken in season, is effectual. Should the red spider get upon the leaves, sponge them with hot water. Plants will not be injured by water as hot as can be used by the hand, and both this insect and the green fly may be destroyed in this manner.

WASHING.

It is well to wash all plants occasionally with

soapsuds or whale-oil soap, particularly Ivies, which to do well need washing every few weeks; but in all cases the plants should be rinsed in clear water if much soap is used.

HOW TO REPOT PLANTS AND HOW TO TAKE THEM UP IN THE FALL.

Plants that have grown too large for the pots, so that the roots almost literally fill the earth, should be put into a pot of a larger size, and fresh soil added. The old soil should be picked out from the outer edges of the roots, care being taken not to break the roots too much, the object being, in repotting, not only to give a larger-sized pot and renew the soil, but to make the soil lighter and more porous about the roots,—the same as is done in cultivating land. When the plants do not respond to watering or enriching, it may be due to one of two causes,—either the soil has become sour and unhealthy or they need repotting. Plants should be taken up in the fall, before the severe frosts, and placed in pots with as much earth as possible clinging to the roots. Crowd the earth

about the roots so that the plant will stand up, and water as usual. In repotting or taking up plants, the soil should be enriched; and this is best done by adding a teaspoonful (not heaping) *and no more*, of Bowker's Ammoniated Food for Flowers to a two-quart pot, thoroughly mixing it with the soil, and at the same rate for larger or smaller pots.

DECORATIVE PLANTS—PALMS.

Many of the Palms are popular for vase, basket, pedestal, veranda, or window-garden culture. They require a firm rich soil. They should be given an abundance of water when growing in the spring and summer, but when at rest, only water enough to keep the soil moist. They should be repotted each fall before they are brought into winter quarters. Among the best and most easily grown varieties are *Latania Borbonica* (Dwarf Fan Palm), *Cycas revoluta* (Sago Palm), *Cocos Weddelliana* (Cocoanut Palm).

INDIA RUBBER TREE.

The beautiful, large, shining green leaves of this plant are especially ornamental in vases, as a central piece in a window-box or as a pedestal or corner plant.

It requires little or no sunlight, and will stand more neglect than almost any other plant.

Water freely when growing. The leaves grow so slowly that great care must be taken that they do not get broken or torn and require removal. This applies also to the palms as well.

DRACÆNÆ, (DRAGON TREES).

The varieties of *Dracænæ* require more heat than the palms or the rubber tree; but they are very graceful and beautiful. They are especially useful as summer basket or vase plants. The best varieties are *Dracæna terminalis* and *Dracæna indivisa*.

CHRYSANTHEMUMS.

To grow this most beautiful flower to perfection requires much care and skill. Slips

should be made of new soft growth or by dividing the suckers into single shoots. When well rooted, these should be placed in boxes or pots and kept growing until May, the end shoots in the mean time being pinched out several times if necessary, so that the plants may not be over three or four inches high, but stocky. These are planted out in May as soon as the ground can be worked in good garden soil. Continue pinching until July, and in August take up and pot in rich soil and put in a cool shaded place for a few days until they become established, then gradually expose them to light and heat.

If large blossoms are desired, all the buds but the central one on each branch should be picked off; this will cause those which are left to increase in proportion to the number of buds on the plant. If only one or two large flowers are desired, all lateral branches should be prevented from growing, and the whole force of the plant directed to the central shoot. Success will be in

proportion to the skill displayed in directing the growth where it is desired.

HYDRANGEA.

This showy plant has become very popular as a veranda or lawn plant, and is of easy culture. Slips or cuttings are made in July. During the growing season it should have an abundance of plant food and water. It may be successfully wintered in a half-growing state in a cool, dry, and light cellar or in a cool greenhouse. At this time it should be watered only enough to keep the soil a little moist,—say once a week. In the spring, when growth begins, it should be repotted in rich soil. The size of the flowers depends upon the vigor of growth of foliage.

Youthful Window Gardeners with their Prize Plants on the way to the June Show, Horticultural Hall, Boston.

The following is taken from a pamphlet on "Window Gardening," published by the Window Gardening Committee of the Massachusetts Horticultural Society :—

"There is a certain charm to young and old alike in the cultivation of house plants, which is not always felt in out-door gardening, or on a more extensive scale in the greenhouse or conservatory. Just why this is we will not attempt to explain ; but we confess ourselves to having often felt more of an attraction for a healthy carnation or a brilliant petunia, which we had nursed from a tiny slip and grown in our window, than for a whole row of choice zinnias or group of roses in our out-door garden. Perhaps it is the sense of absolute control and delightful ownership which lends this added charm, for certainly our window plants are as dependent on us for nourishment and care as a helpless infant in the arms of its mother. Suppose we withhold the needed supply of water for a longer period than usual, the unspoken pleading is shown by the

drooping leaves and branches ; and how quickly appreciation is shown by brightening up, when moisture is given ! There is a real language of flowers, with which only the ardent lover and cultivator of plants can become conversant.

“To the lover of the beautiful there is always something new and of untiring interest in plant life, whether his researches be in floriculture, horticulture, or agriculture ; and no one who is thus brought in contact with Nature can but realize with what wondrous fitness the Author of all has placed those gifts with us for our benefit and enjoyment.”

BOWKER'S

AMMONIATED

FOOD FOR FLOWERS.

A Dressing made expressly for plants grown in the house, garden, or conservatory; clean, odorless, and producing early and abundant blossoms of rich and brilliant color, and healthy, luxuriant plants, free from vermin.

This Ammoniated Food was the *first* odorless chemical fertilizer made and sold in this country, and is prepared expressly for flowers grown in the house,

garden, or conservatory, and contains the same plant food as stable dressing, but in a cleaner, more concentrated and more soluble form. The stable dressing is disagreeable to handle, slow in its effects, oftentimes breeding vermin about the roots of plants, and, when applied in a warm room, frequently gives off an offensive and unhealthy odor, especially to be avoided if the plants are grown in the "living room." The same is true of rank-smelling guano, which is by some recommended for in-door plants.

NO OFFENSIVE ODOR.

This Flower Food gives off no offensive or unhealthy odor, and, being immediately soluble and ready for the plants to take up, produces a much quicker and healthier growth, earlier and more abundant blossoms, of a richer and more brilliant coloring than stable manure, guano, or any other dressing can produce.

NOT A STIMULANT.

It is not a stimulant for plants any more than beef tea is a stimulant for man ; but it is a true

plant food, in a form easily and quickly assimilated, the same as beef tea is a concentrated form of nourishment, more quickly and easily digested than raw beef.

RICHER AND BRIGHTER COLORS.

Ladies and florists who have used this dressing speak not only of the healthy growth and the early and abundant blossoms which it produces, but also of the deeper and richer, or brighter and more beautiful color it imparts to them.

PROLONGS THE PERIOD OF BLOOMING.

This Dressing also prolongs the period of blooming, many varieties of plants, like the geranium, blossoming almost continually if properly fed with it. It is therefore not always necessary to set plants away for a season of rest, though this practice is usually advisable, as plants, like animals, need rest.

PROTECTION FROM INSECTS.

Will this Food destroy insects and vermin on plants? No; but it will protect them from these

pests by giving a more vigorous growth ; and insects and vermin rarely ever attack strong, healthy, growing plants.

DIRECTIONS.

It is dissolved at the rate of two tablespoonfuls in a gallon of water, which is a sufficient quantity *at one time* for twenty ordinary house plants like geraniums ; and the plants are watered with this solution, the same as if it were clear water, applying a small quantity to the smaller and more tender plants, like heliotropes, and a larger quantity to the larger and more hardy plants, like roses and fuchsias. *The solution should be stirred while applying it*, as not all of it is immediately soluble in water, but becomes so after remaining in the soil for a little time. The particles which are deposited on the surface should be dug a little way into the earth after the solution is applied. The powder originally is made very fine, but it will lump to some extent, like sugar. These lumps should be made fine before dissolving in

water. For roses it should be used in larger quantity, say at the rate of four tablespoonfuls to a gallon of water.

HOW OFTEN TO USE IT.

It is applied (at the rate of two tablespoonfuls for twenty plants, dissolved in a gallon of water) *once a week* for three or four weeks, or *until the plants begin to start*, which will be noticed in a greener growth. *After that, not oftener than once in four or six weeks.* The solution should not be poured over the leaves, but directly on the earth, and should not be used in any larger quantity at a time, or oftener than above directed. The ordinary package (No. 2) contains all the plant food twenty house plants should receive in one year, and will give a healthy growth and abundant flowering, and never harm them, except by a more liberal use,—the same as food is essential and beneficial, but, if eaten to excess, is liable to do injury.

It may be thought the quantity is small ; but it

is large enough, as will be seen after applying it for a little while. It will keep any length of time.

WHEN THE EFFECTS WILL BE NOTICED.

The effects of this Ammoniated Food will be seen in a week or ten days on tender succulent plants; but on hardy plants like roses, or plants with woody stems, not under several weeks. The first effects will be to produce a greener and more healthy growth, after that more generous flowering.

FOR ROSE BORDERS, apply at the rate of 5 lbs. for 100 square feet, worked a little way into the soil. If it is desired to force the growth, a second application of the same quantity may be made a month or six weeks later.

FOR OUTDOOR USE.

Apply at the rate of 5 lbs. to 100 square feet, *thoroughly* worked into the soil to the depth of two or three inches. This quantity is recommended when no manure at all is used; but, if a liberal dressing of manure is applied, then a smaller quantity of the fertilizer should be used.

No. 1 Package.—Sufficient for 20 ordinary-sized plants for THREE months, 25 cents. Sent by mail, postage prepaid, on receipt of price.

No. 2 Package.—Sufficient for 20 ordinary sized plants for ONE YEAR, 50 cents. Sent by mail, postage prepaid, on receipt of price.

Sample Bags.—Sufficient for 100 plants for one year or for conservatory or greenhouse use, \$1.00, delivered free by express to any part of the country on receipt of price.

If your druggist or grocer does not have it do not accept any imitations, but send directly to us for a package, which we will send by mail or express. Remittances may be made by postage stamps, postal note, or money order, which can be obtained at any post-office.

Bowker Fertilizer Co

43 Chatham St., Boston, 27 Beaver St., New York. Manufacturers of Special Fertilizers, Bowker's Ammoniated Food for Flowers, and Agricultural Chemicals.

Letters from Prominent Floriculturists
who have used

Bowker's Food for Flowers.

From Hon. WM. H. SPOONER, President Massachusetts
Horticultural Society, and a large Rose Grower.

Gentlemen :— I have used your Food for Flowers as a top dressing for roses planted on benches, also for pot plants, with great success. It produced a vigorous growth, and brilliant texture to the leaf.

I have used the Food for Flowers, Sulphate of Ammonia, and horse manure, each on the same number of plants, and the results were strongly in favor of the Food for Flowers.

WM. H. SPOONER.

From Report of the Window Gardening Committee Massachusetts Horticultural Society.

For a long time there has been a great want among window-gardeners for some kind of dressing that shall not only produce healthy plants, free from vermin, and abundant early blossoms, but which at the same time may be easily applied, without offensive odor, or without injury to the plant. We are glad to say that the Ammoniated Plant Food, made by the Bowker Fertilizer Company of this

city is just what is needed, and is especially appreciated by those who live in cities and cannot easily obtain leaf-mould and other suitable fertilizing material.

From the Superintendent of the Boston Public Garden.

BOSTON.

I have used Bowker's Food for Flowers in the flower beds of the Public Garden and Squares of Boston during the past season, and find it to be all that it is represented, both as to producing healthy growth of the plant and its generous flowering.

WILLIAM DOOGUE, SUPT.

From W. C. STRONG, Ex-President of Massachusetts Horticultural Society, and a Large Grower of Flowers and Roses.

NEWTON, MASS.

Gentlemen :— For several months past we have used your Plant Fertilizers upon our roses in pots, for the purpose of testing results. While we do not consider the experiment as completed, we yet feel safe in saying that our plants have received very decided benefit, and are now in better condition than we have ever had them at this season. A most excellent condition of wood and roots has been obtained. We are so much encouraged that we are now using it upon our rose borders for winter forcing, and confidently expect that we shall be able to give you more positive and very favorable results at a later date.

Yours truly,

W. C. STRONG.

"FLOWERS ARE GOD'S THOUGHTS IN BLOOM."

"IS THERE NOT A SOUL BEYOND UTTERANCE, HALF NYMPH, HALF CHILD, IN THOSE DELICATE PETALS WHICH GLOW AND BREATHE ABOUT THE CENTRES OF DEEP COLOR?"—*George Eliot.*

"WHERE GROWS? WHERE GROWS IT NOT? IF VAIN OUR TOIL,
WE OUGHT TO BLAME THE CULTURE, NOT THE SOIL."

—*Pope.*

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