

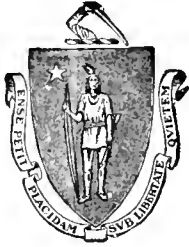
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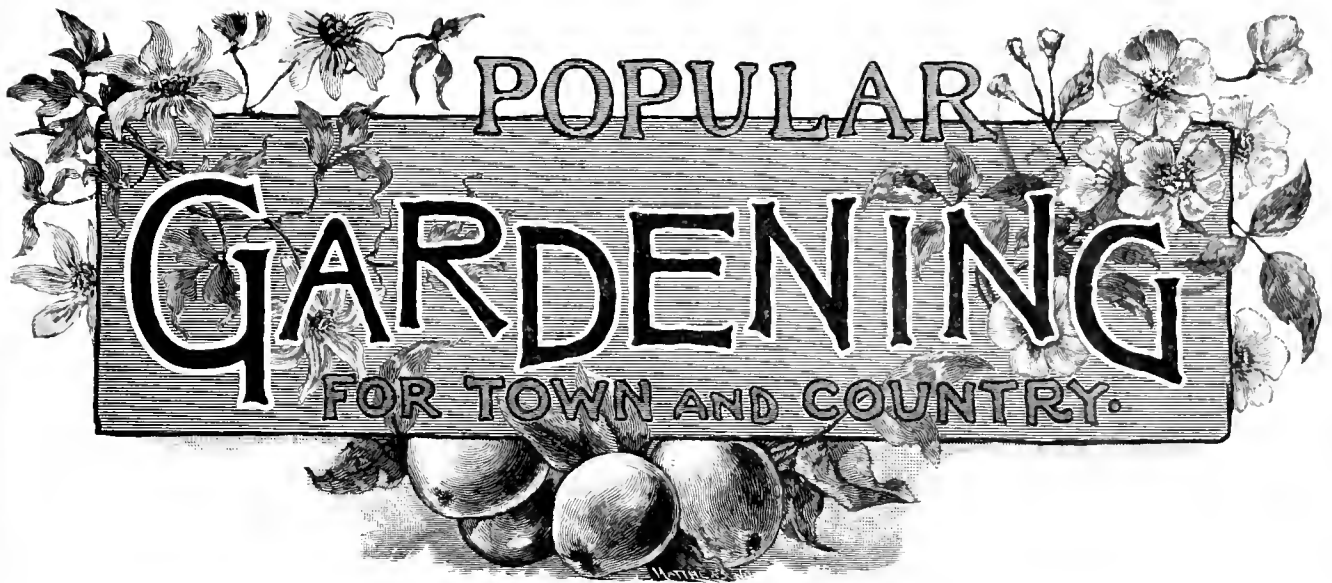
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"The Home Florist," Etc., Etc.*

Mark the matchless workings of the power,  
That shuts within its seed the future flower,  
Bids these in elegance of form excel,  
In color these, and these delight the smell,  
Sends Nature forth the daughter of the sky,  
To dance in earth, and charm all human eyes.

—Carper.

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TO

## VOLUME I OF POPULAR GARDENING.

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# POPULAR GARDENING

FOR TOWN AND COUNTRY.

VOL. I.

## Garden Notes from Lyndale.

BY A. H. E.

*October 2.* Few plants of a large collection afford greater satisfaction than *Begonia Weltoniensis*. Several late-started ones, standing in a shady border are yet covered with clouds of rosy bloom. For many weeks they have been very attractive.

This *Begonia* is easy to manage, and assumes a fine form without either stakes or tying up.

A few days later I will lift the plants, set the roots firmly into pots of earth, water and then gradually dry off. During the winter the pots are laid on their sides in a temperature of about 50 degrees, and are not watered. In the spring I start them up at intervals for a succession.

\* \* \*

The Matrimony Vine, *Lycium barbarum*, common and almost weedy thing that it is, displays such richness in its fruit now, to say nothing of bloom earlier, that for my part I really don't care to be without it. But every plant in its place. I confine this vine to a pile of boulders on the hill side, letting it clamber about and tangle up as it chooses. Here the clusters of orange-scarlet berries show most attractively; I can think of nothing in this line to equal them in beauty, from now on.

\* \* \*

*October 5th.* About the only insects to trouble out-door Geraniums here are caterpillars of several species. While they are voracious feeders on the leaves, their numbers are not so great, but that with looking out for them daily, they are kept from spoiling much.

These large hairy worms when at it feed as if they meant to have the plant. I kill everyone met, thus destroying a present cause of trouble, and cutting off future increase, for next year will find the moth of every one that escapes this year, laying many eggs apiece, a thing equivalent to much future trouble.

\* \* \*

Coming in possession of a strip of land a year ago that was burdened with several patches of Burdocks, I took in hand to eradicate them. And I succeeded, but it was a job. This

by arming myself with a butcher knife and decapitating every plant just below the surface, as it first appeared in sight. They gave up first.

\* \* \*

Although I am rather fond of a dressy garden, that part of Lyndale devoted to a Wild Garden certainly yields much satisfaction.

For one thing this piece of rurality costs but little care, it being chiefly in the direction of eradicating weeds and such plants as would soon become weeds if allowed to. What enhances the value of the spot is the happy freedom with which all the plants are growing.

There is no time, from the dawn of spring until freezing weather in autumn, but that some object may, in a walk through the Wild Garden, be met to please the eye, and the other senses.

\* \* \*

*October 8th.* I mentioned the Matrimony Vine as being attractive with fruit now. Further along in the Wild Garden, are some clumps of Sweet Brier and Dog Roses, which also display a showy crop of fruit.

Much as I prize the improved Roses of the borders, these wild sorts would be greatly missed were they to be taken away. The plants have always had very much their own way. They are now eight feet high and with drooping branches that one can walk under.

No one would care to come very close to these thorny chaps one might think, and yet when they were in bloom a shady nook in the Sweet Briers afforded a very inviting sitting place. Here at that time I found much to admire in the delicate beauty and contrasts of these two species of Roses, loaded down with their hundreds of pretty single blooms.

\* \* \*

*October 10th.* In planting my Dutch Bulbs to-day, I repeated a plan for successive cropping of flowers in the spring, on two small beds that in the past has usually pleased me greatly. These beds are only two feet across and lie conspicuously on each side of the front walk near to the steps. I set out Crocuses, Hyacinths and Parrot Tulips all in the same beds.

My way of planting was as follows: First, I dug up the soil well, mixing in some manure during the process, and after shaping up the top tramped it rather firmly. Then I dug out each bed exactly five inches below the surface. On this bottom fifteen bulbs each of Single Hyacinths and Parrot Tulips were set, and covered with a layer of two inches of soil. This new surface was for the Crocuses, and on it I placed six dozen imported bulbs, dividing the spaces between them uniformly.

Early next Spring there will be sheets of Crocus flowers over these beds. These will soon be followed by Hyacinth, and later yet will come along the Parrots.

After the Tulips are done, the same beds are planted with summer flowers, thus securing to me an almost perpetual period of bloom from March until October.

\* \* \*

*October 18th.* I notice a growing interest in the planting of Bulbs in grass plats, which I like to see.

For this purpose it is hard to conceive of anything that does better or is finer than the old-fashioned Von Sihon Daffodils. They grow compactly and strong, and when seated on the grass are exceedingly handsome as the flowers are swayed too and fro by the Spring breezes. A strong point in their favor is, that the plants grow in close clumps, thus allowing the grass from the very earliest mowing in the Spring to be kept closely cut right up to them, maintaining a neat appearance.

\* \* \*

Crocuses succeed well in the grass but better in the cultivated border. The objection to them in the lawn is, that the grass must be left uncut until the bulbs have made their growth for the season, thus tending to a general appearance of untidiness.

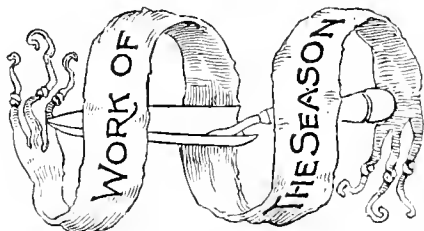
In the Wild Garden where tidiness is at a discount, these as well as Snowdrops and others of similar needs, are exactly in place growing in the grass. Here of all places an abundance of Crocuses should be found.

In planting Crocuses and similar things, why is the custom so common of arranging the bulbs in rows or blocks? Nature never arranges in lines and squares, and we would do well to take lessons from her in setting these little bulbs. When I plant such things either in grass or borders, I set them in irregular masses, allowing these to die out through a thin sprinkling of bulbs into nothing. When several colors are used each one is kept somewhat by itself, but is usually allowed to blend with the other masses in their edges.

\* \* \*

October 25th. My last Hyacinths for winter blooming in the house and conservatory were put into pots to-day. I never feel that I am ready for winter until at the least some dozens of these most charming and easily managed bulbs are under way.

Whatever the extent of the stock contemplated, I divide up my bulbs into about three lots, and plant these then at different times.



#### HOUSE PLANTS.

October is an important month in the window gardener's calendar. It marks the beginning of the in-door season of growth. Before the month is past the plant windows should be furnished, and a reserve of stock be found in the cold pit or cellar for bringing in during the coming months.

This is a most favorable season for rapid and healthy growth in plants, as light, air and heat are all easily provided now. Let this be taken advantage of to the utmost, for securing to every subject a large degree of vigor preparatory to the untoward condition of things which will follow later.

**ABUTILONS** lift easily from the open ground; count them among the best plants for both foliage and flowers.

**AGAPANTHUS.** Beautiful in summer now they must go to rest. Store in a dry, cool place, as in a frost-proof cellar—it need not be very light—and give a very little water occasionally.

**AIRING.** Look upon this as a great lever, for getting up a momentum of vigor at this season to carry the plants through the dark months. Air freely, you cannot over do it.

**ASPIDISTRAS.** Shift such as are growing rapidly, provided many roots show around the ball of earth. No one fails with this plant.

**AZALEAS** now need light, air, about 50 degrees of heat and careful watering.

**BULBS.** See article on page 6.

**CALLAS.** Give ample sized, but not over-large pots and rich soil; don't crowd the leaves.

**CARNATIONS, MONTHLY.** See **LIFTING.** Those grown over summer in pots, should with the lifted ones, go into their flowering pots now. Pots larger than 7 inches or less than 5 inches across, inside measure, will seldom be wanted. Give moderately rich earth, 45° to 55° of heat, plenty of air and never excessive moisture.

**CHRYSANTHEMUMS** must have plenty of water; a top dressing of old manure on the surface or else liquid manure, occasionally, until flowering is begun, is very helpful to the bloom. Look out for caterpillars on them.

**CYCLAMENS.** With warm light soil, and kept near the glass these plants will do well.

**DAISIES** succeed as winter plants if grown in 6-inch pots. Give plenty of sun, air and water; allowed to get parched the red spider will soon appear, to annoy you.

**FERNS.** Keep in a cool window, with little or no sun, water freely at the roots, but never over the fronds.

**FORGET-ME-NOTS.** Fine for a sunny window in the winter. Get a-growing in ample sized pots of about

6 inches across, keep in a cool place where it does not freeze and give plenty of air until January. Then begin to force them.

**FUCHSIAS** for winter flowers, should be in their final pots now. Light rich soil, sunshine, moderate airing and freedom from insects are chief requirements. When in bloom give plenty of water.

**HARDY PLANTS.** The *Dicentra spectabilis* or Bleeding Heart, Japan Astilbe, Lily of the Valley, White Christmas Rose *Hellebore Niger* all succeed easily in the window. Lift strong roots about Nov. 1st, and pot, crowding the roots somewhat.

**INSECTS.** Some there will be, for they come in from the outdoor plants. Keep a watchful eye for them; when discovered concentrate a pound of pressure upon each one through the smooth side of the thumb nail.

**LIFTING PLANTS.** Above all else retain every root possible. A firm ball of earth about the roots is desirable, but generally less so than is supposed; it may fall to pieces before it is reduced to fit the pot. Cut back the leading branches of rank growers, like Geraniums and Coleus, about one-third, but do not prune winter flowering plants that have been pruned throughout the season. Lift all kinds before sharp frosts appear.

Pot firmly, using good soil to fill up the spaces; draining with pot sherds in the bottom of the pots. Keep the plants well watered, closely shaded and out of the wind for a week, at the same time sprinkling the foliage lightly twice a day. Inure them to the confined air of the windows or plant house gradually.

**PALMS** need only the most ordinary treatment in the window. But few ever fail with them.

**PETUNIAS.** These are gay winter bloomers. Plants brought along in pots are the best.

**ROSES.** Lift and pot about the middle of the month. They need fibrous, moderately rich soil, partaking more of clay loam than sand. Provide ample drainage.

Tea Roses for early bloom, should be gradually brought into the close atmosphere; when used to it, allow no draughts to strike the plants.

Keep Hardy Roses for spring flowers in the cold pit until February.

**SHRUBS.** The *Deutzia*, Mock Orange, Lilac, Hardy Azalea and Japan Snowball all flower well in the dwelling or greenhouse. Lift by end of month, pot firmly in scant sized pots and subject to at least one sharp frost, before bringing in to force. Do not prune. Store in cold pit until forced.

**VEGETABLES.** Old plants are not worth bothering with to lift; strike new ones from soft cuttings.

**VIOLETS.** See **LIFTING.** Keep all the runners trimmed, and give the plants plenty of air, and light with a low temperature.

#### LAWN AND FLOWER GARDEN.

**ANNUALS.** Early in this month seeds of Sweet Alyssum, Candytuft, Centaurea, Clarkia, Callirhoe, Calendula, Larkspur, Lupines, Mignonette, Nemophila, Portulacca and Peppy may be sown for spring flowering, whenever the ground is light and dry. These will flower earlier, better and larger than if sowing is deferred until spring. In the South, all annuals but the most tender sorts may be sown in October.

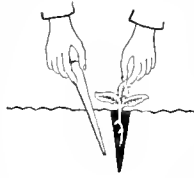
**BULB PLANTING.** See article on page 6.

**CALADIUMS.** Treat like Cannas.

**CANNAS.** Lift after the frost has hurt the leaves; remove the tops and dry in the shade. Winter in dry sand, in a cool place, away from frost.

**DABLIAS.** Treat like Gladiolus, but store the tubers in a frost-proof cellar, as one would potatoes.

**DIBBLING.** If Pansies, Hollyhocks, and other Hardy Perennials were sown in August and September, they will need transplanting now. For this use the dibble is a simple tool that is so handy, every gardener should employ it often. For a few small plants a dibble the size of a finger but longer, made of wood neatly whittled to a point will answer. In using, first make a clean hole in the soil to receive the roots. Then with one hand set the plant into the hole, holding it at a proper height, with the other, prick in the dibble near hole number one, as shown in the engraving, forcing the soil that is between, against the roots. Do this



How to Use the Dibble.

so firmly, with one or two additional picks if necessary, that in drawing on a leaf it will break off, before pulling up the plant. Unless the soil is quite wet, water afterwards.

**ECHINEAS.** Take up, divide and plant closely in shallow boxes of earth. Store these in any cool, half-lighted place where it does not freeze, keeping the soil almost dry.

**FLOWER BEDS.** By protecting the finer ones with canvas, or other covering, through frosty nights, they will be handsome for the weeks of fine weather we usually enjoy after the first sharp frosts.

**GLADIOLUS.** Take up after the first keen frost, dry thoroughly, and store in paper bags away from freezing and moisture.

**HARDY PLANTS** may be divided and reset where the soil is light. Peonies especially, succeed much better if reset in the fall instead of spring. The same is true of hardy Lilies. All fall-transplanted stock should receive a mulch of leaves or coarse litter before winter sets in, for protection. Dividing and removing hardy plants into fresh soil every third year, is what they need for doing their best.

**IMPROVEMENTS,** such as draining, trenching, and grading cannot be done at a better time than just in advance of the fall rains. The soil then handles lightly, and the weather is invigorating for work, both important factors in such matters. Doing these operations when the ground is sloppy, is uphill business.

**LAWNS** improve in this month, with its cool weather and increased moisture. Mow regularly but not very close; they will be in all the better shape next spring for it.

**LEAVES** must be cleaned up often, where regard is had to tidiness. Either pile up to rot or to use for mulching, store for bedding, or if there is no other possible use for them, burn.

**LIFTING.** See under House Plants.

**MADEIRA VINE.** Treat like Dahlias.

**SEEDING DOWN** new lawns is yet in order if done at once. There is no better time for sodding than this. Uneven parts of the lawn may now be leveled up; if depressions, cut and roll back the turf, not detaching it, fill in new soil to even up the place, returning the turf; if mounds take the same course, except to level by removing surplus soil.

**TIDINESS.** Don't give the garden over to chaos with the first hard frost. Gather up the blackened plants; in lifting roots and other stock, level the surface afterwards a little, rake up leaves, and so on, for enjoying order and beauty here during the weeks of delightful autumn weather to come.

**TIGRIDIAS.** Treat like Gladiolus.

**TUBEROSE.** Treat like Gladiolus but winter in not less than 45° of heat.

**WALKS AND DRIVES.** Clean them of weeds, touch up the surface with the rake, and attend to the edges now, and their care will be about ended for this season.

**WEEDS.** Many kinds grow rampantly in cool weather. Keep watch to prevent this in borders, the wild garden and every where else.

#### PLANT CULTURE UNDER GLASS.

**ABUTILONS** do better for being cut back occasionally.

**CHRYSANTHEMUMS** need liquid manure, but less as they show color, and none at all after the first flowers are open; water freely. Thin the flowers on plants that are to be cut from.

**CINERARIAS** need light, plenty of fresh air, free watering and an occasional dose of liquid manure. They cannot tolerate having their roots pot-cramped.

**CLIMBERS** are indispensable; quick growing ones like Tropaeolums, Passion Flowers and Jasminums are to be recommended, because of the free-cutting back they will bear, thus ensuring plenty of young handsome-looking shoots.

**DUTCH BELLS.** See article elsewhere in this issue.

**HANGING BASKETS** for winter adornment should be fitted up. A basket of drooping Ferns is exceedingly handsome. Any of the greenhouse droop-ers will answer.

**INSECTS.** Attack them promptly now, and they will trouble very much less later; for green fly or aphids, burn ½ pound of refuse tobacco for each 500 square feet of house from once to twice a week. Dusting any affected plants with tobacco powder will kill them quickly. Moisture created by syringing is the safest remedy against red spider. Scale and mealy bugs are easily destroyed by washing

and brushing any parts affected, with soap-suds or tobacco water heated to about 125°, rinse afterwards with clean water. Kill angle worms in the soil, by soaking the earth with lime water.

**LABEL** the plants and varieties if you would become familiar with them. Attention to this point will help beginners more than any amount of book study. Revise names when plants are in bloom.

**ORCHIDS** as a rule need less moisture as the days shorten. Prepare them to go through the winter at as low a temperature and as near dormant as possible. Most growers hurt them with too much moisture and heat in the winter. Keep clear of insects.

Cool Orchids will need no artificial heat until the temperature falls to 45° at night. These can stand more moisture than the other classes; in sunny weather the atmosphere will not be too moist even with daily sprinkling about the house. Such as are in flower will bloom stronger next spring for removing some of the flowers now.

**PRIMULAS** now want heat, light and moderate moisture in the air. Give weak manure water to blooming plants, both double and single, once every two weeks.

**PROPAGATION** can, especially in bedding plants, be carried on to any required extent now, that outdoor cuttings are abundant. Cuttings also strike readily without the help of bottom heat at this time. Set them firmly into beaten-down sand, sprinkle lightly and often, shade from the sun and admit air freely, but not in draughts.

**ROSES.** Syringe twice a day, aiming to wet all the leaves, but not causing excessive wetness to the soil. A night temperature of from 55° to 65° is the most suitable for flowers.

Prime Tea Roses as the buds are out, by taking off each shoot back to within two eyes of its base; occasionally also pass over the plants and remove all "blind shoots," in other words such as have faded their growth.

**STEPHANOTIS.** Keep rather dry and cool until early spring. Keep down mealy bug.

**STOCKING UP.** If any tender plants that are needed yet remain in the outdoor beds, no time should be lost to get them in. See Lifting, under House Plants. Give newly brought-in plants plenty of space, air, and the foliage a light sprinkling with water about six times a day for a while. Most kinds will then bear the change from out-doors to in-doors without showing it.

**TIBEROSIS.** Keep in a night heat of 60° to 65°. Avoid chilling draughts, water moderately.

## FRUIT GARDEN AND ORCHARD.

**CIDERS** should only be made from perfectly clean and sound apples, to be good. Insist on cleanliness being practiced, at every stage of the making. For preserving it, there should first be slow fermentation in a cool place and after fermentation, bung tightly. In a short time the cider will become clear, then rack off into clean barrels.

**CUTTINGS** of Currant, Grape, Quince and Gooseberry are easily made by anyone and may be cut and set this month. Make 6 inches long each; place in lines about 4 inches apart—in trenches, packing the soil firmly against them. Cover with coarse litter, to prevent winter-heaving.

**GRAPE.** Pick for winter or for wine only after fully ripe; all may not color at the same time, be patient up to hard frosts. Ripeness is known by the stem turning brown and shriveling somewhat.

Grapes unlike some fruits won't ripen after gathering. Gather in fair weather and between dews, place in shallow drawers in a cool room until assorted, and packed.

**MARKETING.** Pack uniformly, whether in barrels for shipping, or in crates or baskets for the home trade. Strict honesty is the best practice; once let a grower obtain the reputation for "facing" his packages more than they will bear, and he will find difficulty in selling, as he deserves to.

**NUTS** should not be gathered until frosts start dropping somewhat.

**PLANTING.** One season with another, we prefer to plant fruit trees of all but stone fruits, in this month, provided the ground is properly drained. Raspberries and Blackberries, we think, also do better to set now on such land. Whatever planting cannot be done before the 10th of November in the Northern States, had better be deferred until spring. The work may begin as soon as the leaves show

maturity by their color; if they persist in hanging, strip off with the hand.

In planting shorten all the main shoots, somewhat, as shown in the engraving. Have the hole large enough to receive all the roots without bending. Spread them out naturally, bring fine earth between and against all the fibers and other parts, and pack the soil firmly. In finishing the job, raise a mound of earth against the tree as shown in the cut. This will steady the tree, shed water from and protect the roots. In exposed places a stake should also be provided.

Any trees or plants received too late for fall planting, should be buried root and top in earth in some dry spot. Some who prefer spring planting, advocate this course with all the stock to be set out.

**SEEDS** of fruit may easily be saved by washing the pomeace of such kinds as are made into cider. Small quantities may be gathered up, when hand-picking and quartering is done. Wash clean, dry and keep until planting time in boxes of sand. Peach and other stones as well as nuts for seeds should be packed in sand and set out doors to freeze hard, during the winter.

**WEEDS,** should be kept down with the hoe to the end of the season. Many kinds grow rapidly now, and to kill them will save work next year.

**WINTER APPLES AND PEARS.** Leave on the trees while growth keeps up, unless freezing weather is expected. All fruit not intended for cider should be hand-picked. Bruises from falls cause rot. Keep wormy fruit from the sound. Store in a cool dry room in heaps for several weeks, in order to dry out somewhat, before consigning to winter quarters. For winter, store in shallow bins that admit of a circulation of air through them.

## VEGETABLE GARDEN.

**BEETS.** Gather and store in a cool cellar, after the growth is checked by frost. The quality and flavor will be better retained by packing in sand. If there is a large crop, they may be kept in pits over winter. Locate these in well drained ground, covering with straw and earth, to prevent hard freezing, and sudden changes of temperature.

**BRUSSELS SPROUTS** Treat like Cauliflower.

**CARROTS.** Treat as directed for Beets.

**CAULIFLOWER.** When indications of freezing weather appear, gather those not fully headed, and plant in boxes of soil in a cool cellar. Similarly treated in glass-covered pits will also answer.

**CELERY** grows well now, and will need close attention in earthing up. The early crop may go into trenches for winter.

**CHEERFUL.** Treat as directed for Parsley.

**CHICORY,** for use as a salad in winter, should be lifted by the end of the month, stored in a cool part of the cellar, and brought into a warm place for growth as wanted.

**DIGGING OVER.** As the crops are gathered dig over the earth, so that the air and frost may have full effect upon it. By such a course, the larvae of many injurious pests will freeze to death.

**GREENS** for spring use, such as Spinach and Corn Salad, should be thinned if needing it; keep the ground clean.

**LETTUCE** can be cut from the open ground for a month or more yet. Some brought on in frames, will answer a month later than that.

**ONIONS.** For the earliest crop next year, plant some sets about the middle of the month in rich, drained land; protect with hay or leaves over winter.

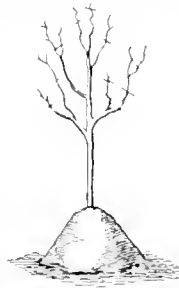
**PARSLEY.** This is easily brought along for use, either in a cold frame, window or greenhouse, by lifting the plants now, and setting them in pots or boxes. The leaves may also be dried, and in this shape be preserved for use.

**PARSNIPS.** The main crop should stand until spring; lift some for winter use and store in pits or the cellar.

**RADISH.** Dig the winter sorts after hard frosts, store in light earth in the cellar.

**SALSIFY OR VEGETABLE OYSTER.** The same as Parsnips.

**SQUASHES.** The directions given for storing



Mounding Up.

Sweet Potatoes, will suit these. A cellar, unless warm and dry, is too damp for them.

**STAKES AND POLES** if housed after use, will last much longer than if left out; place in the dry.

**SWEET POTATOES** Dig before hard frosts, handle carefully, as bruises lead to rot; store in a dry warm place, in a temperature near 60°. In many cases, a shelf of the kitchen closet would do.

**TOMATOES.** Plants not yet touched by frost, will if protected by a frame and sash, ripen fruit for a month longer. Green fruit that is three-fourths or more developed, at a time when no longer safe to leave it outside, will ripen if brought under shelter, as in the dwelling or greenhouse.

## FRUIT AND VEGETABLES UNDER GLASS.

**GAPEERY.** Houses with fruit that is not yet fully ripe, should have the temperature kept at about 55° at night, and 10° or more higher by day. A gentle fire heat may be needed for maintaining this, and for keeping the atmosphere of the house dry and favorable to ripening the fruit and leaves.

Prime successional houses as soon as the leaves fall, also cleansing the eaves. This is also the time for washing or painting interior wood work.

**LETTUCE** for use by Christmas and later, may now be planted in hot-beds or greenhouse; 55° of heat with proper airing suits it.

**MUSHROOM** beds for winter supply must be prepared, if not yet done. Collect plenty of short, fresh dung, and lay in small heaps until you have a barrow load, then mix it up with half its bulk of fresh pasture loam, that is free from fungi. Turn the heap daily until enough of the material is secured to stock the bed, directions for making which, will be given next month.

**RAISINES** can be grown at any season where 55° of heat, and an abundance of light and air with suitable moisture can be provided.

**RUTABARD** is so easily forced in the winter, even as a "house plant," that we wonder it is not oftener done. The large root stored full of nourishment, is what the growth must depend upon mostly; if in addition, there be warmth, moisture and a little light, the conditions needful to raise a crop of fresh pie-making material in the winter are all at hand. After several hard frosts is the time to start in on the work, by lifting the roots and storing them away from hard frosts, so they can be got at.

**STRAWBERRIES** to be forced, should now be strong plants with well formed crowns and occupying six inch pots. If they were treated right when shifted, the pots were then plunged to the rim in sawdust, coal ashes or the like, on some smooth surface where angle worms could not get into the pots. Here they should stand until November.

## Inquiry Column

This being the People's Paper it is open to all their inquiries, bearing on Gardening.

On the other hand, answers to published inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer; give facts and let us and the editors see that they appear in creditable shape.

In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper.

Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that those be fully prepaid. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.

1.—**Green Growth on Pot Soil.** The soil in my Camellia pots, is covered with a green growth. How shall this be prevented and remedied?—E. F. DE S.

2.—**Liquid Manures for Pot Plants.** Will some one kindly say what is the best manure water for greenhouse plants? Is diluted ammonia of any use?—A. P. C.

3.—**Weeping Trees.** What kinds are to be preferred for a lawn exposed to strong southwest winds?—Mrs. R. L., Oil City, Pa.

5.—**Select list of Shrubs.** We are making improvements about our grounds, and would like to set out some hardy shrubs, such as give flowers for a long season. Will some one name a list of a dozen or twenty.—A FLOWER LOVER.

A Column devoted to the Paper's Interests.

## IT IS NOT OUR INTENTION

To keep secret the fact that this paper needs many subscribers. So, because some departments are not much crowded yet, we take one column to talk of the matter.

First of all we want to impress the fact, that we design to make of POPULAR GARDENING.

The Brightest,

The Cheapest,

The Most Useful and  
The Most Popular

paper of its kind in America, and one that will be wanted in hundreds of thousands of families.

This number is a fair sample of what will follow, excepting that some departments are yet undeveloped. A constant aim will be to render all parts of POPULAR GARDENING reliable and concise in character. Any contributions that will not, on the part of their writers, allow of reasonable editorial revision in our hands, if needed to get at their substance in the fewest words, are not wanted. Some say the

## PRICE IS TOO LOW:

that no well edited paper can live at such rates. We are aware that the price is low, exceedingly low, but we have faith in the people, to believe that this feature is all right. Many of our best papers are among the cheapest of papers. What looks like a defect here to some, appears all right to the masses, and they make up for this in increased patronage.

And this is what we shall count on them—may we say on You kind Reader among the number—to do in our case. With 50,000 subscribers as a basis soon, we can furnish a paper that shall be wonderful in beauty, in worth and in price. This 50,000 at 60 Cents,

50,000 at 60 Cents,

50,000 at 60 Cents,

let us say, we shall work hard to secure, within one year if possible, but only because we expect to offer a paper in every way worthy of them. And now,

To all Persons in Town or Country who love Flowers, Plants, and fine Lawns we are free to say we want to count you among our first 50,000 supporters! Look over the paper carefully. Can you afford to be without such a mass of interesting matter, when 60 cents will buy it for a whole year?

To all who grow Fruits and Vegetables! We want you among our subscribers at once. You cannot possibly invest the price of this paper to better advantage, than to subscribe.

To you, Botanists; to you, Poultry Raisers; to you, Aparians; to you, Housewives; to you, Children! We want to see the names of one of you from every family, at least, among our subscribers. We promise you all a rich treat of matter throughout the year.

Remember that 60 cents, or only 50 cents in clubs of five, will secure this paper crammed with choice matter for one year.

## TO CAUTIOUS PEOPLE.

See Page 13.

### Three Roses.

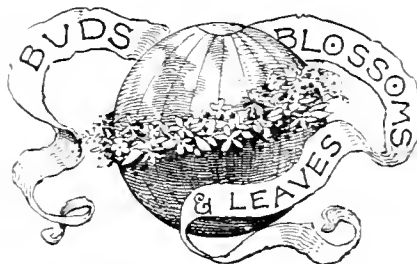
All bright, dewy-tipped, and fragrant,  
Delicate, dainty, and shy,  
A secret sweet in its bosom,  
A tear and a smile in its eye;  
This opening Moss rose which blushes  
Its fringes of green above,  
I choose, for its grace and beauty,  
As symbol of maiden's love.

For its lustrous, matchless splendor,  
For joys its beauties impart,  
For the lavish way it squanders  
The richest sweets of its heart,  
For its queenly air and color,  
The depths of its velvet hues,  
Symbol of wifely devotion,  
This royal Red rose I choose.

For purity fair and spotless,  
For breath fresh as early morn,  
Because its warm heart is golden,  
Because it has ne'er a thorn,  
Because its blossoms are unfailing,  
So sweet none can e'er refuse,  
Symbol of mother's affection,  
This modest White rose I choose.  
—Dart Fairthorne.

### Choice.

I have a garden full of blooms:  
Oh will you choose?  
I know them by their own perfumes,  
Their varied hues,  
And when between their ranks I walk  
I kiss the lily on her stalk,  
I touch the rose and mignonette  
And smile to see the pansy wet,  
With purple dews,  
I have a heart so full of friends  
I cannot choose.  
—Katherine Lee Bates.



ROSES now improve.

GARDEN intelligently.

BONE MANURE suits Lilies.

DUTCH BULBS are superior.

WALK IN! Chrysanthemums.

SMILAX won't grow from slips.

ARE THE FLOWER POTS on hand?

WHY NOT set some Parrot Tulips?

HIT us with a club—of subscribers.

WATER ENOUGH, but don't overwater.

SUBSCRIBE for POPULAR GARDENING.

PLANT BULBS in masses rather than rows.

WE NEVER RAISE our own Daisies from seed.

NEW YORK CITY has 150 cut-flower stores.

BE FREE to ask us questions about gardening.

THIS PAPER may be obtained of newsdealers.

LANTANAS came from the West Indies, 1692.

NEVER PAY FANCY PRICES for untried novelties.

FLOWERS, ARE JEWELS for the rich and poor alike.

ALL SUCCESSFUL GARDENING is pleasure gardening.

IN FRANCE the Oleander is called Rose Laurel.

FORGET-ME-NOTS suffer more from wet than from cold.

IF YOU WANT to plant a Beech, be sure to do so in the fall.

THE FATE OF FLOWERS—In doing their best they get blowed.

STAND UP and be counted among the first 50,000 subscribers.

St. PAUL'S CHURCH, New York, has a conservatory of its own.

MESSRS. CASSELL are publishing "Familiar Trees" in monthly parts.

MEASURE A GARDEN as you would a picture, not by size but by quality.

MESSRS. KELWAY & SON., Longport, England, grow 20 acres of Gladiolus.

IF YOU ARE PUZZLED how to manage some plant, ask POPULAR GARDENING.

WILL THE BENNET ROSE take Gen. Jacqueminot's place is the question of the day.

READER! Can you not give us some idea or information of interest to others. It would be welcome.

ONE GERMAN SEED CATALOGUE, that of Haage & Schmidt, of Erfurt, offers more than 13,000 distinct sorts.

ALWAYS EXERCISE CARE in handling or pruning the Oleander; its juices are known to be poisonous to persons.

CHRISTMAS HYACINTHS are possible to be had in the house, by starting bulbs of the White Romans at once.

THE AGROSTEMMA or Rose Campion, a plant easily grown from the seed, blooms well in the house. So says a correspondent.

ON THE OCCASION of Mr. John Frost's, *alias* Jack Frost's, evening visits to the flowers, paper hoods are to be a leading feature of dress.

IT PAYS to plant trees. Set a dollar tree today and in ten years a hundred dollar bill wouldn't buy it. What other investment to equal this?

WHY NOT WORK a little for this paper among your friends. To be candid, it needs just such help now. Only 50 cents a year in clubs of five and more.

WHY TREES LEAN towards the East so generally, is a question puzzling to the savants. It is claimed that more than the wind has to do with the matter. We don't believe it.

GET UP A CLUB for POPULAR GARDENING. You will find this, at its low price, an easy task, by applying to your friends to subscribe. Only 50 cents a year, in clubs, remember.

IF YOU WISH to promote your love for plants hear what Mr. C. L. Allen says: Understand the plant and its wants, study it, take it into your heart and mind, become familiar with it.

A BRANCHING double Tuberoses, has appeared in a Chicago collection. If the freak will be repeated in the progeny of the bulb producing it, a remarkable race will be the result.

RUSTICUS wants to get a "tree box" and asks where. If a tree of that name, at a nursery, if a box, patronize a carpenter. Merely to see a tree box, a boxing master ought to be able to advise.

PLANT SHELTER BELTS of trees, especially Evergreens about your grounds. Then you can grow a thousand things well where now but a hundred will succeed, and have the arboreal beauty too.

HOW TO HELP promote a wider love for gardening in your vicinity. Get your neighbors to join with you, in ordering this paper at the club rates of 50 cents a year for five or more subscribers.

A NEIGHBOR who knows how to garden, both for pay and for pleasure, has two secrets. Here they are for our readers: a large manure and compost heap always, and, never let weeds propagate.

LOOKS AS if the Lily of the Amazon (*Eucharis Amazonica*,) must be given up as a blooming plant in the average hot-house. What it needs is about 100 degrees of heat, and little fussing with besides.

THOSE WHO HAVE the free flowering *Platycodon grandiflora*, white or blue, growing in their gardens, will be glad to know that a rosy-violet variety has been introduced from Japan by Mr. Maires. It is to bear his name.

TO AMATEURS. If you know of a brighter, better or cheaper paper than POPULAR GARDENING by all means subscribe for it, and let us know, that we may do likewise. If you don't, send in your subscription to this office, and you won't miss it much.

LET NOT HOW MUCH, but how well, be your aim in gardening matters. Give us three plants well grown, rather than twenty scrawny, ill-treated things; two square rods of vegetable garden in good order, than half an acre crowded down with weeds and otherwise ill-attended.

**CACTACEOUS PLANTS.** Under this title Mr. Lewis Castle, of the London Journal of Horticulture, has published a little treatise on the history and culture of these plants that will prove useful to amateurs, in America as well as in England.

**TAKE DOWN** the bands of cotton, put around the trees in June to starve the caterpillars. They can be of no possible use after this, and will soon be tattered and stained, looking worse than a dirty, frayed collar on a well-dressed person's neck.

**SOUND.**—The editor of *Libby's American Garden* never put more sound advice for amateurs into few words, than when in speaking of Pansy culture, he said: "It is useless to expect good flowers from poor seed; better pay well for the best than accept poor seed as a gift."

**THE HISTORIES** of great men show, that most of them have been lovers of gardening or farming. It has always been so. Communion with nature broadens and invigorates the mind, as well as restores it when tired out. The same remedy is one that will help tired-out women folks.

**THIS PAPER** has come to stay. It is backed by abundant capital, ability and enterprise to fully establish it. Those who subscribe for **POPULAR GARDENING** now, will in after years, find great satisfaction in knowing they were among its earliest subscribers. It will be something to be proud of.

**THINK OF THE TULIP CRAZE** of 1635, when one sturdy Hollander gave twelve acres of valuable land for a single bulb, of a variety called *Semper Augustus*. Now you can buy more beauty in Tulips for twelve cents than he did for twelve acres. By all means have a Tulip bed, so beautiful and yet so cheap.

**THE PRICE** at which **POPULAR GARDENING** has been placed, is really experimental. It certainly will remain as it now is for one year; we believe for always. But this is a matter that depends upon the support the paper receives. A subscription list of 50,000 or upwards will ensure the present price permanently.

**THERE ARE NO PURER,** more noble or more satisfying delights, than those which spring from the successful management of flowers, plants and other things of the garden. To lovers of Nature, few things possess equal charms, to those revealed by the study of the nature and history of plants, and the noting of their peculiar habits and characteristics.

**IT IS AN OLD TRADITION** that the *Fraxinella* catches fire when a light is brought near to it, hence it has been called the "Burning Bush." The notion no doubt gained currency, from the fact, that the stem is set with oil-glands, which on being touched, give out a strong scent. We have tried to ignite the plant and have failed to see it burn. Drop the old name.

**PERSIA, IN THE OLD WORLD,** is as famous for her large trees as is California in the New World. In the former country, a Plane or as commonly called by us a Buttonwood tree, at Tadjrich, is widely celebrated for its great proportions. This wonderful tree measures over 48 feet around the trunk. Only think of it, a Plane tree one rod in diameter. The ponderous limbs are themselves, it is said, as large as ordinary trees.

**A SUBSTITUTE FOR PUTTY NEEDED.** Putty answered well enough under the old system of plant houses with heavy timbers and small lights; that era has passed away, and for the lighter houses now demanded, in which light bars and larger panes of glass are used, something more elastic and lasting than putty is needed. Every owner of a range of glass has felt this. Let our inventors help out here, and help themselves to a source of income at the same time.

**"THE AMERICAN FLORIST."**—On August 15th the first number of this semi-monthly appeared from its publication office in Chicago. It is a trade paper for the commercial florist. In the present progressive state of the plant and flower trade, we do not see how any florist can get along without the market reports, prices, descriptions of new designs, directions

for cultivation, advertisements, &c., which each issue contains. Price, one dollar a year.

**TREE ROOTS** have often been known to cause trouble in drains. A stoppage occurs, the pipes are taken up, when it is found that roots have penetrated between the joints into the pipes, sometimes filling them completely. This would seem like a serious matter indeed, were it not one that can be obviated with slight expense when the drains are laid. Pipes with sockets should be used in the vicinity of all trees and shrubs. Fill their ends with distern cement in putting them together.

**IS THIS YOUR MISTAKE?** We often see plants in pots suffering severely from dryness at the root, and yet watered every day. You ask how this can be? Well, when the ball of earth in a pot once happens to get perfectly dry to the center, it takes in water very slowly. At the same time it also shrinks in size, so as to leave a narrow space between the earth and the pot all around. To dash a teacupful of water into the pot every day, may keep the surface—the only portion one sees—wet, and some water may find its way down the sides to show in the saucer

below, thus satisfying the eye that it is watered enough, while in fact most of the earth is left about as dry as powder. Remedy: dig into the earth a little, if you find it very dry, set the pot and its contents into a bucket of water for twenty minutes.

**COMBINATION PLANTS.**—Not nearly as much advantage is taken of combinations among plants as they are capable of affording. Last June we noted a plant of the *Bladder Senna*, *Colutea arborecens*, and the *Amorpha frutescens*, which had managed to grow together forming one stock; that both coming into bloom at the same time, one with bronzy purple, the other with orange-yellow flowers, had a very pretty effect indeed. So says Thomas Meehan in the *Gardeners Monthly*.

**STUDY NATURE.** Many a clump of shrubs or trees in wild-places, is fit for a model, to imitate in embellishing the home yard. When such a clump, that would beautifully adorn your place if it was there, is met, make a sketch of it, giving outline, and the location of individuals approximately, to use as a guide, when planting. With all the attractions of this kind to be met about meadows, hills and swamps, there is really nothing to equal what it is easily in our power to create on our lawns. Try your hand at some handsome groups on the lawn.

**OUR SECOND CHILDREN.** Some one speaks of plants and flowers as our second children,—a not inapt term, surely. A few days ago, we heard a lady who had raised a fine young India Rubber Tree say, that if she knew it would be neglected while she was gone on a contemplated visit, she wouldn't go. The lady loves that plant, with a love as for a child. It has grown up from a weak slip into a handsome specimen, by her care, and is still dependent on her for its very existence. One may soon tire of the finest work of art, but never of a plant or flower raised into a thing of beauty by one's own hand.

**MUSHROOMS EDIBLE AND POISONOUS.** The Messrs. Prang & Co., of Boston, Mass., are entitled to the thanks of every American, for issuing in a handy form, Mr. Julius A. Palmer's work on this subject. No country is richer in Fungi than America; the people of no country in the world, perhaps, know so little about which of these are food and which poisons as our own. Result, the absolute waste of a vast amount of valuable food. Messrs. Prang & Co.'s new work affords a remedy. In it are given chromo representations of 25 of the commonest kinds, both edible and poisonous, so perfectly that anyone can determine by them, at a glance, the good from the bad. Directions for

using the former are also given. The price of the work, \$2.00, could in thousands of instances soon be made up, by the new food supplies it would introduce its owners too.

**WE THINK NO ONE** will discover much stiffness or formality of style about **POPULAR GARDENING**. We mean they never shall. Whatever anyone has to write or say or ask concerning gardening matters let them out with it, when addressing this paper. Be natural; write your letters just as you would talk to us if we called on you in your parlor, kitchen or garden. Never mind spending time in fixing up a postal card or letter in a "very proper" style. Tell us about your successes and your failures; items we will be glad to weave into the warp and woof of the paper. Let us mention one thing about which we are particular all matter intended for the editors, should be written with plain ink, and on one side of the paper only. We cannot explain why here, but in handling much matter this will make a great saving of labor to them in the aggregate.

**SOCIETY OF AMERICAN FLORISTS.** This, the first society of its kind in America, was organized at Cincinnati on August the 12th last, and the days following. There were present some 300 florists from all parts of the country. Mr. John Thorpe, of Queens, N. Y., was elected President of the Society. During the three days of the convention, besides the business of organizing, there were read and discussed papers bearing upon leading subjects of interest to florists, including among them such extreme topics as Steam Heating, and Protection against Hailstorms. A most delightful feature was the excursion tendered to the florists by the C. H. & D. railroad to the Soldier's Home Park, at Dayton, Ohio. The new Society is in the hands of efficient and wise officers, and must prove a great benefit to the future flower interests generally, of the country. The florists, who naturally are a home-staying, hard-working set, were much pleased to see what a fine, wide-awake-looking lot of fellows they together make, when in this, their opportunity, they could see each other face to face. The meeting of 1886 will be held at Philadelphia.

**THE BACK YARD.** It is often more puzzling to treat the back part of a lot, with good effect, than the street end, because the former is usually surrounded by high fences or buildings that detract from garden effects. A common arrangement by those who care to grow flowers here, is that shown by fig. 1. This consists of perhaps a cross line of shrubs at the extreme end, and some flower beds of geometrical outline cut into the grass.

Let us suggest the far better style of arrangement shown in fig. 2. Here not only are the shrubs kept next to the fence, but all the flowers with them, are placed in a continuous irregular border outside of the lawn, with this latter kept open in its centre. The advantages of this plan are, 1st, that the open central lawn gives character and dignity to that part of the ground, in a degree it is impossible to secure by spreading out flower beds over the area. 2nd, the flowers and shrubs have a setting of grass in effect, as seen from any point forward. 3d, there is grace and naturalness about the latter as against the formality of the former, which is worth much for appearances. Lastly the opportunities for introducing more shrubs and flowers, and thus great variety, with the effect that the more of these brought in, the better will the fence be hid, by material in the highest degree ornamental. One portion of this outside border might be devoted to rockwork. The principles here involved are worth careful study by all improvers of home grounds.

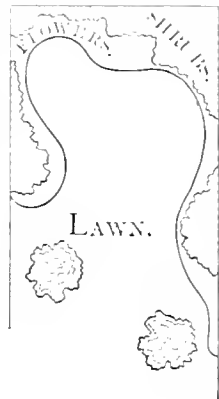


Fig. 2. Improved Plan of Back Yard.

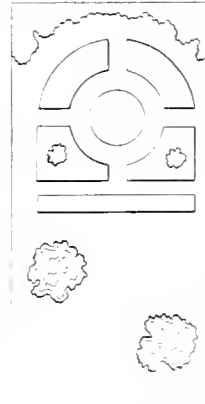


Fig. 1. Plan of Back Yard devoted to Lawn, Shrubs and Flowers.

**Hardy Dutch Bulbs: Plant Now.**

What are known as the Dutch bulbs, embracing Hyacinths, Tulips, Narcissus and others, must be planted in the fall months if at all. Because people often fail to grasp this fact, the work is neglected at the proper time, only to be repented of, when the blooming season comes around. The culture of the entire list of kinds set forth in the dealer's catalogues, either in the window, conservatory or garden is



GROUP OF SINGLE HYACINTHS.

so simple, the prices of choice bulbs so low, and the results invariably so satisfactory to growers, that we always feel to recommend their culture. They are a class, that even the inexperienced succeed with. Several of our advertisers this month, offer these bulbs.

Hyacinths are justly very popular. They bloom early, are very sweet, handsome and durable when in flower. We can suggest no flowers that would be finer next February and March in the window, than some dozens of these brought along in pots. For forcing, the single varieties should generally be chosen, a group of which is shown in the accompanying engraving. A half dozen fine singles making a variety of color, would be Argus, dark blue, Grand Vedette, pure white, Norma, delicate rose, Priestly, delicate lavender, Queen Victoria Alexandria, bright crimson, Marie, blue. Among doubles that force well, La Virginite, rosy white, Czar Nicholas, pink and Bloksbergen, blue, are favorites with us.

We are not sure, but Tulips are more thought of than Hyacinths. They lack somewhat the long-keeping qualities when in bloom of the former, and perhaps, also, in delicacy of color and fragrance, as compared with them. But on the other hand Tulip bulbs are very cheap, the flowers exceedingly varied and brilliant, and once the bulbs are planted they continue to thrive for years. In forcing Tulips no one ever fails, we believe.

Narcissus or Daffodils, while they have always been favorites, have received more attention from growers in late years than any other one class of Dutch bulbs. As a result, the improvement in the flowers and the increase in the number of the varieties has been remarkable. No one ever regrets investing some money, in these fine ornaments of the spring garden.

The Crown Imperial (*Fritillaria imperialis*) is a grand old plant, which seems to be gaining favor again with planters, as it deserves to do. We wish we could speak well of its odor, but because one might not care to fondle the plant or its flowers on account of their peculiar smell, is no reason why the plant may not occupy a prominent place in the border. Here it is an admirable subject, for the effect its coronets of bright-colored blooms produce.

The smaller hardy bulbs such as Crocus, Snowdrops, Scillas, and the like, are indispensable to every good flower garden. The cost of the bulbs is quite insignificant. They thrive year after year with being set once. Any of these also force well in the window.

As for starting bulbs in pots, Hyacinths and those of a similar size, should have a pot 4 or 5 inches across inside for a single bulb, or 7 inches for three bulbs. Smaller kinds may be set proportionately close. The soil should be rich, and made light by the use of sand. Drainage, in the shape of some pot sherds in the bottom of each pot, is essential. In planting keep the bulb near the surface with its tip in

sight; press the soil firmly. After setting them, our practice is to plunge the pots in coal ashes or soil in a cold frame, shed or cellar, and covering six inches deep with the same material. If it freezes where they stand, no harm, provided straw is used for protection in case of much cold. In about six weeks after starting, they will be fit to bring into heat.

To grow bulbs in glasses, keep the glasses so filled with soft water, that the bulb will just touch it. Set them away in a cool, dark place, but where it does not freeze, for six weeks, when they may be brought into light for top-growth. Any water lost by evaporation or otherwise, must be made up for.

Outdoor bulb culture is a very simple matter. Here they all like a rather rich soil. Plant those of the size of Hyacinths and Narcissus 6 inches deep, and the smaller ones about 4 inches deep. For distance apart, this may be a little closer than the depth in inches, recommended. About the 1st of December, the beds of bulbs should be covered over with coarse litter or evergreen branches for protection.

**Fitness in Floriculture.**

Whether one gardens for pleasure or for profit, the fitness of plants or things for any given end must not be lost sight of. Every species and variety in the Vegetable Kingdom is adapted to some particular end, and this it will, under proper conditions, reach and fit better than any other one possibly could do.

Attempts are often made by amateurs to grow such Roses as Marechal Neil, Cornelia Cook or others of a similar class in the window or summer flower beds. Such attempts illustrate what may be called an utter disregard for fitness in floriculture. Here the culture of a most valua-

ble class of Roses is undertaken, in a way that in nine cases out of ten, leads to the most complete kind of failure, because the conditions of culture are unfitted to the plants.

Take the Marechal Neil, and it is certainly one of the grandest Roses ever originated. Its fame is world-wide; it is deserving of all that has ever been said for it, regard being had to fitness. The writer knows of a single plant that has yielded 8,806 large, perfect, golden buds in the space of one year. It may be said that there was no month in the twelve in which less than 120 buds were cut. From this number the yield ran as high as 1,800 buds in a single month.

Now this valuable Rose is both highly esteemed and extolled, just as it should be. It is offered in the catalogue of every large grower of Roses, and this also as it should be, unless pains are taken by said growers to misrepresent its value for window culture and bedding. We are not aware that this has been done in the catalogues. Indeed, as the result of some pains taken to look into this matter, it must be said that no overdrawn description or improper recommend of the Marechal Neil, has been found in many catalogues examined.

Still thousands of Marechal Neil and similar Roses are bought and tried every year, with about the same number of failures attending. Undoubtedly most of these cases of disregard for fitness arise out of pure ignorance. Knowledge is power in gardening, as in anything else.

It shall be within the sphere of POPULAR GARDENING, to so diffuse information on gardening matters, that at least its readers, may be on their guard against committing errors of this kind. Such errors are now not only very common, but really prove to be a great drawback to progress in popular gardening.

**Trees as Protectors from Lightning.**

For many years the writer has labored to encourage the planting of trees. His main arguments, have been aimed to show, that



A FINE TULIP.

trees directly afford beauty, shade and shelter, besides in a general way soon adding to the value of a place, a hundred fold more than their cost.

In addition to the old arguments, the comparatively new one, of planting as a safe-guard against lightning can now be added. To be able to rid the summer showers with their flashes of deadly electricity, of all terror, by planting, and also reap every other benefit that

comes from this, is well worth our considering.

The Electricians of the Old World, are among the latest strong advocates of employing trees as protectors from lightning. Investigation leads them to conclude, that the greatest protection a building can have is to have tall trees near by. The branches are so many points, conducting the electricity by the trunk to the ground.

As to what particular trees are the best for this purpose, there is some question, but all agree that tall growers are the most desirable, also that those with erect branches are better than such as have spreading ones. Perhaps all tall growing kinds like Oak, Poplar, Hickory, Horse-chestnut, Elm, Pine or Spruce, are of nearly equal value.

It is an old belief that a Beech tree is never struck by lightning. Instances are on record to show that this tree has been struck, but these are so few, as to lead to the belief that at the most, it rarely attracts the electric bolt. But this being true it is of course against the use of the Beech in the close neighborhood of building, for the trees wanted here as guards, are those that are not obnoxious to lightning, but will attract it and thus keep it away from the buildings.

The place for a tree like the Beech, would rather be in parks, cemeteries, pastures and similar places remote from buildings. Then persons and animals could find comparative safety under them, during sudden thunder storms. The Chestnut is also believed to be repulsive to lightning.

In planting to protect buildings, a distance of fifty feet away would be proper. To have the trees closer there would be danger, in case of a stroke of lightning, that the fluid would follow the ground to the building. A small pond between the tree and the building would render the protection about complete.

#### A Good, Hardy Plant—The Summer Snowflake.

It shall be the aim of POPULAR GARDENING from month to month, to introduce plants of merit to the attention of its readers. Not only will we attempt to show by descriptions and engraving what they are, and where and how they should be grown, but what is often of more importance to growers, where they may be procured. While this may, as in the present case necessitate the mention of the names of growers or dealers, this will always be done with the utmost impartiality. Let it be understood once for always, that this paper is the organ of no concern, but the helper, first of amateurs, and then of all growers and dealers of articles of the garden, whoever they may be.

The Summer Snowflake (*Leucojum aestivum*) is a handsome and graceful plant, bearing flowers of the size and form shown in the engraving, on stalks from 1 foot to 1½ feet high. It re-

sembles somewhat a tall, vigorous Snowdrop, the pure white flowers being tipped with green at the ends of the petals, inside and out. The season of bloom is early summer. The plant somewhat resembles that of the Daffodil, thrives in any soil, and multiplies by the division of the bulb. It forms a pleasing object either in the mixed flower border, or in the margin of shrubberies. Indeed so readily does it succeed, that we are not sure but it would take good care of itself, in the uncultivated wild garden. The only American catalogue in which we find the



THE SUMMER SNOWFLAKE.

Summer Snowflake advertised, is that of Woolson & Co., of Passaic, New Jersey, but possible some of our other advertisers may have it also.

The bulbs may be set out either in the autumn or the spring. In any case the plants would flower somewhat during the following season.

#### Tree Pets in China.

No doubt the people in China have as good a right to adopt pets after their own fancy, as other people have. While we have no fancy for curiously dwarfed tree pets that may be fifty years old, and yet not more than a foot high, still we must state a preference even for the taste which produces these, to that shown by some Christians for dwarfed canine pets, chameleons and the like. But these dwarfed trees, aside from being marvels in their way, teach a lesson on the adaptability of vegetation, worth

noticing. It is wonderful to see miniature aged Oaks, Chestnuts, Pines and Cedars, growing in small flower pots. The dwarfing process consists in commencing with the young plant, and cutting off its tap root and placing in good soil. Rapid growth is checked by shortening the roots. The leaves grow smaller year by year.

#### On Choosing Varieties of Fruit.

"What shall I plant," is a common and natural question addressed by a great many prospective planters, to their gardening papers.

It would, in most cases, be better to consult local authorities and learn precisely what kinds succeed best, in any given locality, than to rely upon the judgment of men living far away. Local meteorological influences, soil and situation, are such important factors in deciding upon such points, that general advice in this, is comparatively without great value.

The importance of good selections needs hardly to be urged. It may be said, however, that a dozen trees in kinds exactly adapted to a certain locality, will at any time yield many times better results, than a dozen trees that are ill-suited to the place.

Watch the doings of your neighbors who raise fruit. Be on hand where they sell their products and it may soon become apparent which kinds stand in the highest favor with producers and consumers both, and which command the best prices. Kinds that are conspicuous in such respects, and which are known to be healthy growers and good bearers, are the ones it is safe to decide upon. Don't hesitate to seek an acquaintance with neighboring fruit growers, with a view to consulting them about this matter. Generally you will find these men an open-hearted class, that in a marked degree are unguided by narrow principles, and who will be glad to give you such advice as lies in their power.

It is worth while to be at a good deal of pains in deciding on what to plant. Trees once planted are, or ought to become, permanent features of one's possessions. Poor calculations at the start will probably work against the planter's interests for a life time.

#### Shipping Fruit.

In shipping fruit, mark plainly, including your own name or initials, and take receipts for all packages, from the carriers. Make out complete invoice and advice, which send by mail, with duplicates in a marked package. Study to patronize the quickest transportation lines.

# FLORAL FASHIONS & FANCIES

Bring Lilies for a maiden's grave,  
Roses to deck the bride,  
Tulips for all who live through life  
In brave attire to ride;  
Bring each for each, in bower and hall,  
But cull the Columbine for all.

Marigolds are wet weather flowers.  
The sentiment of Moss is Maternal Love.  
Wreaths of natural flowers are beginning to be worn on the hair.

The craze for Orchids in floral decorations, is even more manifest in Europe than with us.

Funeral designs made of a single kind of flower and this not white, are now considered appropriate.

For evening wear, young ladies place one small tuft of flowers in the hair and another on the shoulder.

Cut flowers will keep longer for changing the water daily, and at the same time snipping back the stem ends a little.

A St. Louis florist boasts of having the finest photograph album of floral designs in the country. Will the Chicago florists see about this?

Baskets and Vases of Birch bark are now in vogue as flower holders. This material is very elegant while partaking of a rustic nature.

One year with another the taste for "large bud" roses increases. The old favorite Safrano, has almost been crowded out of some cut flower shops.

For a light, graceful and inexpensive bouquet for the table or mantle, nothing can be finer than Carnations with long stems, set in their own foliage. A narrow vase is the most suitable holder.

When all other trades are retrenching, the florists seem to be building up as much glass as ever. It is a healthy indication of the deep-seated love for flowers, when people forego necessities that they may enjoy these luxuries.

With the increasing use of long stem flowers along with their own leaves, the demand for Smilax is said to be falling off in a measure. Well, for such good reasons let it. Every flower is more beautiful for being supported by its own foliage.

The growth of the cut flower and plant trade in America during the last twenty years is one of the wonders of the nineteenth century. No doubt, for every commercial greenhouse establishment that existed twenty years ago, we now have not less than twelve, and many of these are ten times larger than the average one of the previous time referred to. Mr. John Thorpe, in his address recently, before the Convention of American Florists at Cincinnati, put the number of florists in America to-day at no less than 8,000. Allowing 4,000 feet of glass-covered surface to each florist, would give a total of 3,200,000 square feet or 730 acres of glass. This would be equivalent to six farms of 120 acres each, covered over with glass for growing plants and flowers, for the American people. The number of private establishments devoted to a similar use, would swell these figures largely.

In packing flowers to send by mail or express, the inexperienced often make the mistake of packing them so loosely in the box, as to cause them to shake about to their damage. The best way of packing is to place some springy material like crumpled leaves, hemlock twigs or even cotton in the bottom of the box first, covering this with water-proof paper, on which to place the flowers. Lay the firmer kinds, like unopened Rose-buds, Carnations and the like in first, and finish with the more fragile ones. If a tubular flower like the Calla is to be sent, place a bit of cotton in its throat to prevent crushing. Finish off at the top with paper and of the other material used in the bottom. The contents as finished may stand out above the box somewhat, so that with closing the cover, a gentle pressure will prevail throughout the mass. In packing, most kinds of flowers should be sprinkled lightly, but Carnations, never.

The Lily of the Valley is naturally a spring-blooming plant, and one that few others can equal for charming qualities. It is to many people's minds the ideal flower for bride's bouquets. The forcing of the flowers out of their natural season, has long been practised with success so far as concerns a period of three or four months

previous to their out-door flowering time. But some years ago Valley Lily blooms began to be seen in the market as early as October and November of each winter, and still later, in about every month of the twelve. This remarkable achievement is to be credited to the skill of Mr. Carl Jurgens, of Newport, R. I., who is now widely known as the "Lily of the Valley man." Mr. Jurgens possesses some secrets by which he seems to rule the habits of this flower, and which not a few florists would give a small fortune to possess. He appears to have a "corner" on supplying the flower to the florists, for about eight months of the year.

## Botanical Budget

STEMS, WHEN GREEN, perform the office of leaves. THE SWEET POTATO is a root the Common Potato a tuber.

THE UNIVERSITY OF NEBRASKA has established a Botanic garden.

TO THE BOTANIST every plant possesses some points of interest.

THE BARK, LEAVES AND CONES of the Alder have value for tanning.

THE LATE GEORGE BENTHAM bequeathed £1000 to the Linnæan Botanical Society.

THE HERBARIUM OF CORNELL UNIVERSITY has been estimated to be worth \$1000, by evidence given in a recent will suit.

A SMUT on cultivated Violets, named *Urocystis Viola*, has appeared in France, and is proving very destructive.

BRANCHES have a wide range throughout the northern hemisphere. Some stunted shrubs are found north up to the limit of perpetual snow.

IT IS MORE LOGICAL to say that a plant multiplies than that it divides by branching. A vegetable may thus be looked upon, not as an individual but as a collective being, or as an aggregation of individuals nourished in common like the zoophytes of a coral.—*La Maout*.

MAKE FREQUENT EXCURSIONS to the fields and forests, while pursuing your botanical studies, if you would find them full of interest. A closet botanist never yet made attainments that were worth much. Text books are valuable aids, but the book of nature should be the main reliance.

CEMENT FOR MOUNTING PLANTS.—Mr J. H. Oyster, of Paola, Kansas, says, that the best cement he has ever used for specimens is made by dissolving crude India rubber in bisulphide of carbon, of any desired quantity to make the proper consistency. This is a strong cement always ready for use, and adapted to many purposes.

A GOOD SIGN for the future of botany as a study in America, is found in the fact that now it is looked upon as a branch necessary to a fair education. As an interest in this study increases, a field also opens up for private instructors in botany. We call to mind the case of one woman who has such a class of seventy students.

THE PEOPLE ARE MANY, who would be glad to devote more attention to the study of botany, were increased encouragement given to them in the shape of books, written by scientific men in non-technical language, to meet a popular want. With this demand well supplied, there would follow such a hungering for more knowledge on this subject as would soon lead many a non-scientific reader to become a scientific student.

THE MEMORY OF LINNÆUS, the great Swedish Botanist, is not in danger of soon dying out in his native land. Recently there was unveiled in the Humlegården Park of Stockholm, amid much ceremony, an imposing statue to the great naturalist. Its central figure represents him at sixty, meditating over a bunch of flowers. Four allegorical female figures, representing botany, zoology, medicine and mineralogy respectively surround the main one.

"AGASSIZ BULLETIN," is the name of a 4-page monthly published in this city, from the State Normal School, and, devoted to natural sciences. Its contents are of an attractive character, as well to the ordinary reader as to trained naturalists. Although a small paper, it is all "meat," no advertisements being inserted. The August number contains an excellent article on "The Enemies of Our Shade Trees," by Prof. D. S. Kellicott. Fifty cents a year is the paper's price.

## ADDITIONAL FRUIT AND VEGETABLE NOTES.

CLEAR UP after the crops.

LET BEETS grow until sharp frosts.

YOU CANNOT raise fine berries on poor land.

DON'T LET MANURE come against the roots at planting time.

THERE IS LITTLE use of trying to make raisins from our native grapes; its not in the blood.

SOME OF OUR READERS may not know that the Black Raspberries are much hardier than the Reds.

A LADY recently stated at a horticultural meeting that she planted Raspberries forty-five years ago that are bearing good crops yet.

A GOOD DEAL of difference exists between red cabbage heads. Give us our choice for pickling and we take those that are plump, dry, solid.

UNTIL IT IS TRIED, few growers have any idea of what can be done in working up a home market for fruit, and vegetables. It's a reliable one.

A MAS. MITCHELL, of Oxford, Ohio, says the best Grape trellis she knows of is a tree. On this the fruit never mildews or rots. The best specimens are at the top.

WHEAT RUST prevents success with Blackberries, it is said that to sow red clover among the bushes after they are well established, and allowing the clover after each mowing to remain as a mulch, the disease will be prevented. This is easily tried.

THE PEAR is, for family use, a more reliable fruit on an average, than the Apple. It's crops are more certain, and come earlier in considerable quantity. No tree takes care of itself so well. This has been our experience; we believe it is a universal one.

SALSIFY OR VEGETABLE OYSTER. This delicious and healthful vegetable is not found so often as it should be in American gardens. Why this is so, it is difficult to conceive, for it is grown with the greatest ease. The same treatment that will suit the Parsnip suits this plant also. But it may be said that where any person fails with either of these winter vegetables, it must be because either the ground is not rich or deep enough, or else the plants are too much crowded during the time of growth. Directions for planting Salsify will be given in POPULAR GARDENING early next year. Here we wish to say that the roots may be wintered in the ground where they grow, the same as Parsnips. But a portion of the crop should be lifted before the ground freezes hard, or kept in pits or in the cellar, to be used from during the winter.

THE BUSH SMALL FRUITS, including Currants, Goosberries, and Raspberries, do not object to some shade. A good place for them is in a row against the garden fence. Here with a light rail in front of

SALSIFY, the plants, and the fence behind them, the branches, whether of prickly kinds or not, are kept well out of one's way. By setting a six inch wide board on the ground under the rail, and filling in the space back of it with leaves every fall, the trouble of cultivating the plants will be about done away with. This is what we call a simplified course of culture.

CULTIVATING ORCHARDS. Evidence accumulates to show that orchards in grass are more productive than those kept cultivated, provided there is no lack of fertility along with the grass culture system. No continued good results can be expected from the orchard without manuring, whatever the plan of management is. October is a good month to top-dress the grass-clothed orchard with manure. Let this be done every year.

IF AN ASPARAGUS BED is wanted to supply the family, we can hardly recommend the plan of a friend, who, in his first attempts at gardening, bought a paper of the seed along with Radish and Lettuce seed, and sowed them, expecting Asparagus for the table in a month or two. It takes several years to grow this root to a productive size from seed. As strong nursery grown roots two years old, can be bought for about two cents apiece, what's the use of bothering.







### Mr. Treeclimber Introduces Himself.

To the young readers of *POPULAR GARDENING* I present myself as the man who lives in the tree tops, that is, some of the time. From this, do not make out that I am some odd individual who cannot live as other folks live, but must climb and climb like a squirrel, in order to be contented. It is true that in my boyhood days, I had a great passion for tree-climbing; my love of trees, the strange scenes to be met in their tops, and their products often leading me up into them. I think it was the ones that held mellow apples, luscious cherries or sweet nuts that attracted me the oftenest. Now my climbing is of a kind, that better becomes legs and arms, which have lost much of the gripping power for tree trunks which they once possessed.

I will explain. In a grove to the rear of the house in which I live, is a large Walnut tree, with dark furrowed bark and a spreading head. At about eighteen feet from the ground, in this tree, is an arrangement of branches, which years ago suggested to me the idea of laying a floor upon them. To have a sitting place, a real arbor up in the Walnut, was a thought not to be put aside and it was soon built. The floor which is ten by thirteen feet in size, is enclosed by a railing three feet high, for safety. To reach the platform, a winding stairway was built connecting it with the ground. This also had a side rail to make ascending and descending easier. With such a delightful bower in mid-air, I think you can easily understand how it is that I am a somewhat noted tree-climber, here where I am known.

During warm weather, every day finds me for some hours, in my "perch" in the tree top. Here I read, write and enjoy the rare pleasures of the spot. I often have visitor tree-climbers, too,—you may be sure this is a place that pleases the boys and girls to visit; they are always welcome. The birds also come near, for they have learned that the occupants of this "nest" are their friends.

There is another reason why my young friends like this place besides the novelty of its situation. It is because I am always ready to tell them about what I see, and have seen in the beautiful book which Nature holds open to our gaze. They say that I see so many interesting things which their eyes miss entirely. So I loan them the use of my eyes, as it were, and show how they may employ their own to better advantage.

Now in my tree perch, or in my study I can never expect to receive more than a small number of visitors. But the publishers of *POPULAR GARDENING*, have very kindly asked me to invite their thousands of young readers to my quarters, through their handsome paper, which I gladly do. So in the space they allow me to occupy each month, I will talk of flowers, botany and other matters relating to natural history. I hope by this means, to interest you in many of the beautiful and curious things which surround us in this world of ours, and which, having eyes we should cultivate them to see.

TIMOTHY TREECLIMBER.

### A PUZZLING FLOWER.

All my young friends no doubt enjoy puzzles, especially when they command the answer end. One plant which grows near my climbing place, is as good a puzzle to the eye, as any met in the books. It is a Wild Violet with blue odor-



Puzzling Violet Flowers.

less flowers, a drawing of one of which I here show. These, like all violets, blossom early in the spring, but they seldom give seed.

A month or two after the spring blooms are gone, many large seed-pods like the one shown at *a*, strangely appear on the plants. These could not come from the spring flowers, for it is too long since. More than that, the seed-pods keep increasing in numbers steadily until fall; each good sized plant yielding *hundreds* of these all full of white seeds. Where do the pods and seeds come from is the puzzle? for we know that true seeds—and these are true seeds—can only be the outgrowth of flowers, that have organs of reproduction. For my summer visitors, young and old, during the last season, I here had a standing puzzle, and rarely was it made out.

But this puzzle like all others is easy enough when you know it. Here is the answer: This Violet, in common with some other, has the remarkable quality of yielding, aside from their showy flowers of spring, others that are so small they can only be seen by very sharp looking. Figure *b* shows such a one drawn to life-size. These minute flowers never open, the process of fertilization taking place within the closed parts. On this account botanists call them by the rather long name of *Cleistogamous* flowers. While there is no sign of a flower about them to the eye, careful dissection and the use of a magnifying glass, reveals the stamens and pistils clearly.

What looks very strange is, that the flowers, as at *a* which one would naturally look to for seed, rarely produce it, while these tiny ones like figure *b*, completely hidden by the sepals, yield large plump seeds that grow freely when planted. Why all this is so, unless to puzzle us, and lead us to examine things closely, is more than can be told to his young friends by

TREECLIMBER.

### Dull in Childhood, Not Always Dull.

We heard a business man who had recently employed a new boy, for choring about his store, say, "He is not as bright as the boy I had before him, but he will make a smarter man. He is slow, but sure." A bright child is apt to rely too much upon his or her ability to comprehend any matter easily, and thus loses the benefit of the close application, which is a necessity to a dull child. But this training of the dull child, to labor hard for whatever is

acquired, often enables him to outstrip his brighter companion, in the long run.

Sir Isaac Newton was known as a dunce in his early school days. One day, the "bright boy" of the school gave him a kick which caused him severe pain. The insult stung young Newton to the quick, and he resolved to make himself felt and respected by improved scholarship. He applied himself resolutely to study, and ere long stood in his class above the boy who had kicked him, and ultimately became the first scholar in the school.

Oliver Goldsmith was the butt of ridicule at school for his dullness. His relatives, teachers and schoolmates all told him that he was a fool, which verdict he did not dispute, but took good-humorously. And yet by close application, he made up for his youthful dullness and became famous.

Adam Clark, the great commentator on the Bible, was pronounced by his father to be a "grievous dunce."

Sir Walter Scott was a dull boy, and even at college went by the name of "The Great Block-head." But he wasted no time on trifles, and pursuing a course of study that he loved, was persevering and methodical. His knowledge increased, until it lay like a great volume in his mind. When he began to make use of that knowledge, society gave him another name, "The Great Magician."

### A Provoking Parrot.

The remarkable power parrots have of imitating human speech, gives them an interest possessed by few others, of the lower creatures. While in a measure they are docile and affectionate, often they are capricious and prove very annoying, by bad behavior when good deportment would much better become them. The following incident shows, that a talking parrot is not to be trusted too far in good company.

"Children's Day" was observed in a church at Rexford Flats, New York, recently, and the room was decorated for the occasion. There were not only flowers on the walls, but canaries sang from their little gilt cages, hanging here and there among the evergreens. One lady, not having a canary, brought her only pet bird, a parrot, which she thought would add to the looks of the room. The parrot behaved very well for a few hours, and was an object of interest to the boys and girls, who crowded round the cage. Later the parrot fell from grace, and became very naughty indeed. When a little boy mounted the stage to speak a piece, the parrot began to mock him, much to the annoyance of the lad, and amusement of the congregation. Finally the parrot screeched out, "Hey, you little rascal!" which caused the boy to go crying to his seat, and threw the audience into an uproar. The offending bird was taken out of church in deep disgrace.

### Not Clear.

The feats of modern engineers, and the inventions of modern thinkers as shown in railroads and their equipments, look strange enough to those who are unfamiliar with them. So it was with the man who opposed Stephenson, when he first set forth his wonderful invention.

"Suppose that when a train is going at the rate of ten miles an hour, a cow should get on the track, wouldn't that be very embarrassing?"

"Aye," returned Stephenson "very embarrassing—for the cow."

At the time of the building of the Cincinnati Central Railroad, the civil engineer found some difficulty in tunneling a mountain on the bank of the Cumberland River. That river is now spanned by a fine bridge leading to the tunnel, but there was then no sign of the structure.

One morning a Tennessee "corn cracker" rowed across the river and engaged in conversation with the engineer.

"You seem to be scatterin' dirt and gravel round here pretty peart."

"Well, yes; we're getting through the hill quite lively."

"Who's payin' for all this fuss?"

"The city of Cincinnati."

"Well, it must cost a heap of money. What's it fur, anyhow?"

The engineer explained that he was engaged in building a tunnel, and further that it was cheaper to bore a hole through the mountain for the cars to run in than to level it, or make a "cut" down the grade.

The native took it all in, and then queried,— "So the steam kyars is goin' to come right through this tunnel away north?"

"Yes, that's just it."

"Well, major, that's askin' too much for a man to believe," said the cracker, "that every time that ere iron hoss of yours jumps across the river, he's goin' to strike this little hole right squar' an' far. No, sir; I can't swaller it."

Said Mr. Baldwin Apple  
To Mrs. Bartlett Pear:  
"You're growing very plump, madame,  
And also very fair,  
And there is Mrs. Clingstone Peach,  
So mellowed by the heat,  
Upon my word she really looks  
Quite good enough to eat."  
And before the month was ended,  
The fruits that looked so fair  
Had vanished from among the leaves,  
And the trees were stripped and bare.

## CAGE BIRDS, PET ANIMALS, ETC.

### Feeding Parrots.

Although in a wild state Parrots thrive on the simple diet of grain and water, in captivity something more delicate is also desirable for them. Caging, with lack of exercise, alters the constitution and digestive powers. Canary seed should be the main article of food. Hemp-seed tends to impair digestion if fed freely, but a teaspoonful once a week mixed with the Canary seed is beneficial. A little dry bread and all the raw fruit they will consume, is proper enough. Celery is a treat now and then. All foods such as meat, cake, biscuit or milk, that contain the slightest amount of grease, salt or pepper, must never be fed. Hot foods and soups are also bad; the feeding of such may prevent the return of feathers after moulting. Keep everything about the cage very clean, and avoid draughts of air upon the bird.

### Ring Doves.

The common complaint that these are quarrelsome, is not heard where the birds are properly paired off. Whenever there are several hens and one male, the former will quarrel, break their eggs, and otherwise behave as if possessed.

Ring Doves unlike many cage birds, are adapted to be kept in a plant conservatory. They thrive best on a feed of small grains such as millet, hemp and wheat. Green food does not appear necessary to them, but they will sometimes eat of it. Plenty of clean water for drinking and bathing, are among the essentials in their management. When properly paired, Ring Doves breed with readiness.

### About Training Birds, Dogs, Etc.

For training it will be found that to select from breeds known to possess readiness in learning, will be a great gain. Sufficient training may make an inferior bird, dog or other animal tolerably good, but the time wasted upon such a one would train two or three good ones. A good trainer soon discovers an animal's capacity for learning, and it is a waste of time to train a stupid one if another one can be had.

Because any boy or girl might not succeed in training an animal quickly, it does not follow that the same animal in the hands of a professional trainer, would not show capacity in that direction. Usually it is the better way for the inexperienced to buy a well-trained pet, and after becoming familiar with its ways and attainments, it would be a far easier matter to take in hand another one for training.

### The Fish Tank.

Failures with goldfish and other species would be less common, if the necessity of growing plants in the tanks was understood. Plants give the air to the water which the fish require.

The list of suitable kinds is not small. For ordinary sized tanks we would suggest Cape Pond Weed, (*Aponogeton distachym*), Eel Grass, (*Vallisneria spiralis*), Arrow Head, (*Sagittaria natans* or *lanceolata*) and Small Duck Meat, (*Lemna minor*). All but the first one named, are natives, familiar to nearly every botanist, and can be gathered where they grow. When this is impracticable, they can usually be had, together with the Cape Pond Weed, of dealers in aquaria.

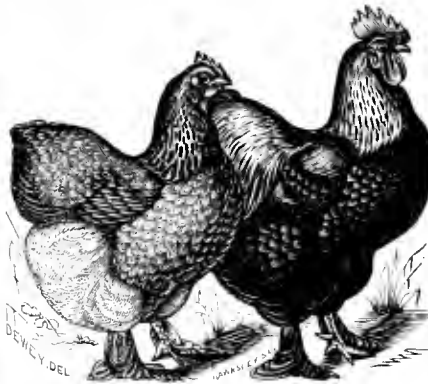
The Shetland breed of ponies are natives of Great Britain. When imported they possess a rough and shaggy appearance, which is lost in a measure after the second generation is reached in this country. They grow a little larger here than at home, but only to render them so much more valuable.

Minks submit to domestication readily if they are taken when young. They breed readily, and command high prices to those who raise them.

# Poultry.

## Partridge-Cochin Fowls.

The Cochin breed of fowls was introduced into England about the year 1847, and soon after into this country. To this event is to be attributed what will long be known as the "poultry mania," when as high as \$500 was repeatedly paid for a single cock. If no other good had come out of introducing this breed, than the stimulus it gave to improving all breeds



A PAIR OF PARTRIDGE-COCHINS.

of fowls, then their introduction would have been one of great importance.

The Cochin breed proper, embraces four principle sub-varieties, the white, black, buff and partridge. All of these are favorites, but the white and buff are perhaps the best known. The Partridge-Cochins are much admired both for their beauty and their productions. In the hens the neck hackles are bright gold, striped with black, the rest of the body being light brown, pencilled with a very dark shade of the same color. The hackles and saddle of the Partridge-Cochin cock are a bright red, striped with black; wings and back are a dark red, the former crossed with a bar of metallic green-black; breast and under parts black.

The principle merits claimed by breeders of these fowls is hardiness, tameness, rapid growth when young, excellence as winter layers, and ability to do well in limited quarters.

It is true that with all these good qualities there are also defects. The flesh is inferior, though very fair when eaten young, and the meat of the leg is more tender than is usually

the case with other breeds. The hen, while an excellent layer, is sometimes troublesome from her desire to sit unduly; but on this account she is valuable where the raising of many chickens is an object. On the whole, the breed is a family rather than a market fowl.

## Fowls for the Table and for Eggs.

The breed best suited to the wants of the average poultry keeper, is one that combines both the quality of laying well and affording good flesh when killed. The fowls should also be of good form so as to present a fine appearance on the table.

The too common practice of breeders, in having more regard to plumage, comb and other fancy points, than to size, quality of flesh, and laying capacity, is entitled to severe censure. Even our old favorite, the Plymouth Rock has not escaped the present absurd regulations as to color of plumage, size and carriage of tail laid down by judges.

As combining both of the good qualities first referred to the Plymouth Rocks and the Houdons stand prominently. The flesh of both possesses firmness and delicacy, while they are of good size and handsome shape. Let breeders not carry their so-called improvements to such an extent, as to give us impairment in these qualities of great importance.

A judicious cross may be productive of capital table fowls. One that can be recommended is the Game crossed with the Brahma. Here is secured the delicate flavor of the former with the size of the latter. Turn a Game cock two years old in with half a dozen large dark Brahma hens and a satisfactory result will be certain. Hatch the chickens of such a cross in March, and with proper care and feeding, they will suit the cook in three or four months.

Another good cross is the Houdon cock with Brahma hens.

## Preparing for Winter.

BY L. P. RAINSPUR.

October is none too early to put the poultry house in order for winter. It would be strange if there were not some cracked and broken lights in the windows, if so the latter should be replaced, while the same is usually true of the former if they are cracked way across. Short cracks or small corners broken out, can be repaired by the help of putty.

If the heat of summer has opened cracks in the boards by warping, they should now be stopped up or battened. For adding warmth to the house, old newspapers or building paper tacked over the inside surface, with liberal laps, will do wonders. The newspapers can be had almost for nothing, or perhaps enough could be saved up in the house to answer the purpose; building paper costs about 1¼ cents a square foot by the roll, in either case the slight expense attending this kind of papering, will soon be made up by the increased productions of the fowls. Where the paper is lapped, light strips of wood, or tacks with leather heads, which anyone can cut and put on, will, if used, make a better job of work. To promote cleanliness and freedom from vermin, the paper after it is on, should receive a coat of lime whitewash. It may be added that tarred paper affords an excellent winter lining for poultry houses, and in itself possesses the advantage of being repulsive to all insects.

It ought to be needless to say that south and west windows give the best light for poultry quarters, and yet I sometimes see houses in which this fact seems to have been lost sight of. Horizontal windows are better for diffusing light over the house, than those running up and down. These should be set so as to admit a good deal of light upon the roosts.

The providing of lime must not be neglected; usually there is no trouble to get a hold of some old plaster or brick mortar where house repairing is going on. Oyster shells from the restaurants, burned in the stove or in brush heaps are excellent. Bones broken to the size of peas, will be eaten with avidity by hens that are laying; they are a necessity, place them in broad shallow boxes in a place convenient for the hens to get at. Attention to such points as I have referred to, or their neglect make a great difference in the results, in poultry keeping.

### The Breeds for the Farmer.

Improved fowls they should be, of course, but let it be remembered, that such are only better than common ones, with having better care also, and then they are far more satisfactory.

One of the first requisites for keeping improved breeds of poultry, is a warm house in the winter. With this provided, we would place the Silver Gray Dorkings among the best breeds for the farmer, especially where roaming can be allowed. They are fine table fowls, and lay well until seven or eight years old, are handsome, and good setters and mothers.

With a warm hen-house in winter, the White-faced Black Spanish are the most profitable where eggs are the chief object. They lay very large white eggs in great numbers. An objection to them is, that they are subject to loose feathering in the summer, a trouble that may in a measure be averted, by giving fresh meat regularly and not over feeding with corn.

### Care During the Moulting Period.

In all birds the feathers are periodically cast off and renewed, a process which takes place with fowls during the period from August until cold weather of each year, varying with kinds and ages. During this time the tax upon the system, in making a new growth of feathers, is a great one, and this should be aided by special care for a spell. On this subject we reproduce an article from that excellent periodical, the *American Poultry Journal*, which will be of service to our readers:

The treatment should be especially kind, at this critical period. The sexes should be separated and kept in different yards by themselves, especially the larger varieties. Let the feed be light, nutritious, and not especially fattening.

Wheat, oats, bone-meal, cracked corn and plenty of green food with fresh water once or twice daily, will keep them in good thrift and bring them out in fine shape to begin laying early in the winter.

A few drops daily of Tincture of Iron, mixed with either their food or drink, will assist in digestion and strengthening the system.

Some varieties have more difficulty in moulting than others do, taking longer time, which of course is more exhaustive on the system. Among these are the non-setters, and it is late in the fall before they get their new growth of feathers.

It may be said, that this is one reason why the non-setters do not lay better during the winter, they do not fully recover from the effects of moulting until cold weather comes. It is then hard to get them in good laying condition, while the larger breeds of the Asiatic class are heavily feathered, and are better prepared for the cold weather, hence are considered the best layers in a northern climate.

During the moulting period super-abundant animal matter, which during the spring and early summer went into eggs is now used in the production of new feathers. It is for this reason that the fowls seldom ever lay during moulting.

Good kind treatment not only benefits the health of the fowl, but also shortens their moulting season and leaves them in excellent condition for the winter.

### CONDENSED POULTRY NOTES.

Fowls dislike sloppy food.  
You can't clean the coops too often.  
Whitewash the roof also, on the inside.  
A half-starved hen won't lay many eggs.  
Petroleum ointment is a specific for vermin.  
Ungalvanized iron vessels are the best for water.  
Surface water is as unfit for hens, as for persons.  
An egg in the winter is worth two in the summer.  
Fowls and vermin cannot both thrive at the same time.

Divide the skimmed milk between the swine and the hens.

Don't keep confined fowls, if you cannot tend them well.

Young Pullets should be the main reliance for winter eggs.

If sickness in fowls does not yield early to treatment, the axe is the best cure.

Both buyers and sellers suffer injustice from reckoning eggs by count. Will this sign of American backwardness ever be removed?

A correspondent says he sows a patch of rye for his poultry every fall, for early greens in the spring. Has sown as late as November and got a good stand.

The end of money making at poultry keeping, is often defeated by building a large house, to start in with. Small houses and more of them, is a better course.

In building a hen house study 1st, comfort, light, and ventilation; 2d, convenience; 3d, roominess; and lastly, economy with all, where profit is the main consideration.

We have known fowls to hold off from eating large sunflower seeds, as if from fear. Crush a few first, in such cases, and they will soon take kindly to whole ones, no matter how large.

A ton or more of turkeys are too valuable to leave out nights now. Feed at night-fall, enticing them into the house, have a good lock on the door, and then make it your own business to see that it is locked every night.

C. Whitecher of Holland, N. Y., the other day found a hen's egg contained within another egg, both shells being perfect. The inside egg was common size, the outside one being very large and having quite a thin shell.

"Can't they sit down" asked little Freddie, on his first visit to the farm, from his city home, last summer, after he had been watching the busy movements of the "chicky birds" for some time. Tired, he thought, because always on their feet.

The average cur of the country is useless, hence to feed him is a waste. The average flock of poultry is very useful and ought to be very profitable, but too often is not, because of scant feeding. Shoot the useless dog, and turn his food in for the chickens.

If you are looking for a profit in the chicken house this winter, make up your mind from the first to feed meat regularly. Scraps from butchering or the same thought of butchers, is an inexpensive article, that can be turned into expensive eggs to those who buy.

Shade in the summer in the hen yard is of great benefit. A good bush for this purpose is the Currant. It will thrive in any out of the way place;

does not require much room, and the hens like to hide under its branches. The fruit is also acceptable and seems to do them good. We mention this now because now is a good time to set the bushes. Stand a line of laths around each to keep the hens off of the freshly handled earth.

There are farmers who neglect their poultry, but who would not think of neglecting their horses or other live stock. Properly managed, and there is no more profitable source of returns on the farm for the outlay, than through the poultry yard. Of ten those who insist that poultry don't pay, are the ones who should restrict themselves to saying that poultry won't pay for poor management or for money thrown away in needlessly elaborate buildings. Louis.

Turkey fattening should soon progress rapidly for early sales. In mild, early autumn weather, these birds lay on fat rapidly with good feeding. At first they need to be fed only at night; they should go to their roosts every night with full crops. This will not prevent their morning excursions. Turkeys prefer corn to any other food; it should be ground, mixed with water and fed warm. The addition of mashing boiled potatoes, will help their relish for it. As insects drop off, flesh and scraps should be increased. For the last six weeks of his life he should be plied with corn.

A POULTRY FARM. There is a poultry farm of 8,000 Plymouth Rocks at Lancaster, Mass. Mr. Hawkins, its owner, calculates to have about 8,000 fowls every fall, and carries over 2,500 laying hens through the winter. His farm contains 25 acres, and his poultry buildings occupy an acre and a half. These comprise six or seven sheds 200 feet in length. Each shed is divided into apartments of 12 by 20 feet, and about 25 hens are kept in each division. A yard is made in front of each apartment. Mr. H. believes that if confined poultry have their wants attended to, they will do as well as if allowed free range. He bases this belief upon several actual tests. In hatching time he sets 200 hens on one day, and puts 500 eggs in an incubator which is due to hatch on the same day, the chickens from which will be distributed among the 200 hens. His sales of fowls and eggs for hatching at fancy prices are large, about 90 per cent. being profit. He also has a standing order for sixty to ninety dozens of eggs daily, for which he gets the highest market price. Mr. Hawkins began, at the age of 21, with 100 hens, and by careful management and economy, his business has enlarged so that, at the age of 29, he has a very handsome income. The poultry manure is quite an item; he sold last year 500 barrels, at \$1.50 per barrel.

### NOTES FOR BEE KEEPERS.

Bees usually do well in cities.  
An eastern slope for an apiary site.  
Use the smoker and you won't get stung.  
Honey from sugar is of an inferior quality.  
Flower-raising—a natural adjunct to bee-keeping.

A queen from Palestine was received some time ago by mail, by a Pennsylvania bee keeper.

Women find apiary work, quite as suitable for themselves, as it is for men. Equal rights here for the sexes.

Before fretting long about what market to take your honey to, try the home market. Put your product up in an attractive shape, offer it at the neighboring stores for a reasonably paying price, and you'll find customers enough, we'll warrant.

The bee men at the fairs, who attract crowds by handling hives of bees as by a charm, are looked upon as a wonderful set. The good temper of the bees is largely accounted for by their being from home, and being kept overfed, conditions always tending to make them tame.

Those who enjoy flowers and gardening, usually find it easy enough to get interested in bees, and by taking the step, derive pleasure, profit and plenty of table sweets, even if engaging in it in only a small way. POPULAR GARDENING will offer a good deal of assistance in this line, during the year.

Bear in mind that the common Catnip is one of the most valuable plants for bees. The flowers are rich in honey, and for several months commencing with June of each year, yield it freely at all hours and in every kind of weather. A patch may easily be raised from the seed, sown the latter part of summer or early in the spring.

# The Household

## About Our Beds.

On an average we spend more than one-third of life in our beds; let us study the comfort and healthfulness of these more. The best bed of all is the woven wire mattress, in which comfort is chiefly secured by the peculiar construction of the web, without the intervention of any body of elastic material, which must tend to prevent the circulation of air upwards through the bed. In the summer a single blanket over the wire makes it a cool and easy couch; while as the season advances, additions are required only to correspond with the colder atmosphere.

Next to a wire mattress a husk or straw tick is the best, either one being preferable to hair. Of the two first named, the husk bed is the favorite usually. Husks are very comfortable, if the tick is not filled so full as to render it hard—a common fault. Before putting in the husks, split them with a fork for making a softer bed. It is well to prepare these before using, by soaking them in water; drying afterwards on sheets spread in the sun. A slit should be formed in the top of every husk bed for daily stirring up the contents; fasten with buttons. By washing and scalding husks every other summer, they will last for years. Feather beds are now recognized to be a nuisance. Bedding should be kept very clean, it is our night clothes. Woolen blankets are the healthiest covering, and much better than quilts. The latter tend to confine the exhalations of the body, the former to release them, an important point. To convince yourself of the difference between the two as to this, place one and then the other over a kettle of hot water, and notice how the steam goes up through the wool but not through the other. To wash a quilt properly you have first to loosen up the pressed cotton in it; a woolen blanket can, with very slight labor, be washed and dried in a few hours time.

## Tea-Drinking Delusions.

Tea having been in use as a drink for ages, it is not strange that some delusions should be associated with its use. It does not possess all the virtues popularly ascribed to it, while in a pure state—to say nothing of very harmful adulterations that are common—it holds some objectionable properties. Tea contains a quantity of tannin, as is shown when a drop is allowed to remain on a steel knife, by its leaving a black spot. The presence of tannin in the stomach after one has eaten fresh meat, tends to interfere with digestion. As to the value of tea for food, wrong ideas prevail. Dr. Wilson of London, England, has the following on this point:

Tea is a stimulant. It is not a food in itself; and those who spend money upon tea, in the delusion that they are purchasing a food, really illustrate a practice which is comparable to that of the man who swallows whiskey or brandy under a like delusion. The only persons who can really afford to take tea, are those who have plenty of true food to eat. The sooner the common delusion regarding the place of tea as a food is exploded, the better will it be for the national health at large. Tea-drinking, as ordinarily practiced, is really at the bottom of as much illness, and of as many cases of disordered digestion, as alcohol; and this for the reason that, though probably not so rapidly injurious in its action, the habit of drinking tea at all hours is more widely practiced than alcoholic imbibition.

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cause we have underrated the taste of Americans for flower culture and kindred matters. We do not believe we have. Will you support our effort to place the best matter on these subjects before the public at the lowest possible price, by becoming one of the first 50,000 subscribers?

## Brieflets.

The less spice, the better health.  
A feverish patient cannot take cold.  
Employment is the true remedy for troubles.  
Brighten the house with plants in every favorable window.

Chew thoroughly; you cannot have the good of food, without.

Cocaine the new pain reliever, affords instant relief in bad burns or scalds.

With the first chilly nights, get around the extra flannels, for old and young. Were this practice common, you would hear less of "this is the worst season to take cold."

Many families never use arrow-root. It must be from ignorance of its value. The article gives richness to sauces, rendering less butter necessary, than when flour is used for thickening.

Lemon jelly is delicious. Grate the rind and take the juice; add one cup sugar and three eggs for each lemon; beat together thoroughly, boil, setting the vessel in water on the stove.

For a layer cake, this receipt can be perfectly relied upon:—One cup sugar; one-half cup butter, one and a half cups flour; whites of three eggs; one half cup sweet milk; two teaspoonfuls of baking powder. Makes three layers.

Don't place any reliance on steady warm weather after this date, and you may save a bad cold or intermittent fever. In our uncertain climate, the stoves and fire-places should now be in order, for starting up heat on short orders.

Sidney Smith made it a rule of his life to cause each day to be a happy one for some fellow creature, as a result of a special act of his. He said "if you send one person, only one, happily through each day, that is three hundred and sixty-five in the course of a year; and suppose you live fifty years only after you commence that course of medicine, you have made 14,600 beings happy—at all events, for a time."

This is Orra Raymond's receipt for frying oysters in batter "as we get them at hotels"—Put the oysters in a colander to drain off. Then roll each oyster in cracker dust and dip in beaten eggs seasoned with salt and pepper, next into the cracker dust again. Have ready a kettle of good hot lard, the same as for doughnuts. Drop in each oyster thus prepared, and when a light brown, they are done. Put on a platter on which a napkin or cloth has been spread to saturate what grease will cling to the oysters.

Teach your girls the value of exercise in the air and sunlight; they will naturally take to this, unless their minds have become prevented by the notion that life in the parlor with fancy work in the hands, is more "lady like." Nothing will be more helpful in such a direction, than to encourage them in light gardening. Let them have plenty of plants and flowers to look after, both indoors and out. Aid them all you can to become interested in botany and perhaps entomology, insisting that they keep up the study of these when out of school. The exercise such a course will incite, will preserve the bloom on the cheeks, and add strength and enjoyment to their lives. Besides an abundance of air there should be wholesome food, regularity of diet, and healthful modes of dress, for securing healthy bodies and happy minds.

## Notes on Dress and Home Art.

Stripes are in great favor.  
Large hats; small bonnets.  
Long veils are fashionable.  
The Polkaise is to be revived.  
Sashes of all sorts are very popular.  
Silver jewelry is worn more every day.  
Screens are always in season for one use or another.  
Lace jackets with silk lining are coming in fashion.  
Imitation stained glass papers are not to be recommended.

Trimmings placed on one side only, are now a prominent feature.

"Bunchy" side draperies for dresses have passed entirely out of style.

Pale pink, cream and gray receive honors about equally in popular favor.

Knots, of everything tied around the neck, should be located just back of the left ear.

Velvet belts from the side seams forward, are fastened in front by buckles of hammered silver.

In mounting a deer's antlers never decorate them, they are handsomer in their own natural beauty.

For traveling dresses the darker shades of green and blue, lead color and russet brown are much represented.

Jenny June says, English girls carry tight lacing to a much greater degree of absurdity than fashionable American girls do.

A new fabric of woolen for mourning wear, is called crepe imperial. It looks very much like crepe, but surpasses it in durability.

Some of the new velvet jackets are crossed in front, the parts being fastened by a single jeweled button of gold, at the waist.

Chair ties look well indeed, but they are voted a nuisance by the average man. Let there be one or two comfortable chairs without them.

The sensible jersey is still retained for home wear in demi-toilette. It is a useful garment to go with black silk skirts that are somewhat worn.

The shaggy fabrics, the rougher the better, are to be fashionable for day wear this fall; for evening dress elegance must be the prevailing mark.

Ruchings for neck and sleeve finishings, continue to be very popular, notwithstanding the prediction of their going out of style; those with edge lines of gilt and tinsel are worn, also the pretty ruchings of crepe lisse.

Plomb, or lead, is a leading color in millinery at this time. For fall bonnets, combinations of red with bronze and moss green are to be in favor. Fancy stuff's of two or three kinds are to be used for dress bonnets.

Madras muslin bed spreads are very pretty. They should pass up over the bolster. In fashionable houses pillow shams are not used. For pillows, only the small soft ones used for sleeping on are used, and these should be kept out of sight during the day.

Madras curtains costing in the large towns from about forty cents a yard and upwards, are inexpensive and yet attractive. These however, as do most kinds of cheap curtaining fade somewhat when exposed to the full light, but are quite lasting when hung in windows with blinds or shades.

A wooden screen, oak framed and enclosing frieze panels of wood, on which are painted two symbolical figures, are quaint and charming in appearance. The figures may be those of "Luna" and "Aurora" the former reclining on the curve of a crescent moon, and this drawn along the evening sky by a procession of bats; the latter shown wafted in clouds with a back ground of the rising sun.

For an inexpensive but neat table cover for a common room choose a square of cretonne with very small figures, and of not too bright colors; for a border put a band of linen around it—dark drab linen; fringe this out quite deep; where the row of linen joins the cretonne, on the seam put a fine feather stitching and on the corners also. Dust does not show on this spread, and can be easily shaken from it.

The leaves of the Virginia creeper, when they are turning red and bronze in autumn, are a favorite subject for painting. In speaking of the paints which should be used for the purpose, *The Art Interchange* has the following:

Use for the red leaves, madder lake, vermilion, light red, white, raw umber and a little ivory black. In the shadows, use burnt sienna, Indian red, raw umber, ivory black, and whatever white is needed. For the high lights, use white, vermilion, madder lake, yellow ochre and ivory black. The bronze-green leaves are painted with terre verte, burnt sienna, white, yellow ochre and ivory black. For those having a richer, deeper tone of green, add Antwerp blue, cadmium, and madder lake to the terre verte and other colors already given. To paint the purple berries, use permanent blue, light red, white, ivory black for the general tone. In shading use permanent blue, madder lake, raw umber, ivory black and burnt sienna. In the high lights, use permanent blue, madder lake, white, yellow ochre and ivory black.

# The Exchange

Amateur gardeners and botanists often have an excess of some kinds of Seeds, Plants, Specimens, etc., while in want of others. This department is designed to bring about free exchanges in such cases among our readers.

In The Exchange may be given the names of what can be spared in any case, and what is wanted in return, also the address. No price figures admitted. Any offer that may appear objectionable to the publishers, they reserve the right not to admit. No responsibility will be assumed for any results connected with The Exchange. Those using the column should correspond with each other, with a view to a definite understanding, before sending articles.

1.—Seeds of the pretty little Maiden Pink (*Dianthus deltoides*), the Scarlet Lychnis and of the showy-leaved *Bupthalmum cordifolium*, will be given for Seeds of pretty Wild Flowers of the extreme Western States. Address before November 1st, Mrs. A. M. Sweitzer, Pines, Mich.

2.—Will exchange six of the finest Hardy Phloxes of a large collection, for same number of named *Gladiolus*, of extra quality, Miss Esther Summy, corner 14th and Connecticut Streets, Buffalo, N. Y.

3.—Have saved seed of some beautiful hardy Double Maroon Pinks, also *Delphinium formosum* which will exchange for choice plants for Rock Work, Carrie E. Baker, 66 Ashland avenue, Buffalo, N. Y.

# For the Farmer

Push the fattening.  
Clean the open ditches.  
Oil the harness twice a year.  
Grass is nature's remedy for sick animals.  
The drouth in England recently, must help the price of grain.

To breed swine for best results, raise only one litter of pigs in a year, from each sow.

Reduce the fencing; one and one third billions of dollars is the estimate of the cost of farm fences in this country.

Put it down as a rule, that manure lying in the yards a year, will in one way or another deteriorate one fourth in value.

The corn crop in Missouri, according to *Coleman's Rural World* promises to be about one-sixth below the average of five years past.

Grass, as well as any other crop, is much more valuable for being grown upon drained land, instead of such as is frequently loaded with water.

Those who have facilities for growing German carp fish, can procure a stock by writing to Prof. S. F. Beard, Fish Commissioner, Washington, D.C.

A Mitchell county, Kansas, report says, wheat and rye are short crops, say fifteen to twenty bushels to the acre. Spring wheat and oats are good, in fact were never better.

Denmark butter makers reckon on wheat, bran, oats and rape cake as first-class butter foods; barley as second-class food; while peas, rye and linseed cake are placed as low as third class.

Repeated croppings of leguminous crops may so exhaust the soil, as to render it what is called "clover" or "bean sick." This condition may be remedied by the growth of other crops for several years.

Clean fence rows, add 50 per cent to the appearance of any farm, as compared with one which has its fence corners crowded with weeds, briars and tangled grass. It's a good time now to start improvements here. If the chance exists on your place, try it.

A little forethought displayed when erecting a corn crib to have it mounted on posts several feet above the ground, and these capped on the top with inverted metal pans, will save enough grain from rats and mice each year to pay for the improvement.

Rye may still be sown for pasture; it should oftener be relied upon for early spring grazing as well as for seeding. If lambs are late in the spring nothing will help them along toward market faster than an abundance of early pasture. Rye will fit in capitally for this.

It rests a horse greatly to be relieved of his harness during the noon hour. A hurried rubbing over the surface of the body with a wisp of straw before putting the harness back will be grateful to the horse. Practice these little acts of kindness, they bring comfort and strength to the animal and peace to your own mind, as his keeper.

## Marks of Character in Horses.

A great width between and prominence of the eyes indicates a teachable and tractable horse. Width between the ears indicates courage, nobleness and strength of character. Roundness and elevation between the eyes indicate mildness of disposition, and desire to be caressed and to reciprocate kindness, but never trust one that shows much white above the pupil of the eye, or with white in that organ.

## Sore Shoulders.

Always be on guard against these on your horses: See that the collars are kept clean, and if they have become hard, beat them limber before making your horses work in them. Wash the sweat off from the shoulders after a hard day's work. If there is an inclination to soreness in any spot, relieve it by cushioning around this spot. Were such means more practiced, this faithful beast would be subjected to far less cruel suffering than he is now forced to endure by brutal owners. Many a balky horse became so through being worked with a sore neck. Be merciful to the faithful horse.

## Accidents on the Farm.

A life insurance man has informed the writer, that more deaths and accidents come from the kicks of animals than from any other one cause. Every year the number of accounts of death and injury to farmers from all kinds of farm machinery is surprisingly great. These facts indicate that it is part of the farmer's duty to cultivate carefulness in himself, his children and help, at all times. Great risks are often run by boys and others in climbing up on vehicles over the wheels or while these are in motion. Only lately a lad in Connecticut while attempting to jump into a wagon which was moving rapidly, ran his leg between the spokes of the wheel, and had it twisted off just below the knee, soon caused his death. Be more careful boys.

## Loss in Stacking Hay.

Not much argument is needed to see that barn stored hay is worth far more than that which is taken from the stack. We think that an estimate of the loss of one quarter in stacking is not wide from the mark. There is a loss from moulding at the bottom of the stack, for the old rails, boards or straw placed at the bottom of the stack can not wholly prevent it. Then the whole area of the external surface, which numbers many square feet, is weather beaten to some depth, causing the loss of much of its sweetness and nutrition, while it is not improbable that impairment of the quality may extend through the whole stack. Why then follow a practice that entails so great a waste. If one's hay that goes into stacks is worth \$500, according to the estimate made, such a man pays \$125 a year for the privilege of stacking. But if besides this, the hay is fed at the stack, the loss above alluded to, is but a small part of the entire loss. It costs no less than an increase of one-third in the feed, if animals are fed and kept in the open. These are strong arguments for more barn room.

## How to Pack Butter to Keep.


The question was asked in a recent number of the *Farm Journal*, "The best way to pack down butter to keep till next winter." It was answered by a Lancaster Co., Pa., correspondent as follows: I will give my plan, which has proved to be a good one with me: Make good, firm butter, and work the butter-milk well out of it, then put into a stone jar, a few pounds at a time, and press down well with a wooden potato-masher, being careful to leave no room for air to get in around the edge of the jar; leave two or three inches of space at the top of the jar, then lay a thick piece of muslin close over the butter, then fill in fine salt enough to fill the jar full, then tie the paper closely and cover on top with a slate or wooden cover, and keep in a dry, cool place.

I put some up in this way last August and September and used it last spring, and it was eaten by good butter judges about the last of May, and pronounced as good as fresh butter. I never wash butter, but try to keep it as clear of water as possible, and do not like even any pickle about it.



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# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINK" MILTON.

Vol. 1.

NOVEMBER, 1885.

No 2.

## The Crab Apples.

Both as ornamental and fruit-bearing trees the Crab Apples, possess value; why they are not more planted, must be because of their merits not being well enough known.

The true Crabs, of which the Siberians are the type, are, as the name indicates, natives of Siberia, which fact, accounts for their superior hardiness among fruit trees. Numerous sorts have sprung from the originals, but among these all, the latter continues to occupy a high place.

The chief merits of the Crab Apples, may be summed up as embracing great hardiness, beauty of habit, foliage and flowers, and their value for fruit-bearing. Considered merely as ornamental trees, their culture has been much neglected; no other apple produces such a quantity of beautiful flowers as the Crab, —the trees being smothered with bloom in its season. Planted as single specimens on small lawns, or in numbers, as an open group on a large area, and any of the varieties would afford satisfaction.

Although dwarf in stature, the Crabs grow freely and flower and fruit considerably, in about three years. Later on they bear profusely,—the writer remembers once counting 127 apples on a branch thirty inches in length. The fruit is valuable for making into preserves or jellies.

Of the various Crab Apples, the Transcendent variety shown in the engraving, is one of the largest and most useful. The fruit is very handsome, being golden yellow, with a crimson cheek in the sun. This variety is valued as a table fruit in some sections. The Large, Yellow Siberian Crab and the Red Siberian Crab are still among the most useful kinds of this interesting class. Trees, of these and others, are procurable from the leading nurserymen. They transplant readily in the fall months. It may be mentioned that there is a Double-flowering Crab Apple, which is specially recommended as a lawn tree, on account of its fine flowers, but this sort possesses no value for fruit.

## Garden Notes from Lyndale.

BY A. H. E.

November 3. The difference in the leaf-falling time of different trees and shrubs, is even greater than is the difference of their time in coming out, in the spring. As I prefer early-

leafing to late-leafing kinds, then—other things being equal, so for this season, those kinds with attractive foliage, be it in green or the rich autumn tints, are preferred to kinds that early become bare. Indeed the choosing and arranging of these, with a view to fine autumn effects, after the last flowers are past, and the season's desolation has set in, has always been a favorite study with me, in managing my collection.

Among a large collection here, I find the following are now attractive in leaf, the colors

I should have said it never fails with receiving tolerably fair treatment. Quite hardy as the plants are, there is no use to count on flowers in the open ground, unless the buds and blooms receive some shelter from untoward autumn weather.

Several years ago I had a fine lot of Chrysanthemums in a border against the grapery, that flowered beautifully with being covered with sash, during bad weather from October 1st on. For my main supply of flowers I count on plants growing in pots in the conservatory or window, these having mostly been lifted from the border a month or more ago. With having them inside I can get the good of them any day or hour, which is not always the case when they are outside, even if under sashes.

\* \* \*

Some Pearl Tuberoses in the conservatory keep company in their blooming, with the early Chrysanthemums. These are from a select lot of bulbs, that were kept dry and cool through the spring and up to August 1st, before starting. Then they were put into light rich soil in six-inch pots, a bulb in each pot, and kept in a frame until early in October. The Tuberoses is a plant that requires heat, sun and air liberally to produce good bloom; without these now, the buds would be likely to blast before a flower develops, causing the loss of much trouble.

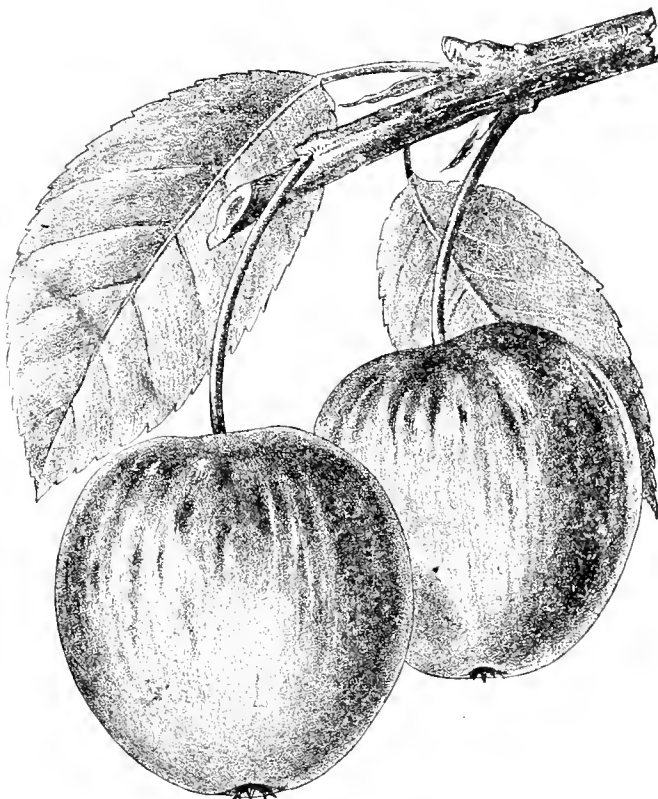
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November 12. A large Wild Grape Vine, climbing over a Maple tree, in the wood near by, is full of interest to the children of the neighborhood just now. It is of the species known as the Frost Grape, *Vitis cordifolia*. Before the recent frosts, the small black fruit was "sour grapes" indeed; the youngsters, who have access to better fruit, would by no means touch it. But by this time the autumn frosts have so improved the flavor of these grapes, that now they are, for novelty, not wholly unpalatable.

\* \* \*

The beauty of this old Grape Vine, which nearly covers its supporting tree forty feet in height, and the sweetness of its flowers in summer, leads me to speak in praise of the Grape, as an ornamental climber. For this purpose, the free-growing, clean-leaved wild sorts, or near relatives in cultivation, are the most suitable. Among kinds advertised in the catalogues, none is more ornamental in foliage, or more vigorous than "Taylor" or "Taylor's Bullet." As it has larger leaves than the wild sorts, to which it is nearly related, it may well be placed at the head of the list for this purpose. The fruit is inferior.

Planted to cover a tree, arbor or verandah, grapes of this class, I think, are always satisfactory. In fact, for density of shade, beauty of the foliage and grace, few if any other hardy



TRANSCENDENT CRAB APPLE.

varying somewhat. Conspicuous among those of a good green now, are the Ash, Cork Maple, Purple Fringe in part, Birches, Sycamore Maple, Norway Maple, European Linden, Balsam Poplar, Weeping Beech, Rosemary-leaved Willow, Lilacs, Japan Quince, Forsythia, Privet, Viburnum Opulus, Weigela, Berberry, Rough-leaved Viburnum, Snowberry, Corchorus, Celastrus, and some others.

Kinds that show a good deal of yellow, are the Cut-leaved Birch, Balsam Poplar, Mulberry, some Elms, some Lindens, Tulip Tree, White Fringe, Fortune's Spiraea and so on.

Of kinds that are now brilliant with crimson, orange and other rich tints are the Red Oak, Liquid Amber, Bird Cherry, Sumachs, Sassafras, Ko-hrenteria, Thorns, Native Viburnums, Red-barked Dogwood, Plum-leaved Spiraea, some Purple Fringe, Flowering Currants, Blackberries and Virginia Creeper.

\* \* \*

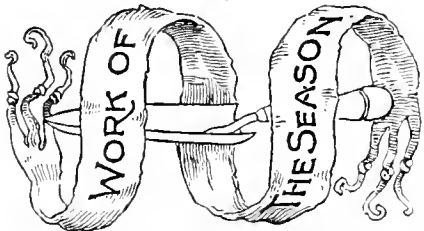
November 7. Of all the months, flowers are the scarcest, I think, in November. But while so many others fail now, the Chrysanthemum—the Glory of the Autumn—never fails.

climbing shrubs can excel them. There is a neatness and richness in their appearance, which renders them in keeping with the trimmest of gardens.

*November 25.* One constantly hears much of the growing of specimen plants in the window or greenhouse. I am a lover of specimen shrubs or trees on the lawn, and feel more proud of those perhaps, than I do of my specimen plants in pots and boxes. They possess the quality of permanency in a greater degree.

To grow such well, only requires that they have a well-prepared and suitable soil, an abundance of room for development, and no injustice done them in pruning and other after care.

A list of handsome specimen shrubs that have grown up quickly on our grounds, as the result of good treatment, embraces Lilacs, Weigela, *Deutzia gracilis*, *Forsythia viridissima*, Double-flowering Plum, Spiræas, Japan Quince and *Euconymus*.



THE HOUSE PLANTS.

From now until after the winter solstice near December's end, when the days again begin to lengthen, we are in the dull season of window gardening. Both sunlight and heat, those important elements to plant life now recede. The former, we have no means of augmenting by art, the latter can be provided for, in fair degree.

Along with the lessened sun power, is apt to come much cloudy weather, so that were it not for what was gained in the past, in stored up plant strength, to help now, and then the hope of the future, the task of plant growing would be discouraging. But if there was no lack of attention during summer, to have all plants strong and healthy, these sustaining conditions will serve now to make our windows not only not desolate, but they may show some bloom.

**Cactuses.** Keep quite, but not wholly dry; in moderate light, if full light is not to spare. Much heat is not needed. See *Epiphyllum*.

**Callas.** Encourage growth by free watering, and ample light. The soil should be rich.

**Camellias** like a temperature of 50° to 55° now. Water moderately; keep the foliage clean by frequently sponging it.

**Carnations** should be showing bloom; water moderately, keep staked, but don't crowd the leaves into bunches when tying up.

**Cinerarias** need coolness, and ample pots always. **Cleanliness** about the plant stand, in the way of picking off dead leaves, wilted flowers and the like, as soon as any appear, and then in brushing over the surface where the pots stand daily, helps appearances much.

**Cuttings** struck last month and earlier, should now be in small, clean pots.

**Deutzia** and other shrubs may, for early blooming, now be brought into moderate heat.

**Dutch Bulbs** may yet be started in pots and glasses. See October number.

**Epiphyllum.** Encourage early bloom, by giving a light, warm place; moderate watering, until growth starts, then more. The soil must be light, open, and well drained.

**Ferries** or plant cases should now be under way. Plants with attractive leaves, and especially Ferns and Lycopods should be chiefly relied upon. Most bulbous flowers do well in these however. Plants with fruit like the *Ardisia* or the hardy Partridge or Squaw berry *Mitchella repens*, of the woods are very useful. After planting, air daily, by tilting up the cover, water with extreme caution, as there is great danger of overdoing this part.

**Geraniums** kept from bloom last summer, will now be full of flowers. Over-watering is injurious. For fine specimens as seen from the room, turn the plants often; to be finest as seen from the street, never turn them.

**Heat.** A night temperature ranging from 45° to 60° suits the average collection. Do not think that high heat can make up for dark days; it's the other way, in cloudy weather there should be less heat, than in sunny weather.

**Hydrangeas** should now be at rest, by keeping the soil all but dust dry. A light cellar is the best place for them through the winter.

**Insects** increase less rapidly at this season than at most others, but they increase. Read off future trouble from these, by clearing off every one seen.

**Ivy.** See that no scale insects are on the leaves or stems to remove which, use an old tooth brush and soapuds, cleansing later with clear water.

**Japan Astilbe,** a cut of which is given below, as well as the other hardy plants mentioned in this department of the October number, may still be lifted for forcing. The roots should be quite closely crammed into the pots.

**Lemon.** Treat like Oranges.

**Oleanders.** Treat like Hydrangeas.

**Oranges** Water less freely than in summer. If sickly, lack of drainage most likely is the cause, in which case repot providing plenty of clean drainage. For scale treat as for Ivy.

**Oxalis.** To encourage bloom, keep in a light, warm place and water moderately.

**Primroses.** Future well doing, depends on good care now. Keep near glass; water moderately.

**Roses.** Monthlies that were lifted, should remain in a pit or other cool place this month out at least. Those summered in pots, may be urged on for bloom. They need a warm, light place, and frequent leaf-sponging. Mildew must be killed, by dusting flowers of sulphur on the leaves when wet.

**Sponging** off the leaves frequently, is one of the secrets of successful plant culture. It must take the place of syringing as practised in hot houses, a thing that is done here every day. Accumulated dust on the leaves is destructive to plant life.

**Stocks.** Treat like Primroses.

**Verbenas** that were stuck last month, should have the tip pinched out to induce branching. Small pots, a cool, light, airy place and no stint of water suit them.

**Water** plants that are strongly in flower, more than those that are not; such as are making little growth less than those growing more.

## LAWN AND FLOWER GARDEN.

**Christmas Rose, *Helleborus niger.*** This remarkable plant, which blooms in the winter if the season is mild, succeeds well with the slight protection of a cold-frame. Plants lifted, and taken to the window or the plant house dower well in either place.



JAPAN ASTILBE.

**Chrysanthemums** growing outside must be staked. If sheltered by sash, or in bad weather by matting, they will bloom much finer for it.

**Daises.** Treat as for Pansies.

**Drains.** Clean these generally and see that the outlets are clear. New ones, when needed, should be put down this fall in preference to spring, then to badly delay other work.

**Dutch Bulb** planting, while the earlier done the better, need not cease, so long as the ground remains unfrozen. About the end of the month, cover over the bed with coarse litter or evergreen boughs, for protection.

**Evergreen Shrubs,** including Mahonia, Box and Rhododendrons, suffer less from cold than from sun and wind in the winter; they should be protected somewhat. Place Evergreen boughs, say one or two on the south side of each shrub, the butt ends thrust into the earth to steady the boughs.

**Forget-me-nots.** Treat as for Pansies.

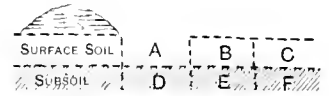
**Hardy Plants** growing in beds and rockeries, succeed better year by year, if they receive some pro-

tection over the roots in the fall, to prevent alternate thawing and freezing during winter. In places exposed to winds, there is no better cover than evergreen boughs; if hay or similar material is used, some boards or brush should be thrown on this, to keep it from being scattered about by the wind.

**Lawns** showing slight irregularity of surface, may easily be evened up now, by spreading some fine earth into the depressions; next spring the grass will spring up through this.

**Leaves.** These are valuable to use for mulching, protection, compost, etc., and a good lot should be gathered now. For the former uses, they make a light and effective coat. When used as a mulch, do not remove in the spring but spade under.

**Pansy** plants are hardy, but suffer from alternate freezing and thawing; cover after the first hard freeze, with a light coat of hay or leaves.



TRENCHING ILLUSTRATED.

**Summer Flower Beds.** Dig over before winter, turning in some manure at the same time. Heavy land, that is to remain unoccupied until spring, should be left rough without breaking the clods; the effects of rain and frost will reduce these to powder by spring.

**Tree Planting.** For trees and plants of undoubted hardiness, there are some advantages and no great risks in fall planting. Some kinds like Larch, Birch and Beech it is always best to plant in the fall. With Evergreens it is different; plant only in the spring or just after midsummer. After several hard frosts, the earlier that fall planting can then be done, the better; if leaves remain, strip them off. Stake securely in windy places; mound up as illustrated under Fruit Garden and Orchard last month. Never plant a tree or shrub deeper than the collar.

**Trenching** is a suitable operation for this season; it should be practised wherever gardening is done, especially on a small scale. For large areas subsoil plowing often takes its place. Trenching consists in working over not only the surface earth of fertile nature to its full depth, but also the comparatively poor subsoil beneath, to at least a spade's depth. How this is done the cut will help to show. First the surface soil at A, say 4 feet wide and running across the bed or plat is thrown entirely out exposing subsoil D. This is then worked over with the spade its entire length, intermixing some manure at the same time. Now the soil of space B is thrown into the vacant space A, exposing subsoil at E. This is treated the same as D was, and so on across the piece, returning the first soil thrown out, into the vacancy that occurs at the end.

## PLANT CULTURE UNDER GLASS.

**Achimenes.** Keep in about 50° of heat, with the earth dry during winter.

**Airing** as to time and amount, must depend upon the weather and the kinds of plants. There will be warm spells yet when the ventilators over most plants, may be kept open from morning until night, and perhaps some into the night. When it is chilly and windy outside much less air should be let in. At such times, open the ventilators only so much, that the draft will be felt but about three feet from the opening. This for the generality of kinds, but Carnations, Violets and others that dislike heat, may have more upon them. In chilly or windy weather lift the sashes on the side of the house away from the wind.

**Amaryllis** should now be at rest. The evergreen sorts must not get so dry that the leaves will shrivel; deciduous kinds may get quite dry.

**Bouvardia.** This plant blooms as well when heeled as in pots and with less trouble. If grown in 55° of heat, the form and color will be better than in a higher temperature. Stake in such a manner that the air and light can reach the soil.

**Boronias.** See that they are free from mildew and green-fly.

**Caladiums.** Treat like Achimenes.

**Camellias.** Give full sunshine from now until early spring. Syringe twice a week, air freely in fine weather. 50° to 55° at night, affords the best temperature during the blooming season.

**Carnations** need plenty of air even in cold weather. A slight touch of frost, while it does them no good, would hurt them less than continuous close confinement and dampness.

**Cyclamens.** The early plants should have for blooming 45° to 50° of heat at night, with some more in the day. To retard plants for later bloom, keep them in a temperature of not above 45°



**Echeverias** to be raised from seed, should have this sown now for next year's bedding plants.

**Euphorbia.** Treat as for Poinsettias.

**Gardenias** with advanced buds should be kept at 60° night, and later plants somewhat cooler, water carefully but with moderation. If the pots of plants about to bloom are full of roots, sprinkle a little bone dust on the surface of the soil.

**Gloxinias.** Treat like Achimenes.

**Hyacinths,** for early bloom, may come into heat as soon as the ball of earth is well marked by roots.

**Light** is very important at this season; if the glass is clouded with summer whitening or other substance, clean it.

**Lilies** of the Japan species, for forcing, should be potted early in the month; keep in cold pit for some weeks before bringing into heat.

**Lily of the Valley** may be brought in for forcing into early bloom, towards the end of the month.

**Mignonette** for spring bloom should be sown.

**Orchids.** At this season may be seen the advantage of Orchid houses, with divisions for those requiring different treatment. In absence of this, any kinds in a growing state might be moved into the hot-house or forcing pit, so as to allow of the cooling down of the house containing the main collection, for securing complete rest. In this state they should be comparatively cool and dry; 50° by night and 60° by day will suit. Fumigate the houses for thrip and fly.

**Pansies.** Directions for Violets will suit.

**Poinsettias** for early show now have brisk heat, with the heads all but touching the glass.

**Roses.** Climbing Noisette Roses under glass need to have their shoots cut back to four eyes after each crop of flowers. The Marechal Neil needs the same treatment, but this should have been applied when the summer flowering season was over.

**Tulips.** Treat as for Hyacinths.

**Violets** keep near the glass, air very freely day and night, provided upwards of 40° of heat can be maintained. Keep too close and warm there will be no flowers. Trim off runners and dead leaves.

## FRUIT GARDEN AND ORCHARD.

**Blackberries.** Trim out the old wood now, to save time in the spring.

**Clear off** old rubbish, prunings, etc., and burn. Loose material lying about will afford a harbor for insects, many of which but for this would freeze.

**Cuttings** of Grape Vines, Currants, Gooseberries and Quinces, can now be made and buried on a dry knoll until spring, when they will grow more readily than if cutting is deferred until that time.

**Fruit Cellars.** Keep well ventilated in fine weather. The utmost regard to cleanliness, and the prevention of decaying substances in the apartments, should receive attention.

**Grapes.** To preserve fresh, a cool, dry room or cellar is needed. Keep the temperature within a few degrees of 38° if possible; here they will keep readily for months, with little trouble. Pack in boxes, in layers, the bunches close together, with heavy paper between the layers. Before this, they must be freed of moisture by exposure to the air. An excellent way to keep large handsome specimens, is by passing the stem through a perforated cork into a bottle of water and sealing with wax.

**Grape Vines.** Throughout the north the best winter treatment for these is to prune soon after leaf-falling; then lay down the remaining parts and cover with a small amount of earth or sods, for protection until spring.

**Grafts** may be cut this month. Tie in bunches and set one third of their length in sand in a moderately cool cellar.

**Packing in Barrels.** Use clean barrels. Those for Pears must be lined with straw-paper to prevent wood stains; for Apples this is not needed. Take out one head and place the fruit in nice layers, starting against the other end which is to open first. Fill in without bruising the fruit, settling or shaking the barrel occasionally, until it is a little more than full; bring the head in place with a lever. Apples may be pressed to advantage in packing, so those against the bottom head will even bruise a little, but Pears not. Choice Pears are usually packed in boxes holding a bushel or less, with each specimen wrapped separately in paper.

**Pits and Nuts** for planting, should be mixed with sand, and be set in an exposed place to freeze.

**Plowing and Spading** of land to be planted with fruit in the spring, should be done now. The harrow will fit it up for work then at planting time with little delay.

**Root Cuttings** afford the means of propagating Blackberries and Raspberries. Roots the size of a pencil and smaller, are cut into pieces two or three

inches long. These are placed in layers alternately with earth in a box, which then is buried in a dry place until spring. Then the cuttings are planted

**Strawberries.** Mutch with leaves or straw just as winter sets in, to prevent their being killed by freezing and thawing. The mutch can then remain until after fruiting to protect the crop from dirt.

**Vinegar** making is in order. Apple cider is the foundation stock for this usually, but the juice of any fruit will answer. Water cider, made by saturating the pomace after it is removed from the press, with water, and re-pressing it, makes good vinegar. In any case allow the cider to ferment, after which add some old vinegar or mother, keeping the casks in a warm place.

**Young Trees.** Bank up as directed last month, both to steady them and to prevent mice gnawing.

## VEGETABLE GARDEN.

**Artichokes.** Jerusalem or Sunflower Artichokes, should be lifted before hard frosts and treated like Potatoes. Give Globe or true Artichokes, a protection of leaves or litter just before winter, to keep them over alive.

**Asparagus.** Mow the tops and burn. Now is a good time to manure the beds, a thing that should be done liberally when needed.

**Broccoli** sometimes does not head before hard frosts. Lift such carefully with earth on the roots, and set in a damp cellar to develop.

**Cabbage.** When growth has ceased because of cold, pull and store. Placing it heads down, close together on a dry spot in the garden, and covering over some weeks later with straw or leaves, as high as the roots, and on this some old sheltering all with boards it will keep well until March. A small stock for use, during winter, may be kept in a barrel or box that is set up on end in a dry place, and which is banked all around and to its top with earth, and covered with a close fitting double cover of boards.

**Celery.** As long as growing weather remains, and Celery grows in pleasant autumn weather even though cool, keep earthed up. Before very hard frosts, the main crop for winter and spring use should go into winter quarters.

Some, for using soon, may be tied in bunches, and packed in sand in a cool, dark cellar. The balance should go into narrow trenches a foot or less in width, and of depth suitable to the height of the stems, as shown in the cut. These must be located in dry ground, where there will be no danger of water accumulating in them. Pack the Celery close in the trenches. Cover as the weather grows cold with straw and boards, increasing the thickness as the season advances, to prevent hard freezing and allow of easily getting some as needed for use. In the Southern States Celery may be left standing where it grows.

**Drains.** See under Lawn and Flower Garden.

**Plants of Cabbage and Cauliflower** raised from seed sown in September, may be wintered in cold frames for an early crop next year. This hardly pays, however, as plants from an early hot-bed, are quite as good and less trouble.

**Rhubarb,** liberally manured now, will advance all the more rapidly for it next spring, both in earliness and quality.

**Roots,** such as Horseradish, Parsnips, Salsify, Scorzonera freezing does not hurt. Of these the main crop may be left where they grow, over winter, but some should be dug and stored in the cellar for winter use.

**Trenching.** See under Flower Garden and Lawn.

## FRUIT AND VEGETABLES UNDER GLASS.

**Asparagus** may be forced as directed for Rhubarb last month.

**Grapery.** Where fruit is to hang a long time, all berries that show a touch of decay, must be cut out from time to time, and the atmosphere kept dry.

In early houses, the vines of which are breaking, an increase of heat must be gradually applied. The start should be made at an average of 55° at night, with 10° higher during sunshine.

**Lettuce** needs abundant air and about 55° of heat.

**Mushrooms.** Directions for preparing the material for beds, was given in the October issue. With this on hand, make the beds under a green

house stage, in the cellar or any place where from 45° to 65° of heat can be had. In making, distribute the material in layers over the surface, beating down firmly, the more solid the better, until some 8 inches in depth is reached. To spawn the bed while the heat in it is high, say about 65°, would be loss of time. When a temperature of 65° is reached, insert the spawn in holes at about a foot apart, all over the bed, beating lightly after this operation. In 10 days spread several inches of fine loam over the bed, and on this 3 or 4 inches of straw, then wait for your crop, which will not be very long in coming.

**Peaches** grown for forcing, now need a thorough dressing: clean the house, prune the trees, tie in and wash the stems, mulch the border, and give it a thorough soaking with tepid water. Keep the house close at night but admit air freely on fine days.

**Pine Apples** in fruit need to have a moist air and good bottom heat. For the general stock a low temperature should now be maintained, say 55° for a minimum, with never higher than 75° by day.

**Strawberries.** The potted plants that are still standing outdoors, should be moved to the cold frame before hard freezing weather, and the pots plunged to their rims in some light material to keep the roots from freezing. Here they may remain a month longer before forcing. Give water sparingly when it is needed.

## INQUIRY COLUMN

This being the People's Paper it is open to all their inquiries, bearing on Gardening.

On the other hand, answers to published inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer; give facts and ideas and the editors will see that they appear in creditable shape.

In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper.

Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that these be fully prepaid. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.

**5 Easily Grown Plants.** I would be glad to have named a good list of easily grown window plants, for a person who is unable from disease to give them much care. AS ISVALD.

**6 Day or Plantain Lilies not Flowering.** I have a number of large strong plants, but they have not flowered in late years. What can be done to bring them into bloom? Mrs. H. C. F., Swan Street, Buffalo, N. Y.

**7 Night Blooming Jasmine.** I have a Night Blooming Jasmine that has just gone out of blossom for the first time. What shall I do with it? My experience is limited as I have had it but one year. Does it ship readily? M. E. B., Castle, N. Y.

**8 Tuberous Begonias.** How shall I keep these through the winter? Can the bulbs be dried off or not? J. C. B., Caledonia, Ohio.

**9 Coleus.** Last winter I met a beautiful Coleus that was said to have been grown in the window. I have taken up several plants for my own window, will someone tell me the best treatment for the winter? Mrs. G. L. W., Carthage, Mo.

**10 Lachenalia.** How should these be treated in general and when should they be repotted? Mrs. M. B.

**11 Hardy Ivy.** Is the evergreen Ivy hardy as far north as this place? Some say it is, others declare just the opposite. Will you please inform me before next planting season? S. S., Jackson, Mich.

## ANSWERS TO PAST INQUIRIES.

**1 Green Growth on Pot Soil.** Frequent stirring of the earth by a sharp stick or pen-knife will prevent and be a remedy also. SISTER GRACIOS, Detroit, Mich.

**1 Green Growth on Soil.** Scrape this and the soil off to depth of one-half an inch, and replace with fresh soil consisting of one-third sharp sand. A. H. E.

**2 Liquid Manures for Pot Plants.** A tea made from the soil shaken from a stove pipe, applied once a week is good. Also, pour water over cow manure, let it stand a day or two, then apply once a week. Last winter I bought at the seed store, a fine black powder called Plant Food, and used it with good effect. It is wiser to apply than either of the others. SISTER GRACIOS, Detroit, Mich.

**3 Weeping Trees for Windy Place.** Birches, Weir's Maple, Weeping Larch, Weeping Linden, and the various Weeping Elms would be suitable. L. R., Geneva, N. Y.

**3 Weeping Trees for Windy Place.** I have both the Cut Leaved Birch and the White Weeping Birch growing on an exposed knoll, and they succeed well. G. R. L., Milwaukee, Wis.

### When the Leaves are Turning Brown.

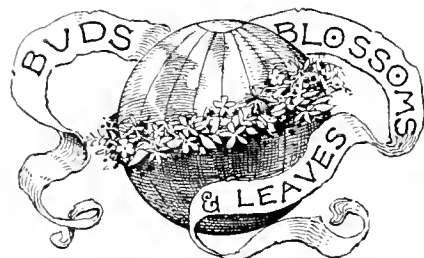
Never is my heart so gay  
In the budding month of May,  
Never does it beat a tune  
Half so sweet in blooming June,  
Never knew such happiness  
As on such a day as this,  
When the autumn dons her crown  
And the leaves are turning brown.

Breathe, sweet children, soft regrets  
For the vanished Violets:

Twist your chaplets in young June,  
Maidens—they will fade full soon;  
Twine ripe Roses, July—red,  
Leaves for the dear ones head;  
I will weave my richer crown  
When the leaves are turning brown.

—Elizabeth Akens Allen.

The sober robin hunger-silent now,  
Seeks cedar-berries blue, his autumn cheer;  
The squirrel, on the shingly shagbark's bough,  
Now sows now lists with downward eye and ear.  
—Lowell.



Camellias appear.

Violets dislike heat.

Specimen copies free.

Don't delay the Club.

Have you subscribed?

Pansies succeed in pots.

For Mildew use sulphur.

Primroses need full light.

Write for your own paper.

Wanted, 50,000 subscribers.

Lantanas are good house plants.

Immortelles are now appreciated.

Cobæas tough-out the season well.

Crowding plants or trees is harmful.

Know every plant by its right name.

Slugs cannot travel over dry sawdust.

Single Pæonies are becoming popular.

Plant on knolls rather than in hollows.

The Snow-white Pansies are shy seeders.

Never apply gas-tar to the bark of trees.

Propagate double Nasturtiums from slips.

Flowers are messengers of grace to the sick.

An out door Coral plant—the Barberry in fruit.

Fill up the outside plant boxes with Evergreens.

Clove Carnations do not come with certainty from seed.

Eucalyptus leaves, it is said, will remove scale from boilers.

The first seed store in New York City was opened in 1802.

A Magnolia, in Attica, N. Y., bloomed twice during the past season.

By digging over ground this fall, many kinds of weeds will be put back.

For a lasting inheritance to your children's children plant some trees.

A Cotton plant with bursting seed-pods, is interesting in the greenhouse.

Roses carry pistils,—the War of the Roses is of course, thus easily accounted for.

The building of greenhouses for amateurs, affords a large business in England.

A Flower Sermon is preached every year at St. Katharine Cree Church, London.

The feathery seed heads of our native Clematis work into winter bouquets well.

The Chrysanthemum now so charming, is of Chinese origin; introduced to Europe 1764.

Mowers that leave a "ribby" lawn, are not geared high enough, or else have too few knives.

Eolus has freely let loose the winds of late, and leaves have come down like snowflakes.

To have particularly fine flowers of any kind, remember one thing; namely, thin out the buds.

**Poly Ann Thus.** With but a single exception or two the flowers you ask about, are as hardy as Tulips.

Don't err, by taking the forcing bulbs from the plunge heap, before they are well furnished with roots.

For every person interested in flowers and gardens twenty years ago, there are now a hundred persons.

Flowers are everywhere over the earth, evidently a reminder that there is an Eden and we may regain it.

An amateur friend says she never accounts the attention she gives her plants, work, because it is all pleasure.

An east side dealer advertises "Rows Pertaters." His tubers are having a terrible spell—we wouldn't trust them.

November has not a good reputation as a floral month; but one thing is sure, the Chrysanthemums are not to blame.

We want every amateur gardener, poultry raiser, etc., to see POPULAR GARDENING. Specimens free to such. Send in their names.

Hay is better material than straw to cover beds for winter, being more springy it does not settle down close, to smother the plants.

We give away this paper now, that is, our offer of it in clubs with other popular periodicals, in another column, amounts to this.

No other pursuit can compare with gardening in the quick returns of pleasure, profit and relaxation, for the time and money invested.

On a lawn within our view is an Elm tree eleven years planted, and then small, that is now nearly 30 feet high. A secret: Good soil.

A Changeable Hydrangea, *H. Hortensis*, 3 feet high and 5 feet through, with 200 heads of flowers, was met by one of our editors last month.

We knew that if you would dally around about getting in the tender things some would get nipped; don't blame us, we said a month ago it was time.

We didn't apologize for No. 1 of POPULAR GARDENING, nor we don't propose to blow our horn over the improvements visible in No. 2. It's not our way.

Sometimes we forget how important are the common, simple and cheap flower pots in plant growing. They virtually endow plants with locomotive powers.

Six "keeps" in growing house plants; keep clear from dust, keep free from cold draughts, keep fairly watered, keep out of gas, keep off insects, keep from frosts.

A common complaint against the Wistaria is that it is slow to bloom. This is true; little bloom need be looked for during the first half a dozen years after planting.

Last month we said "Hit us with a Club." A goodly number have responded. We stand it well. It is in fact delightful. Keep it up until our 50,000 subscribers are in.

A good many persons, have stood up as we suggested last month to be counted in the first 50,000 subscribers, but the quota is very far from full yet. Are you counted reader?

Levi P. Morton has given the city of Newport, R. I., where he has a summer residence, \$60,000 for a park. That is quite like Mr. Morton. His hands and heart are always open.

The American Garden, published by E. H. Libby, Greenfield, Mass., will enlarge to a two dollar paper on January 1st next. It is an able and independent journal, over whose prosperity we rejoice.

Thank you! for the kind words showered upon us, on the success of No. 1 of our paper. This to thousands whom we cannot answer in person; too busy. Such a hearty greeting all around, shall be an inspiration to the editors and publishers to do better yet.

There is no end of competent judges who have travelled, and who pronounce Mr. Herman DeVry's annual display of flowers in the Chicago Parks, as unequalled by anything the great gardens of the world besides affords.

Gardening interests are with everything else, rapidly developing in the west. Mr. John M. Clark of Chicago, writes to this paper, that at the recent Illinois State Fair, the show of Vegetables, Flowers, Seeds, etc., was much in advance of any previous year.

For mailing small sums—the price of this paper for example—U. S. Postal Notes are very convenient. Every postmaster in the land keeps them and will furnish at 3 cents each. Try a 60 cent one on us. See our club rates for leading periodicals on another page.

Sweet are the uses of forgetfulness. With but a darkened recollection of forgone seasons, we feel that the beauty of the autumn leaves, or of the summer flowers, or of the spring delights of the present season are the finest, ever seen. Thus are we the more happy.

Cats are useful in their place; but their place isn't on the greenhouse roof, breaking entrances through the glass on cold nights. If any cat attempts this trick, catch him (we are willing to allow it is a Thomas,) take to an open meadow, and there "shoot him on the spot."

It has been truthfully said, that the seed trade is the only line of business in which our government is in competition with its citizens. We are glad to see the voice of the justly indignant dealers raised against our infamous government seed shop. Let it be razed from the earth, why cumbereth it the ground?



The Bell-Flowered Scilla. See Opposite Page.

Aside of the many subscribers coming to POPULAR GARDENING from Buffalo, many are also coming in from other large cities and towns. We expected this. In England, the numerous excellent gardening periodicals, secure a large share of their readers from cities; it ought not to be different in America.

"I like to know about these things," said a lady addressing the writer with some questions about Pansies. There never was a time when such a demand for information concerning flowers and gardening prevailed, as at the present time. The mission of this paper is to in part meet this demand. Are we succeeding?

The way that subscribers and clubs of subscribers begin to come in to POPULAR GARDENING, leads one friend of the paper at our elbow, to say, "you can trust the people to know a

good thing when they see it." There is no discounting the common sense of the people, that's certain. By them true worth is appreciated.

**A teaspoonful** of tincture of assafoetida in half a bucketful of liquid mud, applied with a brush to the stem and branches of young trees, will preserve them from the attacks of rabbits and other pests, without injury to the trees. Two or three applications during the winter will be sufficient. So says the *English Garden*.

**The Golden-leaved Oak,**

*Quercus Roburcanadensis* is one of the handsomest, small-growing lawn trees we know of. The leaves are of a rich yellowish hue, and present a remarkably waxy appearance. The peculiar color is retained throughout the season, thus rendering the tree most effective for planting in conjunction with "blood-leaved" trees, for creating strong contrasts. We notice this tree is offered by Ellwanger & Barry, Rochester, N. Y., and Parsons & Sons, Flushing, N. Y.

**Impatiens Sultana.** This new Balsam, while not as showy in our garden as we anticipated it would be, still proves very desirable. The growth has been free, the flowers fairly numerous since July; perhaps if our seasons now for two years, had not been both cool and wet, the growth in both, would have went more to bloom and less to plant. We would not however give it up, even as a wet season belder.

**A double** significance attaches itself to the botanical name of the well known Ice Plant, *Mesembryanthemum crystallinum*. Crystallinum refers to the appearance of the watery pustules with which the plant is covered, and which glisten in the sun like fragments of ice. On the other hand, in the Canary Islands where the Ice Plant is at home, large quantities of it are gathered and burned, the ashes being sent to Spain for use in the making of glass.

"I read every word of number one" writes an admiring correspondent from Michigan. This we take as the highest form of praise for our work. There is so much wordy trashy, reading afloat concerning gardening matters, which no one can care to read, that when in the estimation of readers we succeed in our purpose to make of POPULAR GARDENING a paper every word of which is to the point and interesting, we are well pleased.

**No objectionable** or uncouth advertisements will be admitted into this paper. Good advertisers will thus always find themselves in good company in our columns, with their announcements set up in good looking pages. That a better class of readers can be found anywhere, before whom to place advertisements, than the readers of POPULAR GARDENING, no one will assume. To advertise in this paper can hardly fail to prove a good investment.

**Flower-loving** employers and flower-loving employees do not always come together. Usually the complaint is heard from the former, that their help are indifferent to the beauty or well-doing of flowers. The other day the writer heard a case just the reverse of this. A coachman who also attends the garden, and is more enthusiastic perhaps over fine flowers than over horses, ordered some choice Tulips of one of our dealers, saying he must have them; if his employer wouldn't pay for the bulbs he would, and set them in his own little garden.

**Early Flowering Narcissi.** There are two Narcissi of special value for the production of flowers at mid-winter, found in nearly every bulb dealer's stock. These are the Roman, which has double white flowers, and the Paper White, which has small single white flowers. Both are especially suitable for cut flowers, and also for conservatory decoration.

For the latter purpose, grow in five inch pots, a bulb to each. But when intended for cut flowers, grow in pans or boxes, as they then require much less space. Their requirements in the matter of soil do not differ materially from those of any other bulbs, a soil that is light and rich suiting them well.

**A Horticultural Directory** of great merit has recently been issued by Isaac D. Sailer, Philadelphia, Pa. It is the work of Mr. C. F. Evans,

many subscribers, 50,000 in fact. Now while we are much encouraged at the growth of our list of subscribers since starting this paper, we are free to say it ought to grow still faster, considering the nature of our paper and its price. If you are not a subscriber, may we not count upon you as one at once, and not only this but that you will interest yourself to get up a club. In this way, you can help along our needed 50,000 subscribers, at a jumping rate.

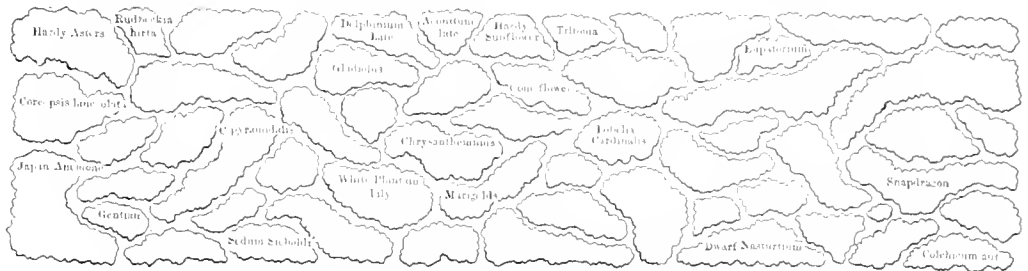


Fig. 3. Location of Autumn Flowers. See "The Month Flower Book," page 13.

of that city, a gentleman qualified for such a task as few others are. The directory proper embraces the United States. In addition to this there is "Supplement A," giving the names and addresses of those engaged in the Horticultural trade in the British Isles, and "Supplement B," the same covering Continental Europe, Australia, Africa, India, Japan and Brazil. A careful examination shows this work to be remarkably correct in detail, while the above outline is sufficient to indicate that no directory could be more comprehensive.

**The Cardinal Flower, *Lobelia Cardinalis*,** is one of the most brilliant flowers known. The flowers are of a deep scarlet, produced on short pedicles in a handsome nodding raceme. The plant is hardy and a native, found in moist meadows and along streams, in many parts of our country. Although it likes moisture, it is of easy cultivation in the common border, and even in clay soils. It succeeds well on the shady side of a house. Its time of bloom is from late-summer until October. There is also a white-flowering variety. The plants are procurable at those nurseries, which make a specialty of hardy perennial plants and bulbs.

**Count them.** An enthusiastic friend of POPULAR GARDENING—and the paper has many such already—tells us what we ourselves were not aware of, that last month's issue contained 345 separate and distinct articles and items of information. Whether the present issue contains more or less we cannot say, but one thing we know, and that is that our endeavor is to make each succeeding number better than those before it. But let us take our friends count, and figure a little. At this rate, a yearly volume would contain over 4000 such articles or 60 for each cent the paper costs. Who that loves flowers or gardening can afford to do without such a paper?

**House top gardens** will perhaps never be as popular in America as in Europe; land for gardens being so plenty here. Still we maintain there are many places in which if the needed patch cannot be secured on *terra firma*, that the right thing to do would be to garden on the roofs. It would be easy in many such cases to fit these up, so far as grade, and other matters are concerned, for the purpose. The objection has been raised, that the sparrows would injure such gardens; we would not expect much trouble. Snap a gun at them every time they are around, and you can frighten them from being very bad. Their occasional presence would be some help in keeping down insects.

**Reader:** Your aid and influence in behalf of swelling the subscription list of this periodical is solicited, and will be greatly appreciated. To furnish such a handsome and valuable paper as this one is admitted to be, at the present low price, requires not only subscribers, but very

**A new red label** for express packages of cut flowers, has been designed for, and as we are told, has been adopted by the Society of American Florists. We hope there may be some mistake about the last part of this statement. A sample before us, shows the label to be about as far from what such a label for general use should be, as it could be made. The designer evidently had in mind to create a fanciful effect, with ornamented letters and words all jumbled together, so as to be almost unreadable, instead of making a card so plain, that he who runs as express carriers do, may read. Fancy seeing shipping agents all over the country spending time in unravelling the muddled lettering of this label, which should tell them at a glance, that the contents of the package are quickly perishable, fresh flowers! It is not a label we expect to see practical shippers adopt, whatever the Society's committee may have done about it. Try again, gentlemen!

**How is this.** Either we failed, after a good deal of pains, to make clear the fact in our last issue, that POPULAR GARDENING is an independent paper without a single seed, bulb, sprout, root, cion, plant, shrub, trailer or tree for sale, or else the person who sent us a postal card with the following matter on it, must have skipped a good deal of what we wrote:

MESSRS. RANSOM, LONG & Co., N. J., Sept. 21, 1885.

Dear Sirs:—

Will you please send to me by return mail your prices of Double Hyacinths, Tulips and Summer Snow Flake, and oblige.

We have nothing in the world to sell, but this paper and a few incidental books. We don't aspire to more than this, provided we get the 50,000 subscribers we have now made a good beginning on enrolling. Our respected but possibly careless reader, is referred to our advertisers for the information he is in want of.

**Bell-flowered Scilla.** Sometimes the botanical name of a genus, is prettier and easier to use than the common name it is known by. In such a case the former should be used for the common name. An instance of this kind, is found in the Scilla, or as it is often called Squill. We greatly prefer for the species figured on the opposite page, the name Bell-flowered Scilla to Bell-flowered Squill. But name aside, this is a desirable Spring-flowering bulb that should often be seen. It is hardy in the open ground even in the north, but a slight cover over the bulbs during winter is beneficial. The color of the species is a beautiful hyacinth blue; but there are also varieties of white and other colored flowers. Plant the bulbs in the fall months, at any time before the ground freezes. They can be bought for about 75 cents a dozen from dealers in Dutch Bulbs. The bulbs also force easily for flowers, in the window.

### The Mixed Flower Border.

As this is a good season for planning and starting the work of making a mixed flower border, illustrations for arranging the principle plants of one, are herewith given. This one is designed to be largely composed of hardy plants. The kinds of these to choose, and the manner of placing for having the same border showing hardy flowers at the different seasons, is the object in showing

entire bed. Such persons must continue to look to the free-flowering tender bedders chiefly, which while constantly very attractive in hot weather, call for an expenditure for new stock each spring, the old perishing with the fall frosts.

But the true lover of nature sees beauty in plants when they are out of bloom, as well as when in bloom. For most of such, the large variety of sorts, and the succession

the notion be dropped. There may be variations in the degree of richness needed but all plant life requires fertility of soil for thrift.

It is true and a pity, that thousands of persons set trees into any kind of poor, unfertilized earth, some even into sand or gravel banks and call this tree planting. Then they wonder why trees don't grow faster. We do not want one of our readers to be classed among such planters.

Let it be understood that a tree can no more grow without suitable food, than a pig or an ox can. What would be thought of a farmer who would keep his animals at the starving point, with protruding ribs and hipbones, year in and year out, and call this stock raising. Many who set trees act no wiser.

If the soil is poor where trees are to go, enrich it with fine old manure, or with loam, if very poor scrape out a pot-hole to make several cart loads, and replace with soil from a cultivated garden or other rich spot, and in this plant the trees.

If trees that were set some years ago, are in a starving, stand-still condition—and this nine times in ten is what ails them when they don't grow well—treat to overcome the trouble. In most cases let them be taken up, the soil properly fitted, replanting

again. If too large to take up, fertility may be supplied in good measure by top-dressing the surface over the roots with good stable manure. Now is the best season for doing this. Let the coat be two or three inches thick, the rain and frost will then reduce the manure and wash its substance into the soil. By next season the roots will get the benefit, and through the roots the tree above.

### Shakespeare and Strawberries.

Students of Shakespeare have noticed the following passage in Richard III, Acts 3, Scene 4.

My Lord of Ely, when I was last at Holborn I saw good strawberries in your garden there, I do beseech you send for some of them.

This quotation is interesting, first as showing that the great dramatist missed nothing, and second, that in his remote time, horticulturally speaking, strawberries passed for good fruit.

In those days the delicious berry we are now accustomed to, was wholly unknown. The kind cultivated at Holborn most likely was the Alpine, now commonly met by travelers in Switzerland. But with the rapid advance made in gardening since Shakespeare's day, the Strawberry has received due attention at the improvers' hands, with very remarkable results.

It may be of interest to state, that not until the beginning of the present century, did the Strawberry begin to assume the important position it now holds. In 1824, by order of the Botanical Society of London, Mr. James Barnett, of Cheswick, drew up a report of the kinds then under cultivation,



Fig 1. Location of Spring Flowers.

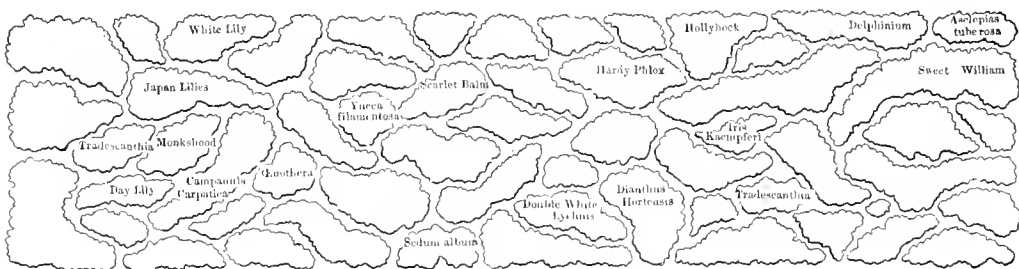


Fig 2. Location of Summer Flowers.

### THE MIXED FLOWER BORDER.

The three figures showing kinds of hardy flowers in bloom at different seasons, and location of groups in the same border. The bulbs and tender plants to occupy intervening places, are not named. Scale about 10 feet to the inch. See page 17 for Fig. 3.

three engravings of the same bed. In the original bed which furnished the idea of these figures, many tender plants and bulbs were planted between the groups each spring, but lack of space forbids naming such in the diagrams. Aside from printing these plans, which were carefully engraved expressly for POPULAR GARDENING, little if anything is left to be said, concerning arrangement. It may be remarked however, that in general the lower or front part of the bed is devoted to low growing kinds of plants with taller ones, graded as to height, further back, the highest of course in the rear. In introducing the tender flowers and bulbs into the border in the spring, regard is had to the same principle.

A border of this kind has the merit of affording perhaps the greatest degree of interest and attractiveness, for the least outlay of money, of any style of adornment in this line that can be employed. With due attention to planting some good tender stock each spring between the permanent hardy flowers, not only will there be a display of bloom from early spring until late fall, but every week will see a pleasing variation in the appearance of the bed, from that of the weeks that have gone before.

To be sure along with using hardy flowers largely, that have but one time of bloom in each season, there will also necessarily be seen, many blank spaces between the respective clumps of flowers throughout the season. This is the chief objection raised to this style of bedding, by those who can be satisfied with nothing short of a brilliant and constant sheet of bloom over the

of flowers if somewhat broken in places, of the mixed border, afford satisfaction as no formal bed of a few sorts of summer bloomers could possibly do. The botanist would also quickly decide in favor of the mixed border for main display, over any other style of flower bed.

In thus calling attention to the mixed border, we would not desire to make less of summer bedding, but more of this style of planting. Both have their place in the adornment of our grounds. Before the time of planting out next spring, arrives, numerous beautiful designs for summer flower beds will be given in these pages, so that all styles may be fairly represented. Of one thing we are sure, that the more general the intelligence, concerning all modes and uses of employing decorative plants, the better will the true interests of both growers and planters of flowers, be promoted.

So far as actual work on starting a mixed border goes, it is important that the ground be thoroughly put in order this fall, by trenching. This operation is described on another page, under "Work of the Season." Then some time before the planting season, in the spring, the plants and seeds for stocking up the beds should be ordered, so that setting them out may then take place at the first suitable time for getting to work on the ground in the early spring months.

### Starvation for Trees.

Does any reader of POPULAR GARDENING think that a street, shade or fruit tree, because it is a tree, has less need of good soil than a hill of corn or a squash vine has? If so let

with the result of effecting increased interest in the fruit, and the production of new varieties of great value.

In later years, the advancement made in improving this fruit has been more rapid in America than abroad. Not a year now passes, but a number of new sorts are offered to the public by their originators here. With all of our present attainments in this field, it is probable we shall yet see better kinds than any now known.

But of our present luscious Strawberries, what could Shakespeare, had he known them, have said, when he could notice with favor the very inferior kinds familiar to his age.

#### The Large-Flowering Mock Orange.

Not even a small collection of shrubs is complete, if it does not include at least one Mock Orange, or *Philadelphus*, to use the botanical name. The shrubs are very hardy, adapted to all places and soils, and are particularly noted for the beauty and sweetness of the flowers. Indeed in the Common Garland Mock Orange, the flowers are so highly scented, that some persons are found who object to them on this account, just as some persons do not like the Tuberosc fragrance.

Among the different Mock Oranges none are more generally desirable than the Large-flowering one, of which we present a spirited engraving herewith. It belongs to the section of free growing sorts. In time a bush will reach the height of ten feet or more, with eight feet or more through. It is slightly straggling in habit, only to render it the more ornamental for this.

Besides producing flowers that are much larger than those of the Common Garland species, these are less strongly fragrant, which will be looked upon as another point in favor of this sort, over the well known old one. The large pure white flowers, which appear along the twigs in June, are remarkably showy, in contrast with the dark green leaves. For cutting to use in table vases, few shrub blooms are more effective.

When planted in masses with other shrubs, this, like the other strong growing Mock Oranges, should be placed somewhat in the rear, because of its taller growth, which is above the average of flowering shrubs. For the same reason it is better placed in the back portion of the lawn than near the street, where it might cut off the view too much from the house.

While this shrub may not be found in every nursery which sells ornamental trees and shrubs, we find it offered in enough nursery catalogues, to show that any one desiring to plant it can easily procure the stock.

#### Is the English Gooseberry Worth Growing by Us.

It came very near being placed on the Rejected List of fruits, by the American Pomological Society at one of its meetings some time ago. That such an act would have been one of injustice to a fine and wholesome fruit, is shown by the accounts of success in growing it in America, that are constantly coming up. It now seems quite certain, that where there is failure with this fruit, it is

open culture circumstances must dictate how to shade, I find bast mats answer well.

For surface mulching, the best way is to remove the top soil down to near the roots, in a circle of three or four feet in diameter. Any uncovered roots must be covered again a little, so as not to let the manure come directly in contact with the roots, then four or five inches of old rotten manure, laid on and trodden; then replace the earth, rake, and the manure will scarcely be seen.

#### Little Things at Right Time.

Too many plant growers are like Naaman of old, anxious to do some great thing in a lordly style, instead of attending to the simple little requirements that lead to success.

It may be seen for example, that better actual results at plant culture are sometimes found in the kitchen window of the most humble dwelling, where there is a fight against frosts all through the winter perhaps, than in elaborate plant houses, excelling in facilities to meet the wants of plant life. In the one case there is close attention to the small requirements which the true lover of flowers is ever ready to bestow, in the other a rule-limited haphazard way of caring for the subjects.

An esteemed correspondent of POPULAR GARDENING living in Detroit, Michigan, who signs herself "Sister Gracious," hits the nail squarely on the head, in giving her

"only secret" of success at blooming Geraniums, Begonias and so on in midwinter. She writes on this matter as follows:

"I think of them at the right time. For instance, a night promises to be extra cold, so I spend five minutes putting newspapers between the glass and the plants. Then when to water, bothers some folks. It is well to have a set time for this, say after the sitting room is put to rights. Push up the soil with the finger, if it is damp, pass it by, if dry and dusty pour on warmish water.

Another thing; wash the leaves once a week. I take a tub, put the plant in, and cleanse with a fine sprinkler. The leaves thank me for this by their bright looks afterwards. A small whisk broom, dipped in water and shaken over the plants also answers.

As for time, it takes me about half an hour a day, and the work is such a delightful change it rests me, mind and body."



THE LARGE-FLOWERING MOCK ORANGE.

owing to mismanagement. Here is what Mr. T. Bennett, a successful grower, lately had to say about the English Gooseberry in the *Gardener's Monthly*, his remarks being somewhat condensed by our editors:

It flourishes best in a clay soil or heavy loam, but will grow in much lighter soils. The plants only need sufficient shading and good summer mulching, with at least one good watering, when going out of blossom, to yield and ripen large crops of its delicious fruit. It will grow under shade better than any other fruit, and does well trained up to the north side of a fence or building. In

# FLORAL FASHIONS & ANCIES

Fair Arabella, talking slang,  
 Cannot endure old-fashioned flowers—  
 "Cheap flowers, you know, so awful slow,  
 That in poor peoples' gardens grow,  
 And only watered by the showers;  
 I like a bloom that costs a guinea!"  
 Fair Arabella, you're a ninny,  
 And think, perhaps, park air's too common  
 To please so superfluous a woman!  
 And that the sunshine could be sweeter  
 If bought like gaslight, by the meter.

**Chrysanthemum** days.

**Willows** weep now, if ever.

**Autumn's** glory is declining.

**Pond Lilies** are being forced.

**Marechal Neil** Roses, run scarce.

**Scarlet** and crimson blooms suit brunettes.

**Flat bouquets** for brides, are coming more into use.

**In using** ribbons with flowers, take complementary colors.

**Corsage** bunches of Mignonette with Adiantum fringing are exquisite.

**Cut blooms** of Double Bonvardia must not be sprinkled; it will blacken them.

**Fern fronds** keep fresh longer, if immersed in water for an hour before using.

**Clasped hands**, made of Immortelles, on the face of funeral pillows, is a new feature.

**Chrysanthemums** brilliant, lasting and cheap when bought, are unequalled for wear.

**Standing pieces** are now preferred to hanging designs, like bells and balls for weddings.

**In San Francisco**, Violets, Stocks, Candytuft, etc., are produced at extremely low rates, by Italian market gardeners.

**Report**, makes the surface devoted to winter-blooming Carnation plants, this year less than the average of former seasons.

**Sprays** of that common and easily grown favorite, *Libonia floribunda*, associate well in table glasses, with the blue *Salvia*.

**The handsome** blooms of *Passiflora quadrangularis*, show with charming effect when arranged singly in finger glasses.

**Few flowers** are prettier for the coat, than the Sweet Jasmine, which should now be in bloom. A bit of its own foliage, is the most suitable, as a green.

**No flowers** grown are easier to arrange with good effect than the Chrysanthemums, provided only, they are cut with long stems, and are kept uncrowded.

**It is said** that the pretty scarlet berries of the *Rivina Humilis*, if applied to the cheek will give it a healthy, natural brumette blood color, that is lasting and defies detection. We cannot vouch for this.

**The Rose grower** who will build up an establishment for forcing the finer kinds of Roses, to be sold at wholesale, somewhere midway between Chicago and Boston, near the line of the lakes, could doubtless soon work up a paying business.

**Flower holders**, of basket ware, but in the form of pitchers, are favorites. Filled with Roses having long stems, or other flowers similarly furnished, with some of these hanging over one side, to nearly touch the table, they look most graceful.

**A Floral Clock**. Our correspondent, Mr. John M. Clark, of Cook Co., Ill., writes that among many beautiful floral designs, shown at the Illinois State Fair recently, one in the form of a clock, was especially so. This design represented an old-timer, five or more feet high, with its various external parts shown almost perfectly, in flowers and buds.

**Not every** flower combines well with the large Roses, and particularly with Gen. Jacqueminot and other Hybrid sorts. To use these alone however in bouquets, tends to a lack of freedom in the effect. By scattering sprays of well grown Mignonette, Lily of the Valley or Maiden Hair Fern fronds among the Roses, the bunch may be livened sufficiently.

**We cannot** credit the statement that the general demand is running for the compact, old style bouquets, in which the flowers are crowded beyond allowing of fair individual display. Ultra-fashionable people may ask for such, but not people of taste. The step from the style referred to, to the natural

arrangement in bouquets of recent years, is one of the most pronounced signs of improved taste in these matters.

**For a lunch** or tea-drink, individual corsage favors, as many as there are lady guests, may be used for making up the chief table piece of flowers, before distributing them to the wearers. These should be composed of long-stem flowers. Roses being generally preferred. They may be tied with ribbons, and should be finished complete for wear before making into the large piece. For the holder, procure a deep, basket with flaring rim. Into this place the bunches, using Fern fronds or Smilax around the edge, and between the flowers for keeping them in place. Everything must be dry, or the ribbons will become soiled; if the stems are not so, dry them with soft paper before tying. The lunch over, pass the basket, each lady taking a bouquet.

## Botanical Budget

**Roots** absorb mostly by their tips.

**Lilac stems** annually become two forked.

**Of all** plant organs, leaves are the most varied.

**Many** so-called Vines are not such; the Grape is a Vine.

**A Chrysanthemum**, precisely one-half of which was of a purplish rose color, the other pure white, has been met.

**Mr. A. Blanc** reports a plant of the Marigold, that bears both single straw colored, and double orange blooms on the same plant.

**Dr. Hexamer** strongly claims, that the male plant has through the pollen a powerful special influence, not only on the offspring, but also on the female.

**A comparison** of the flora of New Brunswick with the same species of that further inland, shows that the low temperature and damp air of the former place has quite a peculiar effect.

**The so-called** White Bridal Rose, grown in pots in the window and greenhouse, is a Bramble instead of Rose, being very near the Raspberry, and known botanically as *Rubus coccineifolius*.

**Mosses and Liverworts**. In her new catalogue of these, for America north of Mexico, Clara E. Cummings, of Wellesley, Mass., records 888 species of the former, 23 of the latter, besides many varieties.

**The newer** species of Potatoes, including the Arizona Potato, *Solanum Jancusi*, and the Darwin Potato, *S. naylia*, together with the possibility of employing them for the improvement of the esculent potato, are receiving much attention from gardeners and hybridizers.

**What pass** for leaves in the well known, but erroneously named Smilax, *Myrsiphyllum asparagoides*, are not leaves at all, but leaf-branches called cladophylls, which perform the office of leaves. The true leaves consist of thin and minute scales, which take careful looking for to discover.

**It is gratifying** to note, that at the recent meeting of the American Association for the Advancement of Science, the interest shown in the botanical branch of the work of this society, excelled that of all others. Says a report, "the best attended meetings are those of the Botanical Club, where no formal papers are presented, but merely short notes and observations, which are discussed. The success that has attended the work of this club is very encouraging indeed."

**The death** of Judge G. W. Clinton, at Albany, N. Y., on September 7th, removed a great jurist, a devoted student of Botany, and a most estimable citizen. Although his attainments as a Botanist were far above the ordinary, he pursued this, his favorite study in Natural Science, only as a recreation from his legal labors, and because of a simple love of Nature. We wish more of our professional and business men, could learn the secret of his joyous life, by finding recreation in the ample field of Nature, as he did. Botany in New York State will not soon find another more devoted follower than was this learned, simple-mannered and good man.

**"Talks Afield"** is the name of a delightful treatise of 173 pages about plants and the science of plants, adapted to the wants of non-scientific readers. It is from the pen of L. H. Bailey, Jr., who, in various ways, in recent years, has done a good work in popularizing the science of Botany. The present work will go far as a first book in supplying the wants of that large class, who feel the need of being informed on the common principles of this subject; we venture to say that those who turn from the average work on Botany as being dry reading, will not long lay aside this book until its last chapter is reached. From the Riverside Press of Houghton, Mifflin & Co., Boston, Mass.

## ADDITIONAL FRUIT AND VEGETABLE NOTES.

**Sort** before storing away.

**The more** fruit the better health.

**Vegetable** roots keep well in coal ashes.

**Garlics** winter best when hung in a dry, cool place.

**The Romans**, according to Pliny, had 22 varieties of apples.

**The Long Island** Cabbage seed crop is reported 15 per cent below average.

**Twenty acres** have been set to Figs, by Major Russell, in Baker county, Florida.

**The Concord** grape is said to have originated as one, out of a total of 22,000 seedlings.

**Plenty** of manure makes tender Rhubarb and prime Asparagus. Try at least a part of the patch, and see.

**Insects** multiply rapidly, but invention and human ingenuity more than keep pace with them, said Prof. A. J. Cook, at the Grand Rapids, Mich., Pomological Meeting.

**It is estimated** that the fruit yield of the Hudson River district this year is running 23 per cent ahead of that of former years. The shipments of Grapes will reach about 5,250 tons, valued at \$367,500.

**A Strawberry** vote reported from six different Western States, to the *Prairie Farmer*, ran thus: the most profitable strawberry stood, Crescent, nine; Wilson, four. The vote on second best was, Wilson, four; Crescent, three; and the others scattering.

**Varieties Running Out**. The accomplished editor of the *Gardener's Monthly* has little faith in this. Varieties may be moved to soil or climate or both unfavorable to health and here wear out. There is no known reason why varieties should not last hundreds of years.

**The culture** of the Blueberry is finding an advocate in Mr. Delos Staples, West Sebawa, Mich. The plants are of the "true blue" as regards hardness, standing 40° below zero, without injury. They are said to be capable of producing 100 bushels to the acre, under ordinary treatment.

**Wine in the United States**. The *Wine and Fruit Grower* of New York, predicts that the annual production will soon reach 100 million gallons. Although France leads all other countries in her products of the vine, it is claimed that there are in the United States 100 acres adapted to grape culture, for every one in France.

**We smile** at the story of the boy who planted a sixpence, thinking more would grow. The boy was, perhaps, not over bright. But we can suggest, if not the actual planting of money, something that will do as well as ever the boy desired, namely, the depositing of 60 cents, as "seed," with the publishers of POPULAR GARDENING, and receive in return a perpetual and large crop of valuable ideas and information, throughout the year. Try this kind of husbandry.

**The Niagara**. POPULAR GARDENING takes hearty pleasure in adding a word for this new grape, which originated in the neighboring city of Lockport. Of the beautiful and delicious fruit it is enough to say, that in the Buffalo market it readily fetches from 15 cts. to 25 cts. per pound, alongside of Black Grapes selling at 5 cts. As to vigor, young vines set last spring, grew twelve feet during the season. It proves to be an enormous bearer. Being perfectly hardy as far north as Lockport, it must prove so everywhere in our country.

**A new book on Fruit Culture**. When a man with the ripe experience at fruit growing possessed by Mr. Wm. C. Strong, of Boston, Mass., writes a book on this subject, it may be expected to be of more than ordinary value. We have before us such a volume recently written by this gentleman. Its value impresses us so favorably, that we feel to recommend it to every cultivator in need of a guide of this kind. Our space does not allow of an extended notice. In brief, it may be said that the book covers the entire ground in an admirably clear style. Published by Houghton, Mifflin & Co., Boston.

**American Pomological Society**. The meeting held at Grand Rapids, Mich., in September, was one of the best ever known, notwithstanding the opposition that early prevailed against holding it in what some called an "out of the way place." An exhibit of 4,000 dishes of fruit was brought together. The essays and discussions were of an order never before equalled, in interest and value. Much regret was manifested at the absence of the venerable president Wilder, of Boston. The officers re-elected and elected, are Marshal P. Wilder, President, Patrick Barry, Vice-President, B. Smith, Treasurer, Charles Garfield, Secretary. Boston, Mass., was chosen as the next place of meeting two years hence.



### Treeclimber's Talks

AN EARLY-COMMENCING FLOWER.

In my jaunts away from the tree-top, I frequently get into the outlying meadows and woods. A walk here is rarely taken in October without running across my interesting old friend, the Witch-hazel, in bloom. This shrub has the queer habit of flowering late, after all other blooms are past, and even when its own leaves are ripened and falling. I show an engraving of a leaf and some flowers of the bush.

These late flowers, so far as their more important functions of maturing seed is concerned, belong to next season. They are merely commencing the coming year's operations in the end of this year, in which respect they are like the schools that have commencements at the end of each yearly term. The blossoms, of a pale yellow, showing prettily along the twigs, remain in a dried state where they are, through the winter. When spring comes they develop into fruit, and require the season to mature.

I never see the Witch-hazel blooming in this unseasonable month, without thinking of the special permit it seems to have from mistress Nature, of thus getting the start of her sister flowers that bloom in the spring. But nature appears to delight in allowing these odd caprices sometimes, as we see in many singular habits and forms in the vegetable world. The Creator who ordered things so, saw that it was good, and we cannot but enjoy in this bush the pleasing variations of some flowers late in the fall, amongst the sombre aspect of nature at this season. The flowers appear much more attractive now than they could if their opening was deferred until spring, among the many early flowers. As a lawn flowering shrub this late bloomer is of value. A friend in another state reports a handsome specimen ten feet high, in the shape of a sugar loaf, which every autumn is charmingly covered with golden bloom.

Now you may want to know about

THE NAME WITCH-HAZEL.

This shrub of singular habit has long been associated with superstitious notions. Those who have read from the poems of Token, may have seen the following allusion to it:

Mysterious plant! Whose golden tresses wave  
With a sad beauty in the dying year,  
Blooming amid November's frost severe,  
Like a pale corpse-light o'er the recent grave,  
If shepherds tell us true, thy wand hath power,  
With gracious influence to avert the harm  
Of ominous planets.

The fact that the shrub was formerly thus regarded, together with its close resemblance to the true Hazel, easily accounts for its common name. It is known botanically as *Hamamelis Virginiana*. The branches were formerly in repute as "divining rods" by means of which deep springs of water, and precious metals were supposed to be revealed. All intelligent persons know better now than to believe that anything possesses such power, and the notion meets with ridicule. That the Witch-hazel has some medical virtues is not doubted, and an extract from it is a popular remedy.

TIMOTHY TREECLIMBER.

### Why Men Cannot Fly.

What boy as he has watched the graceful flight, and free and rapid movements of birds through the air, has not wished that he could fly? Inventors for ages have dreamed of a time to come, when men could put on wings and fly. Much money has been spent in devising and building flying machines, all thus far without securing anything capable of serving any practical or useful purpose. Why flying by men

can never reasonably be expected to be done, is thus set forth by a recent writer:

To carry the body of even a small woman, weighing, say, 100 pounds, would require a machine having at least four horse power. This would call for wings, supposing we had the machine to work them, of enormous size. The birds found far out at sea known as Mother Carey's chickens, seem to be large, but when killed, and the body stripped of feathers, it is not much bigger than a canary bird. And so of



AN EARLY-COMMENCING FLOWER.

all birds capable of extended flight. Man's strength, it is estimated, would have to be increased some thirty fold before he could fly, and then he would be forced to confine himself to dead calm weather. Currents of air have often a velocity of twenty miles per hour, a fact which shows how mighty must be the power man must command before he can launch himself upon the air and compete with even the slowest birds. Aside from an extremely powerful motor there must be some apparatus that will do the same special service for man that feathers and wings do for birds.

### Sharing Equally.

The visions of Socialists and others, who believe that an equal distribution of wealth among all mankind is needed for securing the highest sum of happiness, can never be realized. Even if it were possible to be carried out, the results would not effect any material change in the condition of the poor.

During one of the revolutions in the city of Paris, several rough-looking men entered the banking house of Rothschild and demanded money, saying that all men were brethren, and that the rich should share with the poor.

"Here is your share," said the banker, handing each man a five-franc piece; "there are many of my poor brethren in Paris." An Eastern parable runs thus:

A very poor man went to a very rich man and said, "We are two sons of Adam and Eve; therefore we are brothers. You are very rich, and I am very poor; give me a brother's share."

The rich man gave to the poor man one cowrie—the smallest piece of money, a tiny shell.

The poor man said, "O sir, why do you not bestow upon me a brother's share?"

To which the rich man replied, "Be content, my good friend; if I give all my poor brothers one cowrie each, I shall not have any remaining."

### Provisions for an Ocean Steamer.

Persons from the interior, who for the first time see a large ocean steamer, are quite certain to be impressed, by its vast proportions. And yet its capacity for holding freight and passengers, and the extent of the operations of loading and fitting up the vessel for a voyage, are hard to be realized by the casual spectator, as a large portion of the vessel lies out of sight beneath the surface of the water. The *London Times* thus describes the provisioning of a large vessel, for passengers and crew:

In each vessel is packed away 3,500 pounds of butter, 3,000 lbs.; 1,500 pounds of biscuits, exclusive of those supplied for the crew; 5,000 pounds of grapes, almonds, figs, and other dessert fruits; 1,500

pounds of jams and jellies; tinned meats, 6,000 pounds; dried beans, 4,000 pounds; rice, 3,000 pounds; onions, 5,000 pounds; potatoes, 40 tons; flour, 300 barrels, and eggs, 1,200 dozen. Fresh vegetables, dead meat, and live bullocks, sheep, pigs, geese, turkeys, ducks, fowls, fish, and casual game are generally supplied at each port, so that it is difficult to estimate them. Probably two dozen bullocks and sixty sheep would be a fair average for the whole voyage, and the rest may be inferred in proportion. During the summer months, when traveling is heavy, twenty-five fowls are often used in soup for a single dinner.

### Writing not Easy Work

Colonel Yeeger's negro Sam, although very useful as a general utility man about his master's place, found it exhausting to write letters. According to *Texas Siftings* he thus applied to his employer for some clerical aid, with the result stated:

"Boss, I wants yer ter write me a letter ter Waco."  
"All right, Sam, I'll do it."  
"Has yer got de paper an' de ink, an' de pen ready dar?"  
"Yes, Sam, go ahead."  
"Write Austin, Texas."  
"All right."  
"Has yer got hit written?"  
"Yes."  
"All ob hit?"  
"Certainly."  
"What has yer got written. Read hit to me, boss."  
"Austin, Texas."  
"Dat's right. Now write June de fourteenth."  
"All right, Sam."  
"Has yer got hit down boss, already?"  
"Yes."  
"G way, boss, you am jokin'. Read hit ter me."  
"June fourteenth."  
"You has got hit down all right. Now, boss, read hit all ober from de berry beginnin'."  
"Austin, Texas, June fourteenth."  
"Dat's right. Whew! I say, boss, let's res' awhile, I's tired. My head aches like hit was gwinter split."

### Satisfied that the Earth is not Round.

We, who are amused at the theories of uncivilized or ignorant people concerning the shape of the earth, should reflect that it is only a few hundred years, since even wise men, were skeptical as to the matter of its rotundity. Following is an account of the pros and cons on this same subject and a test of the case, by two braves of an Indian village, near Quebec, some time since, and printed in the *Golden Days*:

One held that it was round, because men had traveled in a straight line and had come back to the very spot whence they had started.

To this it was replied that men were apt to travel in circles, as they often do when lost.

Then it was urged that white men said so, and they knew more than the Indians; but it was answered white men frequently lied, as the Indians very well knew.

The matter was settled finally as follows: A stake was driven into the ground, and at night an apple was placed upon the stake. In the morning the apple was still there; whereupon the chief, who was acting as referee in the case, declared that if the earth had revolved in the night the apple would have fallen off.

Professor looking at his watch: "As we have a few more minutes, I shall be glad to answer any question that any one may wish to ask."

Weary Student: "What time is it, please?"

The pleasantest things in the world are pleasant thoughts, and the greatest art in life is to have as many of them as possible.

An investment in knowledge always pays the best interest.

### An Autumn Hostelry.

It was the dear old apple tree,

Who took me for his guest,

He gave me shelter, gave me food,

And welcome of the best,

A bed I found for slumber sweet,

Of softest masses made;

The host himself he covered me

With cool and pleasant shade,

And when I asked what I owed,

He shook his leaves at me,

Be blessings on your head for aye,

Your dear old apple tree,

Uthland.

## CAGE BIRDS, PET ANIMALS, ETC.

## Dogs as Helpers.

One of the pleasant things about the service of dogs is that they delight to serve. Their work is not for pay, but only kind words, gentle treatment, and now and then a bone, suffices to attach them to their masters, for life and in death. Man has not been slow to avail himself of this willing helper. A new use to which the dog has been put—carrying letters for a little mining camp in California, is thus reported by a paper:

The place is hardly big enough to have a name, and of course cannot think of having a post-office; but the few miners there want their letters just as badly as though they lived in New York city itself. They could not find a man to bring them three miles from the nearest post-office, for every man in a camp wants to dig for gold, so they have taught a dog to do it. Dorsey is the name of the faithful fellow, and he runs his three miles every day, from Calico where the stage stops, to Bismark, the camp, in twenty minutes, with the letter bag strapped to his back.

## Care of Canary Birds.

A common mistake with those who undertake to have a canary for the first time, is to keep the cage suspended too near the ceiling. The heat and impurities of the atmosphere rise to the ceiling, and in these the bird can never be healthy, and an unhealthy bird does not sing.

To keep a bird in a room where gas is burned at night for illumination is also not good, unless the cage is hung low while the gas is lighted, and is kept covered. A friend who complained that her bird never sang, and moulted continually, was advised to move the cage into a room unlighted by gas. Here it put on a splendid coat of plumage and soon began to sing with vigor.

As for feeding, this is a more simple matter than many suppose. On this point the following from the pen of Mrs. Silas Hill, in the *Philadelphia Press*, but somewhat condensed by us, is to the point:

I have had good success with raising canary birds, having had one bird that lived to be sixteen years and six months old. I have always fed them everything that I know they like to eat including bread, crackers, with boiled potatoes, beet, turnip, lettuce cabbage and chick weed. For seed I get hemp and canary but mostly hemp, as my birds like it the best. I always give my birds plenty of water for drink and to bathe in. Plenty of sand in the cage, cuttle-bone and red peppers. I have never had any trouble in raising young birds. I give the little ones hard boiled eggs and bread and milk with a sprinkling of sugar in it. One year I raised thirteen birds from one pair; eight of them were singers.

## Food for the Mocking Bird.

Mr. Ruth, an experienced bird fancier of Reading, Pa., prescribes the following food for these birds:

Take the yolk of a hard boiled egg, and about the same amount of a boiled potato, and mix. Then add as much prepared food to equal the amount of the egg and potato. Feed in a small dish. Mix all up thoroughly. Feed fresh every day. Give plenty of clean water and strew the cage with gravel. Wash out the cups every morning. A meal worm or a grasshopper every day, and once in a while some raw beet, is also very good. If the bird gets droopy, feed it a spider.

## Scurf in Rabbits.

According to *The Feathered World*, this ailment comes from scantiness of fresh green food, or else contagion. The remedy suggested is to wash the parts with warm water, cleaning away every sign of scurf. Half an hour later apply a solution of strong tobacco and water, say an ounce of common shag to half a pint of boiling water; using it luke-warm. Continue this treatment every other day for a week. Healthy animals must be kept apart from affected ones.

## Carrier Pigeons Might Often be made Useful.

Carrier pigeons have been employed for some time by Dr. Harvey, of Berlin, as assistants. In going out on practice the doctor takes several birds along with him in a small basket, and after seeing a patient, ties the prescription round the neck of one of them and liber-

ates him, when he flies straight home to the surgery, where the medicine is prepared and sent to the patient without loss of time. Should any patient be very ill, and an early report of his condition be desired by the physician, a bird is left with him to bring the later tidings. This use of these birds, seems to show that in many cases they might be used to advantage.

A Berlin paper reports the death of a parrot in Paris at the age of one hundred years. Since the government of Napoleon III it is said to have spoken very little.

Sunflower seed makes a good addition to the food for hard-billed, seed-eating birds, such as all classes of cardinals, grosbeaks, parrots, cockatoos, etc.

In selecting globes for gold fish, choose those with thin glass.

## Poultry.

## How to get Eggs in Winter.

When hens fail to lay in the winter, it is because they are not fairly treated. Suitable food and shelter should start pullets in laying this month, and to be kept up steadily through the cold season. The difference in the actual cost of keeping over in good condition for laying, and of keeping them in a halfway condition, ought not to be above a fraction of the increase in the income that attends good care, through the high prices winter eggs always command.

To induce winter laying, rests chiefly, but not wholly with the feeding. The staple food of Indian corn is unequalled for furnishing heat and fat, but is deficient in albumen and phosphates. For some breeds like the Asiatics it is rather too fattening. Wheat is a more perfect food, as it is also preferred by fowls, when they have a choice of both. A mixture of the two is desirable, with some oats added for a change. There must be at least some variety in the grain fed, for the best results.

In addition to grain animal food is needed. Where milk in any shape is at hand, it is one of the best of foods. Refuse from the butchers, scrap cake and offal from the fish market furnish valuable material for making eggs. We at one time had access to a slaughter house, where hogs lungs could be had by the bushel basketful. Given to the hens they were devoured with avidity, and aided in the return of large yields of eggs in the winter. To feed animal lungs, they should have a string tied tightly around the middle, and be hung on strong nails. Then the hens can easily eat them, but if thrown in loose they cannot.

Vegetable food in some form is also necessary. Potatoes and turnips boiled and mashed with Indian meal is hard to equal. Cabbage is always acceptable, and where there is an absence of other vegetables, provision should be made each season, to have a good stock laid up for the fowls in winter. For lack of every kind of green vegetables, not a bad substitute may be had in clover hay. Those who have never fed this will be surprised to see how fond fowls are of it, at this season. If fowls have the run of the grounds, and there is no snow laying, they will manage to pick up some green food outside; this should not be too much counted on. But to aid in the grinding of the food that is going on in the gizzard, and also to afford material for the formation of egg-shells, it must not be forgotten to provide laying hens with small gravel and grit, broken bones, shells and the like. They should have free access constantly to all they will care to consume of such things.

Properly fed, and kept in a warm, well-lighted and well-ventilated house during the winter, and hens will not fail to lay well. Provisions for heating the house a little during the coldest

weather, is a form of expenditure that repays amply for the outlay, however warm the house may otherwise be.

## No Small Matter.

Too often we fail to realize how important a part, the egg product plays in the food supply and commerce of our land. On this point Mr. C. P. Dewey sometime since, contributed some interesting figures to the *American Agriculturist*, from which we condense the following:

Five million dozen of eggs are annually imported from the Dominion of Canada alone. The egg import from Europe is also large. Eggs pay no duty, and when we reflect, that this product comes from millions of humble sources—the poultry yards of small farmers—and that it is only the surplus that goes to market, we may well wonder, where and how the billions of eggs consumed in the United States are produced. It is probable that the egg consumption of our fifty million inhabitants is not less than three billion a year, at a valuation of from twenty-five to thirty millions of dollars. There are "egg trains" on the railroads of the northern frontier. The import of eggs at Ogdensburg alone, was valued at one hundred and fifty thousand dollars for the last fiscal year. At Buffalo and in two districts in Maine, nearly three times this traffic in imported eggs is done. These eggs are taken from the original packages, carefully examined by candle or lamp light, and then repacked, the defective eggs being laid aside. If transportation is not immediate, the eggs are placed in cold storage warehouses, where the temperature is a few degrees above freezing, and there kept until shipped.

## About Turkeys and Fattening Them.

A better illustration of the turkey in his prime, is seldom seen than the artist and printer have set forth in the accompanying engraving. How it came about that this noble American bird, which receives so much attention during our holiday feasts, was given its present name is not known. Some suppose that it arose through a mistaken idea when first introduced into England, that the bird came from Turkey. But his meat is as sweet and toothsome, and the profits he affords to his raisers as acceptable under this, as any other name.

Those who raise turkeys are well aware that the critical time in the life of the fowl, is in the chick state. Indeed so much peril is associated with the rearing of young turkeys, that many persons maintain that all things considered, the matter of profit in growing them is very questionable. We think this is one of those things which depend largely upon circumstances. When these are of such a character as to permit of some special care being given, the raising of turkeys for market becomes a decidedly profitable business. As a rule the house-wife succeeds best in the management of poultry, and the turkeys usually fall to her share as a special perquisite.

At the present season we have to do with preparing turkeys for market, rather than with the difficulties of early months. Chickens that were hatched early, will be large enough to fatten this fall, while with older ones this process may be well under way now, for meeting the demand of Thanksgiving day. For fattening, Indian corn should be chiefly relied upon. By the addition of some oats, grinding both of these grains into a meal, and scalding this with hot sweet milk, a fowl that fattens quickly is obtained. The addition of some boiled potatoes or roots to the diet once a day, will improve digestion with good effect. Turkeys are gross feeders and lovers of variety; almost anything that would ordinarily get into the pig trough, will prove acceptable to them.

Ply the feeding freely and often. Especially in the last three weeks of his life, there must be no stint in providing corn. A lean turkey will not bring a fat price.



**CONDENSED POULTRY NOTES.**

**Long necks** show inferiority.

**Fowls** don't pay stingy feeders.

**Spare** some wheat for backward chicks.

**Give** soft food in the morning, hard at night.

**In France** movable poultry houses are popular.

**Hen manure** when dry loses little strength with age.

**Pick out** the best cockerels for stock, market the others.

**Small potatoes** may be turned into large eggs by feeding.

**Delay** is especially dangerous, when applied to putting coops in order.

**In our yard** we notice the cocks display the egotism, the hens the eggs.

**Don't** go into the winter with a flock of fine fowls, and a miserable cold house.

**Air-slacked** lime is a simple and efficient deodorizer about the hen house. Use it frequently.

**Closeness** of the poultry house is important in winter, but it must not be at the expense of good ventilation.

**Where lime** in every other form is unavailable for fowls, bone-dust or even pulverized chalk mixed with the food will answer.

**The product** of one hen for a short time will pay for POPULAR GARDENING for a year. Really, at such a price you cannot afford to be without it. Suppose you subscribe now, while the thought is on your mind.

**To be a raiser** of fancy poultry, there is one thing more important than some others to be done, and that is, that you look to their wants *yourselves* every day without fail. Fix this fact in your mind if you go no further.

**In keeping** geese, fall is a good time to buy. The compact birds are the best; even the neck should not be long. A chief point when buying is to note the size of the abdominal pouch, for the larger it is the less is the value, because the greater is the age of the bird.

**A chicken louse** is a minute affair, but multitudes together are enough to cause failure in any poultry growing venture. We read in *Our Country House* lately, how a hen that seemed to be dying with lice, was caught, sprinkled with Persian insect powder, and rolled into a newspaper for 20 minutes. When shook out there was a full teaspoonful of these red coop lice, gorged with the hen's blood. No wonder a lousey hen looks pale.

**Poultry in Russia.** Poultry breeding is universal, and a very important adjunct to peasant life; statistics are not to be had, though the product is valued at 75,000,000 dollars. The people are great egg consumers, besides yearly exporting more than 100,000,000. The millions of large eggs and poultry coming to St. Petersburg are mostly from beyond Moscow. Estimates based on the annual egg production indicate the existence of 52,800,000 chickens. —Orloff.

**Mr. Lang**, the Cove Dale, Ky., poultry grower, recommends a good device for catching the droppings from roosts. It consists of a V shaped trough, but with only one end piece. This is made of two 14 inch wide boards, the length of the perch, nailed together. One of these troughs sprinkled on the inside with a little dirt and lime is hung under each pole. Every morning or every second one it is emptied of its contents into a barrel and replaced. Cheap, simple and cleanly.

**To keep** large flocks of poultry free from lice, the following method, according to the *Poultry Monthly*, is adopted by not a few extensive breeders. With a gallon of crude petroleum and a spraying bellows, or a brush if you have nothing better, saturate every part of the inside of the houses. This will rid them of every vestige of lice,

large or small, and as the small ones mostly leave the fowls in the morning, it will soon kill all. A touch of kerosene and kerosene, half and half, under the wings will kill any large lice. But every person who has many fowls should have a spraying apparatus, and with this, spray the house once a month with kerosene emulsion. This can be quickly done at night, when the fowls are at roost.

**Preparing Poultry for Market.** The prices one can command depend largely on how the killing and preparation is done. The birds should be fat and have empty crops. No one is liable to be deceived into paying the price of poultry for the little corn that may be in the crop, while its presence may prejudice good customers against buying. Don't catch the birds by running them down, and then after chopping off their heads allow them to "drop" about violently to bruise and disfigure themselves. Catch quietly; hold each bird firmly and tie the wings and legs, and hang them alive one after another on a pole. When a few are thus suspended, take a sharp knife and sever the head of each fowl closely, letting them hang afterwards

three to three and a half feet apart and twelve to eighteen inches in the rows. Cultivate with a horse when I find the hoe is too tedious. Such a distance between the rows affords excellent space for the coops of hens with their broods. The plants make excellent shade and the occasional cultivation gives the chicks fresh earth to enjoy themselves in. When the seeds are sufficiently ripened for food, I bend the stalks of the smaller heads over, so the flowers will hang about twelve inches from the ground. This allows the chicks and fowls to do their own harvesting of these, but leaves the larger ones to ripen fully, when they may be gathered, trashed with a flax run through the fanning mill, and kept for future use. No other food will at all compare with them to produce eggs or to give a fine glossy plumage.

**ABOUT THE PLACE.**

**Plan** to have an ice house.

**Leaves** make good stable bedding.

**Granulated** sugar is the best bee food.

**A smooth** animal coat indicates health.

**House** all foods, staves and portable trellises.

**Extracted honey** keeps the best in open vessels.

**In selling** honey, a neat appearance is one half.

**Let neatness** adorn all parts of the home grounds.

**Rye** may yet be sown for early spring cow feed.

**In building** stables, make sure of the future comfort of the animals.

**Posts or stakes**, with their ground ends charred, and dipped in boiling coal tar, will be more lasting than if not so treated.

**For calves** and yearling cows, bran and oat meal are the best grain food. These should be treated for keeping thrifty without forcing.

**Bees**, to be wintered on the stands, either in chaff, hives or in packing, need little care after this, beyond seeing that the entrance is kept clear of ice or snow.

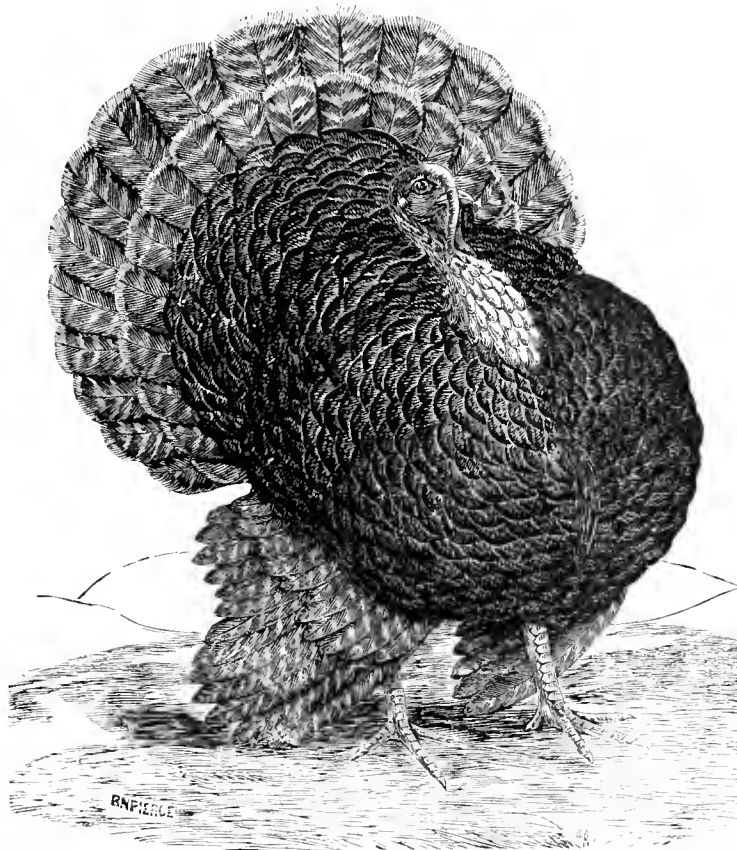
**Pasture** lots need manuring as well as any other land from which crops are taken. This is the best month to apply top dressings to these. The manure should be old and fine; if fresh it will not have so good effect, besides this will render the grass distasteful to the animals when next turned out.

**Fattening** of swine or any other animals should now be pushed. The farther the matter is deferred into cold weather, the greater will be the consumption of feed to secure the same gains.

The cooler weather does not yet make great draughts on the feeding to secure additional animal warmth, while it does stimulate the appetite.

**Late Pasturing.** Now when the frosts affect the grass unfavorably for feed, is a trying time for milch cows or other animals, unless foddering in addition to pasture is freely practiced. Without this the cows are apt to fall away rapidly, and may meet a condition not fitting them for wintering well, or even disease be contracted. The wise course is to be on the alert with careful, systematic feeding, according to the actual needs of the case. But to feed carefully, and then neglect proper shelter from chilly or wet fall weather, would not be wise. Shelter should accompany the feeding.

**Swarms** of bees to be wintered in the cellar should be taken in during this month. They should be disturbed as little as possible in the moving. Once in place, the cover should be taken off the hive and a piece of carpet or other coarse cloth, that will admit of the escape of moisture, be thrown over instead. If the cellar be dark, well ventilated, and of a temperature within five degrees above or below 42 Fahrenheit, the bees will need very little care until April. So long as they are quiet they are all right, if restless and loud buzzing proceeds from the hive, allowing them to fly on the first warm, pleasant day is desirable.



THE AMERICAN TURKEY [See opposite page.]

until all the blood is out of them. If the fowls are to be shipped, plucking the feathers should be done dry, commencing at once while the body is still warm. Pull a few at a time, the way the feathers lay and they will come easily. Let the birds hang until cold, when they should be wiped with a damp cloth. For marketing near home, the fowls may be more easily cleaned of feathers by first dipping in scalding water, for not over five seconds. By this course they will not keep so well, but will look plumper, because of the skin shrinking slightly. The fat on the surface is also melted, perhaps by this process, for by it the birds take on a clean, yellow look, which is attractive.

**The Sunflower for Poultry.** This stately, if somewhat coarse-looking plant, has some claims on the attention of those who keep poultry, aside of its use for ornament, in the value of the seed for feeding. The quick growth of the plants, and the ample shade they soon afford if planted where fowls assemble, is also an argument in their favor. An enthusiastic grower of the plant in connection with poultry keeping, thus speaks of it in the September *Poultry Journal*:

As a shade for fowls and growing chicks the plants are unequalled; the birds preferring them to corn field, shrubby or artificial shades of any kind. Again a given quantity of ground will produce more bushels of sunflower seed than of corn, and it is certainly superior as poultry food. I plant it in rows

# The Household

## How to Starch and Iron Shirt Bosoms.

To a neat and painstaking housewife, few things are more exasperating, than to have the starching of shirt bosoms not turn out well. The applying of the starch is an important part of the work. Some succeed with cold starch, but a better course is to use hot and cold both. If a little more work to use both, this is repaid by a handsomer and more lasting finish to the bosom, and there will rarely be a shirt to go back into the wash.

In using both hot and cold starch, the former is applied first, allowing it to dry before using the other. For the hot starch, count on a teaspoonful of good dry starch for each bosom. It should not be made very thick, and in applying, the hotter it can be put on the better. Of this prepared starch, spread on a tablespoonful at a time, rubbing in well before putting on more. Apply first on the right side and later from the under side, keeping at it until the linen will take up no more, without showing a missed appearance. The starch must be well rubbed in, if it is not, the iron will stick, and specks and blisters appear.

Following on this, the shirt should be dried, after which the cold starching may be done. In making up a batch of cold starch for use ahead, as should always be done, the following well tested receipt, will provide enough to last for some months. Take two ounces borax, one ounce white laundry wax, one teacup water, three cups of starch. Dissolve the borax and wax in the water, sufficiently heated for the purpose, but not so hot as to scald the starch; into this mix the starch after pulverizing and passing it through a flour sieve. Dry on platter and keep in box. In using, take a teaspoonful of this prepared starch, dissolve in water not so cold, but that the wax in it will soften. Apply by dipping the bosom, already treated with hot starch and dried, as described, into this new batch, and ringing out; rubbing but slightly. After an hour or more, iron.

In ironing, first rub the bosom carefully with a cloth wrung out of hot water, to equalize the starch on the surface. For the first time of passing the iron over the bosom, lay a thin cloth between. Then remove this, dampen the surface of the bosom a little, and iron carefully, repeating several times, and until the finish is satisfactory. If the outside cover of the ironing board be of flannel, the shirt will not stick. Careful attention to these details, will be rewarded by shirt bosoms so white and glossy as to give full satisfaction for the pains taken.

## Some Facts About Unwholesome Meat.

Dr. Eli H. Long, of Erie County, N. Y., sends in the following interesting facts, about unwholesome meat, to our columns. He says:

"Our present knowledge, points to decomposition in meat as the source of substances that are positively poisonous, and as such very deleterious to health. The odor of putrefying flesh for example, it is well known, may cause vomiting and diarrhea. Probably the cases of sausage poisoning we hear of, come from this kind of poison, in old meat in the sausage.

The notion that meat and game is the better for hanging some time before using, becoming more tender by the means, is a dangerous one to adopt. It is true that meat thus grows tender, but let it be borne in mind, that this softening process, is the beginning of putrefaction, and with it, comes unwholesomeness. The fresher meat is, the more wholesome it is.

The practice of eating raw or rare meat, is not a good one. This not so much because such meat is in itself unhealthy for food, as of the danger of introducing the parasites of tape worm, trichina and the like, into the system. The flesh of different animals, may contain

these parasites in their undeveloped state, one of the most familiar examples of which is found in "measly" pork. Swallowed alive in flesh that is raw or partly so, the parasites, in embryo in such pork, soon develop, into the much dreaded tape worm.

For readers to learn these facts, need not alarm them lest they have tape worm, because of eating rare meat, for not all meat contains these parasites. But to be safe from all danger in the future, eat no meat unless it be well cooked. The cooking process, may be relied upon as certainly destroying the minute creatures in their every form.

Trichina, the other commonly dreaded meat parasite, usually infests the muscles of animals, but never the fat, as many people suppose. It is not the flesh of swine alone, that contains these, but that of a number of other animals, as well. With these, as with most other such parasites, they remain dormant in the flesh until swallowed by some other animal, when they become active, multiply and cause disease. A sure preventive, as in the former case alluded to, is found in thoroughly cooking the meat.

## Brieflets.

**Boiling**, weakens vinegar.

**Pepper** is half p's away.

**Keep cake** in tin or a stone jar.

**Plenty of stove holders** save the hands.

**Beef tongue** and ox-tail soup make both ends meet.

**To dry wet shoes** in good shape, stuff with dry paper.

**Prick potatoes** before baking, that they may not burst in the oven.

**In blacking the stove**, slip the brush hand in a paper bag for protection.

**Bar soap** bought in quantity and dried before using, goes much farther than if used fresh.

**If specks** flake off from the flat irons, wash in soap suds and dry quickly to prevent rusting.

**Strong lie** will clean tainted pork barrels or other vessels, also tin paint cans coated with paint.

**It is said** that Sassafras bark scattered through dried fruit, will keep out worms. Easily tried.

**Never use tea**, for washing out the eyes if weak or inflamed; it is injurious. Tea is not a bad article to use on house-plants.

**A lamp** standing for some time in a cold room and then filled full of coal oil, will run over through the expansion of the oil when taken to where it is warm. Then the lamp may be blamed for leaking. To obviate this, never fill the lamp quite full.

**What nonsense** is sometimes offered as advice. Here it is again in directions to hold a pin between the teeth while peeling onions, to keep the eyes from smarting. Have the onions under water in a dish while paring them, and you'll not be troubled.

**If the broom** is wearing away unevenly, place its bottom part in boiling water for a moment or two, shake out as dry as possible, tie a string around it to improve its shape, and finish drying in sun or near the stove. When dry, trim off the ends that are uneven. Whisk brooms may be similarly treated.

**Cultivate** in your children the habit of breathing only through the nose; many distressing ailments are due to the evil effects of mouth breathing. If there is the disposition to throw the head back when asleep, inducing breathing through the mouth, correct it as often as is necessary, by gently bringing the head forward somewhat.

**Charcoal as Kindling**. This is obtainable in most places at twenty cents a bushel, or even less. At this rate it affords one of the cheapest, handiest and best articles to use as kindling, especially coal fires. A good handful or two at most, of charcoal, will be sufficient to ignite even hard coal. Paper alone will serve to fire the charcoal. Tried once, it will always be used.

**Here is how** to get up a delicious dish that will suit most all tastes. Boil one-fourth part of rice in a pint and a half of milk, adding two ounces of sweet almonds, and white sugar to suit the sweet tooth. Boil until the rice is soft, stirring as little as possible; to shake the vessel in which it boils will save some stirring. It is to be served in cups, which should be first wet with cold water. Fill to leave a space at the top of each cup, in which put a spoonful of jelly with cream poured around it, or whipped cream and powdered sugar, or a chocolate frosting like that for cake.

## Notes on Dress and Home Art.

**Beads** are much worn.

**Plain black silks** are stylish.

**Astrachan** continues in favor.

**White skirts** are going out of style.

**Cream** is a favorite color for evening.

**How many shades of green** are there?

**Water-proof** cloth is again coming out.

**Striped** mantles are among the novelties.

**Mats** improve cheap engravings in frames.

**Bonnets** call for feathers more than flowers.

**Staining** wood work, is in better taste than grain ing.

**The rage** for "crazy" patch work is more modified.

**For a much used parlor**, choose a medium dark carpet.

**Carved** wooden heads are very stylish for outside adornment.

**Embroidered** cloth bonnets go with embroidered costumes.

**Kilt skirts** continue to be proper for young ladies and misses.

**Short, plain** waists are made slightly pointed in front but round behind.

**On felt** bonnets and hats, gay wool scarfs, in bunched up bows, will be much used.

**Deep cherry** paint for the wood work, and dark red with olive paper suit the dining room.

**Congress** canvass or grenadines afford an inexpensive material, for bureau or table spreads.

**The pretty** peasant dress, with full round skirt and short plain waist, continue to be very stylish for little girls.

**Little Jack**. "My mamma's new fan is hand-painted." "Little Dick—" "Pooh! who cares? Our whole fence is."

**The cloak** of medium length has had its day; they must either be very long or very short. For these, dull red cloth is coming in favor.

**No more sensible** and tasty outside wrap can be made for children than the newmarket. For fabrics plush, homespun and astrachan are used.

**An elegant** cover for a small table may be made of a copper colored plush scarf, with silk tassels of same color, run through crescents at the edge.

**If the little dog** that is made to stand guard by the parlor door or window, is placed upon a thin, soft cushion, covered with scarlet, he will look more lifelike and at ease.

**Engravings** that are printed on thick handsome paper should not have mats in framing. There must however be a white margin of some inches in width around the print.

**A curtain** for the lower sash of a window, made up plain of cotton serym, painted in bold designs of Morning Glories, Nasturtiums or other showy flowers is very effective and pretty.

**The newest** mantles and coats are made without pleats in the back. Green billiard cloth very similar to that used on billiard tables is a novelty for tailor jackets, to be worn by young ladies with black, green and brown dresses.

**Where windows** are not wider than the usual width, and one feels they cannot well afford double curtains, single ones may be draped so gracefully that they will answer well. Do not loop back with ribbons, but pin or tack them back in several places. The tacking should be started quite high, to prevent a drawn and awkward appearance lower down.

**The hideous** black water-proofs must go, those of fine cashmere or silk in desirable colors, taking their place. Will the men-folks give up the gossamers too? While ladies could very sensibly use the garment as a complete protector from wet, nothing ever occurred more ridiculous to the writer's eyes, than to see the sterner sex adopt the same garment, which serving only to reach a little below the knees, conveyed the drip into the pant bottoms and boots.

**Table Screen**. A novel and easily made screen for the table, is described in the October *American Agriculturist*. For a base, a wicker covered bottle or flask is used. Such a one as the Italian wines come in, and which may usually be had at hotels for a very little or nothing, are admirable. Into this insert the handles of three small Japanese fans, spreading the fans as widely as possible above to form the screen. A ribbon may be tied around the fan handles at the mouth of the flask, with a bow on one side. Silk cord ending in a tassel, may be twined loosely around the neck of the flask. The fans selected should be light and brilliantly colored. The covering of the flask may be adorned by staining or gilding, and with ribbons. Sand or shot should be filled into the flask to give it stability.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON.

Vol. 1.

DECEMBER, 1885.

No. 3.

## An Easily-grown Orchid.

One of the best Orchids for growers, who lack both experience and facilities for handling a collection of these plants, is *Lycaste Skinneri*. It is what is known as a cool winter-flowering Orchid; it has even been called the coolest of cool sorts. The plant will bear a great deal of knocking about, not that it thrives so well by such treatment, but we mention this as showing, that it has a chance of succeeding, with handling that would kill most other kinds, outrightly.

Once fairly under way, and this Orchid is one of the easiest things to grow. After being well and properly potted it only needs close attention to two points, namely: that it be kept always cool and always moist. When the large leaves begin to unfold, it is astonishing how much water it will take. The temperature suited to the *Cineraria* would suit this plant well. If there is any time when it needs more heat than at others, it is when it is making its first growth, and then a warm green-house will answer.

As for potting material, this should consist of lumps of fibery peat, chopped up Sphagnum and charcoal. In potting, the operation should be finished by having some Sphagnum and charcoal at the top. But it may be added, that if in this some bits of old perfectly dry cow-manure be inserted, it will be a great source of strength. Without this, the plant should receive an occasional treat to guano water, when growing.

If *Lycaste Skinneri* is not the very handsomest of the *Lycastes*, it is one of the cheapest to buy, as well as the easiest to manage. We notice them offered in some of the florists catalogues at from one to two dollars each.

Some one may wish to know whether this desirable orchid would stand any chance in the window garden. Any experienced grower of window plants ought to succeed with it readily here. It is an orchid that succeeds admirably in a dwelling, if brought in just as blooming commences.

## Notes from Lyndale.

BY A. H. E.

December 5. To plan for having the garden gay with bloom in Spring and Summer is easy enough; not so to provide for October and November flowers here. I was much pleased lately with the addition made to the fall bloomers in our garden, by the not common Sunflower *Helianthus Maxiillari*, which

flowered with us for the first time this season. It is a hardy perennial species, of handsome growth, with large flowers, for this section. In general, it is not excelled in beauty by any of the various handsome perennial sunflowers. But coming in flower about a month later than the others, and when flowers begin to run very scarce, it proves to be, perhaps the most valuable of all the species.

\* \* \*



AN EASILY-GROWN ORCHID.—LYCASTE SKINNERI.

I take pleasure in reporting on the new Purple-leaved Plum *Prunus Pissardi*, in my grounds. It certainly stands at the head of purple-leaved shrubs and trees in more respects than one. It is a free grower, while no other purple-leaved sort with which I am acquainted, can begin to equal it for richness and permanency of the peculiar color. The Purple-leaved Barberry is a mild looking shrub side of it. Unlike the Purple-leaved varieties of Filbert, Peach, Beech and Maple,—which, although richly colored in the spring, lose much of this by fading, later on,—this new Plum increases in the richness of its purple color as the season advances. This sort needs to be classed as one of the most promising new shrubs or small trees, that has been introduced for a long time. It is said to be a free bloomer, bearing rosy flowers.

\* \* \*

December 12. In my last entry, I spoke of a promising new shrub in particular, let me now say a few words for my shrubs in general. The Shrubbery Walk at Lyndale is one of the fea-

tures of the place. It is a winding walk, some four hundred feet in length, skirted on each side by irregular shaped clumps of shrubs, on lawn that stretches away on each side.

Here are clumps of early-flowering shrubs; clumps of late-flowering shrubs, and clumps of intermediate sorts. Here are masses of variegated leaved, cut-leaved, common-leaved and evergreen shrubs. Some groups are made up of dwarf and formal-looking sorts, such as the dwarfier kinds of Mock Orange, Deutzia, Hypericums, Corchorus etc., others are composed of tall or straggling growers, including Smoke Trees and Athens, fully twelve feet high each.

There is hardly a day in the year but I can find some attractions along the Shrubbery Walk, while in the height of the blooming season, this part of the grounds is a perfect little Paradise; so beautiful in foliage, flowers and general sweetness.

\* \* \*

Who can tell why the hardy shrubs are not more planted?

Every home with a quarter of an acre or upwards of lawn and garden, ought to have its Shrubbery Walk or some clumps of shrubs. The good qualities of shrubs for ornamenting grounds, can be summed up in a very few words. They cost but little money to begin with, they transplant and start into growth easily; they develop into beauty almost in one season; they possess the quality of permanency; they require hardly any care. What other ornamental growths, can excel them in as many particulars as these named?

\* \* \*

December 18. Last night we hauled out the straw mats to protect the lower end of the cool greenhouse from a penetrating "Nor'easter" that had sprung up before dark. The almost immediate result of this course, was a rise of 5 or 6 in the temperature, a point we aimed to gain, for the Christmas bulbs in this part of the house, to hurry them along into bloom.

\* \* \*

I sometimes question whether the value of outside protection to glass is well understood. In times of storm, or in cold damp weather, when the fires burn poorly and seem to give out no heat, the straw mats on the outside have a wonderful effect. Then where ordinarily a saving of fuel is a special object, instead of firing hard towards sundown let the fires be checked, and mats be applied by twice going over the job to avoid a too sudden rise of the temperature, and the house may be brought through the night in good shape with a decided saving of fuel. The same principle holds good in protecting pits, frames or any glass.

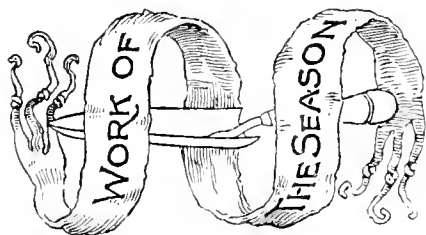
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December 22. It seems to me it is not generally known what a useful plant the common Periwinkle or *Vinea*, (sometimes wrongly called myrtle) is for ornamenting grounds, by cover-

ing a mound of earth on a lawn or elsewhere, with it. I have a mound of this kind here, occupying a circular space about 8 feet across on a lawn. The mound is shapely and rises about 2 feet above the surface at its highest point. The Periwinkle forms a solid mass of foliage, which with being of a much darker shade of green than is the grass, presents a contrast that is decidedly pleasing. When the plants are in bloom the mound looks still handsomer. This kind of an embellishment is one that is not only most readily made, but one that is actually less trouble to care for, than the same space devoted to grass would be.

\* \* \*

I am satisfied from long experience that more plants are injured by having the pots too large than too small. This is especially true in the early winter season when plant growth is inactive. More than once I have taken plants in hand for treatment that were not thriving at all well at the time. But by knocking them out of the pots, reducing the balls of earth about two-thirds, and repotting into pots several sizes smaller than they stood in before, using good earth, they have commenced to improve quickly and well. The main trouble was found in the fact that the pots had been too large.



THE HOUSE PLANTS.

To keep the window plants vigorous through this month of much cloudy weather, dark days, and cold, is a sure test of a grower's ability. With the coming of January, there may be no less cold—in fact there will be an increase of cold, but with it there will also be more sunshine, a condition the lack of which can never be made up for by artificial means, while heat in a measure can be.

Let growers not therefore begrudge any extra pains that plants may now take, for the better health of these now, the larger will be the reward when the time of more natural growth again comes.

**Adiantums** or Maiden Hair Ferns, succeed quite readily in the window, with the same care that any ferns need. They require no direct sunshine.

**Christmas Roses** or Hellebores that were lifted in the fall, will bloom freely, in a cool window.

**Cobæa Scandens**. Few plants succeed better in the house; its worst enemy, green fly, must be guarded against closely at all times.

**Callas** ought to be growing with vigor, and if so, will need plenty of water. This plant, let us not forget, is a sub-aquatic, hence, little in danger from over-watering; more, of not being watered enough. The saucers may have water much of the time.

**Chrysanthemums** after bloom, may be removed to any place where there is little or no frost; if the temperature is low enough to prevent growth, light is not needed. Here they may remain until spring.

**Cytisus** kept in a cool place, not too dark, succeeds well; much heat with dryness of air invites the red spider. The plant blossoms in the spring.

**Dutch Bulbs** of the earlier kinds, like Roman Hyacinths and Duc Von Tholl Tulips, that were potted early in October ought now to be near bloom; all of the early batch should be in heat.

Hyacinths like sun; Tulips get along well with little light. High heat suits neither of these, or any others of this class, as well as does a temperature of 55°. But there must be no frost. Admit air freely, it will promote a sturdy growth that will assure fine, enduring flowers. Growing bulbs, need more water than the average of plants. Manure or soot water applied as the shoots develop will help the bloom.

**Fresh air**. Natural light and heat both lack somewhat now, but fresh air, so important to plants, is not lacking. See that the collection receive a plenty in all mild weather; even when the weather is cold, some should be admitted. One reason why plants do so well in kitchens, is that the oft-opened outside door admits fresh air freely, here.

**Fuchsias** must not be crowded. Give growing plants plenty of pot room, with light, rich soil.

**Hyacinths in Glasses**. It is yet time to start these. The single varieties are preferable to the doubles. Low glasses that are broad at the base are better than tall ones, because less liable to be upset; the flowers can be better supported in them also. Colored glasses suit root growth better than clear ones do, but the roots in the latter can be so much better seen, that a few of these are also desirable.

To start, fill with soft water to near the base of the bulb, when in its place. Set in a cool, dark closet, but where no frost enters, for four or six weeks, after which bring to light. Inspect the glasses occasionally from the first, replacing any water that may have been lost by evaporation. Charcoal in small pieces, in the water tends to keep it pure.

**Insects**. For small collections, we have great faith in the thumb-nail as a remedy against all kinds. But on some plants, like the Stocks or Gilly-flowers, Callas, etc., they get into the buds and flowers, and cannot be easily reached. Then we use tobacco dust on the pests, such as can be had at the cigar shops for almost nothing, and run through a fine sieve for the siftings. This proves very effective.

**Lily of the Valley** brought in after it has had frost, will grow and flower well in the window.

**Mignonette**. Keep the soil open by stirring the surface occasionally. The nearer to light the better.

**Over-Watering**. There is some danger of this now when plant growth is not rapid. Geraniums and Primroses are especially susceptible to injury from this. Whenever we are called to look at plants of these that are ailing, we expect to see the cause, in too much water given, and are rarely disappointed. Do not however run into the other extreme.

**Palms**. All these if suitable in size, succeed well in the window. Keep the foliage perfectly clean.

**Propagation**. There may be slips suitable to root, of Geraniums, Fuchsias, Verbenas, Alyssum, etc.; put in now, these will be strong plants by spring.

**Stapelias** must be kept dry now like Cactuses.

**Stocks** sown this month will flower by next April.

**Violets**. Remove the runners and all dead leaves.

**Washing Plants**. This is such a desirable thing to do, and to do often, that we urge it frequently. For the task, a Drenching Board like the one here with figured, is very useful. No explanation is needed beyond giving this cut, save to name the dimensions. A good size is 2 ft. high at the rear, with the front so that a pail can stand beneath to catch the water. The board may be 18 in. wide at the upper end, and a little narrower further down. With such a board, there is no excuse for dirty plants.

#### LAWN AND FLOWER GARDEN.

**Evergreens**. Small globe-headed Arbor Vitæ, and other kinds, often suffer in winter from snow settling into their tops, dividing them. A shed made of two boards to form a letter V, and this inverted over any such, will prevent this, and prove a good protection otherwise. Where fine Evergreens are much exposed to the wind, a screen across the path of the prevailing winds, will be of good service.

**Fountains** and artificial plant aquariums must have no water in the basins over winter to freeze and injure them. A shed of boards should also be placed over them to keep out wet and snow. It is well to bank up around these to prevent injury to the masonry from severe freezing.

**Hardy Flowers**. It's a mistake to think that hardy plants need no winter protection; they will live without it, but their growth and bloom will be better next year for covering the roots now. Nature sets us the true example; each fall she sheds down leaves as a winter cover to the roots of plants and trees in the ground. Hay or leaves form the best material for this purpose; they may be applied to a depth of several inches.

**Lawns** that need manuring, as all do occasionally, may be treated now to advantage. But where it is objectionable to have manure laying all winter, as near the house, the applying may be deferred until spring, with fair results. The best manure is that which is so old, as to give off no bad smell, and so fine that nothing remains to ever rake away.

**Roses**. The Bengal and Bourbon sections among the Monthlies, may be wintered where they stand in most sections with safety, by attention to covering. This is best done, by taking a spadeful of earth away, next to the plant on one side, depositing it close to the hole on the side away from the bush. Then bend over the plant in the direction of the hole, and cover it with a small mound of earth, or else with sod, the grass side up.

Tea-roses cannot be protected to live in the open ground during winter, in the Northern States.

Hybrid Perpetuals should be cared for as directed for recently planted shrubs, under Shrubbery. Hybrid Teas need the care prescribed for the Bengals.

**Shrubbery**. For appearance sake, if nothing more, the surface of cultivated shrubberies should be pointed over (spaded shallow) in the fall. There is also no better time for applying a coat of manure, if the growth made by the shrubs the past season shows this is needed. Use only well decayed manure; any with straw in it is apt to invite mice and this will lead to trouble, by their girdling the shrubs.

Recently planted shrubs, should have their branches protected with straw, and their roots sheltered by some kind of cover for several winters at least, after planting. It is easy to straw them up neatly and well. Bring the branches closely together by the use of strong twine, then set straight straw closely around, binding with twine. Bend over the top of the straw, to bring it under the upper circle of twine.

In renovating old shrubberies, cut out all dead wood, and trim the plants according to their requirements, to prevent the forming of a jungle.

**Trellises, Stakes, Vases** and fixtures that are moveable, as a rule, should be brought under cover for the winter. To repair and paint them is in order.

**Walks**. A single line of plank, a foot or more wide, run along the center of these, for the winter, is a decided improvement. Be prompt in keeping all walks and drives that are used and especially street walks, cleared of snow. If the work is hired done, or any way, let it be attended to very early in the morning, both to accommodate early passers, and to prevent the snow being tramped, hindering the clearing.

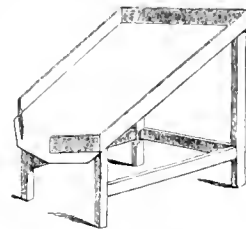
#### PLANT CULTURE UNDER GLASS.

**Achyranthes**. See directions for Alternanthera.

**Alternantheras** and similar heat-loving bedding plants kept up for stock to propagate from, must have fair attention in these coldest months. Usually such are grown with the greatest ease, if but a temperature of 60° is provided and common treatment besides. If much young stock is wanted in the spring, propagation may begin at once to the extent of all good cuttings, not taking them close.

**Alyssum** wanted strong in the spring, should now be propagated either from seeds or cuttings.

**Camellias**. Water moderately; too much or too little water at the root, is a common cause of the discouraging trouble of buds dropping. This plant does not soon show dryness, for the leaves never flag from this or any other cause. Too much wet at the roots causes the root fibers to become injured, hence, impaired and disaster to the flower buds is quite sure to follow. If the pots are over-large, this



DRENCHING BOARD.

last named condition is also liable to be met. Lightly sprinkling the plants three or four times a week, is a necessary course at this season.

**Carnations**. These useful flowers should now be in full bloom. They cannot tolerate much shade for best results. When bedded under glass as is now usually done in commercial houses, there is some danger of keeping too wet at the root. In pot culture, they do not care for larger pots than about six inches across. An occasional dose of liquid manure or lime water, is of great benefit.

**Centaureas** or Dusty Millers continue to be popular. The species *Candida*, both in young and old plants, is now liable to injury from over-watering.

**Cinerarias**. Given a moderate temperature, say 45 degrees at night, a light place, plenty of air, and ample space and pot room, and no plants are easier to grow or more rewarding for the trouble required than these. But while on the one hand they cannot stand heat, on the other a frost injures them quickly.

**Coleus**. Observe directions for Alternanthera.

**Ferns**. These require no shading overhead from now on. Adiantums delight in warmth, but it must not be at the expense of too little fresh air. Because they love moisture, it is often too freely applied in the way of syringing. Keep near the glass.

**Fuchsias**. Winter-flowering ones should be encouraged by ample pot room, fertility and free watering. Strong plants trained to the roof, for having the flowers dangling from above, have a charming effect. Start up spring and summer flowering plants, cutting them back and shifting into fresh soil, using small pots to commence on.

**Geraniums.** Propagation of these in all sorts, for use next summer, may go on, as slips appear.

**Geraniums, Fancy Leaved.** These are not strong growers naturally, hence must be favored at this season. On shelves near the glass, in a temperature of from 50° to 60°, is the kind of place they need.

**Heliotrope.** Propagate for early spring plants.

**Lobelias.** The directions for Alyssum will apply.

**Lycopodium.** It is a good time now to divide these, for getting up fine plants by next spring.

**Maurandia.** The directions for Alyssum will suit.

**Mignonette.** Sow now for early spring bloom. The Summer-rised plants designed for winter bloom, should have a warm, light place. Flowering plants will bear liquid manure occasionally.

**Odd jobs** fit in well at this season, when work under glass does not crowd much. It is a time for washing every soiled pot on the place; for putting sash, hand glasses, frames, etc., that will be wanted in early spring, in order; for getting up the necessary plant stakes, labels and the like. When a few only of these are wanted they can easily be whittled out; if many, it is much the cheapest way to buy.

**Orchids** require a watchful eye among them. So many diverse climates are now represented in collections of these, that it is difficult to rest all together. Such kinds, therefore, as should now be kept growing like *Ceeloglossus*, *Ada aurantiaca* or *Cidium macranthum*, it is better to move into a growing temperature, than to risk keeping them with the others, which are now treated to a cool atmosphere. While Cool Orchids require no more than 45° to 50° of heat, and will bear free airing, still they must not be submitted to strong or chilling draughts.

**Pelargoniums** should be helped to make a free growth at this season, a thing they will readily do if not neglected. Along with this, there must be attention to pinching back for making bushy plants.

**Root Cuttings** of Anemone, Bonvardia, and similar plants that propagate by the roots, may be made and started, by putting into light earth, in moderate heat, and keeping moderately wet.

**Temperature.** Aim at uniformity; respect the needs of the majority. In almost every plant-house a considerable variation in the heat is found in different parts. Place the heat-lovers in the warmest parts, and so on. If separate apartments are had for the Stove or Hot-house plants and for the Green-house plants—and this is the best way—aim at from 60° to 70° for the former and about 45° to 50° for the latter at night.

**Verbenas.** The directions for Geraniums apply.

## FRUIT GARDEN AND ORCHARD.

Now that the work of the year is about all done in this department, it is a good time to look back over the results of the season, and forward to making improvements. It should be remembered that the best success here usually attends the greatest degree of practical intelligence applied; new ideas concerning kinds and methods should be sought in the winter's leisure, by visiting and consulting other fruit growers, by reading horticultural books and periodicals, etc. In communities where the interest in fruit culture is somewhat general, a Fruit Growers' Club is a good thing; now is a proper time to establish it. Let it be largely informal in its character and methods. Let the meetings be held once or twice a month at the houses of interested persons.—then the social features will also aid in strengthening the work.

**Manuring.** Whether the orchard is kept cultivated or in grass, it needs a light dressing of manure every year for best results. This is the best month for applying, by top dressing. Let it be fine and old. Composts are excellent.

**Peach trees** when young, can readily be protected by digging on one side of the tree, taking some earth out from under the body, then cutting some of the roots, bending down the tree and pegging it to the earth. Then the roots should be heavily covered with soil and the top either with soil or straw, the former we think the best, in light soils. Trees as high as ten feet have been thus covered every year, with the result of bearing heavy crops of fruit even in the North.

**Pests.** Mice and rabbits injure and kill many young trees each winter by gnawing the bark. Wrap tarred felt around the trunks to prevent this.

**Raspberries** may yet be protected if it was not done last month. Bend over the canes carefully, not to break them, in the direction of the row, and cover slightly with earth. One man can do the work, but two men will do it more than twice as fast.

**Root grafting** is work for the winter season, as it is done in the house upon the roots of one-year-

old stocks that were housed before freezing weather. After grafting, pack the grafted stock in boxes of earth in the cellar until spring. A prejudice is about against root grafted trees; there is reason in this, as applied to grafts upon pieces of root, not so when grafted on stocks at the collar.

**Vines** set out last spring, may before winter be pruned down to about three buds. Those set a year ago and longer, should have the canes that are to bear next season, cut back to six, seven or eight buds each, according to the strength of the plant. Whatever system of pruning is adopted, let it be remembered that there is more danger of not pruning enough, than of over pruning. Also that the object of pruning should be to secure strong shoots for bearing, and to replace these annually by new ones. After pruning, the vines should be laid down and covered as directed for Raspberries.

## VEGETABLE GARDEN.

**Cabbage and Cauliflower Plants.** On raising these next spring, see article elsewhere in this issue. A main part to observe now, is to prepare the soil of the seed bed before winter. The land can hardly be made too rich. Apply a heavy coat of old finely-divided manure, either as a top dressing or by spading it in. Fresh manure will not answer for the purpose.

**Celery.** In the Middle States and further south, the directions of last month may apply. In the North the trenches should receive their final covering.

**Composts and manure** should now be accumulated into heaps, and worked over occasionally, so as to be in proper condition for the land in the Spring. Have an eye to securing any valuable fertilizers, that may be going to waste, or which can be bought at a small cost in your neighborhood. The place one can usually strike such is about slaughter-houses, breweries, and like places.

**Crops** like Spinach, sown in the fall for spring use, should receive a two inch coat of leaves or hay, when hard cold is at hand.

**Digging** over unoccupied areas, can usually be as well done this month as any time. Deep stirring and successive freezing of the soil is of great benefit to the crops, and for best results not a square rod of the empty beds should be left undug.

**Improvements** and alterations about the gardens may yet be made. Where old bushes are to be grubbed up, or underdraining or trenching is to be done, this is a suitable time for the work.

**Leaves.** A good lot should be gathered for mixing with fresh manure to make hot-beds next spring. Allowed to decay, they afford an excellent material to mix with soil, for any kind of plants.

**Peas and Lettuce** may now be sown at the South.

**Seeds.** Let old stock be overhauled and the worthless thrown out. Keep the good in a cool, dry place, and away from mice and rats.

**Tools** should all be housed and in clean order.

## FRUIT AND VEGETABLES UNDER GLASS.

**Cold Frames or Pits.** The object of these is not to advance the plants, but merely to prevent too severe freezing and injury from exposure to wind on all mild days admit air freely.

**Cucumbers.** Seed sown in September will bear by January and later, in a suitable temperature. Their culture in winter requires a bottom heat of nearly 70°, produced by the use of leaves with a slight addition of stable manure; a top heat of 70° at night and 80° in the day with 90° in the sun. They should not be encouraged too much with stimulants, unless the plants are strong. Train the leaders up their entire length, before stopping, then stop all side shoots at the second joint.

**Grapery.** Where Grapes of late varieties have been allowed to remain on the plants until this time, they now should be cut, as they will keep better in the fruit room than on the vines. After the plants of late varieties have been cleared, they should be pruned and cleansed; dress the cuts with styptic and throw the ventilators open in suitable weather to bring them into rest.

**Lettuce.** Plenty of ventilation on all fine days must be afforded, and all decayed leaves must be picked off the plants as observable, for if left they will soon cause damp.

**Strawberries.** When flower stems appear the plants should go to the lightest and most airy place of the house, that the plants may not become drawn, and to favor fertilization of the flowers. Water only enough to promote healthy growth and syringe the plants in the forenoon of bright days. A heat of

above 60° should be kept up in the daytime, but this may be allowed to fall to 45° or even less in severe weather at night. Plants for late fruiting should be in the pit, freezing that will not break the pots will do them no hurt if it is continuous.

## INQUIRY COLUMN

*This being the People's Paper it is open to all their Inquiries, bearing on Gardening.*

*On the other hand, answers to published inquiries are carefully requested from readers.*

*The editors and several contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them, to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer, give facts and show that the editors will see that they appear in creditable shape.*

*In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper. Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that these be fully prepaid. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.*

12. **Chrysanthemums.** Please state how long a rest potted plants of these need, and should they be allowed to get dry dry? Will suckers that have appeared thus early, answer as well for next year's stock as Spring propagated ones? JAPANESE CHRYSANTHEMUM.

13. **Black Insects.** What will keep these from Chrysanthemums? A. L., *Intercot, Mich.*

14. **Ferns for Bouquets.** Will someone give me the names of one or two Ferns besides Maiden hair, suitable for making button-hole bouquets and suitable for growing in a greenhouse? NOVICE.

15. **Indian rubber Tree.** I shall be thankful if some reader of POP. GARDENING will give me information for propagating this plant. I tried several cuttings last year but failed with all. NEW BEGINNER.

16. **Tree Pæony.** My plant has lost every flower bud by blasting just before the time of opening. Can any one tell how this may be prevented in the future. L. E. L., *Angola, N. Y.*

17. **Plants for shade.** Can any reader give a list of plants that will succeed in a much shaded yard? MRS. BELL, *Wigginsboro, Pa.*

18. **Cissus discolor.** I have been told that this plant requires much heat, but does it want sun or shade besides? J. E. WALES, *Wabash, Ind.*

19. **Cactus.** What will make my Cactus bloom? It is four years old and never had a flower. RAINBOW.

## ANSWERS TO INQUIRIES.

5. **Plants for an Invalid.** Plants easily grown in a window, are English, German and Kenilworth Ivies, Tradescantia can be grown in water. Cobaea, a vine, will be very satisfactory. Geraniums, when well started, simply need watering now and then. SISTER GRACIOUS.

9. **Coleus in the House.** This can be easily raised in the window, if only care is taken against frost. Mine succeeded well on a shelf half way up the window. The dark red-leaved kind is the best to winter. SISTER GRACIOUS.

5. **Plants for an Invalid.** The Begonias in variety are among the easiest grown and the most satisfactory plants both in foliage and flowers. They bear the close, hot atmosphere of our coal-heated rooms admirably; they are of neat habit and ornamental, aside from the blossoms. The Cyclamen is a beautiful bulbous plant; with embroidered leaves and curious flowers on long stems. Freesias grown in clumps in a hanging pot, are lovely. Hyacinths are very easily grown in pots or glasses, and are so sweet and lovely, I would not fail to have them.

10. **Lachenalia.** These should be potted in October, in light fibrous soil with a little sand inter-mixed and watered moderately. They bloom in the winter. After flowering, they need to be watered until the foliage begins to turn yellow. They should be kept in the soil dry, during the summer. MRS. M. D. WELLCOME, *Yarumouth, M.*

6. **Plantain Lilies not Blooming.** I would suggest that MRS. H. C. F. lift her plants early next spring, divide each one into three or four and reset in fresh soil. A. H. E.

7. **Night Smelling Jasmine.** It will keep all winter in a room or greenhouse that is moderately warm. It is set out in May and flowers steadily through the season. Slips grow easily in a warm propagating bed. A. H. E.

8. **Tuberous Begonias.** After flowering, the tubers may be buried in dry sand or earth and watered in any out-of-the-way place, where it does not freeze. M. E. WALLACE, *New Lisbon, O.*

11. **Hardy Ivy.** We should expect the Irish Ivy to be hardy at Jackson, Mich., if grown in good soil on the north side of a building. ERS. P. G.

12. **Chrysanthemum.** In resting pot Chrysanthemums we would not allow them to become quite dry, although nearly so. They do not need light when at rest. To rest them until April is not too long, unless you desire to propagate them from slips, in which case start up in February. We would much prefer young spring propagated plants to suckers of fall, although the latter should also succeed if kept a growing. ERS. P. G.

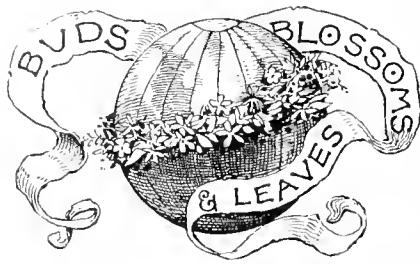
### When the Woods Turn Brown.

How will it be when the roses fade,  
Out of the garden and out of the glade?  
When the fresh pink bloom of the sweet-brier wild,  
That leans from the dell like the cheek of a child,  
Is changed for dry hips on a thorny bush?

Then, scarlet and carmine, the groves will flush.  
How will it be when the woods turn brown,  
Their gold and their crimson all dropped down,  
And crumbled to dust?

O, then as we lay  
Our ear to Earth's lips, we shall hear her say,  
"In the dark I am seeking new gems for my crown."  
We will dream of green leaves when the woods turn  
brown. *Lily Lurium.*

Announced by all the trumpets of the sky,  
Arrives the snow, and driving o'er the fields,  
Seems nowhere to alight, The housemates  
sit  
Around the radiant fire-place enclosed  
In a tumultuous privacy of storm. —  
*Emerson.*



**Hyacinths** detest heat.  
**Dirty pots** are abominable.  
**Primroses** should be in bud.  
**Flowers** are emblems of purity.  
**Fragrance** varies with the hour.  
**The glory** of *Chrysanthemums* wanes.  
**July sown Sweet Alyssum** is in bloom.  
**Children** easily become lovers of flowers.  
**Philadelphia** is called the hub of Roses.  
"A Christmas Gift" is offered elsewhere.  
**In choosing bulbs** look to weight rather than size.

**Of sun,** most blooming plants cannot get too much.

**Write to POPULAR GARDENING** about your plants.

**Large saucers** for plants tend to keep off insects.

**Include** this paper in your list of family reading for 1886.

**Wanted!** Enough subscribers to swell our list to 50,000.

**To find pleasure** in flowers, is one sign of a sweet disposition.

**Dogs,** by their filthiness, are death to small Evergreens, in towns.

**Sudden and great changes** in the temperature, are ruinous to plants.

**The Feverfew** or *Pyrethrums* are natives of the Caucasus mountains.

**Autumn** feeds spring, through the richness that comes from the leaf crop.

**About a hundred species** of *Adiantum* or Maiden hair ferns are known.

**In potting,** the lumps should go to the bottom, of the pots, the fine earth above it.

**We would like** the showy fruiting Jerusalem Cherry better, but for its unpleasant odor.

**Room Gardening.** When Bachelor's Buttons are being sowed (and) by the wearers themselves.

**Who ever bestows** a second look on the pots of artificial flowers, handsome as they may be?

**Room Plants** have one enemy not known to the greenhouse, namely, dust. Easily vanquished.

**You need** the Floral Note Book offered on the next to last page, as a gift to new subscribers until Christmas day.

The language of flowers was never better applied than to the Mignonette. "Moral worth superior to beauty."

**Soft-wooded** plants should stand nearest to the light, the hard-wooded ones, back, if all cannot have equal light.

**Why paint** the flower pots? They are both better and more becoming to the eye, in the natural color of burnt clay.

**The Tomato** is still known as the Love Apple in England and Germany, a name once common for the fruit in this country.

**Chrysanthemum Shows** were held with great success in several cities, during the past month. It's easy to get up enthusiasm for this flower.

**Have you** a friend, near or far away, who might like this paper? Kindly send us the address and we will mail a copy for examination.

**Imagine** the sight of this earth stripped of every vestige of plant life, you who say "who cares for looks," when urged to set out some flowers or trees.

**A young poetess** told her "secret to the sweet Wild Rose." This was imprudent. Soon the sweet wild rose will "blow" and then she'll wish she had kept her secret.

**To be or not to be** healthy, has much to do with plants being free or otherwise from insects. Certainly insects may appear on the healthiest of plants, but notice that they are the thickest on the weak subjects always.

**Clubs** are easily made up for this paper. Its beauty, worth and price do the business, where there is only someone to help the matter along a little. Reader, will you not see what you can do for it among *your* friends?

**The pleasure** to be derived from gardens is by no means measured by their size. A well-filled bay-window may contain more real interest than a large greenhouse. A quarter-acre garden than a ten acre park.

**Some plants** in the garden should have a change of position every year. This is especially true of *Verbenas* and *Daisies*; when there is failure with these plants, it is almost always because the soil is *Verbena-sick* or *Daisy-sick*.

**Shrubs.** If we had room for but one free-growing flowering shrub, it should be a *Weigela*; if for two, a *Golden Bell* or *Forsythia* should be added, and if three, we would take in the *Large-panicked Hydrangea* besides.

**If those** having a lawn to sow, think that no grass but a mixture will answer, they are mistaken. One kind alone, say the *Kentucky Blue Grass*, usually gives the best of results. Do not understand by this that *POPULAR GARDENING* opposes good mixtures.

**One high** American authority declares, that it does not matter whether the water used on plants in winter is cold or not. We differ. Experience has shown us that plants do better with the water at the same temperature as the room, in which they grow, than if colder.

**Starch** has not always been the common and inexpensive article it is to-day. We are told that in the time of Queen Elizabeth, the bulls of the *Blue-bell* were used for starching the ruffs, then worn. The starch in these also served instead of paste and glue. The fresh bulls of this plant are said to be poisonous.

**Mexicans** are said to be very fond of flowers. Their gardens being brilliant with bloom, and their city markets thronged with flower sellers the year round. Many of their native plants being grown in our greenhouse collections, it is not strange that the same as well as others, should be much made of at home.

**A sign.** Many of the dry goods and furnishing stores of the larger cities now make an elaborate display of plants and flowers, at their annual openings. This is done because the public appreciate such efforts. Another sign of the spreading taste for gardening and its products. Years ago such things were not done.

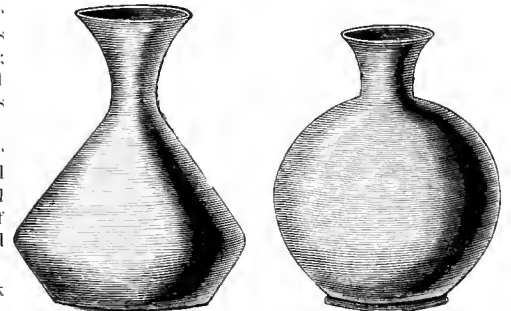
The largest club of subscribers received from any person for *POPULAR GARDENING* to date, numbered forty. Many of fifteen, ten and five subscribers each have reached us. We see by such efforts of our friends, that they are determined to do their share, towards our getting 50,000 subscribers in a year. Will not many more join in the good work?

**Scale and Mealy Bug.** These common offenders are best dealt with by being on picket duty against their approaches, and when any show up, kill. If they have made some headway to begin with, go at them with warm, almost hot soap suds and brush, denning them away entirely. If the water shows 125° of heat, it will destroy in a way that cold water cannot do.

**We told you so!** Concerning the new shipping label for cut flowers to which reference was made in the last number, Harry Chaapel, a wide-awake florist of Pennsylvania, writes, "you hit the 'Artistic Flower Tag' hard in the last number. I am with you, though I do think the design is handsome. One of our expressmen read it 'Free Flowers' at arms length."

**The Illustrated Garten Zeitung,** of Stuttgart, Germany, gave a chromo plate of a new *Begonia*, with mottled leaves which remind one of *Farfugium grande*, in its September issue. But its botanical name is horribly long, *Begonia manicata aurea-maculata*. Its introducers should have started it off with a more simple name, or else with an easy common name, in addition.

**The Inquiry Column.** This is designed to be a most useful department of *POPULAR GARDENING*. It is intended to afford the particular information needed to suit particular cases. So whoever of our readers does not meet with just what he or she wants to know about gardening, in any of the other departments, has only to ask through this one, and an answer will be forthcoming.



ITALIAN GRASS VASES. [See opposite page].

**Heliotrope.** Our friend "L. L." of Erie Co., New York, has related to us about her success with this plant as a winter bloomer. She starts with a rooted slip in the summer. This is planted out in good soil; is pinched back occasionally and about the time of early frosts, is potted up for the winter. Result: Ample growth, plenty of flowers all through the winter, and rarely an insect to be seen.

**The canes** of verandah climbers, are not pleasing if left whipping and dangling about the posts and rails all through the storms of winter. Let them be taken down, be brought together, bound and then laid on the ground next to the foundation, until spring. Or if they are too large for this, tie the loose ones up close to their supports where they are. Left loose, they slash about like the whip of an ox-driver, making unpleasant sounds.

**Shall Popular Gardening** have 50,000 subscribers by the end of one year? That depends upon what you and you and you all around, who see it for the first time, shall say and do. We know there are 50,000 persons in this country who will take it when they but know of it. Are not you reader of these? If so, let us enter your name at once. At the same time kindly send us the name of any friend who might be interested in the paper, that we may send to such person a specimen copy.

A friend complains that her Lily of the Valley never blooms. Some inquiry has brought out the fact, that she each season mows off the foliage soon after the ordinary time of bloom. This is a mistake. A plant without leaves or with these impaired, is much like a person with lungs that are wasted by disease. There can be no healthy growth under such conditions, and no wonder that flowers are lacking.

A good lesson to fix in the mind of children is that all flowers, even the most common ones are beautiful. Poets have ever delighted to honor the simple little primroses, snowdrops, violets, and the like. More sweet verses have been ascribed to wild-roses than to the double-cupped and flaming florists' sorts. We look upon the increasing taste for single and "old-fashioned" flowers, as a real sign of advancing taste.

**Mother of Thousands.** This in England, is the common name for the well known *Saxifraga sarmentosa*. We prefer it to Strawberry Geranium, a name sometimes applied to the same plant. It is no geranium; not even a relative, so it is better that this name should not be mixed up with that plant. This is one of the best of plants for drooping over the sides of hanging baskets. Everyone succeeds with it.

In Potting cuttings and shifting plants, many amateurs, perhaps the majority of them, and also some florists, press the earth, but lightly as if they were afraid of hurting the roots of the plant. Let us say that to lightly press the soil only, gives to the roots no fair chance to lay hold of the food for them, in the earth, and the plants suffer to correspond. Press the soil very firmly in these operations, as a rule. The soil of course must be light, porous and dry.

**How can I tell when my plants need water?** is sometimes asked. A bright Dublin gardener gives his rules thus: 1. By the appearance of the soil or feeling it with the finger. [He might have added, if dust can be worked up.] 2. Tapping the pot with the knuckles. The pot has a sharp hollow sound or "ring" when the earth it contains is dry, and a dull, heavy "thudding" sound when moist. 3. By lifting the pots and testing their weight, wet soil of course being much heavier than dry.

**Rapid growth** is seldom desirable in house plants. When plants shoot up quickly, the leaves are more apt to turn yellow and drop early, than if the growth is slower. Miss M. E. Benedict of Castile, N. Y., in referring to her success with plants says, "I give plenty of clear water, but rarely any manure water and seldom repot them." If there is one time more than any other, that plants can be given stimulants to advantage, it is when they are in bud, ready to break out strongly into bloom.

**Horticulturists** ought to be, and no doubt generally are, a painstaking class of persons, yet among them are some who do not take much care in writing their own names. We often receive well written letters, that are perfectly legible until it comes to the name—usually the most important part. This is dashed off in a free style, which may make it clear to those familiar with it, not so to strangers. A word to our lady correspondents: Please always write your name the same,—not Mrs. Elvira Smith one time and Mrs. Joshua Smith next.

"We are coming." This is what hundreds of new subscribers are saying right along in effect, in answer to the request we made for 50,000 subscribers by the end of one year. But the quota is yet so far from full, that we would urge many more to come. Look the paper over carefully, its contents, the quality of its reading, the engravings, the printing and then the price, you who have received a copy for the first time! If you love flowers and gardening or if you do not, can you afford to be without such a paper, at its low price? We need you as a reader; we think you need the paper.

The beauty of POPULAR GARDENING apart from its reading, has been widely noticed by the people and the press. For this we desire to render credit where credit is due. The printing

is done by Messrs. Haas & Klein, of this city, who make a specialty of fine periodical printing. Their work speaks for them. Our spirited engraved heading and most of the other original cuts used to embellish our pages, are from the Art Printing Establishment of Matthews, Northrup & Co., of Buffalo. This establishment, in a number of its departments, is widely acknowledged as standing at the head of Art Printing Works in America.

A worthy namesake. We were glad lately to meet a most charming namesake, in volume one of *Cassell's Popular Gardening*, issued by Cassell & Company, limited, New York and London. This is a handsome book of 380 large, double column pages, and several hundred en-



FIG. 2.—RESULTS OF BAD PRUNING. (SEE PAGE 30.)

gravings, including a beautiful chromo frontispiece of Roses. The work treats in clear and pleasing style of almost every conceivable subject relating to flowers, fruits and vegetables. While it is an English work, and some of the directions may not be adapted to American practice as to details, still it must prove of great value to our people, in showing them how intelligent English gardeners manage. It is in every way a desirable book for Americans.

**Begonias** of the sorts grown for winter flowers, are an attractive class of plants at this season. The old sort usually known as *Carna*, (perhaps more correctly *dipetala*) of a delicate rose color is a favorite one, on account of its free blooming qualities. The flowers are unequalled for cutting, to use in all arrangements of loose flowers. A variety of this one apparently, and called *Incarnata*, is in some places crowding out the other—it having advantages as a pot plant in being of dwarfier growth. The flowers are also of a deeper color, rendering them more attractive in the eyes of some. *Begonia Fuchsoides* is an elegant pot plant, a little later than this, loaded as it will be with drooping cymes of bright scarlet-colored bloom. Grown as specimens for the dinner table, this sort is almost unequalled.

**Without good soil**, no one can succeed in growing house plants well. We have little faith in chip dirt for plants for best results; we have great faith in what gardeners call "fibrous loam" for the same purpose. Those who live in the country, find it an easy matter to have a good lot of this article on hand at all times. City plant growers can procure the same of the florists at a small price per bushel. You may be sure they have it in stock if they know what is what; their bread and butter it might be said, depends upon whether the potting soil they use is full of fibers or not. How to get it up is told in a few words. Procure sods two or three inches thick, from a rich pasture lot, or from the roadside, at some spot where the earth is good. Stack it up in some out of the way place until wanted. Break this into pieces the size of acorns, and plants will find in it all the elements really needed to their existence. Or if it seems poor, add a little old fine manure. No need of rubbing such soil through a fine sieve before using.

**Italian Grass Vases.** These novelties in window gardening, introduced from Italy a year ago, are so charming and so easily managed, that they deserve attention here. Through the courtesy of Messrs. A. H. Hows & Co., of North Cambridge, Mass., who have come out with a handsome line of these vases in this country, we are able to give the engravings opposite of two of them. To start these grass vases into growth is a most simple matter. The vases being made of porous earthen ware, by filling them with water the clay is constantly moist on the outside. Now by sprinkling any kind of grass or other fine seed over the vase it will adhere to the moist surface, and will remain there so long as water is kept in the inside. What follows is, that the seeds sprout and grow, and in a short time there is a green lawn-like object the precise shape of the vase. The whole affair is so pretty and inexpensive, that it is not strange these have grown very popular in the large cities. The vases being small, are safely procurable by mail; those who sell them usually furnish seed for sowing gratis.

**Botanical names and Bugs.** An editor of a milling journal published in Western New York is getting interested in gardening matters, as a result of reading POPULAR GARDENING. Some time ago, in visiting a neighboring town where lives an amateur gardener who has a large collection of plants, he early made an opportunity to call on this gentleman, and see, what was widely known, as a first-class garden.

Now this respected editor and reader of P. G. as an enthusiastic seeker after gardening knowledge, walks with his eyes wide open. Here in this large and well kept garden he met many, to him, new and interesting sights. He saw before him a carrying out in part, of the garden he himself hoped some day to own.

Being possessed of a quick and penetrating mind, as a result of long practice in looking further into millstones, than most folks can do, our friend arrived at many striking conclusions about gardening, in this one day spent in a fine garden. These things he stored up in his mind for future application in his own case.

One conclusion soon reached, was the manifest potency of certain long and not easy to be remembered names, for keeping bugs away from plants. Here in this garden, at the side of nearly every one of hundreds of plants, was a nice looking stake projecting about one foot out of the earth, and on this was painted in clear letters some such words as *Delphinium fumosum*, *Hebeacallis Kiwaaso variegata*, *Athertonia liliastrom* or the like. Every plant looked thrifty and perfect, as it stood out upon the well filled surface. And he noted with particular interest that seemingly not a bug or worm was anywhere around. He remembered how at home, in a bed of six or seven plants in the back yard, there was no end of bugs, slugs and grubs disputing over and fattening themselves on these, notwithstanding many vigorous weeds, some as tall as the plants, which he had left, as he claims, for these little pests to consume, if they must be there. But he had set out no such stakes with long names on them. Putting this and that together, he was not slow to see that here was the cause of all his trouble. And now in his kind-hearted way he is going about and freely offering to all his friends, this valuable discovery for keeping bugs from flower beds.

It may be added that so far as the case of our philosophical friend of flouring interests was concerned, the season was too far gone to allow him to work any improvement by his discovery in his own back yard, this year. But, next summer, we are assured, he will spare no stakes or long words to ward off from his patch the evil-doing insects. In the meantime our readers may expect, perhaps next month—in POPULAR GARDENING, some of the reasons why fine gardens are usually seen where stakes with long names on them are freely used, and *vice versa*. Besides this we will give the reasons why botanical names, if they are sometimes inconveniently long, are a real necessity.

### About Pruning Trees.

In no part of what may be called popular gardening, is there greater need of increased knowledge, than in that which relates to the pruning of shade and other trees. The damage done every year by bad pruning is simply appalling. To say that some self-styled tree pruners never touch a tree with saw and knife but to sadly mar its beauty, and shorten its life by years for each bungling assault, is not away from the truth.

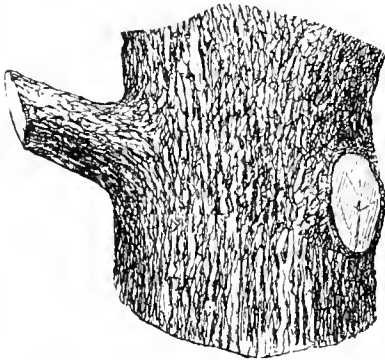


Fig. 1. Bad and Good Pruning, the former shown to the left, the latter to the right, side.

Tree owners, especially in our villages and towns, submit to the imposition of this class, when if they were to order them off the place and themselves direct the work of pruning, it could be rightly done as easily as otherwise. We propose in the present article, to throw some light on this subject, and especially as to pruning large branches.

It is on street trees more than any others that the pruning away of comparatively large branches is done. Trees planted here, are usually from ten to fifteen feet high when they are set. So far as looks go, or as the matter of providing shade early is concerned, a liberal top is wanted on these from the day they are planted.

For the first ten years, therefore, there is no thought about pruning, usually. But by and by the tree-tops reach upward and outward on all sides, and the branches soon meet those of their neighbors, or nearly so. This point reached with most kinds, and there is not only an obstruction to the view of the street as seen from the house, but also closeness is created about the place through the shade, and the interference of the tops with a free circulation of air. To prune the lower branches off, properly comes as a suggestion to the owner's mind.

To the left side of fig. 1 is shown how many ignorant pruners leave the job of cutting away a branch. As the easiest way of doing the work, they sever it, some ways from the trunk, leaving a stump, as if to hang a horse collar on. Right in this act is where trouble begins.

What a tree owner should know enough to do if his workman does not, is to insist in all pruning, that instead of leaving a snag like this, the cutting be done close to the main part, as shown by the scar on the right side of the same figure. Then the scar should be thickly painted to keep out moisture.

Pruning of rather large branches, is at all events a harsh stroke to a tree. But nature in such cases if not hindered, at once sets about recovering the tree from it. One of the first things is to heal the exposed part, by covering it with new bark. This is most important for preventing the exposure of vital parts to the elements and to decay. It is as to this point, that the difference between

the good and bad pruning illustrated, comes in, as may be seen by our other engravings.

The projecting stump of fig. 1 alluded to, of course prevents any closing up of the wound by new bark, here, for its end dries up and prevents growth where the cut was made, and there is no chance for this any nearer to the trunk. Fig. 2 on page 29 shows the appearance of such bad pruning six years later. One has not to walk the shaded streets of any town far, to meet illustrations of this.

Fig. 3 represents another stage reached in the effects of bad pruning. But this is not the last, for now an opening has rotted out, exposing the very heart of the tree to moisture and air. With this comes as a consequence, decay to the center. The final end of such blundering work is early death.

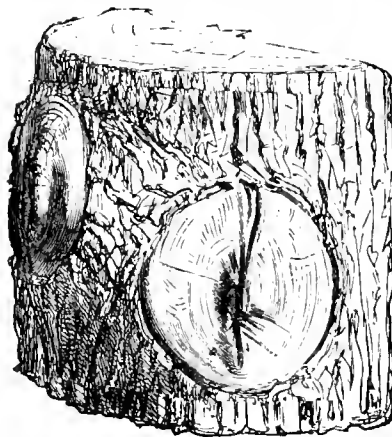
Fig. 4 on the other hand, by illustrating two scars, show the later results of rightly pruning close to the trunk. The one scar is almost closed over with new bark; the other is entirely so, leaving this part of the tree as sound and well protected as any other part, just as it should be.

A fine tree ordinarily is of great value, requiring many years to reach its prime. What a great pity it is, that so many trees are sacrificed to ignorance in pruning, every year. If the simple points laid down in the foregoing are observed by our readers, they need make no mistakes in this matter.

### Women as Commercial Florists.

That women may find in some of the lighter branches of horticulture employment that is both pleasant and remunerative to them, has frequently been proven in late years. This is especially true in that constantly increasing business, namely: the growing and selling of flowers.

In each one of half-a-dozen cities that could be named, there are female florists who are meeting with perfect success at their business. We refer here to such as are themselves proprietors and managers, and who have to compete with florists of the other sex, recognized for their taste and bus-



ness qualifications. The women in these cases seem, with little effort in the way of advertising or outside display, to work into a thrifty business that adheres closely to them.

Besides as being proprietors, many women work at fair wages at the flower counters, in arranging bouquets and designs, stemming, and so on. For this kind of work a woman really has some advantages over a man. She naturally possesses a keener sense of what is proper in combining flowers, and in handling them her fingers are more deft. These are points customers appreciate.

In the managing of a large range of green houses, merely as growers, as is done about the large cities, we are not aware that women are often proprietors. But in the neighborhood of small towns and in the villages, to meet the demands of a moderate general trade, this is frequently the case. In such instances, it usually amounts to this, that a good share of the business is in cut flowers.

It should be remembered, that the growing and selling of plants and the growing and selling of flowers, may be quite distinct. It is more particularly in the latter branch, which is considered to be the most profitable, as it also is the lightest and most pleasant branch of the business, in which a woman usually finds herself best at home.

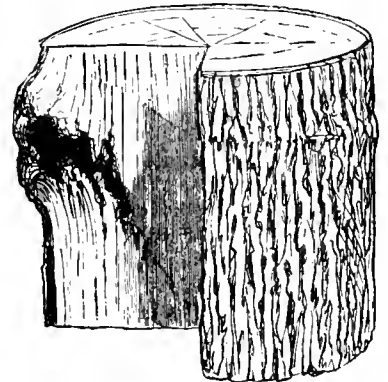


Fig. 3.—Decay as a result of Bad Pruning.

Besides the cut flower trade there are the pursuits of growing fruit, vegetables, plants, seeds, and the finer arts of hybridizing, teaching botany and others, all of which are suitable for females to engage in. It being the mission of POPULAR GARDENING to throw light upon these subjects as they bear upon pleasure and profit seeking, there will be in future issues other matter relating to these as occupations for women.

### The Chrysanthemum.

It is not too much to say of this fine Asiatic flower, that in the present day it is honored by attentions such as no other flower, the Rose alone excepted, receives. And yet while positively everybody is acquainted with the Rose, the same thing is quite far from true, as regards the Chrysanthemum. Go where one might and persons of intelligence could be found, who would be unable to name the flower if they saw it.

Only the other day at the Chrysanthemum Show in Buffalo, a reporter on his first visit here, pointed to a group of large Palms just inside the hall in which the show was held, and asked in all earnestness, "are those Chrysanthemums?" Whoever sees but the life-like engravings of this flower herewith, ought never to make such a blunder.

But the Chrysanthemum is fast growing in popularity. This is evident for one thing in the Shows devoted every year to this flower alone, in nearly all large towns. The fact that it is possible to get up successful exhibitions, year after year, mostly of one flower, speaks much for its worth; few indeed are the kinds that could bear this test.

Let us glance at the qualities which go to give the Chrysanthemum its prominent place among flowers. First of all, it is one of the easiest of plants to succeed with. Amateurs, however unskilled they may be as plant growers, are sure of a liberal reward in flowers, for the pains they may bestow on plants of these, while accomplished plant raisers as



well as growers of new sorts, meet with results quite marvelous, for the outlay they make.

The form, brilliancy and profuseness of the bloom are unequalled among flowering plants for effectiveness. The vigor of the plant, its ease of propagation, its hardiness, and its freedom from disease and insects, together afford a list of qualities quite unsurpassed.

Neither is the Chrysanthemum a mere flower of fashion. Its merits are of a kind, that have for ages found appreciation in other lands; it is destined to fare as well here.

Has this flower no undesirable qualities? These are few indeed, and whether such as we shall attempt to name, would be generally considered objectionable, is a question. For one thing, the season of bloom is limited to a few weeks; this does not suit those people who are always after continuous bloomers. But if the flowering season is somewhat

In plants exhibited, there were upwards of 400 specimens, most of them marvels in the way of size and beauty. Many of these were fully three feet and a half in diameter. Those shown in the amateur's class, were quite as striking as any shown by the florists.

An attractive group consisted of grafted Japanese standards embracing 25 varieties. Some of these were eight feet tall, with hundreds of open flowers. One specimen which attracted much attention was seven feet high and had six different colors grafted into it.

The finest specimens among the bush or low Chrysanthemums were the President Cleveland, three feet in diameter, loaded with hundreds of pure white blossoms, and the Mrs. R. Brett, a new American seedling, with plume-like flowers of a golden shade.

In the department of cut Chrysanthemums the display was grand, there having been over

cerned. Indeed competent judges who were present, and who had visited the shows of the larger cities, were free to state that in general, this one was not excelled by any other. Both amateur and professional growers were among the exhibitors, and some hundreds of fine specimen plants, attested to the skill of the growers in managing this Queen of Autumn flowers.

#### The Window Box in Winter.

Our correspondent, Mrs. M. D. Wellcome, of Yarmouth, Maine, is so much pleased with an inside window box she has now had in use for five winters, that she has kindly described it for the readers of POPULAR GARDENING.

"It is made of zinc, size 3 feet by 14 inches, and 7 inches deep. Were I to have another



JAPANESE CHRYSANTHEMUM, MRS. N. HALLOCK.



A GOOD CHRYSANTHEMUM FLOWER

short, it comes fittingly when few plants are in bloom. It fills up the "November gap" in flowers most completely.

Then the plants are somewhat large for the window, when grown to full size. But this point can be overcome, by raising plants of smaller size for here. Such would stand no chance at the Shows for prizes perhaps, but they would satisfy in their place. Improvements are also being made, in raising new sorts small in stature for window culture.

As house plants, the Chrysanthemums, if somewhat bulky, are on the other hand most accommodating. They can be grown outside until within a few weeks of blooming. Then, given a place within while the flowering is going on, they may at once after bloom be moved to the cellar or store-room for the winter, to give no more trouble.

#### Recent Chrysanthemum Shows.

Of the New York show held during the first week of November, our representative, Mr. John Thorpe, Jr., reports as follows:

8000 in competition, including 600 varieties. Among the Japanese varieties were many flowers each over six inches in diameter. The incurved Chinese sorts, forming almost perfect globes of bloom four inches and a half high, were much noticed. Of single flowering varieties, with conspicuous centers, there was a good exhibit, in which the colors were remarkably striking.

Without any doubt the most marvelous specimen of the raisers' skill in the cut flower exhibit was the new seedling Poreupine, grown by Mr. J. Thorpe, of East Hinsdale, New York. This flower was of terra-cotta shade, with entirely tubular petals, and is the first of its kind ever produced.

In the second week of November, Chrysanthemum Shows were held in Philadelphia and Buffalo respectively. Of the former no report has reached us beyond a few words by postal card from one who attended, and which states that it was "perfectly grand." The Buffalo show, the first of its kind ever held here, was a great success as far as the extent and variety of the display was con-

I would add two or three inches to the width. To give it strength, it is framed in a box of wood. Such a box can be painted any color one fancies, or the wood may be walnut or some other kind of natural color.

"In this box I find room for about forty plants; none of them large; the highest average ten or twelve inches, and this size make up about one-half the number. The small ones I set mostly on the outside.

"As to kinds, I use liberally of such as have ornamental foliage in Abutilons, Palms, Marantas, Begonias and the Tri-colored Geraniums. To these I add Fuchsias and other green-leaved plants.

"This box fairly under way, is a veritable garden and of but little trouble. A generous shower bath from the sprinkler once a week is sufficient in the way of water. This method keeps the foliage clean, and there is no overflow nor dirt as from pots.

"In filling the box I first put in a layer of coarse stuff for drainage, gravel and bits of coal from the siftings. Then I fill with good earth, such as I use for plants."

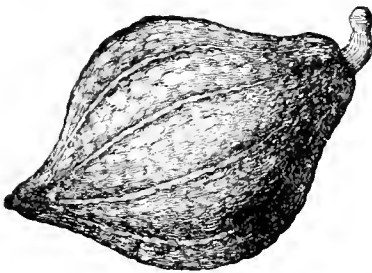
### The Louise Bonne of Jersey.

When the same fruit has numerous names, it is always presumptive evidence of goodness. In this respect, the old French pear named at the head is fortunate, both in the synonyms it bears,—having no less than a dozen, and in real worth. Let it not, however, be confounded with the variety known simply as Louise Bonne, which is quite distinct.

Wherever the Louise Bonne de Jersey succeeds, it is a favorite dessert fruit, and profitable for market. Where it is not known to succeed, it should be tried in the first list of sorts planted.

The tree comes in bearing among the very first, as to age. It is a rapid grower and a great bearer; no pear succeeds better as a dwarf budded on the quince.

The fruit is large, pyriform; greenish yellow, mostly overspread with brownish-red, and with a red cheek in the sun. The flesh is delicious in more than ordinary degree, being very juicy, rich, vineous, and melting in the mouth. It is an early autumn pear.



### Keeping Squashes: The Hubbard.

In keeping Squashes over winter, one must not forget that this vegetable is a native of the warm parts of the earth. To put them in a cool, damp cellar, that would suit most roots and vegetables would be to invite their decay.

Most of the winter varieties of Squash, and of which the Hubbard, herewith illustrated, continues to be the leading sort, if placed in a dry room, with a temperature, from forty to fifty degrees, will keep until spring. Indeed, the Hubbard is only in perfection when it has been kept until late winter or early spring. Such earlier kinds as the Boston marrow may have their season much prolonged by proper care in this way.

When winter squashes are grown on a large scale, they are usually carried through the winter in bins, arranged one above another in a dry apartment. This room is provided with a stove, in which to keep a little fire whenever there is danger of freezing. For family use, where but a small number are wintered, an upper shelf in a closet leading from a room where there is some fire, is a suitable place for keeping this vegetable.

It should be added, that one of the most important points connected with keeping squashes, is that they be handled carefully. An extensive grower of this crop says he handled it as he would handle eggs, and never allows rolling or tossing them about carelessly. The smallest bruise received will lead to decay.

### Steam Heating a Success.

For some time the fight has been going on in the gardening periodicals, concerning the merits of steam for heating glass structures, as against hot water. POPULAR GARDENING has no room for the long-winded arguments set forth on both sides. It takes pleasure, however, in stating facts, hence makes room for the few words which follow, from our friend H. Chaapel of Williamsport, Pa., and which first appeared in the November *Gardener's Monthly*.

I have about 12,000 square feet of glass, a packing house 16x40, a dwelling of eight rooms, and my office, using about 6,000 feet of 1 1/4 inch pipe. I am using the "Exeter" Boiler No. 2, 32 sections, including the "Exeter" manifold valves, automatic dampers, etc. The

system of piping seems as near perfect as can be, working nicely at two and three pounds pressure. But this, like any other system takes coal, when we want heat.

We consider steam heating a success with us, though we pay \$4.50 per gross ton delivered for large broken hard coal, and it has cost us over \$400 for coal the winter just past, to heat our entire place.

### Raising Cabbage Plants.

Gardeners will no doubt be early on the lookout to see that the scarcity of the cabbage plant crop of 1885, will not be repeated next year. Various causes conspired towards the dearth of these, of the past season. Perhaps the most common one was, that less seed was sown than usual.

Then insects destroyed the sowings of some growers, who had never before been seriously troubled by them. This lesson should lead us to be on our guard against inviting destruction to the fruit of our labors, from insect enemies in the future. On this subject Joseph Harris presents some valuable advice in the October *American Agriculturist* as follows:

The chief essentials for success are: Rich, warm, and well cultivated land, good seed and a liberal dressing of superphosphate. Perhaps the last is, practically, the most important.

A chief cause of failure is the Black Jumping Beetle. Lime, ashes, soot, cheap tobacco dust, or snuff, dusted on the plants, will more or less benefit. The true remedy lies back of this. *Plenty of plants, and rapid growth.*

There is nothing that will push a cabbage plant forward like superphosphate. The seed contains very little food for the young plant; superphosphate, under the seed, has a magical effect. We sow in rows twenty-one inches apart. This enables us to go through the rows with a horse-hoe.

Get the land thoroughly prepared and heavily manured in the fall. If the land is light and sandy, it will need nothing but a little surface cultivation before sowing the seed. Sow the superphosphate, at the rate of three pounds to five pounds to the square rod. Work it into the soil an inch or two deep, if convenient. If not, sow on the surface and trust to the rain washing it down to the roots of the plants.

### Winter Treatment of Onions.

A warm place never answers in which to store onions over winter. Warmth will start the bulb into growth—a direct blow at its vitality for keeping. Onions keep much better in a frozen state, through the winter, provided the thawing out in the spring can be gradual, and provided further, that there is no liability of alternate freezing and thawing during this time.

In a barn loft, covered with hay or straw a foot or more thick, the conditions for perfect keeping are well met. The onions should not be in large piles, but rather in layers of not more than one foot through. By this course of treatment, the risk of keeping is light indeed, and those who assume it, may expect a reward, in much higher prices in the spring, than if sales had been made before winter.

### Production of New Fruits From Seed.

From that part of Hon. Marshall P. Wilder's address, read recently before the American Pomological Society's meeting, in which he spoke of the raising of new varieties of fruit from seed, we take the following:

These are the means, and the only means, provided for the improvement of our fruits. With a careful study of the tendency of varieties, and a judicious selection of breeders, we shall go on to produce fruits which will be adapted to every part of our land where any species of fruit may be grown.

When we see what nature has done without the aid of manipulation—in the cold regions of

the North, as in Russia, from whence came the Oldenburg and Tetofsky apples, the Black Tartarian cherry, and other good fruits, who can doubt our ability to produce fine fruits even in the colder regions of our country?

The art of crossing varieties for their improvement was scarcely known until our day, and see what wonders have been accomplished by it. Who can doubt that we may yet produce a pear with the richness of the Seckel, the form and size of the Rose, and the vigor and productiveness of the Boussock. And so we may go on to improve other fruits, until all shall be made as perfect as ever were grown by "the grand old gardener of Eden."

Can a coal-oil barrel be fitted for holding cider, vinegar, or the like? The *American Agriculturist* in effect says "Yes, and easily enough," in the following words: "Take one head out of the kerosene oil barrel, start a fire in the bottom, and put a bushel of dry straw or long shavings in to keep it burning long enough to draw the kerosene out of the wood; let it burn a few minutes, and just before the wood commences to burn, turn the open end to the ground, and the flames will be smothered. Use the barrel for water a couple of weeks, put the head in again, and they are ready for cider or anything else one chooses to put into them. The barrels will be worth double the price of common ones. Of course the other head should have similar treatment."

An Ohio amateur gooseberry grower succeeds in growing very fine fruit, both in size and quality, on a cool, clay soil, keeping the plants open in the centre by pruning. When they start into growth in the spring he immediately disbuds, to prevent them from becoming too dense, and thus admits a free circulation of air. He mulches heavily during the summer. With this treatment he is little troubled with mildew.

The Russian Apricot according to the *Orchard and Garden* is more than a mere novelty. It says: "It is the only good apricot which we ever have been able to fruit in this latitude in the orchard or open field. Other varieties do well enough in the South, but it would not pay to plant them in Northern states. The Russian apricot succeeds anywhere where our common fruits grow."

If you have fresh fruit to ship a long distance, and especially fine specimens, by first wrapping each specimen in paper which has been soaked in salicylic acid it will carry the safer for it. If to be shipped very far, use double thickness. We say this on the authority of Professor Budd.

A Grape vine which from old age yields inferior fruit, and little at that, may be rejuvenated in measure by cutting it clean away to the ground and manuring freely at this season. Result: next year new shoots will spring up, which will come into bearing like young vines.

Apples are on the rise in price in this country and are bringing from \$3.00 to \$5.00 per barrel in England. On the whole the apple crop is not so large, but that growers, who have good fruit on hand may expect very satisfactory prices.

According to Mr. Patrick Barry a Mr. Lewelling of California has 40 acres planted with the cherry currant. The yield per annum is about 150,000 lbs. and fetches at the rate of 10 cents per pound.

Darkness is one of the essential conditions to the keeping of fresh grapes. They should be placed so as not to come in contact with one another.

T. S. Hubbard, the great grape grower of Chautauque county, N. Y., advises deep planting for vines. Tends to prevent winter killing.

More cabbage is spoiled in winter by storing early and keeping too warm, than by freezing.

Culture and not mulching for Grape vines, mulching and not culture for Gooseberries.

Keep down the suckers of Raspberries.

# FLORAL FASHIONS & FANCIES

The rose said to the lily: "Thou must bow Thyself in holy reverence to me; For it is I, about whose scented brow The purest love is twined so graciously." The lily said: "To me is beauty given Love is thine altar, innocence my shrine Death stole my blush, and adding it to thine, Hath fitted thee for earth, and me for heaven." The poet said: "Sweet sisters, oh, be still; To each of ye was given a separate birth, To each a separate and an envied worth Then bloom both rose and lily: bloom and fill The air with all your purity and love; Earth's harmony, oh, rose, fair lily, life above."

Taylor.

Carnations are staple.

The fringy sweet Stevia is in.

Flowers blush without crime.

Violets signify modesty in floral language.

The broken wheel as a funeral design is in use.

The florists, dream of Holiday orders and fat purses.

Look out famous old "Jack" Rose; young Wm. Bennett means to push you hard!

Now that flowers are scarce, take a lesson in not crowding them, till their beauty is largely gone.

For trimming the casket of an aged person, garlands of Ivy leaves around the outside, are appropriate.

An autumn effect in flowers recently made, consisted of a basket of White Chrysanthemums edged with autumn leaves.

The "Oh's!" and "Ah's!" drawn from admiring dames and misses at the Chrysanthemum shows, are only equaled in number and sincerity, by those voiced at the Rose shows of early summer.

Winter flowers are the cheapest of all forced vegetable products; compare prices of these, for example, with those of forced Strawberries and Mushrooms, and the same all around, in summer.

At a state meeting of the lawyers of Illinois, at Springfield, some time ago, a wind mill was the leading floral design at the banquet. Enough "wind" is said to have been raised, to turn the wheel several times around.

The commercial florists are now a large and influential body of men, since flowers are considered so much a necessity. More flowers are grown for purely commercial demands, than for all other purposes combined.

Advanced style in table decorations, calls for all the flowers in high vases, so that the guests can look underneath the flowers. The Carlsbad beer glasses called "schooners" are favorite holders for these high-waving bouquets.

If flowers are to be carried through the street protected with paper, even if it is not freezing at the time. Air and sunshine are needed when growing flowers, it is true, but once flowers are cut, the less exposed to these elements the longer they last.

At a recent show of the Massachusetts Horticultural Society, an attractive display of Water Lilies in a large tank was made by Mr. Sturtevant of Bordertown, N. J. Ten varieties of Nymphæas both hardy and tender were shown, one the blue *Devoensis*, with flowers a foot across.

Packing cut flowers. On this point a writer in the *American Florist* says: During thirty years experience I have never found flowers, particularly Roses, travel well when cut and packed immediately; on the contrary, where they have been cut and placed in a vase of clean water for a few hours and carefully packed, I have never had a complaint that they did not reach their destination in good order.

The true lover of flowers seldom orders a made bouquet for his or her own pleasure, but wants the blooms loose and with long stems. How sensible! We would rather see three flowers with liberal stems to them as they are cut from the plants, placed without a thought of arrangement, in a glass on the table, than a score of blooms crowded closely into a bouquet or basket. Let us remember that nature arranges flowers quite uncrowded and always with fine effect.

Four-leaved Clover designs, so-called, belong to a class we never could appreciate. As usually made up there is a base of four flat baskets, each representing a clover-leaf. From the point where these

come together at the center, three long stems project upward, each one surmounted by a ball which is to be worked into a "clover head." Usually these heads are made up stiffly of Violets—as if clover of such a color ever grew. The whole idea is absurd, and like the Dutchman's "Gates Agar" needs a label to tell what it is.

The flower holders made of Birch bark, are as handsome as any novelty we have seen in this line for many a day. Those made to represent a section of a tree trunk, perhaps nine inches through and a foot or more long, are at once simple and elegant. The bark is left with all its marks and loose curling ends, just as it was on the tree. One of these "trunks" filled with a free arrangement of Roses and other long stemmed flowers in the top, and then partly encircled by a garland of bloom, is a charming thing to behold.

## Botanical Budget

Flowers are but colored leaves.

Species is the unit in botanical classification.

No two individuals or organs of the same kind, are exactly alike.

The famous Botanic Garden at Kew, London, cover an area of 200 acres.

The Castor-oil plant, an annual in the United States, is a perennial in warm climates.

The growth of biennials is divided into two stages; first year vegetation, second fructification.

Dr. Asa Gray asks that botanists who can do so conveniently, will send him seeds of *Carex spicata*, *Impatiens leucophylla* and *B. leucantha*. Address him at Cambridge, Mass.

A German naturalist, finds that the eastern hemisphere affords 239 plants and fifty-eight animals useful to man, while the western world contributes only fifty-two plants and thirteen animals.

The Common Daisy *Bellis perennis hortensis* is, perhaps, the most divisible plant in the garden. Each separate branchlet may be removed with its medium of root, and every bit will form a plant.

Protecting the Edelweiss. The Austrian Central Tourist Club has addressed a petition to the Assemblies of the Austrian Alpine Provinces, to pass a law prohibiting the wholesale uprooting of this plant now carried on. The petitioners point out that hundreds of thousands of the plants are dug up and sent abroad, even to America, so that there is a fear that the favorite plant of the Alps will be totally wiped out, except in a few remote places.

Modification of Plants by climate. Mr. A. A. Crozier, of the University of Michigan, has published a thesis on this subject. In it he sums up concerning the matter as follows: "It seems to be established that as plants move from the locality of their largest development toward their northern limit of growth, they become dwarfed in habit, are rendered more fruitful, and all parts become more highly colored. Their comparative leaf surface is often increased, their form modified, and their composition changed. Their period of growth is also shortened and they are enabled to develop in all respects at a lower temperature."

Vegetation at the Equator. "I never was anywhere more forcibly impressed with the thought that the productive powers of nature on receding from the pole, had collected themselves in their greatest strength near the equator, spreading their gifts with open hand, and manifesting the abundant fertility of the soil, than when I first beheld the famous Water Lily, *Victoria Regia*, in the river Rupununi. The whole margin of the water was bordered with its gigantic leaves, many of them 7-8 feet in diameter, interspersed with the magnificent flowers of all shades from white to pink, the largest 14 inches across." Dr. R. Schomburgk.

Botany in America. An Englishman who attended a recent meeting of the Botanical Club of The American Association for the Advancement of Science, was greatly surprised at the interest shown in Botany here. He had never seen anything like it at home he said, and he took it as a sign that botany is much more appreciated as a popular study in America, than it is in the Old World. These foreigners begin to recognize the fact, that when once Americans awaken to, and take hold of any matter, we show the same zeal and progressiveness here, which enabled us to clear up and improve this country as has been done. One of these days our conservative friends of Europe will find that we have out-distanced them also in the department of popular gardening, a thing less easy to be done than some others. It will yet come, depend upon it.

The Labiata order to which such common plants as Salvia, Rosemary, Monarda, Colerus, Sage, Thyme and so on belong, enjoys the distinction of being one of the most natural groups of plants.

By this is meant, that the character of its several thousand members, are more distinct and uniform than is generally the case in a natural order. In fact the variations from one type throughout the family, is no greater than is often found in a single genus of other orders.

The chief characteristics of this order are stems, herbaceous or sub-woody, usually square; leaves opposite or whorled, exstipulate and usually aromatic; flowers labiate or lip shaped mostly irregular. While it requires but a slight familiarity with botany to determine the order of any Labiate net, the discrimination of the genera is often quite difficult.

### ABOUT THE PLACE.

Now for a compost heap.

Drain away from the well.

Manure is the measure of results.

Revise the labels before the winter sets in.

Rubbish about fences and trees, draws mice, to the injury of the latter.

If you have a wheat field try a light mulch of coarse manure on part of it at least.

Ladders are needed about every place, and now there ought to be time to get one or more made. Don't forget this.

Potato tops are well worth carting to the barn yard for increasing the manure pile, they are rich in potash. Left where they grow, they dry up or are blown about to waste.

If a pump freezes, procure a lead pipe or any kind of tube, and lower it to rest on the ice. Into this pour hot water with a funnel. The force of the water on one spot, will cause the ice to melt rapidly.

Those suffering from depredations of rats will be glad to know that the rodents have so great an aversion to chloride of lime, that they will vacate the premises where it is scattered freely.

The net proceeds of a bee-keeper in New York State for thirteen years, from an average of forty-six hives, was \$12,300, an average of \$946 a year. He thoroughly understood the business, however, and gave it his whole time and attention.

There are now more cattle of the favorite little Jerseys in this country than in the Isle of Jersey where they originated. It is doubtful, too, whether any better animals remain at home than we have, for American money has tempted away the prime animals.

Most dairy farmers have learned from experience that turnips or turnip-tops when fed to milk cows should be given directly after they have been milked. When this practice is not observed, the turnips will cause an unpleasant flavor in the milk, which will also be imparted to the butter.

Bees require little attention this month, but what is needed should not be withheld. The maintenance of an equal temperature in the hives is essential, as extremes of either heat or cold at this season is what tries the swarms. The risk of their suffering from warmth is slight, and yet there may be days when the sun's heat would be felt enough on the hives to start flying, which is not desirable. At such times a shed of boards or straw is a good thing. But protection from cold is of more importance, and the kind of shelter alluded to above will serve for this also.

There is some absurd talk in the papers, against draining to excess, and, that on some land tile draining is outlay lost. Considering the labor and expense necessary to underdraining, it is not likely these cases ever occur. Where draining would do no good, the land is in such a shape, that the need of it would never occur, hence no one would be stupid enough to undertake it. But where tile draining is economically done on land that will bear it, the gains in improved crops will always warrant the cost. In a great majority of cases judicious underdraining has paid for itself in two or three crops.

Lucky is the man who in connection with his stable has a well filled bin of dry manure or earth, if he cares to have these sweet and healthy. Dried earth and manure especially, have a wonderful capacity as absorbents of the liquid and gaseous substances about stables. A few shovelfuls of earth scattered over the floor after cleaning will render the air of the apartments pure and wholesome. Then all who have gardens count upon the increase of the manure yield. We have no doubt that the value of the season's manure pile may be doubled, by the free use of such absorbents. The strength of the gases and liquids absorbed are retained, and are the very essence of good manure.

# Poultry.

## Ducks in the Garden.

Of what are termed large water-fowls, including Ducks, Geese and Swans, the former are well entitled to consideration for use and ornament about gardens and elsewhere, even if living water for them is lacking. Not but that it is far more desirable that ducks have access to a lake or stream, than otherwise, but they will get along with a small supply of water in a pond or tank a few feet across, in a way that the others could not near so well do.

Kept in such a manner, and ducks will not only be found profitable and ornamental about a garden, but serviceable; they offer the advantages of being voracious insect consumers, and of neither scratching up seeds or roots or flying about mischievously. It is a special recommend that they will destroy those great plagues of the garden, namely, slugs, a thing that even hens will not do. One of our friends, once had a garden on sandy soil, which as a result of the heavy manuring needed to fit the soil for vegetation, became terribly filled with slugs, cutworms and other insects; the young plants were destroyed and roses and other bushes greatly marred.

Some ducks was suggested. Eight or nine of these were bought, turned into the garden and given free range. The result was most astonishing; in a few months the insects seemed entirely used up, after which the flock of ducks was reduced to three, and these kept to guard against further trouble.

To be sure, some things can be brought against the keeping of ducks in the garden, but these do not offset the benefits. They have a great liking for Strawberries, about the only fruit they will trouble. Keep them from the Strawberry enclosure during fruiting time, and trouble is averted. The Muscovies eat buds and young shoots,—we can keep other kinds which do not. But ducks do trample down the plants and filled earth, and eat young leaves. This is the most serious charge against them, but it may be reduced to a small thing, by not giving them free range at all times. Turn them into the garden only for an hour or two hours daily, and that in the morning, when the dew is on the plants. Then they will seek mostly for slugs and similar pests. At other times they may be about the lawn. Where there is no natural bed of water for ducks, pains should be taken where they are kept, to provide a change of water in a clean tank every day. This should be located near the water tank or other supply, for convenience.

## Colds in Poultry: How to Treat.

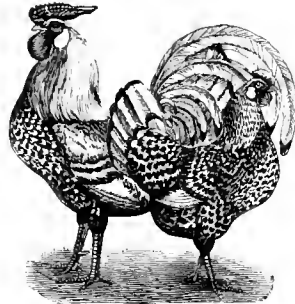
At this season, when human beings are so subject to colds, fowls, too, often suffer from the same cause. Neither are the symptoms wholly different in the two, these being usually such as a running at the nostrils, watering of the eyes and sneezing.

Cold, says the *English Live Stock Journal*, is by no means difficult to cure if taken in time, but neglected, it may soon develop into roup or consumption, both of which are speedily fatal, though the latter is seldom seen save when there is an inherent tendency to it.

As soon as there is noticed any secretion at the nostrils, the bird should be separated from the others, and put in a warm, comfortable place. The food should be of a nourishing nature, and for medicine we know of nothing better than tincture of acetate, of which a sufficient dose for a young chick will be a half of a teaspoonful of water, in which a single drop has been put.

A little camphor may also be put in the drinking water when the sneezing is common. By these means the disease will generally be stamped out, but if not, the cheapest way in

the long run is to kill the birds affected. As is often the case, in spite of all that can be done, the disease develops into roup, which is known by a foul breath, in addition to the other symptoms already described, and by a swelling up of the eyes and face. Then all dishes and troughs had better be washed with some disinfectant, such as carbolic acid or Little's Phenyle, and the coops be well white-washed to prevent contagion. If possible, let the recovered birds be removed to fresh ground, and a little lime spread thinly over the vacated runs, so as to purify the ground.



SILVER SPANGLED HAMBURGHS.

## Hamburgh Fowls.

On the whole these fowls can be strongly recommended for profit. While rather small for marketing, they will in the production of eggs exceed all other breeds. They lay nearly every day all through the year, except during the moulting season, hence have been called "Dutch every-day layers." An annual production of from 200 to 250 eggs per hen in a year, is not uncommon. For family use they are especially desirable, as aside from their value as layers, all the breeds are decidedly ornamental.

The varieties of Hamburgs, are the Black, Golden and Silver Pencilled, Golden and Silver Spangled and White. The pencilled breeds should be classed among rather delicate birds, but their beauty and free laying propensities, are a sufficient reward to many growers, for the extra care they require. This class is rather liable to roup if exposed to cold or wet, hence they should be hatched somewhat late. The Spangled Hamburgs, of which we show an engraving, are hardy and lay larger, if perhaps fewer, eggs than the pencilled. For profit, however, we would be disposed to place the Black Hamburgs ahead of all the others, both on account of the large size of the eggs and their productiveness, which certainly exceeds that of all breeds known.

Although Hamburgs naturally love a wide range, there is no real difficulty in keeping them in confinement, provided only that cleanliness be closely attended to. None of the varieties ever show any disposition to sit, unless it is in a state of great freedom.

While the objection is raised to Hamburgs of being too small to figure much on the table, it may be said that the bones also are small, and really carry more meat than might be supposed from the appearance, and what there is of it is delicious, both as to quality and flavor.

## CONDENSED POULTRY NOTES.

**Avoid** over-crowding.

**Divide** up the large flocks.

**Fatten** the tall, thin turkeys

**Provide** a plenty of nest boxes.

**The Bronze** turkeys are the best paying

**To the block** at once with egg-eating hens.

**Feed** warm mush, not too hot, on cold mornings.

**On cold days** go over the nests for eggs several times

**Our experience** has been that barley freely fed, impairs freedom in laying.

**A little celery** fed to fattening ducks, adds a delicious flavor to the meat.

**Dry, warm** quarters for your hens now, will soon make dry silver quarters for the pocket.

**Wyandottes.** The demand for these at present is remarkably brisk, but prices tend downwards.

**If you are** only beginning the poultry business, start in with twenty fowls rather than with a hundred.

**With wheat** comparatively cheap, it is entitled to a leading position in feeding both heavy and light breeds.

**We believe** that half the diseases of fowls could be traced to their being forced to drink stale and polluted water.

**Time of hatching.** Hens' eggs hatch in twenty days; turkeys' and ducks' in twenty-eight days; geese's in thirty days.

**The number** of poultry associations started with in the past year is really surprising. This shows which way the wind blows as to poultry interests.

**A poultry raiser** near the writer's place, makes it a rule to allow six square feet, say two feet by three feet, of floor room for each fowl above six.

**No hen** should be kept beyond her second laying season, as a rule. Because many pay no heed to this point, but keep hens along three, five or more years, they wonder why they lay so poorly.

**Turkeys for breeders.** Only select ones should be saved back for this purpose. Old gobblers, say from two to four years, are the best. Choose out such as are broad across the back, short-legged and square built.

**Soaking Grain.** Contrary to what the practice of many poultry keepers would indicate, the digestive apparatus of fowls, does not require that grain be soaked before feeding. In fact, to soak the grain, is to fill the bird's crop with a quantity of water to no purpose. Fed dry and the grain is better relished and does more good.

**Fowl cholera.** This is also a disease of the season. It is more easily prevented than cured. Thorough cleanliness in every particular, pure air, pure water, moderate feeding, avoiding excess of fat, and a healthful variety of food, including plenty of fresh bones finely crushed, will help to evade the disease. Teaspoonful doses of saturated solution of hyposulphite of soda, given daily, an entire absence from food for several days, have been found an effective remedy in cases not too far advanced. —*Agriculturist*.

**Look well** to the comfort of your fowls at this season; uncomfortable hens never do much. Mix with the morning feed of grain, a little boiled meat, cheap offal from the butcher's, bullock's tripe, liver, or anything in that way, twice or three times a week. From half an ounce to one ounce is quite sufficient at a time, for each bird. Also do not forget to add some green food right along. Then if the house is in good order, and the breed right, you will be paid for your pains over and over, by the frequency of the cackle, telling you of the addition to the store of eggs, at this time, when they are worth picking up.

**Suit the food** to the time it is fed, for the best results. To do this, give unground grain at night before roosting time, and soft food in the morning. The former will last in the crop longer into the night with benefit. The grain food given at the morning meal, allows of digestion commencing at once. This is beneficial, for nothing seems to tell so strongly against the well-doing of a fowl, as to remain for hours with an unoccupied stomach. Let the morning feeding be done as early as possible in the morning, and that of evening just before going to roost. If the fowls are confined, and with no chance of picking up anything through the day, they will require another feeding about noon.

**Best Stock for Winter Laying.** We agree with a writer in the *American Poultry Journal* on this subject. He says: The most desirable stock to have on hand, at any time, is early-hatched pullets. They become large and well developed by fall, generally begin laying before cold weather, as they do not moult the first season, and with proper care will keep laying throughout the winter. Then, by spring they will have laid several litters of eggs, and will be fully as desirable for breeding purposes as adult hens, and will, in their turn, bring off nice, early broods, to take their place the following season.

Late-hatched pullets are even worse than old hens, both for winter laying and early spring breeding, for they will be small when the cold weather comes, which will serve to stunt them more or less, and they will not begin laying until the warm weather of spring, and then the eggs are so cheap that they hardly pay for feeding and taking care of the fowls. Besides this, the first litter of eggs laid by a pullet are not fit to use for breeding purposes, as they will not produce near as strong and healthy chicks as those coming from older hens.



### Treeclimber's Talks.

#### LEAVES: THEIR ABSENCE.

But a few weeks ago, and all the trees and bushes were clothed with leaves, now most of these are bare. What a great change has come over the face of nature because of this.

We do not, however, mind the absence of leaves so much, because we know that in a few months a new crop will come forth, seemingly more fresh and beautiful than any of former years. Examine even now almost any tree, and the buds of next year's growth may readily be seen; they are only waiting for the warmth of next spring, to shoot out into new verdure. When that time arrives, we will enjoy the sight all the more, for the winters break, of several months' duration, in leaf-time.

#### BEAUTY AND VARIETY IN LEAVES.

I want to speak somewhat of the beauty and variety found in leaves. The beauty of flowers is constantly on the tongues of people, and in the poet's verses, but not so of the hardly less beautiful leaves. I have made a drawing in outline of four leaves which the publishers have had engraved very well, to show something about this matter of shapes and beauty.

The engraving represents some very common leaves. The one to the left is that of Grass, next to and partly under this one, is a divided leaf of the Lupine, a common garden flower raised from seed; the finely-cut leaf to the right is that of a species of Poppy, and back of this, a small leaf taken from a tree of the common Chestnut.

Here are but four forms; how different they are, and how pleasing to look at. But the forms found in nature are endless, and afford a degree of variety in their shapes that is truly astonishing. We have but to open our eyes as we walk out in the season of leaves, to see very many of these. Their forms are the marks by which we may distinguish one kind of plant from another. The more striking shapes of leaves have names, and to gain an acquaintance with these is one of the earliest and most useful things to be learned in studying botany.

#### FLOWERS AND LEAVES.

I have said, that we hear more of the beauty of flowers than of leaves. Much as I love the flowers which nature spreads out over the earth, I think that so far as the office of adorning the earth's surface is concerned, the leaves are more important even than are the flowers themselves. The beauty of the green grass which grows everywhere the world over, lies in the leaf, and the same is chiefly true of the forests; no quantity of beautiful flowers could make up for the complete absence of these from this earth.

I do not draw this comparison, as if there was any rivalry between flowers and foliage as adorning material. Both have their place and fill it well, but in the constant admiration which flowers call forth, I desire to invite more attention to the beauty of leaves.

#### ABOUT THE HYACINTH AND ITS NAME.

The Hyacinth which is so well known by all, is a native of the oldest inhabited parts of the world. In such eastern countries as Asia Minor, Syria and Persia, it is found growing wild, abundantly. We can readily accept the fact that it has also been in cultivation from the remotest times, for no flower to-day is more highly esteemed, or more easily managed. Its present

name has come down to us through all the ages, from ancient Greece, and is interesting on this account. Grecian fable links the origin and name of the flower with the characters of ancient mythology. A legend relating to this subject, which was lately handed to me by a friend runs as follows:

"Apollo, god of the arts and sciences, became very fond of a shepherd youth, whose name was Hyacinthus, and took great delight in throwing the discs with him, a pastime much indulged in by the old Greeks and Romans. One day while engaged in this sport, the discus thrown by Apollo struck Hyacinthus in the head, and killed him on the spot. Apollo, very much grieved by the sad death of his favorite, changed him into a lovely flower which he called after him Hyacinth."

#### HOW THE CYPRESS WAS NAMED.

Another fable told of this same god, and which accounts for the name of the Cypress



LEAVES OF VARIOUS SHAPES.

tree was, that Apollo was also very much attached to another shepherd-boy, for this god was the guardian deity of the herds and flocks. The boy's name was Cyparissus, and it is said that he had the misfortune to accidentally kill one of the favorite stags of the god. This so grieved him that he pined away and died of a broken heart. Apollo then transformed him into the Cypress tree, which has ever since borne his name.

TIMOTHY TREECLIMBER.

#### Mistakes that are Natural Enough.

It is not strange that children should make many mistakes, before they master the art of spelling words with silent letters in them. Usually there is very little to indicate what the silent letter might be, by the sound of the word or syllable, containing it. A difficulty somewhat like this is found, in mastering the use of words which have the same sound but are differently spelled, or have different meanings. So, too, in the application of names that are alike, or nearly so, as the Pine, which may refer to either the tree by that name or to the Pineapple. In view of this fact relating to the word pine, and also that the fruit of the pineapple somewhat resembles a pine-cone, the mistake of the boy here alluded to was natural enough.

One day last month a lady in Maryland gave her son, a lad of five years, permission to eat a "pine-apple," although she wondered at the time where he could get a pineapple. Later she saw him sitting in the yard trying to chew a pine-cone that he had pulled from a neighboring tree, under the belief it was a real pineapple.

#### Found Out at Last.

The following amusing incident told by the *Chicago Herald*, shows how the working out of all the details of a great railroad,

admirable as this may be, may not prevent the road from being systematically cheated, for a long time, without detection, but also that wrong-doing must sometime have its end, and the wrong-doer be made to suffer.

About four years ago some repairs were made to a small bridge, some miles away from any station, on a railroad in Illinois, and of course the bridge gang had put up a sign-board "run show," on either side during the day, or so the bridge was weakened. Just about as they had finished their work the sign-boards disappeared, and they didn't take the trouble to hunt them up.

Some weeks afterwards these signs reappeared in the former places. Nobody cared. The section men no doubt thought the bridge men had done it. It was none of the engineers' business why they were there; their duty required them to show down at all such signs, and this they did. For about four years not a train had passed over that little bridge without slowing almost to a standstill, costing the company thousands of dollars, to stop and start trains.

How it all came about, was this: An unscrupulous farmer near by stole these boards and put them up again at his leisure. For four years he has been going into the town or coming from it on the trains, getting on or off right at his own door. It was a slick scheme, but his game is up now, and the engineers are having their revenge by keeping up an infernal screeching of their whistles at all hours of the day or night whenever they pass that farmhouse.

The young are apt to look upon discipline and early responsibility as a form of adversity. On the other hand the experience of this world teaches, that in the long run, the thing we call good fortune—shelter from hardships; indulgence of all kinds and money aid for every venture, or every fancy, more often work against the true interests of the young throughout their lives than otherwise.

#### PET BIRDS, ANIMALS, ETC.

If you have more than one cage, remember that birds get jealous, over having their neighbors perch higher than they do.

The Goldfish is a carp, and a native of the warm parts of China. It is now naturalized in many of the streams of southern Europe, and also in American waters. Its perfect adaptability to glass globes in living rooms, is partly accounted for by the fact of its thriving best in water kept above the ordinary temperature.

At night, in cold weather, unless the bird cage is kept in a warm room, it should be covered. For this an old woolen shawl is better than anything else. It not only keeps the bird warm but through darkening the cage, makes him later in waking in the morning, and thus leaves you to finish your own nap, without being disturbed by his early cries.

Bad as a disease is, the remedy may be worse. A friend had a bird that was troubled with vermin; an authority was consulted as to what to do. A remedy for the trouble ran thus: "Wash both cage and bird in linseed or rapeseed oil." These instructions were followed to the letter; although it killed the parasites, it left the bird in a most uncomfortable condition, very near killing it. The oil was only removed by the light use of refined benzene on the feathers, taking a few at a time.

For Canker about the head of pigeons, says a writer in the *Poultry Monthly*, the best application is nitrate of silver. Touch with this to begin with and afterwards apply twice a day a solution of one part of carbolic acid to ten parts of glycerine; keep the parts clean by a sponge dipped in permanganate of potash. To make this, add a teaspoonful of potash to a quart bottle of water, and shake till dissolved. This is a capital disinfectant for sprinkling about the nests or shelves, or the loft generally.

Unhealthy Canary Birds. Sometimes when canary birds are not doing well, and one cannot imagine what the trouble is, it lies in their being affected with the red mite. To ascertain whether such may be the case, cover up the cage at night with a white cloth, and in the morning you will see the tiny red mites on the cloth. To get rid of these pests, dust the bird with insect powder, wash the cage with scalding water, and keep it also dusted with the powder. It is also a good plan to give the bird a bath, have the water tepid, and put some flowers of sulphur in it. This is to be repeated every other day. Two or three drops of sherry in its water as a tonic is also desirable. Let it have lettuce or any green food you can get, canary seed or inga seed.

# The Household

## Where do the Children Sleep?

A friend noted, for her good common sense, tells about having been approached by an anxious mother, concerning the ill-health of a daughter of seventeen, when she in return asked to see her sleeping room. The mother was sure nothing could be wrong here, for servants had attended it daily, to see that it was warm, and that no dampness could enter.

The room reached, it reminded the visitor of the Catacombs; not a ray of sunshine being ever admitted—"Light hurts Sarah's eyes" was the excuse. The most noticeable thing in it was a close, musty smell. When asked whether it was ever aired, the answer was: only on sweeping day. Ventilation at night being suggested to allow the carbon exhaled by breathing to give way to pure air, the mother replied that such a course would kill the girl, as she never could bear draughts and damp air. Our friend gave the mother such wholesome advice, as we are sure will prove a great benefit to that girl's health, if it is heeded.

This incident shows, what we have long noticed with pain, that many parents are careless as to the sleeping place of children and young people. No doubt the same are careless of their own sleeping rooms also, but had effects from such causes, tell less hard against the old, than against the young.

During the whole period of growth in a child, the constructive operations of the body are very active in sleep. This fact demands, that if children are to be healthy, the conditions that surround them at night must be conducive to this. It is of the greatest importance that plenty of fresh air be admitted at some of, if not all, the time of the twenty-four hours. The window or windows of the room, should be thrown wide open soon after the hour of rising; the bedding be well exposed to the air; so to remain for some hours at least. The children may be taught to throw back the cover themselves, when they get up. In all but the severest weather, the year around, air should be admitted at night.

A common and most grievous mistake, is to have children sleep with aged persons. A straw pallet on the floor would be far better. During the nutritive regeneration of the tissues, which takes place during sleep in all persons, the child would be the heavy loser, if lying in sleep, close to a person of declining years. Instances are not lacking to prove the truth of this statement. No one has a right to rob a child of the birthright of sound health, to gratify the selfish whims of aged persons, who are often to blame for urging children to this course.

As far as can be done, children should have separate beds, even if two are in the same room. It is both better for health, and more conducive to sound, refreshing sleep which is much the same thing. Parents, as they regard the lives of the young under their care, should see to it that they do not suffer during the important period of early life, that is given to sleep.

## Brieflets.

**Lard** should go into tin.

**Start** the night with warm feet.

**Unsunned** rooms, cause unsound health.

**Hang up** the brooms; they will last longer.

**Keep** the bedsteads away from the windows.

**Clogged wicks** can be cleaned, by boiling them in soap suds.

**A part** of dish washing thoroughly enjoyed—hangings away the dish pan.

**If you** have no dark place for the fruit cans, wrap each one separately in heavy paper.

**Drop** potatoes or fruit as they are pared into water, and the color will not change.

**Good dishes** and bright silver or other tableware, make pleasant work of house-keeping.

**Air**, but don't sun, feather ticks and pillows; the sun draws the oil, making an unpleasant smell.

**Regard** the feelings of naturally shy children, they may realize agonies you cannot understand.

**In serving** lunches or tea, a well-bred hostess errs on the side of plainness, rather than on that of over-munificence.

**Much** of the ordinary bother of washing lamp chimneys on the inside, can be saved by using a stick with a sponge tied to the end.

**Cocoanut Pudding** This is one of the most acceptable of easily-made puddings, brought to our table. One quart of milk and four eggs serves as the foundation. To this is added one cup of desiccated cocoanut, one slice of bread broken up finely, and a small lump of butter. Sweeten to suit taste. For frosting, keep out the white of one egg, beat to a stiff froth, and add two tablespoonfuls of sugar, spread this on top, return to the oven to brown.

**It's an honor** to be a good housekeeper, but we have known instances, where that honor was bought at too dear a sacrifice of strength and health. We know of one sensible woman who saves much of the work of ironing, thought necessary by some, by putting away many things of the week's wash, clean and very neatly folded, but not ironed. In this list are found, woolen underwear and clothes, sheets, towels and the like. Passing an iron over these things after folding will make them look remarkably well, providing the folding was evenly done.

**Dish Washing, and the Hands.** A writer for the *Household*, who ought to know, claims, that with a little care dish washing will add to the looks of the hand, rather than detract from its beauty. She says: "My hands were swollen and red but this lasts but a short time, with it they are also pliable, soft and warm, rubbing them with cream or vaseline at night keeps them so. Dora Smith always wishes to practice on the piano after washing dishes, because then her hand is in the best order for the keyboard. The best work for anyone troubled with cold hands is dish washing."

**Have you a Carpet Sweeper?** Those housekeepers who have not, can hardly realize, what they are missing. The implement makes light of the daily work of taking up the dust and dirt from carpets. It can be rolled back and forth by a child or weak person who cannot handle a broom. The dirt is gathered up by a rotating brush, which receives its motion from the movement of the sweeper. Another point; little or no dust is stirred up in the room to settle again requiring later brushing or wiping up. The revolving brush is enclosed, and the gathered dust is deposited in the case, in a way that saves it from being circulated and deposited again, on carpets and furniture. Such a sweeper is far less wearing to a carpet than is a broom. An excellent one can be bought for about \$2, and will last for years.

**Catching Cold.** Which travels the fastest, heat or cold? runs the old conundrum. Answer; heat, for you can catch a cold. It is very easily done. Here are some directions how, all to be avoided if you would avoid colds. Go into cold rooms when you are warm, without something over the head or additional wraps. Keep on wet shoes and clothes after coming in on a rainy day. Go calling with thinner shoes on than you wear at home, and no over-shoes. Let children throw off their hats or bonnets when heated from play in chilly weather. Set in draft at an open window or door; a street car is a good place. Change from heavy wraps to light ones in a hurry when you come in. If a man or boy, let the hair be cut and shampooed just when a change is taking place in the weather. If a woman go out on a windy day, with your back hair done up high, when you have been used to wearing it low.

**Too Good.** A thing or a person may come recommended as having too many good qualities, to be desirable. An acquaintance of the writer's, lately turned off an agent who was talking up a stove implement, capable of doing a dozen things, with the remark, that she didn't want it, it could do too many things. The lady to whom Mrs. McNamara applied, seeking a situation for her daughter, felt quite similarly, as stated in the *New York Times*:

Lady—Is your daughter Bridget a good girl, Mrs. McNamara?

Mrs. McNamara—That she is, mumm. She's a daein't girlin'. She goes to mass ivery mornin' at 8 o'clock, and twice on a Sunday, an' she natther ates mate on Fridays, nor cooks it, mumm, an' she believes in obsarvin' the Sabbath day an' kaping it howly an' niver cooks nothin' on that day, mumm, an' confesses her sins once a wake, an'—

Lady—I am afraid she is too good, Mrs. McNamara.

## Notes on Dress and Home Art.

**Plainness** for Jerseys.

**Silks** were never cheaper.

**Jackets** vary without end.

**Plush** is more in favor again.

**Braid** or cord lacing is much used.

**Dishes** of cut glass are fashionable.

**Bright Colors** were never more popular.

**Green** for gowns of rich fabrics, continues to hold its place.

**Red** cloth jackets are favorites with young ladies for driving.

**Red** is much used as a third color with brown and blue costumes.

**Underskirts** of black next to the dress, are becoming very popular.

**Fur**, and especially sable, is used for trimming all kinds of cloth and velvet dresses.

**Gray** and pearl-color gloves, will be more worn than they have been for many seasons.

**Bretelles** the name for the V-shaped trimmings, are much in favor on dress waists and mantles.

**The colored** glassware of the table now so often seen is very pretty, but too gaudy for lasting good taste.

**Spirits of Ammonia** rubbed over nickel ornaments, by applying with a saturated woolen cloth, will keep them bright.

**For a stylish collar**, the dog collar two inches in height, made of velvet, lined with silk and adorned with beads or chenille, prevails.

**Now** the old-fashioned quilted skirts of our grand mothers have been reached. For warmth, they deserve renewal after their long rest.

**The bang** across the nape of the neck is out of style, but crumping is still applied to the back hair, before it is carried up to the crown of the head, for coiling there.

**No one** can object to the use of some bright ribbons about the parlor, on braided and other chairs, baskets, frames and the like, but being easily applied the custom of using these is often carried farther than good taste sanctions.

**On wool and velvet** costumes, a group of three large buttons on each side of the corsage, and of six or eight on the skirt in the lengthwise pleats or panels at the sides, is very fashionable. The buttons are metal and flat, with raised flowers or other figures, and of a color suited to the dress.

**Table-cloths.** The latest departure in these, is highly embroidered linen, with elaborate floral patterns in crewel, cotton or washable silk, extending from the hem far up into the center. Curious and handsome doyleys of Turkish embroidery are put under the glass finger bowls. These being interesting objects, give guests something to talk about.

**The fire-place** is receiving more and more attention from builders of new houses, as years pass on. It seems destined to again occupy much of its old-time prominence and glory. The time was, when the fire-place was the center of attraction in the home, and much could be said for promoting it to this position again. In the finer class of houses now built, nearly every room has an open fire-place.

**Some Christmas gifts** that are elegant, useful and easily made, are the following: A visiting-card case of olive velvet, lined with red, size five by seven inches; in making, use some stiff canvass between the velvet and the lining; a silk pocket three inches deep is set on the inside of each cover; on the upper cover should be embroidered in Japanese gold thread, initials, a motto or other device. A stand of wickerwork for music or drawings, may be purchased, and if lined with embroidered plush and set off with handsome fringe and tassels, is an elegant affair for the parlor. Pincushions for the parlor, the library or any other room, now so much in style, are very appropriate as Holiday gifts. Some beautiful designs for these are small bellows made in cardboard covered with satin, or a doll dressed as an undergraduate, in cap and gown, and a wheelbarrow made after the same order, the cushion being located inside the barrow. Quite the newest idea is a tiny wooden sabot converted into a pincushion, being stuffed inside. A perambulator is also adapted to a work-case, reels of cotton forming the wheels. A large silk, satin or plush sack is a good notion for a pincushion. One of the prettiest kind, however, is hung against the wall, covered with velvet, having an applique of open brass work on either side, taken from horses' harness, which only now have been turned to this new purpose. For bedrooms there is a new coronet pincushion, made of an octagonal box of pasteboard and the sides covered alternately in plush and satin.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON

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## A Fine Autumn-blooming Crocus.

Altogether the Crocus genus is a very extensive one, and is known to embrace no less than seventy species. So far from all being spring-flowering sorts, like the common ones (*Crocus vernus* and varieties) of our gardens, it may be said, that the various species together afford a continuous succession of flowers from the beginning of August, until April. But of all these, with their varied season of bloom, it is only the earlier autumnal or the distinctly vernal, species that can be relied upon in the north for garden decoration. Far enough towards the equator, as in the parts of Asia, where many of the species are at home, and where frosts, even in winter, are not severe, the winter sorts flower abundantly. One single species of the fall-flowering class is well known in cultivation, as the Saffron plant, *Crocus sativus*, of our gardens. This one blooms handsomely in September and is especially valued for the medicinal virtues of its large stigmas.

Bory's Silver Crocus, *C. Boryi*, of which we give an engraving, is another autumnal bloomer, and one of marked beauty. No Crocus can very well be fairer than this little species, which blooms in October. Its flowers are of the size shown in the engraving. They are beautiful in all stages; the purple-streaked buds and the half-opened, cup-shaped blossoms being in their way as lovely as the pure white orange-throated starry flowers themselves. The leafage—as if to suit the delicate flowers—is most slender and elegant.

This species, while quite hardy, does not bloom well without the protection of glass, the rains and frosts of October being sufficient to prevent the development of the dainty little flowers. In a frame protected with sash it ought to succeed well everywhere.

This Crocus like others of its same season of bloom should be planted in midsummer. The plants delight in a rich, well-drained soil; the combs should be buried about three inches deep, in planting. At the approach of winter, all those sorts which lack somewhat in robustness, as does the one figured, should have a coat of straw or leaves over their tops, and between them and the glass of the frame in which they are growing.

## Notes from Lyndale.

BY A. H. E.

January 3. Visitors to Lyndale in the winter are much attracted by the beauty of the Evergreens on the place. It is not so much that the number of kinds growing here is very extensive, as that what there are are thrifty and attractive. Indeed, when it comes to the matter of kinds, it may be said that the Pines, Spruces (including Hemlocks and Firs), Junipers, Arbor vitæ and Retinoporæ, constitute fully nine-tenths of all there are grown at Lyn-

dale. But these kinds show so many variations in appearance, that to one unacquainted with trees, there might seem to be many more kinds.

\* \* \*

The fine winter effect produced by the Evergreens here, is owing chiefly to three things: first, the sorts planted are such as are adapted to the climate and the place; second, the arrangement, is on a plan that tends to enhance the beauty of individual sorts, and lastly, but in

as the planting is finished. This has the effect of throwing the water off from the base of the trunk, when there are but few roots to the parts on which the feeding roots exist.

\* \* \*

January 10. Reference was made to the arrangement of Evergreens here. Let me enlarge on this. First of all be it understood that I detest the indiscriminate mixing up of kinds in planting. As a rule, I plant either as isolated specimens or else in nature-groups, but chiefly the latter. The groups consist either of one species or a mixture of the different varieties and species of the same kind. To illustrate, I will say, that one conspicuous group of about 75 feet in length, and from one-third to one-fourth of this width, consists of Spruces. At one end there are seven of the free-growing Norway Spruce in a loose clump. At the other end is a mass of the dwarf and compact Fimelon Hall Spruce; there are also a few clumps of the same here and there along the front edge of the large group throughout its length.

Between the tall Norway's at one end and the dwarfs at the other end of this elongated group are planted several dozen of the small Pyramidal Spruce, backed by half as many Glaucous White Spruce. Throughout this group, as in all my arrangements of this kind, I do not clearly define the minor groups but allow the members of different ones to mingle with each other at their edges. The general outlines of the compound groups is decidedly free, that is to say it is not regular. The description of this one group, will give an idea of the principle I adopt in all my plantings of this kind.

\* \* \*

January 16. In holding up the claims of the Privets for ornamental planting, not enough is generally made I think of the fact that they are half-evergreen in character. During November and part of December, when most deciduous trees and shrubs are leafless, these are as green and lively in appearance as at any previous time. A mass of two kinds, the Common and the Oval-leaved, near a side path, is quite certain to catch the eyes of all going that way, during the fall months, by their bright green foliage in the midst of autumn desolation.

But it is not the leaves alone of the Privets that prove attractive to the eye, for all during fall and winter the shrubs carry a quantity of handsome black berries about the size of peas, and arranged in clusters. Then flowering late in the spring as these shrubs do, and when the majority of June bloomers are done, they also prove decidedly ornamental because of their free crop of white, sweet-scented flowers.

\* \* \*

January 22. I am much pleased with the Zebra Eulalia as an ornamental plant. In the garden beds during summer it is not excelled by any other hardy grass of equal size, for effectiveness; its zebra-like cross variegations of yellow on the green ground of the leaves, giving to the plant a very striking appearance. But aside from its value in the garden, it is a fine pot plant for the conservatory the year around. When the plant was first introduced from Japan, here under glass, was supposed to



A Fine Autumn-blooming Crocus. — Bory's Silver Crocus.

its way perhaps more important than anything else, is the fact that every tree planted is well planted at the outset.

\* \* \*

Let me speak of the planting first. I believe in giving every Conifer (Cone-bearer) that I set, plenty of good soil to grow in; no tree is expected to do well if not thoroughly well planted at first, few fail to do well under this provision. In planting, the process is suited to the nature of the soil where the tree is to go, as nearly as possible.

A first step in this operation is to make a hole three feet deep. The subsoil is kept separate, and if particularly unfavorable to the growth of roots, none of it is returned. Such material as old sods from the roadside, or old potting mould, the rougher the better, is the main rebance, either used alone or mixed with the soil just thrown out.

I take special pains in placing the roots when the work is being done. The tap-root is allowed to descend perpendicularly into the bed of new soil; the others are spread out in the directions they lay where they grew before. Then each tree is raised somewhat above the ordinary surface, in a way that leaves it on a slight elevation

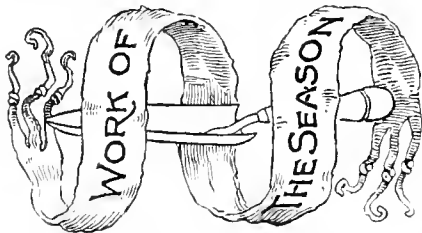
be its place until its hardiness became known. As a pot plant the Eulalia is delicate and graceful looking in a decided degree, and along with its peculiar markings is sure to attract attention in any collection of plants.

\* \* \*

**January 28.** In managing a plant conservatory, I have found through years of experience, that, to have "air on" as the florists say, for a longer or shorter time by one or two hours daily, makes a great difference in the well doing of the plants. My rule in all mild weather is to go over the house four times daily, in opening and closing the ventilators.

As soon as the outside temperature begins to rise a little, I open the ventilators, a little only; then in perhaps an hour I go through the house again, and open them as much as they will bear; in the afternoon this plan is reversed.

Those plant growers who find too much trouble in this system, are sure also to find something else that I don't often meet, namely: unhealthy plants, and along with these insects without end, to cover them.



THE HOUSE PLANTS.

If plants put forth flowers at all in this dark, cold, opening month of the year, it must be mainly on the strength of earlier stored-up vitality.

There are the Hyacinths, Tulips, and other Dutch Bulbs, however, which are exactly suited by nature for now doing this, and doing it well, if allowed to. The bulbs of these are receptacle of acquired plant food, and in a measure which permits of growth and bloom under conditions decidedly adverse to most plants doing much.

On these, therefore, we may depend for flowers in January, when so few other plants are disposed to bloom. But this class of bulbs are so well adapted to house culture and afford so much beauty and variety in their flowers, that it is easy with these, and the few Callas, Camellias, Carnations, Cyclamens, Heliotrope, Libonias, Chorozenas, Primroses, and so on that are now likely to come out to have quite a presence of fine flowers even now.

Towards the end of the month, the greater length of the days will tell favorably on the growth and bloom of other plants, helping their attractiveness. The non-flowering (under common culture) kinds, such as Palms, Aspidistras, Rubber Trees, Ixias, Dracenas and so on, should now be looking well. These ought to be relied upon, to give a charming tone in leaf beauty, to the winter collection.

**Air.** On all mild days treat the plants freely to outside air; in all but the coldest weather, at least some air should be admitted daily, if only after the morning sweeping. Much dryness in the air is unfavorable; a vessel of water on the back of the stove to evaporate will help this matter greatly.

**Begonias** of either the Rex or the flowering sorts are among the best of house plants. While they have no need of bright sunshine in fact dislike it, yet a light place in other respects suits them. The Rex division delight in a moist atmosphere.

**Camellias.** Keep in a temperature near 50°, below rather than above; sponge off twice a week.

**Cinerarias.** Great care needs to be taken against their becoming pot-bound; growth must be constant.

**Cyclamens,** when done blooming, are usually dried off; a better course is to keep them growing until spring, then turn them into the border for the summer.

**Daphnes** like coldness and humidity with low heat.

**Dutch Bulbs.** As the earlier started ones pass out of bloom they should have their flower stalks cut out. Those to be saved for future use in the garden should be kept in a cool, light place until planting out time, in May.

Late started ones may be brought into heat for a succession for a month or two yet. These, as we earlier directed, should, after potting, be kept in a cellar or other dark, cool place, until they are well provided with roots. Before showing a good lot of roots on the outside of the ball of earth, it is

really useless to bring them in, expecting good results. As for watering these plants when growing in heat, it can hardly be overdone—Hyacinths and Crocuses, will grow and flower with their roots in water, only, a wonderful thing for plants to do, and indicative of the great love of these for wetness.

**Fern Cases.** Keep moderately wet; too much moisture in the soil tends to sour it. When watering is necessary, follow this act by opening the case to allow surplus moisture to readily escape. Air should often be admitted besides, but never while any dust of the room is in motion.

**Frozen Plants.** If any have been caught, remove at once, and without handling the leaves if you can, to a temperature a little above the freezing point, say at 35°. A careful douse of each plant into cold water at this stage will also be helpful. Here many will recover with but slight damage, that in a higher heat would be much injured. If the desired temperature is lacking, let the room in which they are standing be heated gradually. Several lighted lamps placed on the floor will help well at the start. Avoid above all else running up a strong heat—keep it below 40° until the frost is all out, and even some longer.

**Fuchsias** placed in a cellar in the fall may be brought into heat when they begin to show new leaves shift into pots, a size or two smaller than those previously occupied, shaking out most of the old earth. The soil should be fresh, light and well enriched with old decayed manure.

**Ivy** and like plants with heavy leaves, should be often washed, for the sake of health and looks.

**Lemon Verbenas.** See directions for Fuchsias.

**Propagation.** Where slips of any kind are large enough they may go into sand for rooting. Plants kept to supply cuttings do not need free shifting, as this tends to excite a quick and succulent growth that is not so favorable for making young plants. Give the cutting box a light and even sunny place.

**Seed Sowing.** For early plants of Mignonette, Petunia, Manrandia, Dusty Miller *Centaurea agrostifolia*, Golden Feather, and Ten Week Stocks, the seeds should be sown during this month.

#### LAWN AND FLOWER GARDEN.

Little can be done in this department during January, save to plan and to prepare for the future. But as our success in gardening depends so much upon the intelligence and foresight brought to bear upon our work, we should look upon this first month of the year, with the large amount of leisure for study and deliberation that it brings, as a most important one in the garden calendar.

**Catalogues** should be ordered from the nurseries, seed houses and implement dealers early, that ample time may be had in studying up one's needs. First come first served is the rule in filling orders by those who furnish stock, so there is no danger of making out orders too early. Better have them reach the nursery a month before spring, thus securing the stock early, than to get there so late that planting may be delayed dangerously. Seeds especially, should be gotten around early in anticipation of the early sowings.

**Flower Beds.** As no one ever thinks of planting the same beds alike year after year, so the sooner the coming season's plans are decided on the better for getting up the needed stock by planting-out time.

**Hollyhocks.** By sowing seed now in the window or under glass, and planting out in May, these plants will flower as annuals in September.

**Hybrid Perpetual Roses** earthed up a foot deep for the winter, are sure to come through safely. If this was not done in the fall, coal ashes from the stove may yet be applied instead. When emptying them out, sprinkle them with water to prevent their blowing away.

**Mice** are prone to girdle trees and shrubs when supplies of food are cut off. They work under the snow ordinarily, hence if the snow be kept tramped about the trunks of trees and shrubs, their opportunity is taken from them. Their food being scarce now, trapping with tempting bait works well.

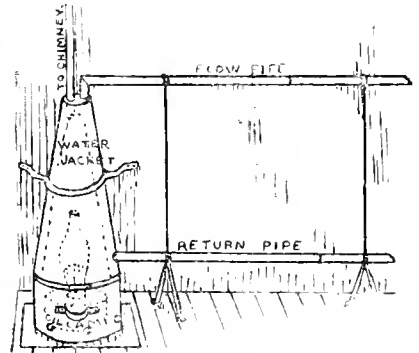
**Pansies** for spring bloom may be sown now.

**Rabbits** often make bad work gnawing the bark of young trees. Some bloody meat or liver rubbed on the trunks will prevent this.

**Rock work** in some shape is desirable in nearly every place. This is a good season for gathering material with which to construct, so that when spring comes formation may be begun early. One or two kinds of stone look better usually in constructions of this kind than more would, the idea being to make it appear as if the stone were natural to the place. In the absence of stone, fair substitutes may be had in the odd shaped clinkers that come from furnaces, and distorted burned bricks from kilns.

**Rustic work** may now be made. Cedar is a favorite and easily worked wood for this purpose—now that the swamps are closed it is readily procured. Laurel wood, and especially its roots, is another favorite material; but many other kinds that will work up well may be used. With a little ingenuity rustic tables, seats, arbors, vases and so on may be made that will be both beautiful and inexpensive.

**Snow drifts** so high, where young trees are standing, as to reach above the place of branches leaving the trunks, are liable to cause the limbs to break.



Heating with a Coal-Oil Lamp.

when later the snow settles away. A little shoveling will prevent this. Snow that has accumulated in the tops of evergreens or shrubs should be shaken out when it is light and soft.

**Tree Pruning.** If any part of a tree lacks in free growth, by pruning now, the shoots will push with increased vigor next year. See article in December issue. All scars above an inch across should be coated with paint or tar to keep out moisture.

#### PLANT CULTURE UNDER GLASS

**Amaryllis.** Repot those showing signs of growth, watering very little at first but gradually increasing.

**Azaleas** coming into bloom need plenty of water. A collection may be had in flower over a much longer season, if different temperatures are at command, by bringing some into high heat by degrees, for early, keeping others cooler, some quite cool.

**Begonia Rex** may be propagated now from leaves. Turn well matured ones of these bottom side up, and with a sharp knife cut the main ribs here and there, and just below dividing points, at about, say nine places. Then lay on sand, with the right side up, in a heat of 60° with a little sand on top of the leaf to weigh it down. The air should be moist. We have hung the leaves under bedded Rose bushes, grown for Rose buds, and without further care have found them to root well.

**Broken glass** must have immediate attention. In our greenhouse we keep "life preservers," made in several sizes on hand, to close up any breaks until they can be repaired. These consist of pieces of board a trifle larger than one, two or more panes of glass respectively, and which are used to lay over any breaks. A screw-eye is put into one side near the center of each board, and to this is attached a cord, holding a weight, for keeping the board in place over the opening. These serve their purpose well.

**Bulbs** like Gladiolus, Tuberose and the like should be looked after at this season that they are in good order. Gladiolus, Cannas and Dahlias are often kept under the greenhouse stages; see that no moisture comes to them to induce growth now. Tuberoses and others should be cleaned up, and have the offsets removed during the winter's leisure.

**Flowering Begonias** that have gone out of bloom should be pruned somewhat and kept rather dry. When signs of new growth appear, repot. Avoid over-watering always.

**Fuchsias** should now be struck for nice spring plants. Once in pots they are impatient of cramped root room; let them not want water or light. Plants struck after this should not have their tops pinched off, but should be grown naturally and quick.

**Geraniums.** Fall propagated ones will be putting on new signs of vigor now; see that they are not in the way of being crowded with the first increase of growth by standing to close. Repot to produce a good growth for spring. Geraniums of the tricolor section being less robust than the common sorts, need a little extra attention. They delight in a warm place, say 55°, and much light,—shelves near the glass in a Bouvardia house suiting.

**Heating.** For heating a small plant house or to provide extra heat in the colder parts of one, a coal oil heater may often be used to advantage. The accompanying cut shows such a stove with hot water



attachment, and pipes to convey the heat for some distance. The upper part consists simply of a cone-shaped water jacket of copper or galvanized iron, to which is connected a continuous pipe (shown broken in the cut) two or more inches in diameter, for circulating the hot water to impart heat. Underneath is a movable base in which the lamp is set. A pipe for conducting any smoke or small arising from combustion to a chimney or stove pipe is provided. Heaters of this or a similar style are much used in England. One advantage possessed is the slight care needed to manage them.

**Orchids at rest** should have a complete rest, with not a drop more of water than is absolutely needed to prevent the bulbs shriveling. Better if they must suffer, that it be from too little instead of too much moisture. Cattleyas, Oncidiums, and others with large fleshy bulbs need even less water than the Vandas, Saccolabiums, Aerides and those of a similar style of growth. When watering is really necessary, do it early in the day and so carefully that the tender foliage will not become splashed over. The temperature for Orchids should be very regular as a general thing, but during excessively cold spells it would be better to allow the thermometer to drop a few degrees below the average, than to employ very strong firing in order to reach its regular height.

**Pelargoniums.** The beauty of these attractive spring flowers later, will depend upon free-growth now. The plants like rather a warm dry place, plenty of room, air and sun-light.

**Peperomias.** Propagate by division or else by inserting the leaf stalks into sand, to have the leaf lying close down to the same.

**Petunias.** Directions for Geraniums will apply.

**Roses.** The chief requirements of the ever blooming class now, is a uniform temperature of from 55° to 60° by night, with 15° or 20° higher by day; syringing twice daily; a little air on all suitable days, and if the soil shows signs of exhaustion, liquid manuring once a week. The plants should be gone over at intervals and have all blind shoots as well as unduly straggling ones removed. If in cutting Roses these are taken off with stems running back to the second eye from the next larger branch, little other pruning besides this mentioned will be needed.

Hybrid Perpetuals now under way, must have an abundance of water, and plenty of air. A high temperature is not needed.

**Seed sowing.** See under The House Plants.

**Spring plants** should be propagated according to their habits; those flowering only after considerable growth has been made first, while quick bloomers may have this deferred. Favor kinds of which stock is scarce for hurrying up the growth of cuttings.

**Ventilate** freely in bright and mild weather to keep the atmosphere sweet.

**FRUIT GARDEN AND ORCHARD.**

**Catalogues.** See under Lawn and Flower Garden.

**Currants** may be pruned by shortening the last seasons' growth, and trimming to form open head.

**Cuttings.** If Grape or Currant cuttings were made in the fall, they should have slight protection now; an inch in thickness of straw will answer.

**Gooseberries.** Directions for Currants will apply.

**Grape Vines** in localities where they are not covered, and are not yet pruned, should be pruned in mild days before spring, to prevent free bleeding. It is not known that bleeding does any real hurt, it certainly does no good, being unnatural, and it looks unsightly so had better be prevented.

**Insects.** Very few are visible at this season, and yet a sharp eye run over the branches, may detect the rings of tent caterpillar eggs on them; and also cocoon insects when present. Wherever found remove them; each one of the former destroyed now, is equivalent to lessening the caterpillars of next season by three or four hundred.

**Labels** on trees, if left as they come from the nursery, will by their wires as the branches enlarge in time, cause strangulation. Serious damage is often done to trees in this way. On mild days, go over the trees and remove any that are liable to do this. For permanent labels, use pine, making them heavy, and painting, or else use zinc and in either case, copper wire about size No. 16, for fastening to the trees making the loops so large that in years the growth will not fill them.

**Mice and Rabbits.** See under other departments.

**Shelter Belts.** The winter season is a good time to consider the effects of these on the orchard. Before spring we shall say more on this subject.

**Tree Pruning** may be done in mild weather. More harm comes from over-pruning than from pruning enough. Weak and imperfect shoots should come out, as also such as cross each other in close

conjunction. Weak or stunted trees may often be helped by a severe cutting back. Aim in pruning to open the head, that air and sun can enter.

**Tree Trunks** may be scraped of loose bark, and if infested with moss or scale, be painted with a mixture of lime, soot and clay. Work the brush vigorously that the liquid may get into every crevice. Some fruit growers find in luscious oil one of the best washes against bark insects, and it adds to, rather than detracts from the appearance of trees.

**Winter Covering.** If this has been displaced, re-apply. Some dirt or moist coal ashes on them may serve to keep down light covers.

**VEGETABLE GARDEN.**

**At the South** early vegetables may be sown from January to April. Vegetables like flowers, may be classed as hardy and tender, the former including Peas, Parsnips, Parsley, Onion, Leek, Lettuce, Cabbage, Cauliflower, Cress, Spinach, Beets, etc., may be sown as soon as the condition of the soil will allow, in any section. Tender kinds such as Beans, Tomatoes, Cucumbers and Melons can only be sown with safety South, North, or anywhere at Corn-planting or Cherry-blossoming time.

**Cabbage plants** in frames need an abundance of air whenever the temperature is to the thawing point and above, below this they need not be uncovered even for days together.

**Hot Beds.** For these horse manure should be accumulated in a dry place, but not piled so deep as to induce free heating before it is needed. A few boards or rails laid up slanting where the manure is deposited to prevent close settling, will aid in this.

**Lettuce** in frames. See on Cabbage plants.

**Manure.** Plenty of manure, with tillage are almost the only secrets of raising large crops. In cold weather and with frozen ground manure hauling may be done with greater ease to teams, than at any other time. Manure should not however be spread at this season but so distributed in heaps, as to be quickly available when needed. The piles should be in a compact rather than a loose scattered form, to prevent waste by the washing out of the strength before the earth is thawed to receive it.

**Mice** are often troublesome in frames, cold pits, root cellars and the like, now that their food is scarce. Fix up some "pills" for them, by soaking peas in water until they swell, then roll in arsenic and bury just below the surface in some light earth. They will take these in preference to plants or vegetables, and it will be better that they should.

**Straw mats** will be needed where there are sash beds. A good size is to make them the width of a sash and a half, and of a length to hang down half a foot at top and bottom of sash over edges of bed.

**Tools.** Put in order. New ones that are needed may be made or ordered in the winter's leisure.

**FRUIT AND VEGETABLES UNDER GLASS.**

**Asparagus.** Observe directions for Rhubarb.

**Cucumbers** in bearing, will require much light, a moist but not very humid atmosphere, and a brisk temperature. An occasional watering of bearing plants with weak liquid manure will be of use. Fumigate for Greenfly or Thrip.

**Graperies** that are now being started up should have not above 55° of heat at the outset, and be well syringed twice a day, to assist the breaking of the buds. As the young growth appears, sufficient air must be admitted to prevent the growth from being weak and the foliage thin. Advantage should be taken of mild days to air the structure freely.

**Mushrooms.** The nearer the temperature of bearing beds can be kept to 60° the better. Steady temperature will greatly prolong the bearing of the beds. Manure should be saved up for new beds.

**Rhubarb** under glass, must be kept well watered.

**Snow on Glass.** On warm forcing houses it usually soon melts, but where the temperature inside is kept rather low, it may be need removing. A snow scraper three feet long is one of the safest articles for removing soft snow. If a shovel must be used, let it be of sufficient width to reach over at least two bars. Cold pits that are frozen up should not have the snow removed from the glass, but frames that are unfrozen inside must be kept clear of snow.

**Strawberries** must not be allowed to overbear, or the fruit will be small; a moderate number of large berries are much more satisfactory than many small ones. When enough have set, clip off the remaining flowers, and then later count some in removing the smallest berries also. Apply the syringe to keep down red spider. Avoid both drought and overwatering at the root.

**Inquiry Column**

*This being the People's Paper it is open to all their Inquiries, bearing on Gardening.*

*On the other hand, answers to published inquiries are earnestly requested from readers.*

*The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer; give facts and ideas and the editors will see that they appear in creditable shape.*

*In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper.*

*Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that they be fully prepaid. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.*

20. **Can you give the methods** adopted by the florist, who get up such fine specimens of Chrysanthemums, reported in the paper? What are cuttings put in? Are they pot grown?—H. H. H.

21. **Will you tell me** what plant the enclosed leaves belong to? It was sent me minus a name—bore large clusters of whitish flowers which remained long on stem. Is it Hydrangea or Abutilon?—MRS. ROBT. EARN.

22. **Chrysanthemums.** How do florists increase their stock of these? Are the plants left in the greenhouse unpinned, or are they cut back or divided? Must I water or dry off?—MRS. J. S. R. T.

23. **I have a grand vine** of Ipomea Nocturna or Evening Glory, a pure white, star-pointed flower, pale blue stripes to each point, deliciously fragrant, which I desire to increase but do not know first step to such accomplishment.—MRS. J. S. R. T.

24. **Plants for Growing under Stages.** Could you name a list of plants for this use? My conservatory runs east and west, and I desire, especially, to stock its space underneath the six feet wide central stage.—NOVICE.

25. **Tacsonia.** I have heard it said that Tacsonia's can be raised from the seed, if so will you please direct here.—J. G. HARTS.

26. **Palms for Greenhouse.** Oblige "Ignoramus" by naming some of the best Palms for a cool greenhouse.—

27. **Quick Growing Hedge.** What plants do you recommend for making a hedge, along my fruit garden, that soon will be full and handsome.—WALTER GAIMS, *Cullerhams Co., N.Y.*

**REPLIES TO INQUIRIES.**

1. **Select Shrubs.** For twelve excellent flowering Shrubs, we would include Golden Bell or Forsythia, Japan Quince, Flowering Plum, Plum-leaved Spiraea, Lilac Persian, Lance-leaved Spiraea, Large-flowered Mock Orange, Double Dentzia, Weigela, Japanese Spiraea, Albica, Lance-painted Hydrangea. For increasing the number to twenty, add to the above, Mezaron, Bush Honeysuckle, Dwarf, Snowball, Alder-leaved Clethra, Purple-Fringe.—A. H. E.

12.—**Black Insects.** Dust the Chrysanthemums with tobacco powder, obtained by sifting the refuse of cigar shops, through a fine sieve. —MRS. GEO. WILSEGER, *Lake Co., Ohio.*

15.—**India Rubber Tree.** The matter of propagating this tree, will receive full attention in the coming March issue.—EDS. POPULAR GARDENING.

16.—**Tree Pæony.** It would be impossible to point the cause of the flower buds blasting, without seeing the plant, its location, etc. I have noticed that they grow and bloom better in a sunny exposure than where there is shade. They delight in a rich loamy soil. —A. H. E.

21. **Names Wanted.** It is not possible as a rule, to name plants from leaves alone. These enclosed are certainly not Abutilon, they may be some species of Hydrangea, perhaps H. Hortensii's. —EDS. P. G.

22.—**Chrysanthemum.** See answer to No. 12, page 27, December number. Previous to going to rest, as there referred to, the plants are cut down to the ground. Florists propagate their stock in February and March usually, in which case the old plants should be started into new growth, the latter part of this month. Young shoots spring up from the roots, and these are used for propagation.—A. H. E.

17. **Plants for Shade.** On our place the following succeed well in a shady yard, Sweet Violets, Hecatera or Bleeding Heart, Bloodroot, Trillium, Dicentra's, some Campanula's, Vinca, Monneyvine, several of the Herbaceous Spirea's and Saxifrage among plants; Tree-Box, Privet, Ivy, Daphne and Kalmdias, among hard wood growths. —MRS. R. L. WADE, *Barnstable Co., Mass.*

18.—**Cissus discolor.** Aside from requiring the accommodations of a hot house temperature, this plant needs humidity and shade. Care must be taken not to syringe the leaves of the plant, for this will destroy their exquisite luster.—WILLIAMS BROS.

19. **Cactus not Blooming.** You do not specify the kind of Cactus you have. In general it may be said, that Cactuses are natives of regions where there is an excessively dry season, and an excessively wet season, in each year. Such a condition should be imitated in our culture of them; the winter season should be the dry season for most sorts.—A. H. E.

### The Violets.

Under the hedge, all safe and warm,  
Sheltered from boisterous wind and storm

We Violets lie  
With each small eye

Closely shut while the cold goes by.

You look at the bank, mid the biting frost,

And you sigh and you say that we're dead and lost;

But Lady stay

For a sunny day.

And you'll find us again, alive and gay.

—*Louisa Trowley*

### On a Greenhouse.

Here, from earth's dædal heights and dingles lowly;  
The representatives of nature meet:

Not like a Congress, or Alliance Holy  
Of kings, to rivet chains, but with their sweet

Blossoming mouths to preach the love complete,

That with pearl'd mistletoe, and beaded holly,

Clothed them in green unchangeable, to greet

Winter with smiles, and banish melancholy.

I envy not the Emathian madman's fame,

Who won the world, and built immortal shame

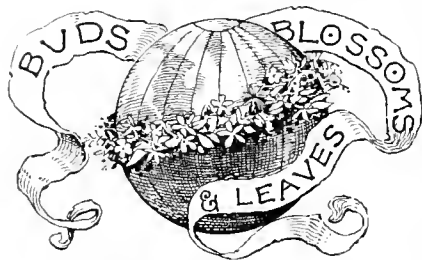
On tears and blood; but if some flower, new found,

In its embalming cup might shroud my name,

Mine were a tomb more worthily renowned

Than Cheops' pile, or Artemisia's mound

—*Horace South.*



This is Primrose time.

The Sunflower is American.

Azalea blooms last for weeks.

Now, we prize the Chorozema.

Heliotrope is too fragile for wear.

Dirt from hollow trees is poor stuff.

Start the year right by subscribing.

We enjoy variety; in plants we get it.

Flowers are the smiles of the Creator.

The Gladiolus came from South Africa.

A starved Rosebush will not blossom much.

Plants, like people, grow puny for lack of sun.

The Mountains are in fashion: they are clad in Firs.

See our offer of papers at club rates elsewhere.

A popular act: Subscribing for POPULAR GARDENING.

The Yucca is known as the Dagger Plant in some places.

There are more than fifty named varieties of the Oleander.

The Wood of Privet is so hard that it is used for shoe pegs.

In gardening, every day brings its portion of new delight.

The word taste, as used by the world at large, is of vague import.

The craze for carpet bedding is certainly on the decline in Europe.

In Winter water the house plants in the morning; in summer, at night.

Your Roman Hyacinths must be counted as late, if the first are not in yet.

The Dahlia was named in honor of Andrew Dahl, a celebrated Swedish botanist.

In our garden perennials give more satisfaction than annuals, but we grow both.

Narcissus of the beautiful Tazetta section grow wild by the acre on the Isle of Corsica.

A Rosebush in Charleston, Mass., thirty-five years old bears over one thousand flowers annually.

In the worst of seasons at gardening, the rewards more than make up for the disappointments.

Gardening for pleasure combines repose and activity. It is rest in work and work in rest.

Popular Gardening welcomes notes, articles, and questions about gardening from all its readers.

A gardener of our acquaintance objects to large Box trees near the dwelling, because of the odor.

"There are no ancient gentlemen but gardeners. They hold up Adam's profession."—*Hamlet V, 1.*

To Advertisers. Matter for insertion should reach us by the 14th of the month, for the month following.

To be one of the first 50,000 subscribers of our successful paper, will be a thing to feel proud of in years to come.

Don't make the common mistake of growing more plants than you have room for, be it in the windows or in the glass house.

A yearly subscription to this paper makes a splendid New Year's gift, and one to call to mind the donor all through the year.

The Gardeners Monthly for December contains an excellent likeness of F. J. Scott, the author of "Scott's Suburban Homes."

An old Elm in Kingston, N. Y., is a favorite nest building place for birds: more than 200 nests have been built in it in a season.

Reader, have you yet subscribed for this paper? If not, do this creditable act at once, for the sake of yourself, your family and the paper.

Look out to have the tobacco that is burned, to kill fly in the greenhouse, damp enough not to create a blaze, for this would create a dangerous gas.

An old Calla. Our correspondent, Mrs. E. S. P., of Trout Run, Pa., writes of having had the same Calla and its young, in cultivation for twenty years.

Cannas in Winter. Mr. A. Katoll, of this city, tells us that in a temperature upwards of 60° high, this plant may be kept growing the year around without receiving rest.

The Old White Lily, *L. candidum*, might almost be called an evergreen bulb. Blooms in early summer; dormant soon after; growth of leaves follow in the fall and spring.

Wax Plants. Because these seem to stand it well in the darker parts of a room, do not expect them to do much at flowering next summer, if wintered here, away from the light.

A stone fence, unsightly though it may be, is susceptible of being turned into an object of the highest picturesque beauty, by planting Wistaria, Clematis and other climbers along its course.

Be content, even if you cannot grow flowers as large as they do in California and other countries so favorable to growth. Their large flowers are neither as sweet nor as lasting as those we raise.

John, the tree pruner of "eighteen years hexperience," would have no vocation among the Hindus; their heathenish religion prevents them from treating even plants and trees otherwise than tenderly.

Adam's Needle, *Yucca filamentosa*, deserves more attention, as a hardy lawn plant. It is an Evergreen; it is picturesque in appearance; it is a handsome bloomer about July 1st; and it is grown with the greatest ease.

In the South—we learn from a correspondent, the Chrysanthemum is not considered a reliable flower, notwithstanding the long season that ought to be favorable to its bloom. The trouble: hot, dry summers. Is this the general experience of our readers of the South?

She would help: Husband—Hulda, dear, I see the Asparagus is large enough to cook, would you like to gather the first fruit of the season, yourself? Young wife (anxious to conceal her ignorance)—I tell you what Adolphus, we will go together, then you pluck it while I hold the ladder.

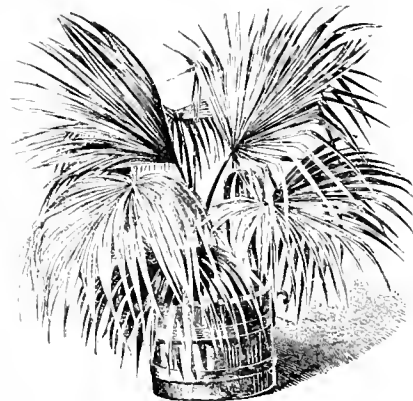
To our friends! For remitting small sums, say the price of this paper, the new postal notes, are a great convenience. They cost but *three cents each*, and are to be had of every postmaster in the United States. Don't send checks on your local banks, they cannot be collected here without discount.

Oliver Wendell Holmes, in a letter to the American Forestry Congress, held last September in Boston, in which he referred to the wanton destruction of forests, said pertinently, he hoped the people would allow the country to retain "leaves enough to hide its nakedness, of which it is already beginning to be ashamed."

The Hardy Catalpa, so called, *C. speciosa*, according to the Bulletin No. 7 of the Agricultural College of Lansing, Michigan, proves to be no hardier in those parts, than the Common Catalpa, *C. bignonioides*. The latter species is a handsome and hardy tree in most sections of the country if not greatly exposed to high winds in winter.

With 50,000 subscribers on our books within one year, and the price of this paper will remain permanently at 60 cents a year. Will you who read these words, if you are not a subscriber now, do your share towards our reaching this end? Most any one of you could easily get one or more neighbors to subscribe also. This would help greatly.

Those who try their hand at potting plants for the first time, usually manage to fill the pots even full of soil at this first effort, but not often afterwards. They soon see, or ought to, that the water applied will not disobey the laws of nature, even for a novice, by staying on the soil for soaking in, unless the pot rim or something else is there to hold it.



THE FAN PALM—(LATANIA SOURBONICA).

Plants receive not all their food through the roots, but also a good deal through their leaves from the air. Indeed, some kinds like Air plants of the Orchid and other families live on air wholly. These facts point to the importance of pure air for plants. An atmosphere charged with gas or other deleterious substances soon plays havoc with plant life.

Oh, now be fair! We refer to those exchanges who drop down on our carefully prepared columns, clip out matter which is solely our own, and print it in their pages without giving POPULAR GARDENING due credit. We detest such a practice as we detest thieving from our orchard or from our purse. Clip if you will, but give credit where credit is due. That's all we ask.

With January 1st, Mr. E. H. Libby's paper, *The American Garden*, assumes the dignity of an enlarged \$2.00 monthly. POPULAR GARDENING so far from being envious at this sign of prosperity, wishes this excellent paper great success, in its new departure. We go further: we offer POPULAR GARDENING and the *Garden* together for one year for \$2.00, the price of the latter alone.

We like to meet people who think that their own flower garden is the best in the neighborhood, just as we like to see parents having high opinions of their own children. If a prize could

be offered for the best flower garden in any one county that might be named, there would no doubt be many entries for the prize. The culture of flowers admits of a large amount of good natured rivalry.

The celebrated Rosebush at Hildesheim, in Hanover, believed to be 1,000 years old (tradition says it was planted by Charlemagne), never bore so many roses as in the past season. The shoots grafted on its trunk in recent years are growing admirably. The bush stands at the outer wall of the cathedral crypt. Its branches extend about 38 feet high, and 34 feet in width. It is an object of much curiosity.

The Japanese have some unique notions of garden adornment. One of these is the making of borders to walks, some two feet wide, and filled with variously colored clays, which are so abundant in Japan. The nearest thing to this which we have met, was the use of snow white gravel and small shells of different colors, used along with plants in the formation of some elaborate carpet beds, in past years in Lincoln Park, Chicago.

There is a great need in some parts of the great West for sound information on gardening. For example, almost anything would be better than ridiculous trash like this, which lately appeared in a floral journal of that region: "With Heliotrope, Fuchsias, etc., of a tender woody nature, split the ends of your slips and insert an oat; tie with a string; the oat swells in a day or so, and will nourish the plant and assist the cutting to root." Fudge!

"As juicy, and rich in good meat as an apple," is what Mr. G. L. Heinhold of Wayne Co., Pa., says of POPULAR GARDENING. If we were disposed to follow the example of some publishers we would give column after column of kind words, which our subscribers have to say for this paper. The above extract is so full and pointed, that it is given as a representation of all these. Our rule is to let the paper speak its own praises, by the valuable matter we insert.

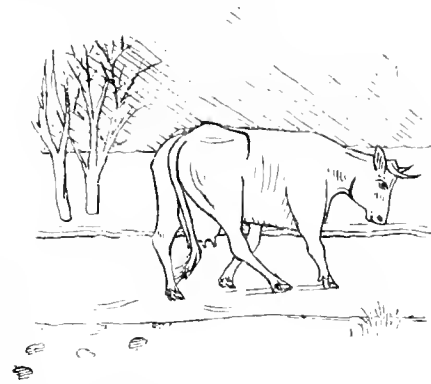
A good paper. Our table is every month visited by a neat and excellent journal from Highland Park, Chicago, called the *Floral World*. It treats chiefly of the beautiful and curious things found in the floral world; surely there are enough of these to well occupy one paper. It also contains floricultural directions suited to amateurs. Harleigh Gillette is its publisher, and 50 cents a year its price. We can, by special arrangement, furnish this paper and POPULAR GARDENING for one year at 90 cents.

Painting Iron Pipes. Few things add more to the good appearance of a plant house, than to have the pipes and other iron work kept painted a jet black. A bad paint for this purpose and one often tried with disappointment, is lampblack mixed with linseed oil—it doesn't dry well. Instead, use 1 lb. of ordinary black paint, 1-4 lb. patent dryer, and thin for use with one-third varnish and two-thirds boiled oil. This will dry anywhere or on any surface that is clean. Two thin coats well worked-in are better than one thick one.

A great Pansy Bed. It is located at the Assembly grounds, Chautauqua Lake. It is called the "Pansy Plat," and has a fountain in its midst, and neatly trimmed grass around. Seed for the bed was received from interested persons in various states, and this was sown, the bed properly prepared and planted, and now is protected for the winter. Next year "Pansy Plat" will be one of the first objects sought out by multitudes of visitors to Chautauqua, and the little flowers will look up with sweet glad faces to welcome all comers.

Get up a Club. Many persons have up to this date succeeded, with a little effort when out on calls and visits, in getting up clubs for this paper, thus securing in clubs of five, a copy free, in effect. They pronounce the work remarkably easy to do, for the handsome paper, its instructive engravings, its mass of information, and then its low price make for it friends

at once. But we need many more clubs before our quota of 50,000 subscribers is full. Will not you, reader, help along the good work? Single subscriptions 60 cents. In clubs of five and upwards, 50 cents each.



COWSLIPS IN JANUARY.

The Fan Palm, *Lettaria Bourbonica*, illustrated opposite, is one of the best known of all the Palms. It is suitable as a window plant, or for summer decoration in the open ground, and no collection of greenhouse plants is considered complete without one or more plants of it. Under glass it sometimes reaches the height of twelve or more feet; but it cannot be said that its beauty increases with size. In fact as it acquires age, it loses the compactness of form, which is one of its greatest charms when young. The Palm-leaf fans so familiar everywhere are made from its leaves.

It is indeed gratifying to the publishers and editors who are working hard to make this paper what it is, to see the interest taken by its many friends in swelling the subscription list of POPULAR GARDENING. We ourselves have never set our expectations higher than 50,000 subscribers at the end of one year. But many of our subscribers are so elated over the worth and popularity of the paper, that they are anxious we shall have twice as many subscribers in that time. And a most hopeful sign is, that they are seconding their good wishes by their good work, in securing for the paper many subscribers.

Chrysanthemums can easily be grown from seed by anyone who cares for this sort of thing. The seeds are procurable of the seedsman, and may be sown during January or February. They will soon sprout, and by spring will make plants of about equal strength with good ones struck from cuttings in March. Then treat as you would those from cuttings, up until flowering. But the flowers of plants raised from seed will prove to be very inferior as a rule, to the named sorts from cuttings. There is, however, to many people, a charm in raising seedlings which no one knows for the life of them how they will come out, that more than offsets the lack in the quality of the bloom.

The Isle of Natal, near the southern extremity of Africa, is almost the perfect home of flowers. No frosts ever blast vegetation here. Roses of such fine sorts as Souvenir de la Malmaison grow to the height of ten feet in the open air, and are loaded with magnificent flowers. Tulips, Narcissus, and hosts of garden flowers we here prize, grow wild along the roadside. Oleanders and Myrtles are so common that their wood is used for fuel, Dracena and Yucca reach the stature of trees. The Passiflora, Bougainvillea and Taronnia, which are grown in the north under glass, climb the stately Olive trees and crown the highest roofs of the buildings.

Japanese Maples in Pots. In some parts of England these are thus grown with satisfactory results. It now seems certain that they are not to be relied upon as hardy trees for common culture with us. But being small of size, and hence adapted to growth in pots, there is no reason that we can see, why they should not be much employed in this shape. They could

be wintered in the cellar or out-house, something like Oleanders. So far as their ornamental value is concerned, nothing can exceed the showiness and diversity of their foliage in its range from bronzy black to the most fiery crimson. With some size, these Maples afford the most striking forms of leaf-coloring our gardens possess.

Morning Glories. This subject may appear unseasonable now, but we may at least recall the beauty of these flowers in past seasons, and plan for their use in the coming one. Mrs. Ella G. Campbell, owner and manager of large greenhouses in Cleveland, Ohio, and surrounded by a large collection of choice flowers, finds enjoyment in turning to the simple beauty of these vines. She wrote to us of their use in this strain lately. "One of the most beautiful features our place is its vines. Mother has built screens and arches and covered fences, barns, chicken-houses, as well as the house with vines. And at the present writing the Morning Glories are indeed in their glory. An old greenhouse chimney in ruins, is a living monument to their beauty combined with several screens and the fences near by, all covered with the same."

Cover the Lilies. A number of our fine Lilies, the little *L. tenuitolum* for example, are natives of northern latitudes like Siberia, yet they as a rule prove tender with us. Why is this? Simply because in their home, although the winters are much colder than with us, they are well protected by that best of winter covers—snow from fall until spring. Once there is a coat of snow on the ground in the fall, in those northern regions, it never leaves until the general break-up of the next season. Let us draw our lesson, and apply a cover over the choice Lilies to imitate a heavy coat of snow. Let it be earth, coal ashes or straw; if of the two former, bank it up somewhat heaping to shed excessive wetness. It is not so much from hard frost, as from alternate freezing and thawing, that Lilies and things of similar nature suffer.

Improved Floriculture. What is the use of it? The naturalists claim that nature produces no bad work, the roughest weeds are really the equals in pure beauty to the finest florist flowers, hence, to improve is to waste time and labor. To this the favorite flowers, the improved garden fruits, vegetables, and many things besides join in giving answer. They say: the use of art is the improvement of nature. That to accept nature without the improvements that art has made, would be to live on wild berries and crouch in nakedness in any cave that would offer shelter from the weather. It is through the improvement of nature by the hand of man, that we have obtained not alone improved flowers, and other products of the garden, but even our bread and clothing, and the very artificial thing called a house. Will our ultra-naturalists be consistent and in all things accept what nature offers, unmarred by the arts of man's busy hands?

In cleaning Ivy, Oleanders and like plants that are subject to scale insects, people often wonder why a new lot of these pests show up so soon after the task, taking the place of those cleaned away. Plain enough; the means employed for destroying these were not effective against the young broods, so small as to escape detection, when the plants were gone over. Now to prevent just such vexatious happenings, we use water in washing plants, that is sharpened to about 120 of heat, and by the addition of tobacco juice to give it a color like weak tea, or else whale oil or common soap, to create suds freely. Such a liquid starts up young and old alike, and the former if they should not happen to be brushed away, because overlooked, are not likely to settle back and thrive. Some advocate the use of hot water alone, we prefer the addition of either tobacco or soap. The washing thoroughly done, then wait a little, after which drench off the strong liquid with clean water.

### A Universal Favorite—The Carnation.

Wherever flowers are cultivated, the improved Carnation is a leading favorite. It possesses the beauty of form, color, and the sweetness, if not the hardness of the much esteemed Clove Pink (which is its parent), and then the great additional quality in its improved sorts, of being a perpetual bloomer. To such an extent is this last named quality appreciated and made use of, that now in every well-conducted florist establishment, the supply of Carnation blooms may be said to be constant the year through.

The Carnation as to color is brought under various divisions, the variety afforded here covering a remarkable range. Before this favorite loomed up so prominently as a commercial flower, the two main divisions were considered to be the Bizarres and the Flakes, with distinct classes under these. Now, at least in commercial importance, the Selfs—those in which one or more colors are distributed all over the flower, receive the most attention. The Picotees are a leading class also and distinct in color; it is a question whether they are a distinct species of the *Dianthus* genus or but a variety of *D. Caryophyllus* along with the Carnation.

To the average amateur, the terms Bizarre, Flake, and other color distinctions of this flowers, are perhaps not very clear. Let us so describe these as to render the matter of colors easily understood. Bizarre is from the French, implying something fantastic, and in flowers signifies variegation in irregular spots and stripes, traversing the same way and of at least three colors, varying from dark to light.

Flakes have heavy stripes of two colors, extending from center to outside of the petals. The prevailing colors are scarlet, purple and rose, hence we have Scarlet-flaked Carnations, Purple-flaked Carnations, etc.

"Fancies" include Flakes or Bizarres of unusual colors or neutral tints, or such as are pricked with little flakes and spots.

Selfs, also called Cloves or Self-cloves, are flowers in which one color usually runs evenly throughout the flower. The old crimson Clove, referred to in the beginning above, can be met with in many gardens.

Picotees have a white or light ground, sometimes yellow, with either red, rose or purple color evenly penciled more or less heavily round the edge of each petal.

With the improvement in the Perpetual Carnation, there was added not only an invaluable feature to winter-blooming plants in the greenhouse or conservatory, but also a plant well adapted to pot culture in the

window. For this purpose, only the free-growing and blooming sorts should be chosen. The limits of the present article does not admit of entering upon the details of cultivation here. It may, however, be said that to secure plants for next winters bloom, rooted slips should be procured within the next few months, growing them over summer either in pots or by bedding out.

A good deal of attention has of late been paid to raising dwarf forms of these plants; the old idea of a "tree" Carnation not being counted desirable. The accompanying en-



THE CARNATION—A DESIRABLE DWARF FORM OF THE PLANT.

graving shows a type of the Carnation plant, that is much sought after. Several sorts recently sent out, it is claimed are quite as dwarf as the plant illustrated.

### Progress in Gardening.

On the same day recently, catalogues of bulbs and seeds reached our desk from Japan, from Belgium and from Germany, respectively. Could the mail receipts of half a week have been brought into this same day, the day's mail would have contained trade announcements, from at least half a dozen other countries of the globe.

We refer to this matter, to show how in this age of railroads, rapid steamers, telegraphs, cheap printing, postage, and so on, the spirit of the gardening trade is moved to take advantage of all modern inventions, in furthering gardening interests. The quantity of seeds, bulbs and stocks that are in this day sent to and fro, throughout the earth, between countries near and far, but particularly that which is received by the

United States from abroad, would fill the gardeners of past generations with great wonder, could they behold it. And this international trade is rapidly on the increase.

Incidentally we call to mind a statement from the trade circular of one American firm, which shows a peculiar phase of this trade, as well as serving to illustrate American enterprise. It is in the matter of Asiatic Lily bulbs. This firm offers certain of these bulbs at two prices, for what is really the same quality, the difference in the cost being due, to one lot of the same crop reaching America considerably earlier than the other. The quicker and also more expensive route is a western one, the cargoes landing at San Francisco. The other is mainly by steamer, from the east and through the Suez canal. Together the bulbs shipped by the Japanese house, literally girdle the globe.

It may be said that all foreign countries in which gardening has made any considerable progress, look upon our great nation as a rich market for the stock they grow. And yet with all our importations, in many departments, there never was a time when such large quantities of seeds, plants and nursery stock in general, have been raised at home, as is being done in the present day.

The gist of the matter is, that the gardening interests of this country, are progressing at an unparalleled rate. The day is not very far off when America must loom up as conspicuously among the nations of the earth, for her improved gardening, in both useful and ornamental branches, as she to-day does in so many things besides.

### A House Plant None Need Fail With.

Reference is had to the Rose-colored Oxalis, a plant that seems to occupy about the same place among flowering house plants, that the Ivy does among those not grown for the bloom. And what a wonderful bloomer it is, under the most common conditions! We recall the case of a plant owned by a friend that bloomed constantly for sixteen months. Then it was given a rest of several months when in it started again. What this lady succeeded in doing in the culture of the Oxalis in her window any one else can do also. It may be added that the genus *Oxalis* embraces many species and their varieties, but among them all none is better adapted to house culture than the one named.

Concerning culture and some other points relating to this favorite, we were pleased lately, to receive the following letter from a subscriber, Mrs. A. J. Griswold, Cook Co., Ill., to be published in POPULAR GARDENING:

"In the many years I have grown plants, and of a large number of kinds tried, I have found nothing more easily brought into bloom and which thrives so well with little attention as this. Even a small bulb will give an abundance of bloom the first season. In my collection are three colors—white, pink, and yellow. The two former



Figure 1. A Simple Tree-mover.

I have had for several seasons in a hanging basket; there is no prettier plant for this purpose. Mine is now in full bloom the second time since February last.

"The chief needs of the Oxalis are plenty of sun and water and a moderately rich and light soil. It will bear a good deal of heat, and yet is in no sense very tender. My bulbs bloom during February, March and April, and then show signs of exhaustion. After this, gradually dry off and in May turn the pot on its side in some shady corner and let it remain until signs of sprouting appears. Then I break away the earth from the fibrous roots, pot up in fresh soil, and begin to water. The new growth of leaves and buds begin to appear very soon afterwards."

Bulbs of the Oxalis may be procured of most of the florists, we think, and also of dealers in bulbs. This is a good time to start in on their culture.

#### Transplanting Large Trees.

There are cases where a shorter cut can be taken in stocking a place with trees, or in making up deficiencies, than to plant ordinary nursery trees. We refer to where trees of some age and size that are suitable, may be had. These might be such as need to be thinned out from plantations that are too close, or they might come from meadows and wild places, if the kinds were suitable and the development good. The nurseries, too, sometimes have large trees to sell, a matter, it may be said, in which English nurseries are ahead of our own.

In the transplanting of any trees, but especially those of large size, say five inches in diameter and upwards at the collar, two of the most essential points to observe is the preservation of the small fibrous roots, and keeping these from drying out in the operation. In the case of large trees there is of course a greater loss of these fine roots than in small ones, because of the wide extension of the roots. This renders it all the more important that whatever roots can be saved to the tree, be kept as much as possible from exposure to air in handling.

To accomplish this end most effectively, it becomes desirable to take as much earth with the tree, and without separating it from the

roots as it is possible to move well. But earth is heavy, and a great mass of it adhering to the roots of a tree, makes the handling of the tree not an easy job, unless one has suitable appliances for doing so. Where the moving of trees having some age is much done, as in the large parks of our cities, large and expensive tree-moving trucks are owned and used, and the task becomes a comparatively easy one. For the use of those who have not so very much of this kind of work to do, we show plans of two tree-movers; the one in figure 1 so simple as to be easily improvised by any person who can command a common road wagon, using the hind axle and wheels; the other, figure 2, a frame work and windlasses supported by wagon wheels.

The operation of moving large trees with earth attached to the roots, can best be done in the winter time, because of the perfect adherence of earth when frozen. A favorite course is to prepare for the work in the fall or early winter by digging a circular trench some feet from the tree, and several feet deep, in a way to leave a ball of earth with the tree standing in the middle of this. This then is allowed to freeze solid, when it can be moved with safety by the use of the trucks illustrated or any others.

To lift a moderate sized tree, as shown in figure 1, the trunk near the ground is protected by coarse canvass or old carpet. An iron ring is then fastened to the tree at this point. A strong pole, to be used as a lever and supporter, is laid over the axle and inserted into the ring, which then allows by bearing down at *b* of lifting the tree with earth attached from its bed. It is then moved to where wanted by attaching chains and whiffletree, as shown in the cut, a horse being hitched for drawing, while a man keeps down the pole at *b*.

For larger trees a truck with windlass and ropes like that shown in figure 2, answers much better. One like this can be constructed at a small cost by any wagon maker. It might be owned by several persons.

In figure 2 is shown another feature of this business, namely, that of moving the tree when the ball of earth is not frozen, and is in danger of going to pieces, as in the spring. Here staves are set around the earth and drawn together against it, by the aid of ropes

to keep the soil together. Heavy canvass or matting could be used instead of the staves, by binding it on securely.

In moving a tree with a frozen ball in the winter, it should only be set in its final place, with no attempt to fill in ground—which now is frozen. Early in the spring the space around the ball can then be filled with good

soil. In the mean time protect this trench with straw, manure or sawdust. Large trees when moved must have their branches freely pruned back, to correspond somewhat with the loss of roots which has resulted in the taking up.

#### Peach Yellows—The Potash Remedy.

The microscope reveals in all cases of this serious disease, the presence of different forms of fungus growth on the surface of the bark, or penetrating throughout the woody tissues. But whether these fungi are the cause of the disease or a consequence of the impaired vitality of the tree is not yet fully known. It seems probable however, that this parasitic growth is invited, just as such a growth is brought upon Pear trees in the case of fire blight, and on Grapes and Gooseberries, when these are mildewed, by an enfeebled condition of the tree.

Working on this theory, experiments have been for some time under way at the Massachusetts Agricultural College, for imparting vigor to trees affected by "yellows," by a liberal supply of the deficient element of potash. Professor Goessman states, that chronic cases of the disease have been recovered after being treated for three or four years, by the application of muriate of potash to the roots. He recommends the use of three or four pounds of this article to a tree six or eight



Figure 2. Tree-mover for Large Trees.

years old, spreading it over the roots, but keeping one foot away from the tree. A mulch spread on top of the potash insures its better distribution.

This disease proves to be contagious. Where it has put in an appearance, it would be well to prepare any unaffected trees against its attacks, by treating them to the potash application.

### The Marechal Niel Rose at the South.

One of our readers at Spartansburgh, South Carolina, takes exception—so far as the Southern States are concerned,—to the statement made in an early number of *POPULAR GARDENING* regarding the unfitness of the Marechal Niel Rose for out door culture. We give her report of two instances in that part of the country, where this rose has succeeded remarkably well, as follows:

"Some 13 years ago, my father, an ardent lover of roses, purchased a small plant in a pot, of Marechal Niel, which was planted in the open ground, in a dark, damp sticky loam, where once was a pond. This rose grew, thrived and bloomed. It was the admiration of all beholders. Each summer vases filled with cut roses from this plant almost became monotonous—so freely were they used in everything that would hold water and flowers about our house. Sometimes over one hundred buds were cut in a day. It grew in the course of three years to such a size, that a lattice wall, four sided, was built around it, fully 5 feet high and then its branches trailed over that and fell to the earth outside.

"In Charleston, this state, I saw in the garden of Mr. Casper Chisolm, an arbor full 12 feet high, 12 feet wide and 25 feet long, built as we here in the south put up supports for grape vines, on which was Marechal Niel, Lamarque and Solferino, so thick that the wood of the arbor was concealed. I think there were thousands of each variety in full bloom at one time. He told me the plants were grafted or budded."

### Save up the Coal Ashes.

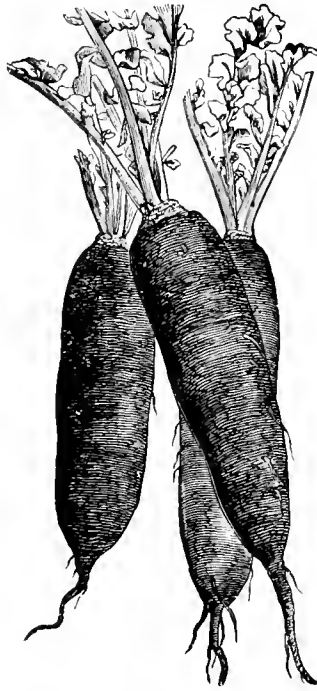
Years ago we satisfied ourselves that the notion, then very prevalent, that hard-coal ashes were injurious to crops, was all wrong. We found in the case of pot plants in a greenhouse, which stood on a bed of ashes, that the roots of the former would pass through the holes in the bottoms of the pots and run into the ashes below, and by their healthy appearance, showed that they derived benefit from the ashes. Frequent experiments on a small scale since that time have fully corroborated this view of the case. Now we not only keep up for the garden all the ashes yielded by our own heaters, but those of a near neighbor besides, and the larger the heap of this material is by each spring, the better are we suited.

Our garden is not what could be called heavy soil, but rather a black loam. On this soil we find that a coat of coal ashes turned in every season is of real value. It renders the soil more open and easily worked than without, and the crops are the better for the good effect of this material on root growth. The effect may come, more from the mechanical action of the ashes on the soil than from any manurial value possessed, although this is also considerable, no doubt. One thing is certain, plant life is more vigorous where the ashes are used, than where they are not.

We also use sifted coal ashes as one ingredient (say making it one-fifth of the whole) of our hot bed loam, or of any soil used for seed beds, potting and similar purposes, with good results. But the value of coal ashes in the garden is not limited to its good effects in fitting the soil for the growth of roots alone. It is now recognized as of great worth for meeting the attacks of some of our worst insect enemies. Experiments have shown that a liberal dressing of coal ashes, thoroughly mixed with soil in which Radish seed is sown, will prevent the maggot from injuring this vegetable. This will be good news to those persons who have been, for years, unsuccessful in growing the Radish, because of the attacks of the larva of the fly. It may be added that the effect of the ashes as a preventive in this case, does not tell fully until the second year and later, after applying.

In combating the attacks of the worm on Currants and Gooseberries, coal ashes also pos-

sess positive worth, if used freely as a mulch to plants. Whether the presence of the ashes over the roots proves obnoxious to the worms, or whether the increased vigor of the plants by their application have to do with the matter



LONG BLACK WINTER RADISH.

we cannot say, nor do we much care, so long as the fact remains that the worms are scarce, when the ashes are plentifully used, as is the case. By their use as a mulch the plants may be brought through the "worm season" without resource to poisoning the leaves, and with it in some degree the fruit possibly.

These various considerations should lead at this season to the saving up of coal ashes, as a valuable and cheap material for the uses indicated, wherever gardening is done.

### The Long Black Winter Radish.

This continues to be a standard Radish for winter use, and varies but little except in appearance from the Round Black Winter Radish and the Long White Spanish Radish. All the Radishes of this class are remarkable for their keeping qualities. If but pains are taken at the end of the growing season to bury them in an abundance of earth in a cool cellar, or else to put them out of doors, they will keep crisp all winter, affording an agreeable table relish. When to be used, the winter radish should be placed in cold water for an hour before coming to the table. It may not be generally known that the Radish possesses some gentle medicinal virtue. The part that is eaten, is both demulcent and stimulating in character. The juice mixed with sugar candy, is a popular and useful German remedy for hoarseness and cold.

### Effects of Freezing on the Soil.

Spade or plow a piece of land late in the fall, leaving it in rough clods through the winter, and spring will find the roughness largely reduced to fineness. Run the rake or harrow over it now, and with little labor it will be in far better shape for crops than it possibly could be had the fall spading or plowing been left undone. Just how freezing, through exposing the soil in this way, benefits it, is told as follows in the *American Agriculturist*:

It is a well-known fact that water in the act of freezing, expands considerably, and with a force that is irresistible. It is the freezing of water in their crevices and pores that causes the rocks to be gradually worn down, and "weathered" as it is called, into soil. It is this

also which is continually reducing the soil to finer fragments, and which breaks up the hard clods and mellows the ground. Fall plowing or spading assists this effect by breaking up the compact soil into lumps, which are further broken into small particles. As water and air can only act upon the surface of these particles, it is clear that the smaller they are, the more surface is exposed to the weather, and the soil is made soluble. If a block of hard soil of 12 inches cube is exposed to the weather, there are 864 square inches only of it affected; if it is broken up into cubes of one inch 10,368 square inches are exposed to these beneficial influences; if the soil is further broken up in fragments of one-twelfth of an inch, there are more than 124,000 square inches thus affected. This fact shows how greatly the effects of frost benefits the soil, and therefore how necessary it is that the land should be fall plowed; and opportunity given for this beneficial action of the weather. In the garden, even, all the soil possible should be spaded before it freezes.

The Winter Meetings of the following named Horticultural Societies will be held during January on the dates given:

Western New York: at Rochester, January 27, P. C. Reynolds, Rochester, N. Y., Secretary.

State Horticultural Society of Pennsylvania: at Reading, Pa., January 20, E. B. Engle, Waynesborough, Pa., Secretary.

Ontario Fruit Growers Association: at Stratford, Ontario, January 31, D. W. Beadle, St. Catherine, Ont., Secretary.

Buffalo Horticultural Society, at Buffalo, January 13, W. Scott, Buffalo, N. Y., Secretary.

The Keiffer Pear has now been weighed, and found utterly wanting. As a tree it blights badly and is tender in winter. The fruit if not unattractive in appearance, is utterly wanting in flavor, and would not be sought for a second time by the eater. More trees of it are cut down now every year, perhaps, than are planted. So much for another one of the long list of worthless varieties that are introduced at high prices with a flourishing of trumpets, finding many eager victims. Stick to the well tested sorts, kind reader, until new comers prove their worth beyond a doubt. It's the safe rule.

The Beet draws its nourishment from an area of twelve to twenty square feet for each plant. This has been proven by exploring to the ends of the roots carefully, it being found that these extend downward and outward in all directions for several feet. It is evident that where size of root is desired, the plants must be given plenty of room.

In Choosing Market Fruits, Mr. Lyons, a veteran fruit grower, would look first to productiveness; next to keeping and shipping quality; then to size; then to appearance and lastly to eating quality. The points of merit should stand in a different order where the object is fruit for the home table, in fact should be just reversed, placing quality first.

In shipping by the Express Companies, much fruit is injured by being in cars that are too warm. On this account many shippers do not patronize these carriers and by the means save largely on freight also. A temperature of between 40° and 50° is the most suitable for fruit transportation.

Shape of Crates. Parker Earle offers the good suggestion, that fruit crates should not be made so nearly square as at the present time. When of this shape, it cannot be readily seen which side belongs up, and the fruit suffers from bad handling and bad positions in shipping.

A good New Year's resolve: to make your berry patch double its present size.

Even the hardiest Strawberries do better for a winter covering.

Plan to have the best garden you ever saw, this year.

Cut the small sappy shoots from Apple trees.

# FLORAL FASHIONS & FANCIES

## The Rose Bud's Tale.

Though they whisper, he and May,  
I can hear each word they say:

For I rest,—  
Clinging to the ball-room's queen,  
Mid the lace and silken sheen  
At her breast

"Give me but that rose of thine,  
I will build for it a shrine  
Near my heart."

From my bed she draws me out,  
For a moment seems in doubt  
Then we part.

In his waistcoat, crushed, I lie  
Mid cigars and purse I die;  
Ere the day  
Am forgotten, and, ere night,  
Trophy of a conquest light,  
Thrown away!

Roses are in better color.

Pointsettias are firey-looking now

Camellias with long stems last well

The Horseshoe design is out of style.

Hot houses look bare after the Holiday plucking.

Single Primroses are finer as vase flowers, than double ones.

Londoners use the Ivy leaf as green for winter button hole bouquets.

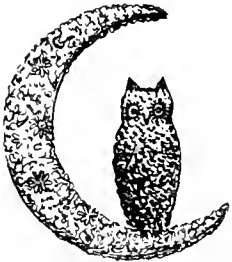
Chorozema, the dainty brilliant flower, is used with effect for hair sprays.

Lilies should seldom be mixed with other flowers; they look better by themselves.

If you would have your floral arrangements always interesting, keep out of the rut of sameness in making.

A florist should have a special taste for flowers, and the essence of his ambition will be to prefer nature's best work to her more ordinary.

Cleaning Flower Vases. When glass vases become discolored or furred, a weak solution of hydrochloric acid will easily remove the stain, a better plan than undue rubbing, which endangers the glass.



FLORAL CRESCENT AND OWL.

"Why are cut flowers so dear," is a question often asked at this season. The owner of a range of hot houses requiring 400 tons of coal to keep them warm through one winter, could quickly answer.

In keeping flowers over night it is well to exclude air as entirely as possible from them. If you cannot place them in a refrigerator, they may grow on the cellar floor, sprinkling lightly and inverting a tub or tight vessel over them.

Maiden Hair Ferns. No green is more charming for intermixing with cut flowers or for touching up floral designs, than the fronds of these. Yet, as with all other fine things, their use might be overdone. We have seen such cases.

A Lily of the Valley Dress! What could that be like? One so called was recently worn by a bride in New York. The corsage and overdress of white silk tulle, over pearly satin, was strewn thickly with the delicate sprays of this favorite bloom of young brides. The effect is said to have been exquisite.

Flowers, the measure. Miss Gascom spoke of a funeral she had been to as a touching affair and the most devotional occasion she ever witnessed. Mrs. Harland was not so impressed, she saw no tears shed and no emotion. "But the flowers, Mrs. Harland," said Miss Gascom, "why one of the pyramids was five feet high."

The Crescent and Owl. This grotesque floral design of which we give an engraving, received the

first premium as a novelty at the last show of the Buffalo Horticultural Society. The Crescent was composed of yellow Chrysanthemums, the solemn bird of night, of Marie Louise Violets. The piece was suspended from the ceiling and attracted much attention. It was one of the exhibits of Long Brothers, the well known florists of this city.

Forced Lilacs. With December came the earliest of these in the markets. The first crop was held at about \$1 for each cluster, making them a costly flower. The purple varieties are the ones chiefly grown, and these by being forced in the dark, yield flowers of a waxy white. In this color they are in demand for bridal bouquets. When grown in the light, the color is a shade lighter than garden ones, and much more delicate looking. A cluster of Maréchal Niel Roses fringed with these delicate purple lilac tassels, is incomparable. The odor of lilacs remains long after the bloom has withered.

The Ivy Leaf in Funeral Designs. At the funeral of John McCullough, at Philadelphia recently, there was brought together a remarkable collection of funeral designs. Among these were a number, in which the Ivy leaf was a leading article used in construction. There was a five-foot column of these imbedded in a sloping base of flowers, which in turn surmounted a six-inch base of Ivy leaves. On the slope against the column on one side was a sheaf of wheat and on the opposite side some palm leaves. A four-foot column of Ivy with a small sheaf attached to it was also present. There was an elaborate urn four feet high of solid white flowers, trimmed with pale roses and draped with festoons of Ivy leaves, with some of the same also worked into the two-foot square base. A five pointed crown and the points well turned outwards was composed of elegant white flowers in the inside, with Ivy on the exterior. There were many besides, in which flowers alone entered, altogether some twenty fine designs were present, worth from \$25 to \$100 each.

## Botanical Budget

The dark parts of roots do not lengthen

Seeds and spores differ widely in structure.

The study of Botany should begin in childhood.

The thorns of young Locust trees, disappear with age

A Botanic Garden has been started at Reikjavik, Iceland.

Dr. Asa Gray completed his 75th year on November 18th last.

"Gold" Ferns receive their color from a farinaceous substance.

The wood of the large Tupelo roots, is so light and springy as to be useful for corks.

The Rocky Mountain Flora is treated on exhaustively by Professor J. M. Coulter, of Crawfordsville, Ind., in a volume soon to appear.

The plants of the earth, in the flowering divisions are put at about 96,000 species, by such recent high authorities as Bentham and Hooker.

A Jack Fruit, *Artocarpus integrifolius*, weighing over 32 lbs. from Rio Janeiro, was shown at a recent meeting of the Royal Botanical Society of London

The Algae, or plants of the open sea, often live at considerable depths. *Udotea vitifolia* has been brought up from a depth of 250 feet near the Canaries. Peron and Mange have dredged up brilliant living Algae from 560 feet.

The Microphytes have a wonderful power of resistance. Professor McHendrick, found that after subjecting organisms like Bacteria to a temperature 120° below zero, and then thawing the fluids containing them, living organisms yet remained.

Astonishing! A specimen of the Giant Puff-ball, *Lycoperdon gigantum*, of the immense size of five feet four inches its largest way, and four feet six inches the smallest way in diameter, was in 1877 found by Prof. R. E. Call, in Herkimer Co., N. Y.

Plants and Animals. The labors of Botanists and Zoologists have long been directed to discover absolute differences between these two, but in vain. There are points in the scale from the higher to the lower orders in each, where no line can positively be drawn between the two kingdoms.

Hard wood. A tree known as the Desert Iron Wood, and growing in the dry wastes along the line of the Southern Pacific Railroad, is reported as being one of the hardest woods in existence. Its specific gravity almost equals that of *Lignum-vite*. The heart which is black, when well seasoned will turn the edge of an axe, and can hardly be cut by a well tempered saw.

Vitality of Seeds. Professor Beal reports the results of experiments made in the growth of seeds that had been enclosed in sand in bottles, and buried for five years at a depth of twenty inches below the surface of the earth, as follows, the numbers indicating per cents: *Amoranthus retrofractus*, forty-two; *Androsia ochroleuca*, none; *Brassica nigra*, none; *Bromus secalinus*, none; *Capsella bursa-pastoris*, one hundred; *Leptidium virginicum*, ninety-four; *Euphorbia maculata*, none; *Eurotia biennis*, eighty-two; *Phacelia major*, none; *Polygonum hydropiper*, six; *Portulaca aleracea*, thirty-eight; *Quercus rubra*, none; *Triticum cepeus*, four; *Verbascum thapsus*, eighty-four

A Primula Convention, international in its nature, will be held in London, England, commencing on April 23 next. It will be conducted somewhat after the plan of the great Orchid Convention of last year, which resulted so well in advancing the general knowledge of Orchids. At the coming Convention, the Polyanthus, Auriculas, American Cowslips, Cyclamens, and other favorites of the *Primulaeae*, will each receive a share of attention. The high character of the meeting is sufficiently indicated by the fact that the committee for the United States consists of Prof. Asa Gray, of Harvard, Prof. Thumber of New Jersey, Prof. Mehan of Philadelphia and Prof. Lawson of Halifax, Nova Scotia.

## ABOUT THE PLACE.

Corn is a warming food.

Plan improvements by this weather

Store pigs will consume a little clover hay with profit, if given the chance.

To scatter ashes on icy walks costs nothing; broken limbs are very costly.

The use of the easily made A-shaped snow scrapers, may save much tiresome trudging through the unbroken paths.

Many a valuable horse has been crippled by slipping on the ice. To the shop at once if the shoes are smooth, and the roads slippery.

Surplus honey combs should be exposed to hard frost in order that the eggs of the moth or miller may be frozen. Rats and mice will destroy comb when somewhat pressed for food; they must be kept out of their way.

In the depth of winter, it is important, that stables, water pipes, cisterns, root pits and cellars, be very thoroughly protected; now if this kind of work was neglected earlier, don't rest easy for one day until it is attended.

Pure Water. The water for farmers' families, says the *American Cultivator*, is quite as apt to be bad as that in cities, where boards of health step in and enforce sanitary regulations. The best way to insure pure water is to use that from the house roof, passing it through a filter to remove impurities. In the West this practice of storing rain water in cisterns is quite common, and the cisterns are made very deep to insure cold water in summer.

Mulches. A German experimenter, Prof. E. Wolny, has found that soil covered with living herbage or dead vegetable matter is colder in summer and warmer in winter than bare soil under otherwise similar conditions. The difference of temperature is greatest in summer and least in spring and autumn. Bare soil heats more quickly in the spring and cools more quickly in autumn than that covered with living or dead vegetable matter

We trust that not a single reader of POPULAR GARDENING, is obliged from lack of feeding conveniences, to throw the corn or other grain, fed to hogs, on the muddy or snowy floor of the pens. We confess it was only recently we met a case of this kind of feeding, and the man was one who can't afford to take a paper not even POPULAR GARDENING, at 60 cents a year. The practice is as wasteful as it is abominable, fully one-fourth of the food being lost, we are sure.

Feeding the cow, when choice is to be had between good timothy and clover hay, feed the latter. If of good quality, not too coarse, and not smoky, it may be fed long. Unless it is first-rate, it will go further for being cut, but otherwise will be no better for the cow. Our choice in such a case, if the supply is ample, would be not to cut, and let her reject the poorer parts. Good bright corn fodder, cut up short, are fully the equal of good hay for feeding. For meal, ground oats is to be preferred above any other kind; a mixture of half and half oats and corn, ground, is excellent for the milk yield. Half a pint of linseed oil cake or cotton seed cake daily, will keep the system in fine tone, and increase the milk. Several quarts of roots per day, is another addition to the food not to be gotten along without, where the best results are aimed for.

# Poultry.

## Raising Chickens in Winter.

The desirability of hatching chickens early in the season, whether the object ahead, is early broilers for market, or eggs in winter, is not in question. The matter of the best ways and means to such ends, is the one which deserves our best attention at this season.

For the earliest broods, the start at hatching may be made at any time now. As to the relative advantages of hatching by hens or by incubators, we shall only say that with judicious action and close attention either course may be successful for extra early hatching. With hens, it is not necessary that the nest boxes be in a warm place, neither should they be where it is cold. Not more than nine eggs should be given to each hen at this season.

As soon as the chicks are out, a special house or room must be provided. This should be artificially heated to be comfortably warm. A coal stove is better than a wood stove for this purpose, because of the more uniform heat possible with it. The floor of the room should be kept covered with fine dry soil or coal ashes, and the utmost care be paid to cleanliness.

Where incubators are used, some hens should also be set when the eggs are started, with a view to acting as mothers to the otherwise motherless chicks. This they will readily do. As many as from 50 to 100 chicks may be had to follow one hen; they will be more contented with the chucking of a "mother" to lead them.

The best food for the young chicks at first is stale bread crumbs, moistened very slightly in sweet milk. But little corn meal should be fed until they have become fully feathered, and that should be well cooked. We are great advocates for making sweet milk a leading article of food for early chicks after they are some weeks along. It must never be allowed to get sour, as this would disturb the digestive organs, a thing to be avoided, if we would have broilers by asparagus time. For variety some cracked wheat, rice, oatmeal grits ("cottage cheese," etc.), may occasionally be fed, all of which are most excellent and not so heating as corn meal.

No trouble is ever found in turning early hatched chickens to a very profitable account. For marketing when weighing from two to four pounds per pair, they go off readily at high rates, sometimes retailing at \$1.50 per pair in good markets. If the prices are not too tempting, by keeping the pullets through, they will commence laying in September, or earlier, and continue to do so right through the winter with the most ordinary fair treatment.

## How to Know the Age of Fowls.

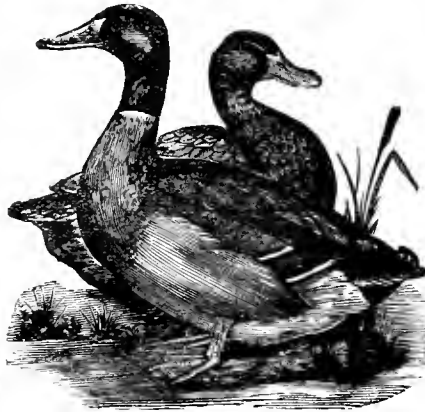
Soon after pullets reach the age of a year or fifteen months, they take on an adult look, which renders it not easy for a stranger, or even their owner, sometimes, to distinguish them from hens at least a year their seniors. For a person then to be deceived by buying old stock when young was wanted, or selling off young stock good for future service yet, when only the number of the older ones was to be reduced, is, in either case, most exasperating. These ideas suggest the importance of being able to keep track of the age of each member of your own flock, or to know the age, very nearly, at sight of those of any other.

As for always knowing the exact age of each fowl in your own charge, it is not difficult to so mark the broods of each successive year, that they may be readily detected over afterwards. Let all birds that were raised in the past year for example, be caught at this time, and marked by twisting a small piece of, say brass wire, loosely round the left leg. Then let the brood of the present year 1886, be similarly marked in the fall, but on the right leg.

A year later similarly mark the fowls of 1877 on the left leg with copper instead of brass

wire, and further on, those of 1888 with the same wire on the right leg. In the year after that, you could start in with the brass marks again, and so on by rounds of four years indefinitely. In this way, a mark on the left leg would always indicate the odd numbers of years; on the right the even numbers. Such a ring attached by a few twists would, if loose, be no annoyance to the fowl, while it would serve as a sure mark of the age.

With the best judges, there are found no true signs of the exact age in external appearances. Yet some indications are comparatively reliable. Rough legs for one thing are a tolerably



A PAIR OF ROUEN DUCKS.

true sign of age, the legs of the young being generally very smooth. Another clue, although not an infallible one, is the time of year at which a fowl moults. As a rule birds moult later every year, so that if a hen changes her feathers early in the autumn, it may be taken for granted that she was hatched the year previous. Again, fowls get lighter in color as their years increase. And lastly, in old birds there is an absence of that sprightliness common to youth, and, at the same time, they carry that appearance of age which ought not to deceive even a novice at poultry keeping.

## Rouen Ducks.

Of the two principle varieties of the domestic duck, the Rouen and the Aylesbury, the former appears to be the greater favorite. Perhaps a sufficient reason for this is found, in the fact that they do better in many parts than the Aylesbury. They also have a reputation for superiority of flesh, in the fall months especially. As for appearances, the Rouen easily leads the white in the estimation of the masses. Indeed, nothing can exceed the beauty of a drake of the former when he is in full plumage.

The points that should be aimed for in ducks of this variety for breeding purposes, may be summed up about as follows: The drake should have a shapely form and a commanding appearance. The head should be green and purple, with a long clean bill, having a yellow ground with a very pale wash of green over it, and the "bean" on the end of it jet black. There should be a sharp closely-defined ring of white around the neck, save that it should not quite meet at the back. Breast a clear claret-brown to swell below the water line, where it should pass into a beautiful French gray for the under body, shading into white near the tail. The back ought to be a rich greenish black with wings of a grayish brown, bearing distinct purple and white ribbon-marks. The flight feathers must be gray and brown, no white. Legs a rich orange.

In the duck the bill should be shorter than in the drake; orange brown as a ground color, shading off at the edges to yellow, and at the top a nearly black mark. Any approach to slate color in birds of either sex, would be a fatal blemish. The head of the duck is dark brown; the breast a pale brown, delicately penciled with dark brown, the back with black on a dark brown ground. Belly a light brown with the feathers delicately penciled to the tip,

## CONDENSED POULTRY NOTES.

**Roughing** it won't do for hens.

**Make** low roosts for large-sized breeds.

**Many** diseases may be laid to cold and wet.

**Notice** how fowls will fret if the food comes late.

**One thing** is sure: china nest eggs never break from frost.

**Not much** use looking for winter layers in hens over two years old.

**To neglect** the morning feeding, an experienced poultry man tells us, will make few eggs for that day.

**If we wish** eggs when eggs are dear, we must hatch early or push the medium early pullets rapidly when hatched.

**A warm** hen house, not a very close one, is wanted; there should be ventilation at the top for drawing out the foul air.

**Lime** is good for fowls, but it must not be mixed with food, or they may get too much of it. Keep it in a shallow box, where they can take of it at will.

**A thought** for the New Year: Don't spend all the money on ornamenting the house and barn; put some touches also on the poultry house. Have you never noticed how much a tasty-looking, well-painted hen house adds to the appearance of a place?

**Those of our** readers who think of using an incubator this spring for hatching chicks should have it on hand now or should order it right away. It is prudent to become acquainted with these machines by running them a few days, before entrusting to their care one or two hundred high priced eggs.

**Salting** the food, while it is a good plan to a slight extent, especially when there is a disposition to feather eating, must be guardedly done. We call to mind the case years ago of a neighbor who was told that to feed salt would increase the laying. He fed salt, not sparing it, and how his hens did begin to lay—on the dung pile, dead.

**Scratching** is good afternoon exercise for hens. To get them at it have a dry place on the floor in some part away from the roost, and defined by boards ten or twelve inches high. Into this place several inches of dry earth, sand, coal ashes, chaff, or anything the hens can scratch. Then every noon scatter some buckwheat or other grain on the surface, working it in with the foot, and let the hens go to work. It's fun to watch them.

**If you want** a fowl that looks good anywhere, writes a correspondent of the *Journal*—in the fowl yard, the field, the pot, that acts like a good fowl should in the laying nest, the incubating nest or brooding coop—you must hunt long and diligently to find the equal of the well-known but too little prized Dominiques. Its only the careless, shiftless poultry keeper, who is heard to complain about chicken ailments as a rule. Give your fowls good care, and our word for it you may laugh at most diseases.

**Talk and Cleanliness.** There is a good deal of talk about cleanliness in the poultry house, but what does the word mean here? it means remove all the excrement every day, not half of it; renew the nests often, using clean material at each start; to keep the walls nice and sweet, by the application of a lime-wash occasionally; to aim at having the fowls clean of insects, by dosing the roosts with some vermin killer, as well as the nest boxes, corners, etc., to provide a suitable bathing place—even if the material of the bath is nature's strange choice for fowls, dry dust. All these things are wanted before we can call the hen-house in a clean and healthy state. Frequently brushing up the floor, of scattered dust and filth is also necessary.

**Great Figures** belong to a great country like our own, of course. The last U. S. census brought out a good many of these, most of which are altogether too immense for our minds to anything like near grasp. For instance, here as to domestic fowls: In the country at the time the census of 1880 was taken, there were of common fowls 102,272,135, and of other fowls, which we suppose includes turkeys, geese and ducks 23,235,187, or a total of 125,507,322 fowls of all sorts. From such a number the product is something enormous. It is not unreasonable to suppose that the average product from each fowl would be five pounds of dressed poultry for market, worth 12 cents per pound. The market value of this product would be \$75,304,393.20.

The number of eggs reported was 456,910,916 dozens. It is not stated whether this is the number laid or the number sold. But as it only allows 43 eggs to a fowl we suppose it is the number sold. Allowing 15 cents per dozen as a fair average price the season through and the country over, we have a market value of \$68,536,637. Adding the meat and egg product we have a grand total of \$143,841,030 as the value of the poultry product of the United States.





**Treeclimber's Talks.**

**ABOUT THE RAREST AMERICAN PLANT.**

Some plants, like the Dandelion and Chickweed, are so common that everybody knows them. This is also true of such shrubs as the Rose and the Lilac, and of Maple, Elm and Poplar trees, which shade our streets, and grow in the forests. Of course we all know that many other kinds of plants are less common: it is not a strange thing to hear people say when they visit other peoples' gardens, "I never saw this plant before," referring to one sort or another, that perhaps is not common. No one can know every plant.

I desire now to introduce my young readers to one of the rarest plants of America, or indeed of the world. It is so rare, in fact, that it has almost become extinct. For a plant or an animal to become extinct, you know, means that it has died out on the face of the globe, a thing which has occurred to numbers of both plants and animals. The plant I here refer to is the

**PRETTY LITTLE SHORTIA GALACIFOLIA.**

This plant has been found growing only in two small spots on the globe, one in Japan, the other in McDowell Co., North Carolina. So being it is an American, in part at least, we of this country should take the greater interest in it. The accompanying engraving shows the plant at about one-half its natural size. As you may see, the flowers are primrose-like in form; the leaves are dark green and glossy, resembling somewhat those of the Wintergreen plant of our woods.

To show how comparatively scarce the Shortia is, it may be said that while the common little Dandelion opens its bright golden flowers abundantly on this continent, from the Atlantic to the Pacific, and from the Gulf of Mexico northwards to the Arctic regions, wherever man lives, this only known habitation of Shortia in America, in the county above named, is a space of less than ten feet wide by forty feet long, and here not over one hundred plants have been found.

For many years after the existence of such a plant in America was first suspected, by the presence of a dried specimen of it in a Paris museum, labeled as from this country, its locality was unknown. Much search was given to finding its whereabouts, but for a long time without success. At last, however, some eight years ago, this small patch of it was discovered to the great joy of all our botanists. The place has of late years been visited by many lovers of rare plants.

**THE PERFUME OF FLOWERS.**

Whenever you are shown a handsome flower, one of the first things you want to know, is, whether it is sweet or not. No matter how gaudy may be its colors or pleasing its form, if it lacks fragrance you think less of it. About the only charm possessed by the modest Mignonette is its odor; yet that is enough to cause it to be loved by everyone as few other flowers are.

It may be noticed that such sweet flowers as Mignonette, Violets, Lily of the Valley, Carnations and Roses, are the greatest favorites with true lovers of flowers. They please the nose as well as the eye; without such as these a nosegay cannot be made.

Little is known about the perfume of flowers besides the mere fact that it exists. No one can describe it, except by saying it resembles the odor of other flowers or things. I have often been amused to hear how many people will say, when they smell of the Heliotrope,

**IT SMELLS LIKE ICE CREAM.**

they could more properly say it resembles the odor of vanilla, an article much used for flavoring ice cream and candies. We can say of the Gilly flower, that it has a fruity fragrance, of the Tuberosa that it has a Jasmine-like smell, and of the leaves of the Rose Geranium, that their sweet odor closely resembles that of Roses, and thus convey an idea of these, but further than this no one can describe a fragrance so that another would know it from the description given.

The perfume of flowers is gathered and preserved for later use in perfumery. All boys and girls, I believe, like perfumery of one kind or another. Perfumery of some kinds is derived



THE RAREST AMERICAN PLANT—SHORTIA GALACIFOLIA.

from animals as in the case of musk but plants furnish the most of that used. In these it is due to a volatile and highly inflammable oil known as *otto*. The chief part of the perfumer's art is to separate this oil from the vegetable matter in which it exists. Some substances, like the peel of oranges or lemons contain so much of this oil, that it can be squeezed out with the hand.

TIMOTHY TREECLIMBER.

**A Condition not to be Evaded.**

One of the conditions of our existence in this world is, that we must work. It is not always an easy idea for the young, those who have plenty of the needful things of life all about them, provided by the hands of others, to come to. But it must be done if we would be truly independent and happy throughout life.

Let one look about him, and if he is a close student of humanity he will see that those who are busily employed, are the most contented, while the few who try to get through life without labor, however wealthy they may chance to be, are anything but happy. The ranks of the "tramps" are sooner or later mostly made up of those who ridiculously boast that the world owes them a living, without their working for it.

On the subject of work and money making for the young, Mr. Charles Barnard says, in the *Youth's Computation*:

Must a fellow work to get money? That's a sorry end to the matter. Is there no other way of getting money? No. The fact is the world is a hard place to live in for lazy folks; unless you can do something; unless you can pick money out of the ground, or the sea; unless you are willing to work for some one who has money, you can come to want with the greatest ease.

If you cannot work by reason of any defect, the public will supply your needs in a hospital. If you will not work, down, down you go, deeper and deeper into poverty, poorer and poorer, till at last there is the poorhouse, with its bare floors, its coarse bread and miserable end—a nameless grave in the Potter's Field.

This is not a pretty picture, but it is a true one. Where there's a will to get money there's a way. The world is a big place; there are a thousand chances appearing every day for those who can see them; there is work for those who can do it; there are good and equal laws to protect you in winning and keeping money, and there is a free, fair chance for all.

**The Memory.**

The power of retaining impressions made through the senses upon the mind, is one of the most wonderful gifts to man. Why some things should be readily retained in the memory, and then others of equal importance should be as easily lost has puzzled many without a solution of the matter being reached. It is said that memory depends upon attention, or that the more we attend to a thing the better we remember it. The old remark that a person never forgets a debt owing to him, perhaps illustrates this. Cicero after long thinking about the memory, found in it a striking proof to his mind of the immortality of the soul and the existence of a God. Samuel Smiles recently remarked on this subject as follows:

The most extraordinary instances of memory are those furnished by the ages which preceded the art of printing.

Plato, Socrates, and the philosophers of their time, depended entirely on their memories. Seneca could repeat two thousand proper names in the order in which they had been told him, without a mistake.

After printing had been invented, but while books were still rare and dear, memory continued to perform its great feats. Botfigella knew by heart whole books verbatim.

It is recorded of Pascal, that he forgot nothing of what he had done, read or thought, in any part of his rational life. He knew the whole Bible by heart, and could at any moment cite chapter and verse of any part of it.

**PET BIRDS, ANIMALS, ETC.**

**The Goldfish** does not bear cold well.

Never let the cage door slam, if you want a tame bird.

Where Goldfish are common fish, they are eaten as a delicacy.

Name your pets when you first get them: use the name and it will soon be learned.

If the door of the dog-house be at the side near the end, instead of in the end as usually made, there will be better protection to the animal from wind and rain. The bed in winter should consist of plenty of fine shavings or wheat straw; change at least once every fortnight. The horse needs to be raised from the earth, to prevent dampness.

Has the Bell Yet. About twenty-four years ago, just a little before the war of the rebellion, a turkey buzzard was caught, and a bell attached to his neck. This bird has occasionally been identified, and again quite recently by the ringing of the bell. This fact goes to show what has long been known, that the turkey buzzard is long lived. In most of the Southern States, it is unlawful to kill them, because of their value as consumers of carrion. They are further preserved by the superstition of the negroes, that it is bad luck to hurt them.

Scattering the Seed is a troublesome and wasteful trick in a bird. Mrs. Helen Miller writes that if you wish to avoid this, never put two kinds of seed together, and never leave shells on top of the seed. What leads to the practice of this trick, is that birds get in the way of looking for a favorite kind, and this they learn is to be found under other kinds sometimes. Always put fresh seed in the dish even if it is not half eaten, blowing out all shells first. In giving two kinds have two dishes or else what is better, put one kind on the ground.

Cage Birds do not require any special attention at this season of the year. The chief points are, to supply them with sufficient food and no more, to avoid coddling them, on the one hand, and exposing them to cold draughts on the other. The cages should be suspended in a light position and near the window, or other position where they will have a fair amount of air. In gas-lighted rooms the tops of the cages should be from three to four feet from the ceiling, because of the impurity of the atmosphere of the upper part of rooms where special means are not adopted for carrying off the vitiated air. The food with which the birds are supplied should be generous, but not overhearting or too fattening, and the supply of green food must not be neglected. At the present time there is no green food to surpass Watercress, grown under glass, and groundsel, for Canary and other small birds.

# The Household

## Pancakes.

A writer in the *Cook* condemns pancakes in the most vigorous terms, particularly buckwheat pancakes, which he considers chief of all dietetic abominations, because buckwheat is heating. We imagine that the principal injury arising from the use of buckwheat pancakes is when the use of these is overdone.

That the grain of buckwheat is nutritious is indisputable, containing as it does, about 10 per cent. of gluten and 52 per cent. of starch, besides about 6 per cent. of gum and sugar, but that it has an injurious action on the blood, causing skin eruptions, and perhaps also a bad effect on the brain, seems also to be established. As a supplementary article of food it is entitled to use in a reasonable degree, and then no harm would need to be expected. To bring the cakes hot from the greasy pan in American style on the table once a day, and then make of them almost the sole article of food is too overdo in their use; such a rule in vogue should be broken.

That we may drive further terror into the heart of the luxurious buckwheat cake eater, we print the closing flourish of the article, by the writer referred to:

"Their one merit, that of increasing the temperature of the consumer, is in nearly all cases an evil. Were a man residing at the North Pole, he might warm himself by eating buckwheat cakes; but in any decent latitude, buckwheat injuriously overheats the blood. All the benefits of buckwheat cakes could be obtained by swallowing cotton while sitting on a moderately hot stove. At the same time, one of the evils of buckwheat—the blood-poisoning and cutaneous eruptions which mark the victim of buckwheat—could be avoided. People with their circulation stimulated and their stomachs and livers inflamed by buckwheat, are unfit for pursuing the ordinary affairs of life, let alone any others."

## Shall the Girls be Taught to Work?

The popular verdict seems to be that they should be taught everything except useful work. Of a practical knowledge of house-keeping, a young woman is not infrequently allowed to remain in entire ignorance all through girlhood. Every right thinking person must see in this a great error, and will agree with the following sensible words, relating to this question, by Ida Hinman, in the *Christian Woman*:

What father would think of setting his son up in business without giving him some practical knowledge of it? But the daughter, in many cases, is allowed to enter upon her life work without the least preparation.

It is wonderful that she succeeds as well as she does; for house-keeping is one of the most difficult of trades; it is a combination of many trades in one. Circumstances may not compel her to work, but then ignorance places her at a disadvantage with her domestics.

That manual labor is not honorable is a mistaken idea, yet this is largely the feeling in regard to girls. For this polite society is chiefly to blame. There is no reason why a girl who can cook a good dinner, or make a dress well, does not deserve as much credit as one who can play the piano or paint a picture; she is certainly more useful. A good house-keeper is entitled to dignity and respect; there is no more honorable calling.

We would not have a young girl made a drudge and kept in the kitchen, or spend any great part of her time there, unless circumstances demand it; and we are not saying a word against her liberal education. Let her study all the languages, dead or modern, for which she may have inclination. Let her take a regular college course with her brothers, and

add music and painting if she has talent for them. Let her study what she will and all she will; but let her also have some practical knowledge of household duties; for if she has not this, she has not a liberal education.

## Brieflets.

**Cold air** is not always pure.

**Have** at least three dish-towels.

**Health** is easier retained than regained.

**Sixty-eight** to seventy degrees is the best room temperature.

**Lay aside** the *cares* of house-keeping too, when the work is done.

**Paper** rubbed over tin will produce a better shine than flannel will.

**Chloroform** will take out paint from any material if well rubbed in.

**Fresh fish** soaked for half an hour in salt water before cooking will be the nicer for it.

**When** your tooth brush is badly worn, get a new one for the teeth, using the old one for cleaning lamp burners, window sash and the like.

**The battle** is not always to the strong; else the onion would always be ahead. The most it does is to wring tears from those whom it opposes, but never as a real victor.

**Earache.** This distressing ailment so common to childhood, may be relieved almost immediately by the use of the following simple remedy which is to be found in every family: Take a bit of raw onion and beat it to a pulp. Spread this on a piece of thin muslin, and roll into a form that may be placed into the opening of the ear. This is all, and a cure may be expected when other remedies fail.

**Washing stockings** is a disagreeable part of the wash day work. It can be made easier and less repulsive by putting the stockings to soak in luke-warm water to which a little pearline has been added, at the beginning of washing. Then leave them until the last thing, when it will be found that the dirt and perspiration held will be loosened so as to come out easily without hand-rubbing. Stockings, like any other woollen garment, should be washed without rubbing. This process is very wearing and shrinks the material. When clean, wring them from the water in which they were soaked; rinse in blue water; stretch into shape and dry at once.

**Make your own Dessicated Cocoanut.** Now that the cocoanut season opens anew, let us give some simple directions for preparing this delicious article of the cook room, to be both better and much cheaper than that which is sold at the stores. Buy the nuts, remove the shells and reduce through a coarse grater. Before the grated substance has a chance to dry, stir in as much pulverized or granulated sugar as the moisture will cause to adhere to the particles. Dry quickly but without high heat, to prevent its turning sour; stir repeatedly. After it is thoroughly dried, put into paper bags, which should then be kept in a dry pantry or chest. Use the same as the article which may be bought.

**A Word to the Men Folks.** Although your occupation takes you out of doors and away from home, do not at this season which is so trying to the house-keeper, neglect to give whatever aid you can in her department. The fact that you are much away, and to this extent relieved from the extra cares of winter house-keeping, makes it all the more desirable that you sometimes lend your help.

The writer who comes over to these columns to say so, happens to know very well how a man's judgment, or his strong arms occasionally offered, can lighten the additional labors that come with the winter here, and this too, whether there is hired help or not. See to it that the heating is well furnished in fuel and kindling right along—let the wife be relieved of any cares about this matter. Provide utensils, and if needed, sometimes muscles, for keeping draughts clear of chinkers and pipes and chimneys in order. Free burning fires are wonderfully cheering to home life in winter, and promotive of happiness all around.

Then the snow shovel is out of place in a woman's hands if there be a man about, who has time to handle it. By this we mean reasonable time, and few men are so situated but that they can keep the walks and steps clean of snow every day in the winter. This suggestion might seem uncalled for, were it not that the writer knows of cases where women clean the walks and the men are idle. One man in particular we have heard about, keeps his lazy body to bed mornings now-a-days, while his wife rousts about tending the fires and shoveling off walks. Such men are an unmitigated disgrace to civilization.

## Notes on Dress and Home Art.

**Kid gloves** are low in price.

**Yellow** is growing more popular.

**A plain tailor suit**, is a safe investment.

**Bonnet strings** three inches wide are worn.

**Press seams** with a warm, but not hot iron.

**Women** are in high feather; look at the hats.

**Velvet** is in full fashion for elegant winter wraps.

**The old-fashioned pumpkin hood** is to be revived.

**For Childrens' costumes** very small buttons are in vogue.

**Puffed draperies** are considered in poor taste for children.

**Furniture polish** of good quality may be made by combining sweet oil and paraffine.

**Braid** should always be shrunk in warm water and ironed before putting on the bottom of skirts.

**For economy** in dress goods, black is the color; it does not bear its date so soon as do figured or colored dresses.

**The shelf-like bustle** seems to have been "shelved" at last. We have noticed that it has long been going behind.

**A room** crowded to discomfort with furniture and ornaments, no matter how costly, has more of the aspect of a museum than of a restful home.

**For dressy evening bonnets** this winter, those of white or pale-tinted satin are forsaken for black velvet, trimmed with soft shades of pigeon gray and various shades of pink.

**Placques** of brass or bronze are an elegant addition to prints and paintings for the adornment of walls. The prices this season are so moderate that all can afford at least a touch of their solid beauty.

**A dark and gloomy room** may be relieved by placing ebonized shelves over the doors and windows, grouping bright scarlet, yellow or gilded fans upon the walls, and placing pretty bric-a-brac and vases where they will have a cheerful background.

**Feather trimming** may be a becoming, and not an expensive garniture, but it is not satisfactory in the best sense. Both cold and dampness soon affects the natural oil of the feathers, and they fall and look dull and soiled. Holding before a brisk fire may for a time renew the soft, fluffy appearance which is their first attraction, but the improvement is not lasting. As they last well for one season and wide bands can now be purchased at a small cost, they are used by many to renovate last year's wraps, for which they are admirable.

**The Bamboo** furnishes a natural basket-making material, and by means of it the ingenious Orientals produce work of unrivalled beauty and finish. The bamboo wicker-work with which the Japanese enclose their delicate egg-shell porcelain is a marvellous example of manipulation, and they and the Chinese excel in the application of bamboo wicker-work to furniture. Some extraordinarily delicate baskets made by Siamese artisans are to be seen in the collections, those intended for ladies' use being as fine as lace-work in their decoration.

**Cherry-stained Easel.** A subscriber of the *Art Interchange* gives these suggestions for staining and adorning a plain pine easel. Rub iodine, such as is sold at the druggists, on the wood until it is covered, with a brush. The addition afterward of a strong solution of logwood would give the cherry effect. Some mouldings or rosettes of Lincrusta-Walton fastened on the easel and stained with this will make it look like a carved easel. After staining, when dry, go over the easel with Saddler's polish, using clean cloths to apply, and afterwards rub dry. Varnish may be removed by first rubbing with fine sand-paper until the hard upper gloss is removed, then by washing in a strong, hot solution of washing soda. Finish by rubbing off with a wet rag sprinkled with fine pumice powder.

**Umbrellas**, says the *Boston Cultivator*, very sensibly, will last far longer if when wet they are placed backward downward to dry. The moisture falls from the edges of the frame and the fabric dries uniformly. If stood handle upward, which is commonly the case, the top of the umbrella holds the moisture, owing to the lining underneath the ring, and therefore takes a long time to dry, thus injuring the silk or other fabric with which it is covered. This is the prime cause of the top of the umbrella wearing out sooner than the other part. Umbrella cases, too, are responsible for the rapid wear of the silk. The constant friction causes the tiny holes that appear so provokingly early. When not in use leave the umbrella loose; when wet, never leave it open to dry, as the tense condition thus produced makes the silk stiff and it soon cracks.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON

Vol. 1.

FEBRUARY, 1886.

No. 5.

## The Chinese Primrose.

The Garden Primroses have been favorite flowers, no one can tell how far back into the ages—probably from the very beginning of floriculture. Most of the hardy species, embracing the common sort, the Cowslip and the Auricula, are natives of Europe. Being these, as a class, find a climate better suited to their wants abroad—and especially in England, than with us, they have always received more attention from the gardeners of the Old World than from our own. Still, some of the kinds are among our most valuable garden flowers.

But with the introduction of the beautiful tender Chinese Primroses, some fifty years ago, there came into our hands a class quite as desirable for cultivation in America as in Europe. This valuable section needs the protection of glass almost the year around, hence the conditions of growth are about as well met in one place as in another. What the hardy Primrose has for ages been as an out-door flower, this tender Asiatic has proven to be for in-door use, namely: Everybody's flower. As a plant for window culture, no less than for the conservatory, we know no other one that is so sure to bloom as this. From the holiday season until hot weather of each year, it is one of the sorts capable of adding much to the beauty and life of every plant collection.

These tender Primroses, so far as the handsome single-flowering sorts, and some of the double ones, are concerned, are easily raised from the seed. This is sown in the summer, and by the following winter the plants raised should be of a blooming size.

Where the raising of plants has been neglected they can be bought of almost every florist for a small price per pot, at this season of the year. In purchasing, select such as have not been forced, but only exposed to the heat of a cool greenhouse. If the forms of the plants are dwarf, something as shown in our engraving, this may be taken as a sign that they were well grown; choose such.

In culture, Primroses need a light place, but do best in a room that is not very warm. The flowers should be picked off as soon as they are past their prime, as seed-bearing will needlessly exhaust the plants.

## Notes from Lyndale.

BY A. H. E.

February 3. The winter and spring seasons never have come around since the trees and shrubs at Lyndale have gotten fairly started, that some thinning-out of these has not been done. I believe in so planting these that the

young growths will stand closely from the start, to create good effects very soon. Then I count upon this thinning-out process year by year, to prevent the subjects from getting badly crowded.

By planting closely, in well-prepared soil at the first, one needs never to be heard saying: "It takes a lifetime before such things make any show." The fact is, that by such a course an excellent showing may be made in shrubbery and hardy plants the very year of planting, to be greatly improved by the second year and later. Trees take about twice the time for producing good effects that shrubs do.

\* \* \*

My method of close planting is to arrange the shrubs or trees that are to be the perma-



A FINE TYPE OF THE PRIMROSE PLANT

nent subjects of any group, first. These go in at what seems like a good distance apart for the young specimens, say from four to six feet apart, on an average, for shrubs, and nearly three times as far for most kinds of trees. Then between these I place, for shrubs, either of the same kinds or else some free-growing sorts, such as Spruce, Honeysuckles, etc., that quickly become attractive. In trees, free-growers, like the Poplars, Birches and Silver Maples, are used as the filling-in material. Such robust and strong growers serve also to "nurse" the more delicate ones by breaking the winds.

\* \* \*

February 7. Let me supplement a previous note by this cautionary one: I would never advise close planting excepting to those persons who give enough thought and care to their grounds, to see that the plantations are thoroughly-well thinned out as needed later. A lack of trees and shrubs in a garden is bad enough, as everyone not devoid of taste knows, but to have these standing so thick from the close-planting but never-thinning system as to cause excessive shade and closeness is even worse. I say, therefore, to the careful gardener who

gives a good deal of time and labor to keeping up his place, plant close at the start and rely on thinning afterwards; to those who are disposed or compelled to follow a hap-hazard style of gardening, do not plant too thickly. The former will have the most beauty from the start, but it will come, as it naturally should come, from some increase of cost and care.

\* \* \*

February 13. If there is one thing more than another, to which may be attributed the success met at Lyndale in gardening, it is to the matter of thoroughly fitting up the soil for every operation. I have often heard people among my visitors attribute the ill-looking condition of their own flower beds to the particular kind of soil of the beds, as being unfavorable. I smile at such apologies, for I don't much believe in the bad-soil theories.

My experience in the growing of flowers, vegetables and fruit here, has been in all kinds of soil, from clay to light sand and "chawed rock." I have met, if not equal success in all, at any rate very good success in all. My preference is for a loam, neither heavy nor very light, failing in that as I do in some parts of the grounds, I take what I find, knowing that to render it fit for supporting plant life is chiefly a matter of what I bring to it as plant food or else take from it.

\* \* \*

In the first place, in fitting up my grounds I have taken from every part of them except the bog, the excessive moisture of the soil, by under-draining. Then I have in each case of a bed or border fitted up, brought on an ample stock of plant food in the shape of well-decayed manure. To the beds in heavy soil I have, besides the manure, added sand, or coal ashes, for

reducing the tenacious quality of the earth. To some of the beds in light soil, vegetable matter from depressions in a half-cleared forest not far away.

Then, I practice deep tillage, incorporating these substances referred to, with the soil to the depth of at least eighteen inches. This is done by trenching. The roots of the plants are thus encouraged to extend downwards and outwards to a great length. They find an abundance of sustenance wherever they go, this being the one thing needed for promoting vigor and beauty. I plant to have things grow, not to have them starve.

\* \* \*

February 18. To-day I made out my new order for fruit trees and ornamental shrubs and plants, to several nurseries. It may be six or eight weeks yet before the orders can be filled, but there is the satisfaction of knowing that to get them in early the orders will be filled early. I want all my hardy-planting stock around just as early after spring opens as possible, and planting to be done at the earliest day after the soil is fit. Setting out these things several weeks earlier or later makes a great difference

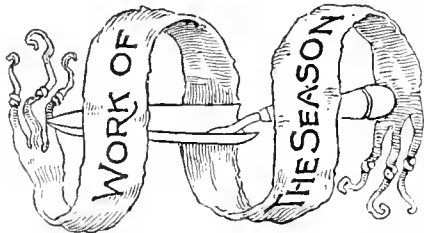
in their chance for doing well, according to my notion of things. I dislike above all else to plant after the leaf buds begin to burst.

## WELCOME

TO THE 12,000

Readers of the Floral World.

Right here, after other parts of the paper are in print, the editorial staff of POPULAR GARDENING, must crowd out a bit of room, to extend to you their cordial greeting. You are welcome, heartily welcome to join our large family of readers. So walk right in, and make yourselves at home. Take these best seats, and enjoy our good cheer. Here is spread the monthly board—the best the house affords, and prepared in our usual pains-taking manner, with spice and flavor not overlooked. Taste and see, that in all departments it is good. Be free at all times to use these columns for your letters and queries on gardening. The paper is yours. You are truly welcome.



### THE HOUSE PLANTS.

February sun, and the longer days, will start all healthy window plants into vigor. They will appear as if awakening from the half-sleepy winter state. We know of no time in the twelve months, when plants are more enjoyed than just at this season of fresh activity, carrying with it as this does, the promise of a new term of beauty and of bloom.

From now on, it is easy to keep healthy plants looking well. But it will not do to grow careless, either as regards general requirements, or caring for them in the cold nights, yet sure to come. These fresh movements in growth must be backed by treatment that will ensure the formation of healthy roots and wood; such alone can bring a large reward of future plant attractiveness.

**Begonias** of the free-blooming sorts, should now be in their glory. Water the plants but moderately.

**Bulbs** should continue to be brought in from the cellar or pit. At this season they grow and bloom remarkably well. Such as are in glasses must have the water kept properly replenished.

**Camellias** are impatient of close confinement in a dry atmosphere, hence should have air freely (but not cold draughts), in all suitable weather, and a frequent sponging of the leaves on both sides.

**Chrysanthemums.** See article on page 53.

**Fuchsias** that have been at rest should be started up, if this has not yet been done. Those that have made some growth, may have slips, if there be strong ones, taken from them, to root. As to pruning, the state of the plants and one's taste should govern. As a rule, we think old plants are more satisfactory for being cut back at this season, and grown in a bushy form. Young plants usually reach a better shape for the first year, without any cutting back, unless it be side-shoots occasionally, for inducing symmetry. Guard always against their becoming pot-bound; growth must be constant.

**Geraniums**, especially of the Scarlet or Zonale class, should be showing fine slips for rooting now. All the plants, with the exception of some wanted for present bloom, may be severely cut back for propagation; the slips of such will make fine plants for bedding, while the old ones will come out well for summer bloom, either in pots or for bedding.

**Heliotrope** slips struck now, make fine plants for summer. Shift old plants as they get pot bound

**Oleanders.** If one cares for flowers in May, start up the plants now. As growth begins, water well and give some stimulant to the roots.

**Plants in cellars** and pits may well be treated to air occasionally for hardening them. If the earth in the pots or boxes is very dry, give water.

**Pruning.** As a rule amateurs are too much afraid of the knife. In soft-wooded growths, one can hardly prune too freely for good shape; with it, fine, bushy forms, springing from the ground, result; without it, detestable long-legged plants.

**Roses**, of the monthly section, will begin to show growth and bloom. Avoid keeping them too warm; give a good sunny position. By all means keep down the green fly. Hybrid Perpetuals, potted in the fall and wintered in pots, may come into heat, and will quickly start up. When buds appear, a stimulant like liquid manure becomes desirable.

**Seed Sowing.** Kinds like Mimulus, Maurandia, Ice Plant, Sensitive Plant, Snapdragon, Chinese Pinks should now be sown for good plants for spring and summer decoration. All annuals may be sown in boxes for early, by the end of the month.

**Sweet Alyssum.** Propagate from slips or seed.

**Watering.** See under Plant Culture Under Glass.

### LAWN AND FLOWER GARDEN.

**Bedding Plants.** Arrange early for whatever stock will be wanted, whether you raise your own or buy. If to be bought, contracts may be made with florists thus early at reduced rates, usually.

**Hedges** of deciduous kinds should receive their winter pruning in mild spells. Mice often do great damage by girdling the trees under the snow line. Prevent by tramping down the snow occasionally.

**Hot Beds.** One of these is a great help in bringing along pot and bedding plants for summer use. See directions for making on the opposite page.

**Labels, stakes** and like necessities to the garden, should be made or bought now, for spring use.

**Pansies.** If no stock has been brought over, by sowing seeds now, in moderate heat under glass, good spring-blooming plants may be raised.

**Plans.** Now should be a good season for reading and planning. The main operations to be carried out the coming season should be studied and decided on before outdoor activity opens. Well-laid plans not only tend to the making of better gardens, but they are economical, in the sense of allowing the work later to be turned off with advantage.

**Root grafting** may be applied to ornamental shrubs, climbers and trees. See engraving, with the explanation under Fruit Garden and Orchard.

**Seed Sowing.** At the South, hardy annuals may be sown out of doors. In the North, annuals for specimens and summer bedding, such as Balsams, Cockscombs, Globe Amaranths, Portulacas, Schizanthus, Phloxes, Brachycomes, Stocks, Tracheliums, Cobæas, Lophospermums, Acrocliumms and the kinds named under The House Plants, may be sown in heat before the month is out.

**Shrubs.** In the South, pruning of these may now take place, but further North, next month will be about the right time. In approaching these with knife and shears it must be borne in mind not to treat all kinds alike. For instance, the class including Roses, Hardy Hydrangea, Burning Bush, Cornilla, Amorpha, Hypericum, Altheas, Late-flowering Spiræas, and a few others that bear their bloom on the new growth of the season, may be cut back very severely at this season with good results. But about all other shrubs besides these named, produce their flowers from buds on the old wood, and to prune these now is to prune away just so many flowers. On such, little more pruning should be done at this time, than to cut to improve the general shape, leaving most of the work to be done just after the blooming season, some months further along.

### PLANT CULTURE UNDER GLASS.

**Angle-worms** in the soil increase rapidly as sun-heat increases. The perfect remedy against them, is to soak the soil thoroughly about once a month with lime water.

**Carnations** for next winter's flowering should all be struck from cuttings before this month is out. Later then, keep the young plants robust by free airing. Flowering plants should be gone over and restaked, tying them out larger if needed.

**Cytisus**, when done blooming, should be cut back.

**Insects** come out with great rapidity at this season of high sun-heat and closeness. No pains must be spared to keep them down. Prevention is better than cure, hence the usual remedies of fumigating twice a week with tobacco smoke, for Green

fly, and others; syringing daily for Red Spider and so on, in houses of high heat, must not be neglected. Scale and Mealy bug increase more slowly than these, but do not yield to treatment so well. Hand-picking, washing or brushing, the best remedies.

**Mignonette** is one of the annuals that may be sown now to good purpose. Then the plants will, with the sunnier months to come, make rapid growth, and by the time of mild weather will be much prized for window and conservatory decoration.

**Orchids** that begin to grow during the time they are in flower, should be shifted immediately the beauty of the flower is past. The best materials for the shift are good fibrous peat, sphagnum moss, broken crocks and charcoal.

**Aerides, Vandas, Saccoboliums, Dendrobies, Coelogyne** and several other genera do best in sphagnum with small crocks or sharp sand. Cattleyas, Lælias, Oncidiums and Odontoglossums do equally well in peat mixed with crocks and a few nodules of charcoal; whilst some do best in a mixture of peat and moss.

**Pelargoniums** are in their making time now. Water freely, especially in warm, bright days, to set every rootlet in action. Over watering is bad, however, causing as it does, spotted leaves.

**Potting.** All young slips should go into pots as soon as roots appear. Use small pots and light, rich soil, potting rather firmly. In potting or shifting plants, place broken pots or gravel into the bottom of every pot larger than three inches across, for drainage. In pots six inches or more across, there should be on top of the hard drainage a layer of sphagnum or hay before filling with soil, to keep the lower drainage from clogging with soil.

**Roses.** See last month. From now on is a favorite season for propagation. Select the cuttings from the best and the strongest wood of recent growth; a bad cutting must make a bad plant. From the time the cuttings are put in until the young plants are fit to set out, they must never be neglected for want of water, as this would stunt them, a condition that is always bad.

**Salvia Splendens** as to stock plants, must not have the growth greatly checked at any time in the winter, for if so, it will be difficult to get up good plants for next year. Ample root room, and a cool temperature suit the plants at this season.

**Stove plants** need a general going over at this time or a little later. Those that have been blooming in the winter, require to be cut back, and encouraged to break; then to be shifted to larger pots if needful, or have top-dressings. Any of these plants in flower, must be kept dry over-head.

**Verbenas** detest any but fresh, sweet soils. If the plants are at a stand still, by shaking out and re-potting in rich, fibrous new earth they will usually improve quickly. The plants need to be kept near the glass and have plenty of air.

**Watering.** Let no plant suffer from dryness, none from over-watering, to avoid both of which needs a watchful eye. Notice which kinds dry out soonest—there is a great difference as regards this, also in which parts of the house dryness is first to be met, and act accordingly. To water all kinds alike is to do great injustice to some.

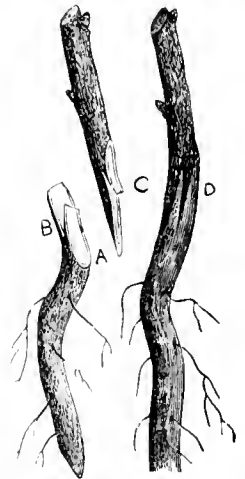
### FRUIT GARDEN AND ORCHARD.

**Firming** the soil over the roots of Strawberries or any other plants or shrubs set in the fall, by tramping it as soon as it thaws, is a good stroke to put in, with the early spring.

**Manuring.** Top-dressing such orchards as are not growing with vigor, may now be done. Spread the manure, which should be old and fine, evenly.

**Pruning.** Push in comfortable weather. See last month's issue under this head.

**Recording Maps** of the orchard and fruit garden, should be kept to ensure against loss of names and confusion, by the accidental losing of labels. Such are easily made. Use smooth, strong, heavy paper, striking lines and cross lines as many as there



Root-grafting.—See opp. page.

are rows of trees or plants, and then write the name of every variety clearly, in its proper place.

**Root grafting** is work for this month. It is much practiced for increasing the apple, but answers as well for many other plants and woody growths. Whip grafting is the method usually employed, and this we will illustrate, as for the apple. For a stock, the root of a seedling that was stored in earth or sawdust in the cellar in the fall, is used. This should be about the diameter of an ordinary lead pencil. The graft to be used, should come from the sort of tree that is to be increased, and may equal the stock in diameter, or be a little smaller. In grafting, the roots are washed perfectly clean. Then a root is taken in hand, and with a sharp knife, a smooth sloping cut is made upwards at the collar A, (see engraving), and in this, a slit or tongue is made downward, as at B. A graft three or four inches long is cut in a similar manner, excepting with a downward slope and upward slit as shown at C. The two are then closely united, tongue within tongue, slope against slope, as shown at D. The bark of the two parts should be even, at least on one side. Tightly enclosing the joined parts by a strip of paper or cloth saturated with grafting wax, completes the operation. Put away the grafts as the work proceeds into boxes of earth, in the cellar, here to remain until the planting out time arrives. The entire matter is so simple any one may expect to succeed with it.

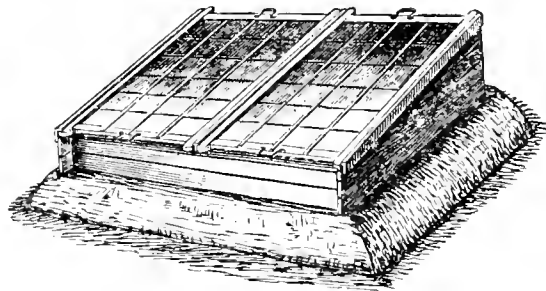
**Top Grafting.** Do not be impatient to get at it, if the grafts have been cut and properly buried in earth (this may yet be done, if done at once,) to keep them naturally moist, late grafting, say just at the time the leaf-buds burst, is better than earlier. With such grafts on hand, it may be done, even in June, with success. By that time the sap is in a condition to support larger grafts than if the grafting were to be done earlier, and the use of such proves to be a gain.

#### VEGETABLE GARDEN.

**At the South,** Asparagus, Rhubarb and Horse-radish beds may be made. Potatoes may be planted, and in the more southern parts the seeds of Squashes and Melons, provided some means of protection are at hand against hard weather. The most successful gardeners are always ready to take some risks in starting their crops early. See last month, under this head.

**Cold Frames.** As the weather grows warmer, Cabbage, Lettuce, etc., in these will need more air.

**Dig Parsnips,** Horse-radish and Salsify when the ground is open.



A Small Hot-bed for Family Use

**Hot-beds.** Some hot-beds are made by market gardeners for early crops during this month, but for family use, next month ought to be early enough in most parts of our land. A small hot-bed of several sash or upwards in size, is a pleasant addition to any garden. It comes in during the early spring months as a miniature green-house at a trifling cost. The heating agent, besides the sun, is horse and other manure, but chiefly that of the former. A frame is made of plank, or better yet, double-walled of studs, covered inside and out with match-board, and of a size to suit the number of sashes to be used. These are to slide on the top, supported by cross-bars, and made to fit tightly.

What is wanted, as to manure, is a body of this which is fresh, not spent by heating. It should be of a size two feet longer, and wider than the frame of the bed, and about two feet deep, closely packed by tramping. This may be placed above ground or it may be lowered one or more feet into the earth, with some saving of heat. If above earth, the exposed manure should be sheltered by banking some soil, tanbark or similar material against it.

After the frame is in place, some fine, rich loam, enough to cover the manure three or four inches deep, should be put into it. A thermometer now thrust into the manure ought to soon indicate as high as 100 degrees of heat. When such a degree of warmth subsides to 90 degrees or less, the bed is ready for use. Straw mats or light board shutters

should be on hand for covering the glass every cold night. The hot-bed is a suitable place for sowing all kinds of seeds for early plants, starting Sweet Potatoes, bulbs, etc., rooting cuttings, growing early vegetables, pot and bedding plants, and the like.

**Lettuce** sown in a box in the window, hot-bed or green house now, will give nice plants for frames or a warm spot in the garden in April, to mature in May. Curled Silesia is one of the best for early.

**Rhubarb**, if covered in the beds with boxes or barrels, and plenty of manure is packed around these, will come weeks earlier than without this.

**Seeds.** Get around a complete supply in ample time. Test old ones.

**Site.** In choosing a site for vegetables, a south east aspect should be preferred, as aiding earliness. Lay off in squares, with plenty of narrow walks between the divisions, devoted to different crops.

#### FRUIT AND VEGETABLES UNDER GLASS.

**Cucumbers.** Any fruit that shows before the plants are tolerably strong, nip out. When fruiting may go on, the hills will want earthing up somewhat with nice light loam. As bearing begins, stop regularly one joint beyond the fruit.

**Figs** that are being forced should now be freely syringed. They need more water also, at this time.

**Grapery.** Vines started early should be kept trained, and have the laterals disbudded. After blooming, care should be taken not to syringe the bunches, but every inch of wall and path should be well moistened to keep down Red Spider. Avoid the extreme, however, of creating so much moisture as to generate mildew. On newly starting up vines, see directions in the January issue.

**Lettuce** is a crop that grows finely under glass during this month and later. Provide about 45° of heat at night. Give an abundance of air in mild weather. Water liberally, but not to excess.

**Orchard House.** Peaches or any other trees in these, will set their fruit better for free airing while blossoming is going on. Keep the atmosphere as dry as possible at this important stage, but after the fruit is set syringe freely, using tepid water.

**Rhubarb** may be had early by taking some roots under glass or to any warm place, even if it is not well lighted.

#### The Annual Spring Gardening Catalogues.

These are now reaching us, one after another in quick succession, from seedsmen, florists, nurserymen and others, with more yet to be heard from. From first to last these yearly trade publications are a remarkably handsome and useful class of prints, and, with rare exceptions, show much care in their preparation. Indeed, we question whether any other line of business in existence, bestows an equal degree of attention to retail trade announcements as is here shown.

But the people are, after all, the real catalogue makers. As the fountain cannot rise above its source, so the catalogues, as to their beauty and worth, must be taken as an index of the taste and the expenditures in this line, of the people, who support them.

The American gardening catalogues, indeed, speak well for the growing taste for gardening in all its departments among our people. Hailing, as POPULAR GARDENING does, gladly, every sign of advancement here, we take pleasure in calling the attention of our readers to all such catalogues received at this office. A number of these are also announced in our advertising columns.

DE VEER & BOONERAMP, 19 Broadway, N. Y. Catalogue of Dutch Bulbs and Plants for Spring, 1886.

BENJAMIN HAMMOND, Fishkill-on-Hudson, N. Y. Circular of Hammond's Slug Shot Insect Killer and Lawn Fertilizer.

PETER HENDERSON & Co., 35-37 Cortlandt St., New York. Manual of "Everything for the Garden." A remarkable catalogue, of 138 pages, containing hundreds of engravings and three colored plates of flowers and vegetables. It contains descriptions and prices of all desirable garden requisites.

HILL & Co., Richmond, Ind. Catalogue of Roses and other plants. This is a large, handsome pamphlet of 60 pages, bearing many marks of taste and originality in its get up.

T. S. HUBBARD, Fredonia, N. Y. Wholesale and special price list of grape vines.

J. E. JEFFORDS & Co., Philadelphia, Pa. Illustrated List of Flower Pots, Seed Pans, and other Florists' crockery supplies.

W. H. JOHNSON, Mineral Ridge, O. Circular and Price List of the Plum Tree Poultry Yards.

C. A. KLEIN'S, St. Louis, Mo. Catalogue of Patent Champ Florist's Designs.

D. LANDBRECHT & SOSS, Philadelphia, Pa. Kitchen Garden Price List of American Pedigree Seeds.

CHAS. LORENZ, Effort, Prussia. A handsome 90 page catalogue of garden seeds, issued from this German house for amateurs, and printed in the English language. Well illustrated.

W. E. MORTON & Co., Portland, Maine. Morton's Annual, a work of 48 pages, substantially bound in cloth. Besides containing prices of plants and flowers, it gives the Language of Flowers, Floral Knowledge, etc., and is altogether interesting. No price is given.

STARK NURSERIES, Louisiana, Mo. Spring Price List and announcement of the Mariana Plum.

HERMAN PERLBEH, 183 South Broadway, Baltimore, Md. Circular of Excelsior Fumigator.

PRAET BROTHERS, Rochester, N. Y. Announcement of the Empire State Grape, with handsome colored plate.

CHAS. A. REESER, Springfield, O. Winter offer of Roses and Greenhouse Plants.

JAMES VICK, Rochester, N. Y. Floral Guide combined with the January number of Vick's Magazine, and together forming an elegant and useful work of nearly 200 pages.

## Inquiry Column

This being the People's Paper it is open to all their inquiries, bearing on Gardening.

On the other hand, answers to published inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer; give facts and ideas and the editors will see that they appear in creditable shape.

In writing, give the number of the question you are answering; your locality and name, the latter not for publication unless you desire. Write only on one side of the paper. Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that these be fully prepaid. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.

28.—**Budding Chrysanthemums.** We would like information on this subject.—TWO SUBSCRIBERS.

29.—**When to buy Orchids.** Which is the proper time to get *Lycaete Skinneri*?—MRS. H. W. S., Belmont Co., Ohio.

30.—**Passion Vines Fruiting.** Do either of these bear under cultivation, and if so, how should they be treated for this?—W. SHAYTON, *Falcons*, N. J.

31.—**Bouvardia.** I would like some one to tell me how to treat *Bouvardias* (we never have any frost, so I have all my plants in open ground). Are they ever bloomers or not? Mine bloomed in the fall and now stand still.—B. H. YOUNG, *Sau Diego, Cal.*

32.—**Seedling Lemons.** I planted seeds two years ago and the plants from them are now only nine inches high. What will hasten their growth?

33.—**Puny Geraniums.** The leaves are very small and they sprout from the root. What is the trouble?

34.—**Plant Fertilizer.** Please tell me what is good to enrich the soil.

35.—**Puny Fuchsia.** How should such an one be treated. Would it be well to cut it back. Miss FANNIE PURPLE, *New York City*.

#### REPLIES TO INQUIRIES.

15.—**India Rubber or Ficus Trees** can be raised from seeds.—B. H. YOUNG, *Sau Diego, Cal.*

19.—**My Cactus** was 5 years old and had never bloomed in the house, so I sunk the pot in the ground in my garden last spring, and then it bloomed well.—B. H. YOUNG, *Sau Diego, Cal.*

21.—**Plants for Growing under Stages.** Trades-canthia, zebraia, *Isoplepis gracilis*, *Selaginella den Geulata*, *Fittonia argyrea*, and Ferns of the *Pteris* tribe, succeed with the greatest ease here, while many others, such as *Begonia*, *Rivinas*, *Gymnostachyus*, and so on, do nearly as well.—A. H. E.

25.—**Tacsonia.** I have raised these by sowing seed in March, in a warm place, to be 20 feet in length, in 18 month's time.—A. *Staten Island, N. Y.*

26.—**Palms for Greenhouse.** In answer to "Ig. morans," I would say, the following do well with me: Fan Palm, *Chamaerops rostrata*, African-hair Palm, *Chamaerops humilis*, Bourbon Palm, *Lantanai barbacuda*, Bungalow Palm, *Screwforth cyclops*, and *Kentia australis*. I put in loam and sand and keep nicely moist.—CHAS. H. DINGMALL, *Steubenville Co., N. Y.*

27.—**Quick-Growing Hedge.** Honey Locust, Privet and Norway Spruce are all rapid growers in good soil.—A. H. E., *Eric Co., N. Y.*

29.—**When to Buy Orchids.** At almost any season when they are out of bloom, *Lycaete Skinneri*, being a winter bloomer, should be bought between spring and autumn.—MAS. P. L. WADE, *Barnstable Co., Mass.*

### Winter Aconite or Eranthis.

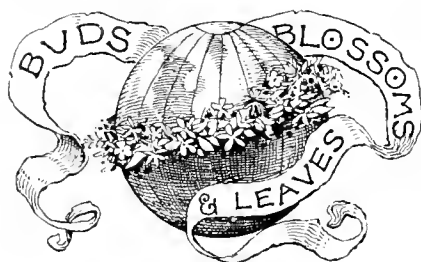
Flower that forest'llst a spring thou ne'er shalt see  
Yet smilest still upon thy wintry day,  
Content with the joy-giving destiny,  
Nor envying fairer flowers thy festal May,  
O golden-chaliced Aconite: I'll lay  
To heart the lesson that thou teachest me:  
I, too, contented with my times will be,  
And still a placid aspect will display  
In tempest-troubled seasons,—nor repine  
That others, coming after, shall enjoy  
A calmer day, a sunnier sky than mine:  
To speed the present, be my sweet employ;  
To cast into a stormy world my nite  
Of cheer, like thee, gloom-gilding Aconite!

—Thomas Noel.

### What They Say.

The Red Rose says, "Be sweet."  
And the Lily bids, "Be pure!"  
The hardy, brave Chrysanthemum,  
"Be patient and endure."  
The Violet whispers "Give,  
Nor grudge, nor count the cost;"  
The Woodbine, "Keep on blossoming,  
In spite of chill or frost."

Phylla Call



More sun, more flowers.

There is a double Oxalis.

Patronize our advertisers.

A beautiful catalogue crop.

Overshaded houses are unhealthy.

Abutilons come readily from seed.

The Fuchsia is a Tropical-American.

February is a good time to subscribe.

The Medlar Tree is not a meddler in fact.

Subscriptions may begin with any month.

Violet is the name of a Missouri Post-office.

Some one calls the Snowdrops, "Fair maids of February."

Thank you! To our many friends who have sent in clubs.

Success with Smilax as a house plant is by no means uniform.

The plural of Forget-me-not is forget-us-not, said one little girl.

The catalogues, on the whole, are a very instructive literature.

The Rose of Jericho is not a Rose; botanically it is nearer a cabbage.

Cranberries—900,000 bushels, is the latest estimate for the crop of 1885.

In looking up a list of late-flowering annuals don't forget the Godetias.

Plants do Shoot. A gardener advertises Roses "well rooted, many shooted."

Looks as if Anthuriums could never be counted on as window plants.

Should Horticulture receive State recognition? is a present question in England.

Children love the beautiful; let them engage in the innocent pastime of light gardening.

Iron-plate staging for hot-houses is in use in Laing & Co's nurseries, London. They are indestructible, of course.

The charming, but rare Maiden Hair Fern, *Adiantum Farleyensis* is propagated by division and not from spores.

A subscriber truthfully claims that florists, as a class, pay too little attention to the correct labelling of plants.

Washing the leaves of a plant, like washing the face of a child, helps wonderfully for good looks and general sweetness.

"Oh how hard is my lot!" groaned Tom, as he laid aside pick and spade, after half an hour's work in fining up the surface.

The secret at the bottom of growing the common Maiden Hair Fern, *Adiantum caucatanum*, is high heat and much moisture.

Do you, kind reader, take a good gardening paper? If not, why not, when only 60 cents will bring this one every month for a year.

The young folks are sending in many clubs to this paper. They find the work of securing subscribers easy, and of course it is pleasant.

Oranges must soon be scarcer. Mr. Ives, of the Florida Fruit Exchange, puts the loss by frosts to this fruit in January at one million dollars.

Sun heat on plants and flowers seems to start them up like magic. Sun heat is life to plants. A continuous high artificial heat, without sunshine, is death to them.

A Hint to Growers. It would be better for you, for dealers and for consumers alike—if one-half or more of the present varieties, in all departments, were weeded out.

Look out! One introducer of a new potato is just that anxious to have them look well and sell at a fancy price that it is said, he has colored those he exhibits, artificially.

We enjoy this being hit with Clubs, greatly, and, what's curious about it is, that the more we are hit the pleasanter is the sensation. So go in, and we'll stand the consequences.

Among Palms, which a writer to a gardening paper finds the best for window culture, are the Fan Palm, *Latania borbonica*, (figured last month), and Kentia Australis and Balmoreana.

Every issue of this paper is complete in itself, so just arrange yourself in the ranks of the 50,000 subscribers to be reached by the end of the year, in any month. Only don't defer it until forgotten.

A new insect, some relative of the turnip fly, says Prof. Riley, turns up as a troubler of the Smilax. Tobacco smoke seems not to kill it, as it does the ordinary Aphis, but insect powder is a good remedy.

A Nation of Planters. It is said that in Spain an old custom among the country people, is never to eat fruit out of doors without planting the seed. The roads are lined with trees whose fruit is free to all.

Fumigating the apartments where plants are grown, we suppose, will always be the main reliance for killing plant lice. An utensil for doing this neatly, effectually, safely, is described in our advertising columns.

The best blue hardy annual we have is unquestionably the Dwarf Morning Glory, *Colevolvulus minor*. It makes an effective small bed or an edging to a large one. The seed may be sown where it is to flower.

Cyclamens are particular as to watering. They suffer quickly from being too dry, and just as quickly from too much wetness. Many of these plants die annually from lack of free drainage, which causes a water-logged soil.

Grass under Trees. The *Gardener's Monthly* advises a correspondent to sow the English Sheep Grass, *Festuca ovina*, and the Flat-stemmed Blue Grass, *Poa compressa*, here. We would add another to the list as good—the Creeping Bent Grass, *Agrostis stolonifera*.

Plant trees and shrubs, for they serve to purify both the earth and the air; the former by sucking up unwholesome organic matter, the latter by absorbing carbonic acid and returning life-giving oxygen. But don't plant trees especially, too thick, or too close to the house.

When Europeans send out a new plant, they are almost sure to hang a long name to it. We often meet worse cases than that found in the excellent new Rose, William Francis Bennett. But even this is too long for American notions. Let us all drop the first two-thirds. Bennett alone answers better.

We place our love for the Hybrid Perpetual Roses second to no one else's, but yet we do

think there is too great a tendency towards elbowing out the old-fashioned Summer Roses and Prairie Climbers, that this newer class may be given more place. We say, give all classes a chance, according as they deserve.

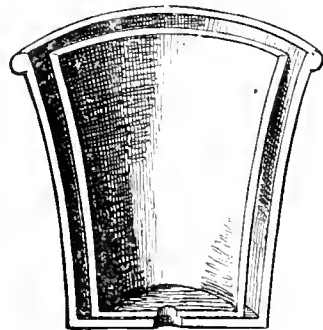
Slow; that's all! Many a pot in which Mandarria, Canna, Ardisia or other slow-starting seeds have been sown has had the soil turned out, in the belief that the seeds were dead, when a few weeks longer of waiting would have found the plants coming through all right. It may take several months time in all.

The bothersome, white-complexioned, Mealy bug belongs to the same family as the red Cochineal insect, from which the Cochineal dye is obtained. We draw the color line here in favor of the red-skin, every time. Brush the pale-face away whenever one shows up on a plant. Not safe company to have around.

A New Insecticide. In France, tons of bisulphide of carbon are used in the vineyards to check the ravages of the Phylloxera, with good results. What is good against that louse ought to answer for destroying many other insects. The objection to this drug on pot plants is, its odor is offensive. Don't forget to try it in the garden, though.

We have received at this office Mr. J. H. Tryon's "Practical Treatise on Grape Culture, with Instructions How to Prune and Train the Vine." Perhaps the greatest merit of this practical essay is its brevity, and yet Mr. T. manages to put a good deal of the "How to do it" in the dozen well-filled pages. His address is Willoughby, Ohio.

Our clerks have had an unusually busy time during the last month, entering the new subscribers received. But they had been pretty well drilled for it, and knew just what to expect. The 50,000 subscribers we are working towards: readers, club agents, publishers, all, will take some work to handle, but we are ready: so, forward, all!



Pots Arranged for Propagating.—See opposite page.

Too bad: Our young friend Angelina has, with sorrow, thrown up learning to paint floral subjects. We cannot think this was wise, and yet, on the face, the case does look bad enough. An acquaintance of hers has made the trouble by mistaking her last group of yellow Pansies for Bluebells. We tell Angelina that we think her friend is color blind.

To Subscribers. We know that some friends of yours would like to take POPULAR GARDENING, if they knew how useful, beautiful and cheap a paper it is. So if you will send in the names of any such, we will gladly mail to each a paper. We would also appreciate very greatly any direct personal work you might do in introducing the paper to others. A new paper needs a good deal of this kind of help, to be sure.

Josh Billings used to say: "I don't care how much people talk if they will only say it in a phew words." On that point we agree exactly with the lamented philosopher. It is the one aim of POPULAR GARDENING to not only give sound instruction on many subjects connected with the gardens of the people, but to say it in a few plain words. No hunting for a needle in a straw heap here. It beats all, how some writers for papers can spread out "talk" over

sheet after sheet of paper; sometimes the less to say the more words used.

**Canna or Indian Shot from Seed.** We hear that some fail to get these hard shot-like seeds to grow. Here we fire a charge of directions that we'll warrant will bring them along if they have life: Place in a dish; pour on boiling water to cover them; keep in a warm, but not a hot place (for example, on the greenhouse water pipes or a shelf near the stove,) for four days; then plant in a pot of earth, keeping the pot in a temperature of upwards of sixty degrees. With this treatment they will come up like Peas.

**A sign of improved gardening:** Fifty thousand lawn mowers are now made yearly in the United States. In consulting files of old papers, we cannot find one lawn mower advertised for sale in this country previous to thirty-five years ago. Everybody knows that each lawn mower stands for one neat garden. How many more of these there are to-day than twenty, thirty, or more years ago! A next step forward: Every one of the hundreds of thousands of present owners of this popular implement, should be a taker of the popular garden helper—POPULAR GARDENING. They are fast coming to this.

**A Good Paper.** The *Youth's Companion*, published at Boston, is not far from our ideal of a journal for the young. Indeed, we are free to say that, in some of its main features, we take pleasure in looking upon this able paper of ripe experience as a model to pattern after in our own paper. It is a handsome, well-printed paper; it is thoroughly edited, and crammed with matter of the most varied and interesting character; it abounds in short, pithy articles by the ablest American and foreign writers; its illustrations are of a superior quality. That it meets a popular want is sufficiently shown by its having nearly 350,000 subscribers. It is a weekly, at \$1.75 a year.

**An important Sea-weed.** According to Darwin, it is a fact, strange as it may seem, that the fate of one nation hangs on a Sea-weed. Reference is had to the giant Sea-weed *Macrocystis pyrifera*, which abounds in the tropical seas and near the land of the Fugeans. Amid the leaves of this plant numerous species of fish live, which nowhere else could find food and shelter. Were the Sea-weed absent, these fish would be lacking, in which event the many cormorants and other birds, the otters, seals and porpoises would soon perish also. These largely afford the food supply of this cannibal people, and was the source cut off, cannibalism would increase, their numbers be diminished and they would perhaps cease to exist.

**Propagating Pots.** Double flower pots, made expressly for propagating purposes, have long been in use. But these are not always easily attainable. In the accompanying engraving we show how two common flower pots, say a 6-inch and a 4-inch, may be used together, instead of the combined ones as made by the potters. The space between the pots is filled with sand, into which the cuttings are placed; the inner pot is packed with Moss or Spaghnum, which, during propagation should be kept constantly saturated with water. A bell glass, of a size to fit the rim of the outer pot, and inverted over it, would aid to the making of almost a complete propagating apparatus for amateurs. This would be found particularly successful with hard wooded cuttings, which so often fail.

**A Home-made Fertilizer.** One of our correspondents, Mrs. L. D. Richardson, of Mitchell County, Iowa, who has been a cultivator of flowers for many years, sends us her method of making a fertilizer for pot plants, which we are glad to print: "From a blacksmith shop I obtain the clippings of the horses hoofs, and as they sweep the floor, some of the coal dust and the steel or iron cinders and filings also. I fill a pail about one-fourth full of this substance and then add boiling soft water enough

to make the pail full. Once a week, then, I give the plants a thorough bath, usually setting the pots for a while in the liquid. I have found this treatment most excellent; it seems to furnish a complete food, for the plants at all seasons have the freshness and greenness of June, and are remarkably prolific in flowering."

**From Seed.** Sometimes we meet the inquiry as to whether Fuchsias, Geraniums, Heliotrope, Lantanas, and other plants in the same line, can be raised from seed. Certainly they can, and quite easily, too. But whether the gains are worth the pains is quite another thing, for seedlings of such plants are, with very rare exceptions, vastly inferior to the common kinds of the florists. You might raise ten thousand seedlings each of Fuchsias and Geraniums without getting one to equal the old Elm City of the former, or General Grant of the latter, a small slip of either of which may be purchased for a dime. Still there is a fascination in raising new sorts from seed, not knowing what is to come forth, that many will consider a sufficient reward for the trouble, even though the quality of the flowers raised is inferior. How to proceed in this matter is to procure the seeds to be sown, now, sow in about four-inch pots that have been filled to within half an inch of the rim with fine soil. Water before sowing. Then cover the seeds thinly with light earth or sand, afterwards putting a pane of glass on the pot until the young plants appear, when this can be gradually removed. The pots will need an occasional watering.

**Flowers for the Sick.** Those very practical-minded people, who talk about the uselessness of flowers, could never, we are sure, have seen how a sick person may find pastime and recreation in a nosegay of bright blooms. The company of fresh flowers will often cheer up a despondent patient as nothing else possibly could do, and no doubt may sometimes even turn the tide towards recovery. One of our readers from Erie County, New York, who stands high as a helper in sick rooms, sends us the following, concerning flowers for the sick: "Send fresh, sweet flowers to the sick, but not such as have a depressing odor. Carnations, Roses, Violets, Ten-Week-Stocks, Rose Geraniums, and the like in sweet flowers are always acceptable, while Jasmine, Orange, Tuberoses, and sometimes Heliotrope and Mignonette would prove offensive. Pansies are great favorites with the sick, because of their interesting faces. Geranium flowers are bright and cheering, hence, always suitable. Nasturtiums usually please patients. If the giver can remember some favorite of the sick one, the thoughtfulness will be doubly appreciated. The patient will often enjoy looking at and handling them before being arranged in a vase. Set the flowers near the bed if convenient, but always where the eyes—often weary of everything else—can rest upon them without turning uncomfortably. Never set the vase directly between the patient and the window."

**Frosts and House Plants.** It is often a matter of great concern to bring the house plants safely through a very cold night untouched by frosts. The further North we live the more difficult do we naturally expect this to be. A subscriber to POPULAR GARDENING, Mrs. Minnie R. Waggoner, living in the state of Minnesota, where the thermometer sometimes indicates 36° below zero, has sent us her method of providing extra protection to keep off frosts, when needed, which ought to be of use to many of our readers. "I use a paper shutter of my own make, which I place between the outside shutter and the glass. This is made of two sheets of heavy manilla paper of the exact size of the window. Where there are large windows two of these might be better. I stitch them together on the machine and bind them with cotton flannel, working two small eyelets at what is to be the top side. Two screws are fixed over the top of each window, on the outside, and I am ready for the first severely-cold night, which can come. On all such occasions since they have

been put up, the shutters have been closed upon them, and not a particle of frost has ever gathered on the window panes. A year ago the slats of the wooden shutters were so loose that the wind swayed them at will, so last fall I had made from matched flooring three tightly-fitting blinds, the east and west ones to fold back against the house, and the middle one to lift away. I am much pleased with these, but on intensely-cold nights the papers go up, also, and then Jack Frost is completely outwitted. The papers I have described wear well with care, and I like them much better than any arrangement of double sash I have ever seen."

#### How to Grow Chrysanthemums.

We have been much pleased at the number of letters lately addressed to POPULAR GARDENING, on the subject of Chrysanthemum culture. Most of these have been inquiries from subscribers who desire to know more about how this Queen of Autumn flowers should be managed. In this may be seen an awakening as to the worth of this

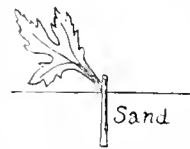


Fig. 1.—The Cutting Put In.

flower, which promises well for its future in America. As is always the case with us in dealing with our readers, we are glad to present practical suggestions on plant management as wanted, hence offer the following on Chrysanthemum culture.

**PROPAGATION.** We start with this simple process, by saying, that to increase the Chrysanthemum, either by striking soft cuttings two or three inches long, as shown in figure 1, from plants recently started up, or by dividing the suckers of an old plant, each to have a few roots, is a task so easy as to need no further explanation regarding details. As to the time of propagation any month in the winter season will answer, but it is well to bear in mind that the earlier it is done, the larger may be the plants grown by the flowering season next fall. Most large-sized exhibition plants are struck in November or December, but great things can be accomplished with plants propagated in this month, or even in March.

**SOIL.** This for the young plants, or for plants at any time when growing in pots, should be a rich and substantial compost. To consist of one part well rotted manure, to two parts decomposed sods, is about the thing. When the plants are grown by bedding out during the summer, moderately rich soil in the beds is the best. In potting, there must be free drainage by the use of some pot-sherds in the bottom of each pot, for a pasty soil is, above all things else, detrimental to these plants.



Fig. 2.—A Plant After Second Stopping.

**SHIFTING, ETC.** At all times while in the greenhouse or window, the young plants should have as much air and light as possible. With this treatment free growth will ensue. The rule as to shifting is to not over-shift or under-shift. When by examination, the roots begin to show some dense mats on the outside of the ball, then shift. The middle of June reached, and the plants should be fit for eight-inch pots, or else to be bedded out, if that is to be the course.

**STOPPING.** As to how this important part should be done, or whether to be done at all

depends upon the kinds of *Chrysanthemum* grown, and upon the style or shape of plants wanted. When you find by the label on your plant, that it is a fine Incurred or a Late-flowering variety, do not stop the plant at all. So too, where the object is the growth of large and handsome flowers for cutting



Fig. 3. Standard or Tree Chrysanthemum.

or for exhibition, without special reference to the form of the plant, then the plants need no pinching.

On the other hand, the Reflexed, Free-flowering and Early-flowering kinds in all classes, may be stopped twice, and all of the smaller flowered sorts as often as three times. The first pinching back of these should take place as early as April, by taking out the point to cause a break of side branches. Those to receive only a second pinching back, should have this done in June, while the kinds suitable for a second and a third pinching, may receive these in the end of May and the end of June, respectively. Fig. 2 shows a plant just after being stopped a second time. The pinching back, should, as a rule, be done about one week in advance of a needed shift.

**FORMS OF PLANTS AND STAKING.** No matter what form of plant is grown, stakes are necessary to properly support the heavy growth and crop of bloom. The simplest form of plants, and that requiring the least attention, is the bush form. By this we refer to plants grown by bedding-out in the latter part of May or in June, stopped all over about the middle of the latter month, and to receive no other attention until the fall lifting, then an occasional watering if the soil is dry, and a stake to keep the top from being swayed by wind. By the end of September these ought to be compact bushes, budded all over, and which, with going into large-sized pots now, will give a great show of bloom such as it is, in the window or the conservatory, all for a very little trouble.

The round-headed form shown by fig. 4 is one that calls for greater painstaking than the last, as regards the following points: First it is to be grown in pots throughout

the season, reaching a seven-inch or eight-inch size by June, and a ten-inch or an eleven-inch size by the end of July, the last shift. Then it is to be kept carefully staked and handled, spreading the branches properly by tying them outward to hidden stakes, that are thrust into the soil near the edge of the pots. At all times the plants must be perfectly watered, and frequently syringed, with some help occasionally given in liquid manure, after the last shift. Finally, the buds must be thinned out to some such an extent as is shown in the engraving, for large flowering sorts, and some less for small bloomers, all about the end of summer.

The standard or tree form shown in fig. 3, is an attractive one. To raise these, select of the strongest plants in March, and treat specially as follows, giving the general care, prescribed in the foregoing: Shift into five-inch pots in March or April; favor the growth of the plant uprightly all you can, by keeping it tied to a light stake, and by pinching back all side shoots as they appear. But these must not be stopped closely to the main stem; sufficient growth must be allowed to each, for carrying the one or two leaves needed for aiding the growth of the stem itself. When this is high enough, pinch out the tip; then tie the upper side-shoots as they appear, carefully, to tall, light stakes set in the pot. After four or five inches of growth shows on these, pinch to cause branching. This should bring us up to June, after which, pinch once more, and for the last time about July first, save the side spurs along the stem, which should finally all come away just before flowering time.

**FLOWERING.** During the interval between the last shift, or in case of summer bedding, the lifting time, and the time of bloom, the plants must be kept freely watered, or you may whistle for fine flowers. An occasional dose of liquid manure, say once a week, is also needed, up to the burst-

to succeed in raising some fine *Chrysanthemum* plants. Where there are to be autumn shows, efforts should be made by many to raise exhibition plants that will capture prizes. *Chrysanthemum* growing is an employment that, with judicious action and the use of good sorts, always brings gratifying returns to the grower, whether prizes are worked for and secured, or not.

#### The Window Box, Now.

Where space in which to grow plants is limited, a window box comes in play as well at this season indoors, as the same does in the summer on the outside window ledge. The advantage of the window box is, that a number of plants subsists on one and the same mass of earth, instead of each on a separate lot, as in pots.

Take a dozen plants for example, and they will thrive on less soil, if that soil is in one mass, than if the same be divided into twelve masses, for in the former case the roots of different plants go over the same ground, each absorbing the food best adapted to itself, without, in any great degree, impoverishing it for others. This really is the secret why plants seem often to get along so much better in window boxes, than in pots.

#### A Fine Orchid for the Greenhouse.

The recent sale of a large private collection of Orchids at auction, in New York city, amounting to some \$23,000 for these plants alone, has attracted wide attention. Some buyers from as far away as Europe came to it. As high as a thousand dollars apiece was realized for some of the plants. Single specimens in other collections have been known to bring as much as \$3,300.

The space at our command at present, does not permit of going deep into a consideration of Orchids and their culture now. This must be deferred to some future time.

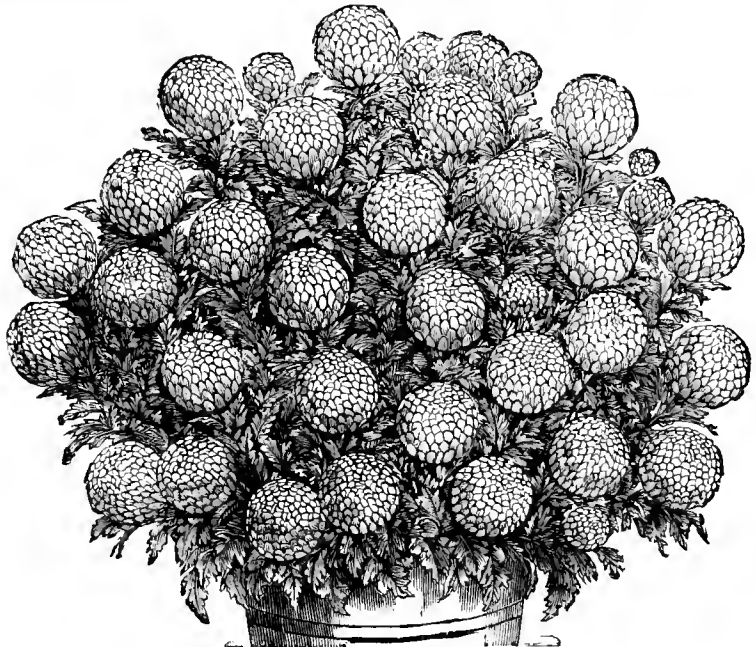


FIG. 4. ROUND-HEADED CHRYSANTHEMUM.

ing of the first flowers, only. The plants must, besides, be uncrowded, and receive both plenty of aid and light, but not much direct sunshine, right up to flowering. The thinning out of the buds as alluded to, is also a very important operation as effecting fine results.

Now, we think any of our readers ought

But we are strong believers in the principle, that the way to begin any branch of gardening is to begin, and with none more so than that of Orchid culture. The kind of beginning, however, which we advise, is one on a very moderate scale. The acquaintance with one subject, or a few subjects taken in hand, the wants of such and how to meet



them then comes gradually and prepares for larger operations in the same line.

So we limit this article to calling attention to one of the finest and most easily managed of the winter blooming Orchids, *Catlogyne cristata*. It is a kind well suited for beginners to invest in for a first trial. No special apartment will need to be fitted up for it, as it succeeds well in an ordinary greenhouse. Neither is its price exorbitant; Mr. Brackenbridge, of Govanstown, Md., offering healthy plants of it at from \$1 to \$3 each. The fine engraving of this Orchid which we lay before our readers, we are sure will be much admired.

As to management, the following outline is offered: It should be grown in shallow pans suspended from the roof. A common greenhouse, where the temperature rarely rises to 60° except during the months when sun heat sends it up, will answer for it, in the main. During the summer months the plants should be kept comparatively dry and exposed to air freely. In November they may come to a heat of from 50° to 55°, in which they, at Christmas, commence to expand their lovely dove-like blossoms. After flowering they are to be re-potted, or the roots to be examined and supplied with suitable soil. This, we must mention, should consist of an admixture of fibrous peat, leaf mould and Sphagnum (packing moss) chopped very fine, and clean sand.

Specimens of this Orchid are in cultivation, which annually bear from two to three hundred robust spikes of flowers. To succeed in raising one of such proportions, is an aspiration worthy of the mind of any amateur florist.

#### Is America the Worst Fruit-growing Country on Earth?

Of Apples it is enough to say for the quality and perfection of our products, that so high an authority as Wm. Robinson, of London, pronounces the American Apple the grandest fruit that ripens under the sun. He, with other Englishmen, have for many years now had ample opportunity to test the quality of the fruit we raise, in the large surpluses an-

nually shipped by us to the English markets. As bearing upon the extent of our crop and especially as to our foreign shipments, it may be said that in one week recently, there was exported from four American ports the grand aggregate of 440,875 barrels of prime apples, and even this quantity was less than the quantity exported in the corresponding week of the year previous. And these heavy shipments have been kept up for many weeks in each fall and winter of late years; yet they

The outlook for Grape culture in America is a very hopeful one, at the present time. When fruit culture first received attention from our fore-fathers, it was early seen that the delicious European Grape, *Vitis cinifera*, was not adapted to our climate. (Later it was found to succeed on the Pacific slope.) Native grapes were not growing every where but they were immeasurably inferior to those of Europe. They possessed, however, what the others did not, namely: full adaptability

to our climate. With this characteristic as a foundation, cultivators and hybridizers soon went to work to evolve improved sorts from the sour natives. The results up to the present day have been most remarkable and the end in improvement is no doubt yet far away. When the year 1858 was reached the then new Isabella was looked upon as a wonderful attainment in the way of American Grapes. It possessed a certain quality that could be called very good, and was found to be a reliable grower over a large range of country.

From that time progress has been steady and rapid in the raising of better sorts, until to-day the proud Isabella even, is rarely kept up in culture, except as a curiosity. The Concord, now so justly regarded as the greatest of



A FINE ORCHID FOR THE GREENHOUSE.—CÆLOGYNE CRISTATA.

have, in the aggregate, amounted to but a fraction of all the prime apples grown and marketed by our orchardists.

In Pear culture, to be sure we have suffered some from fire blight—in some places alarmingly so, but what effect has this had upon the yield of this fruit year by year. The fact is that our markets were never so abundantly supplied with fine pears as in the year just past. So large has been the yield, that for once it may be said, that nearly every American has had a chance of tasting a good Pear at a moderate price. Along with the rapid increase in our population, however, it would seem as if the increase in the yield of this fruit, and of others, has, on the whole, no more than kept pace. This certainly does not look as if those engaged in Pear culture were abandoning the pursuit very fast, either on account of blight or other cause.

American grapes, all things considered, too seems in danger of soon being consigned to a back place with the Isabella. Among the many new claimants for a high place, there are some of such undoubtedly great merits as to lead to the belief, that we shall yet produce a grape which shall be pronounced very excellent by our famous grape-growing cousins across the Atlantic.

In the meantime let no one who has a garden, hesitate to plant an abundance of fruit, at least for their own use, not overlooking the easily grown and very productive Small Fruits besides Cherries, Plums, and others, to which no reference has here been made. If the matter be taken a hold of judiciously all may feel assured of fair rewards for the outlay made. As for managing, should you who desire to plant be unskilled, POPULAR GARDENING offers you aid.

### About Cherries.

"Cherries are ripe" is, in its season, a welcome sound to all lovers of country life; to none more so than to the children. The earliness, beauty, juiciness, delicacy and richness of the cherry, together serves to make this fruit everywhere highly esteemed. But, naturally, we must plant before we can gather fruit, hence this part of the case is now in order to be considered, as the spring season draws nigh.

As to cultivation, no fruit tree is easier to manage than the cherry. Indeed, when grown as a standard—and this is the form chiefly to be recommended—it might almost be said to require no cultivation. Of pruning it needs very little or none; manuring, it needs less than most other kinds of fruit trees; it will bear large crops under neglect that would hinder fruitage in apples or pears. It is a fruit to give large returns for small outlay, and one well suited in every way for the novice at fruit growing.

What of soil? The cherry is easily suited, save in one or two respects. It will not bear an undrained soil that is wet, neither does it delight in heavy clay, so avoid these. Any light, dry, loamy soil, that is moderately but not very rich, will do exactly. The tree will grow in thinner and dryer soils than any other fruit tree we know of. But on land that is over-rich the growth becomes so luxuriant, and the wood so gross, that fruiting will be retarded and the trunk be liable to split open in an aggravating manner, and even to cause early death.

The cherry, as to sorts, is brought under several classes. There are the Heart Cherries, the fruit of which is heart-shaped, the flesh tender and sweet. The trees of this class are of rapid growth, with large, soft, drooping leaves; leading varieties include the Early Purple, Knight's Early Black, Black Tartarian, Black Eagle, and some others.

The Bigarreaus, of which the accompanying engraving shows the type, are chiefly distinguished from the preceding class by their firmer flesh. On this account they are favorites as dessert fruit. From among the sorts of these, choose the Yellow Spanish or Bigarreau, Napoleon Bigarreau, Elkhorn or Tradescant's Black Heart, and the Rockport Bigarreau, and you will not miss it, in planting.

The Duke and Morello Cherries are classes very distinct from the foregoing. The trees are of smaller size, and grow slowly; the fruit is generally round, from red to brown in color, and sub-acid to acid as to taste. The common sour cherry of American gardens belongs to this class. Among the best sorts are the Early Richmond, Belle Magnifique, May and Late Duke, Donna Maria, Montmorency and Morello.

Planters should choose some trees from each of the classes named, for a good assortment.

### Selling and Selling.

Mr. Tree-Agent and his near relative Mr. Plant-Peddler are the men who walk to and fro in the earth selling their stock and selling the buyers at the same time. At least in some cases they do this. A new case of such a double kind of selling has just come to our notice in this city.

A man "from Boston" just before the recent holiday season, went about canvassing among business men in their offices for the sale of some fine "Primrose plants." He could furnish yellow, blue and rose-colored varieties as his customers preferred. The plants, it is said, went off like a "blue streak." The price

was fifty cents for a small plant, so small in fact that the enterprising salesman could carry his stock with him, delivering as he went.

From all we can learn of the plants sold, they must have been at least two weeks from the seed bed; had they been good sorts—which it is not likely they were—they might have been worth three cents apiece. So far were the plants from blooming that the peddler could have traveled to the land of Primroses before the "sell" as to color could be revealed. Of course no one has ever seen a blue Primrose.

After all, how shrewd some of our shrewd business men are, when it comes to matters of flowers and gardening. The agent understood this well enough, when he went to the offices



A BIGARREAU CHERRY. THE ELKHORN.

and sold plants to the husbands for their wives, instead of going and dealing with the wives themselves. A case of the selection of the fittest. Let us prescribe for this kind of selling: Twelve doses of POPULAR GARDENING taken in a year, at intervals of one month. Keep it up until there are visible signs of improvement.

### Propagating Vines from Single Eyes.

With ordinary varieties of Grapes, the wood is commonly so abundant that there is little need in stopping short of the use of long cuttings in propagation. Not so with new sorts which it may be desirable to increase rapidly.

Where there is a propagating house, to increase the stock from single-eye cuttings, is easily accomplished. It may not be known that the same thing is readily possible with the use for about a month in the spring of a glass-covered frame. But the process is somewhat different. In this case the wood should be cut up and mixed with sand or light earth, in shallow boxes. These should go into the frames, or they may be set in a greenhouse three or four weeks before planting-out time, say at May 1st in the north.

When the ground becomes warm, later, plant out in light, warm soil, covering about an inch and a half deep. In favorable seasons good plants will result, and especially in the case of free-growing sorts.

### Some of the Newer Vegetables.

The Chairman of the Michigan Horticultural Society, Prof. W. W. Tracy, reports on new vegetables of recent introduction, after actual experience with every sort named, as follows:

Most of the new beans, it is feared mark no real advance on old sorts. The Black-eyed Wax Bean, while handsomer than the Golden Wax, is a little inferior in quality. It is an abundant and early bearer, and on this account may prove valuable. The Godard or Boston Favorite is larger, handsomer, more hardy and productive than the Horticultural, and promises to take the place of that variety. The Beans of the type of Canadian Wonder are not proving especially desirable. Ivy-pod and Crystal-pod, while possessed of some striking qualities, cannot crowd out the Valentine or Golden Wax. The Dwarf Mont d'Or proves to be inferior for general use to the Black Wax, while the Green Flageolet makes little headway. Of Pole Beans, no new sorts are unquestionably superior to the old sorts.

In Celery, the White Plume and other "self blanching" sorts, while proving successful in some private gardens, have not seemed to meet the wants of a single commercial grower; they are not equal in quality to the Golden Heart and other well-known standard sorts.

Of Corn, the Marblehead has, with the exception of its red cob, seemed to be all that could be hoped for in the way of very early, but Corey, with a white cob proves a little earlier. This new sort seems entitled to first place for extra early.

The Kolb's Gem Watermelon is very promising. It seems to do as well at the north as at the south, and succeeds where many other varieties fail.

In Peas, in spite of the many new sorts offered we think the ordinary grower will be best suited with First and Best for extra early. American Wonder for dwarf, Premium Gem and Yorkshire Hero for general crop, and Champion of England for late, but Everbearing, Abundance, Stragem, Market Garden, are all worthy of trial.

In Radishes the Charters promises to be a real acquisition, and to take the place of old Long Scarlet. It is larger, of a lighter color, does better out of doors (but not for forcing), and remains crisp much longer than Scarlet.

The Pineapple Squash, although popular, handsome and distinct, is not of so good quality as the Perfect Sun and some others.

The same writer says that the limit in the improvement of Tomatoes seems to have been reached in the Favorite or the Optimus.

As for the Beet, Cabbage, Cauliflower, Carrot, Cucumber, Egg Plant, Lettuce, Muskmelon, Onion, Parsnip, Parsley, no improvements have been made as to varieties that are worthy of notice. He concludes his report with the caution that while it is a good thing to "prove all things," it is also well to remember to "hold fast to that which is good."

**A Veritable Bull's Nose.** A new and giant Bull-nose Pepper that has fruit 7 to 8 inches long, and 4 to 5 inches in diameter is announced from Europe. What mangoes they will make!

**Those fond of Spinach** should calculate to sow some as early as the soil can be worked, to follow the fall-sown crop. A second spring sowing may follow the first, by two weeks.

**Fresh manures** excite trees into rapid growth injuriously; the wood becomes feeble and watery.

**Soil** has much to do with the flavor of Sweet Potatoes; best on light, sandy land.

**Test-sowings** of old seeds is good pastime now.

**Plums** do the best on a clay loam.

**Plan now** for an early garden.

# FLORAL FASHIONS & FANCIES

## City Flowers.

Oh city flowers, what kin are you  
To country children of sun and dew -  
Hot house-bred posies, glad to be sold,  
To bloom and be sweet merely for gold -  
Willing to play your prettiest part  
For Jack and the bride of his honest heart;  
Or to fill the air with perfume rare  
As Ethel waltzes with wild Dick Dare;  
And yet though I know you sometimes go  
With a message of light to the home of woe  
And weary and woeful things are you  
To the little flower girl, "tired all through"  
Nature disowns you, O flowers of town,  
And even when Sorrow shall lay you down  
On the new-made grave, you are worked in a  
wreath,  
As lifeless and cold as the clay beneath.

— Pacl.

Roses come fine now.

Lent begins on March 14th.

The Violet signifies faithfulness.

One florist forces Sweet Peas in winter.

Large flowers are the choice this season

Croton leaves are called for, in bouquets

The graceful *Deutzia* appears this month

Easter Sunday falls on April 25, this year.

Orchids are very fashionable but the price!

Don't pronounce *Smilax* as if it was spelled *Smilox*

Floral Valentines are much in vogue in eastern cities.

Berthe capes of fine flowers are worn by misses and debutantes.

Stylish gowns for evening wear, are more embellished than ever with flowers and light greens.

Not a more exquisite novelty has appeared for years than the new double Violet, Swanly White. It is a pure white and not a tinged sort.

Sashes of Roses, thrown across the breast from one shoulder to the side of the skirt and ending in a tassel of Lily of the Valley or Lilacs, are in style.

Bunches of fresh Violets stowed away beneath the garments, afford the only perfumery some of our belles will have about them. We admire their taste.

The pressed fan-like leaves of the not very common *Ginkgo* or *Maiden Hair Tree*, are said to be used by New York florists for creating Japanese effects.

We are free to denominate the "Rock of Ages" design when properly made, and with the base in imitation of various-sized rocks, as the most sublime floral conception of the day.



"Yes, they're Lovely, but they'll be cheaper in June."

**Mignonette**, "the sweetest flower of the garden yet," is much improved by the increase of sunshine and lengthened days. It is in large demand for wear with walking costumes.

**A large Floral Piece.** There was recently made in New York city, an elaborate floral reproduction of the Parisian *Arc de Triomphe*, 28 feet high and 34 feet in span, and 3 feet in thickness.

**Make a note of this:** The American Beauty Rose is to take a high place among forcing roses. It is large, attractive, prolific and very easily grown. Peter Henderson's new catalogue shows a fine colored plate of one.

**Where *Camellia* plants are large and some leaves would not be missed, a few of these retained with**

the flowers when cut add much to their beauty. A dab of muceilage around the base of the blooms, will often hold the petals together much longer than otherwise they would be.

The floral screen has this season supplanted the bell and the arbor as a chief piece at fashionable weddings, the contracting parties standing before it during the ceremony, or if this was performed in church, for receiving congratulation. The screen is made chiefly of foliage and Roses in clusters.

**A handsome costume** with its floral adornments is thus described: The material was a peach colored silk with overdress of Canton crepe of the same tint. Pale pink *Begonia* blossoms, each drooping petals of which seemed trosted with silver, were profusely scattered over corsage and skirt, each bunch being held by a coral branch of that faint rose color, so rare and costly.

**In disposing** of flowers in designs, follow nature's suggestions. For instance, if there is an upright design, use kinds about the base of the piece like Lily of the Valley, Violets, Daffodils and so on, which grow and bloom near the earth, and Roses, Azaleas, Carnations, Orchids that grow higher up, in the top parts of the design. Not that this rule should be obeyed very strictly, but if observed in the main, there will be no mistake made.

**The Climbing Asparagus.** Were florists to start in and grow this new relative of the *Smilax* plant on a large scale, we believe they would miss it. Although possessed of a certain kind of delicate beauty, there is something common looking about the growth—remindful of the garden asparagus—that does not tend to fascinate buyers. As a standard garlanding material after the craze for it as a novelty is past, it cannot take the place of *Smilax*; for use as an edging green, or for touching up floral work, the feathery *Maiden Hair* and other ferns are yet far ahead.

## Botanical Budget

All flowers naturally turn towards the light

Leaves with parallel veins are rarely divided.

America has more of the Japanese flora than Europe has.

Dr. Asa Gray's portrait is given in the January number of the *Botanical Gazette*

The stomata, or breathing pores of leaves that float on the water, all belong to the upper side.

Of the Hickory group there are but ten known species, nine of which belong to the United States.

A new Botanic Garden has been incorporated at Montreal, recently, and is in full working order so far as is practicable. With the opening of spring, the grounds will be laid out and buildings will be put up.

Characteristic names of plants, while the best do not always hold true, for example, the *Chrysanthemum* was so called from its golden yellow blossoms. Now there are many white flowered species.

Leaves vary in size with the latitude. In the warmer portions of the earth, they are the largest, the sizes growing smaller as we move towards the frigid regions. Of large-leaved plants of the tropics, we have striking examples in the Palms, Tree-ferns, Bananas, *Victoria regia*, etc.

The temperature of growing fruit according to Dr. Ord, as given in the *British Medical Journal*, is one or two degrees lower than that of water in a bottle suspended at the side of the fruit. A difference of a degree was also recorded between the two extremities of the fruit, which represents different stages of growth.

**Fuchsia Fruit.** All who have grown the *Fuchsia* must have noticed the fleshy fruit which holds the seeds. This, as at present known, is not lacking in a flower that is fair to the taste. It was long ago suggested that gardeners pay attention to improving this fruit in size and flavor; we have yet to hear of any progress made. Who shall raise the first edible-fruited *Fuchsia*?

**The Study of Plants in Winter.** All our perennials have winter states which are full of interest to the student. The writer of this note has taken classes of young people, who knew nothing of Botany, and set them at work in mid-winter studying the out-of-door vegetation, with nothing but their eyes, pocket-knives, pencils and note-books in the way of apparatus and helps. The structure, position and functions of buds, the structure of twigs and branches, including wood, bark and pith, the structure of the fruits and seeds, of various trees and shrubs, were taken up in succession, with constantly increasing interest. No text-book was used,

the pupil depending upon his own resources entirely. By the time that spring came with its bursting buds, its leaves and its flowers, these trained young eyes were eager for their study. *American Naturalist*

The *Botanical Gazette*. POPULAR GARDENING finds every indication of an advancing taste in Botany, with delight. This is especially true when it comes to the matter of a demand for, and the supply of information on botanized subjects, suited to the wants of the people. We are led to these remarks by seeing in the last issue of the *Botanical Gazette*, published by John M. Coulter, Crawfordsville, Indiana, that this excellent journal is being enlarged to a twenty four page paper. With the enlargement there are to be various other improvements, among which is to be an increase in the number and quality of the engravings. A feature of great merit is to be the one giving the latest advances in every department of Botany, in popular language for general readers. We bespeak for the *Gazette*, in its new departure, a very successful career. Its price is \$2.00 a year.

## ABOUT THE PLACE.

Be sure the stable lamps are safe.

Put ladders and such things in order

Fences are often weed harbors; lessen them

Crude petroleum is one of the best preservatives of unpainted wood work.

You don't need spring weather to make plans, if you do to carry them out.

If gates or fences are out of order, it never will pay to postpone repairing until the busy season

It's not economy to work along with poor tools. Now there is time for looking into the merits of any new ones.

The manure from the hog-fattening pen is nearly as rich as poultry dung; just the thing for the garden. Save it up with scrupulous care.

**Small Farming.** In England the opinion is more and more gaining ground that in this, together with special culture, is to be found the greatest improvement in future agriculture. That is a lesson we, too, shall yet learn by experience.

The old Wasps' nests that hang about looking wholly unattended are not always so. They may have perfect insects in them in a dormant state, and on this account should be destroyed. You can count that every female killed now will prevent a bother-some nest the coming season.

**Are you starting** in bee-keeping, or are you about to move your collection of bees to a new site? Then listen to our advice as to location of the apiary. Don't set the hives in a place too quiet and secluded. Bees that rarely see human beings, become savage and troublesome, whereas if they see people passing, and have the advantage of human society, they become very docile, as if the going into society and a refining effect on them as it does on some people.

**After coming up** through the yard, into the house, during some of these fierce and biting gales, take enough of your leisure at the warm fireside to plan for setting out some effective evergreen wind-screens next spring. Don't know what kind to set? We tell you, truly, that the White Pine, Austrian Pine and the Norway Spruce are among the quickest growing of these, and they are not at all expensive. Start with young trees, planting, say five feet apart, and not too regular; make the soil rich, keep it clean of weeds and the tree will be eight feet high in a few years. Then, the addition to the comfort and beauty of the home, will be worth a hundred times more than the cost amounting to. A word to the wise is sufficient.

The man who finds no interest in a growing compost or manure heap can find little interest in tilling the soil. Manure is food to plants, just as hay and oats are food to horses. If we would have vigorous, beautiful plants, and the products of plants, the food must be right. This month is a very favorable one for gathering up manure. Wherever there are teams owned about gardens and farms, these are now comparatively idle so far as other work goes, and can be put into use at manure hauling. The roads are favorable, too, now, being either in order for sledding or else frozen so solid that a pavement might be said to extend from every stable to every field. These hard roads will not keep long; the most should be made of them. Let the manure be gathered up and hauled out into heaps of a load or more each, near where wanted, and then the distribution over the land will be a short job when spring opens. Put not your trust in bone or other commercial manures, so long as stable manure can be bought at \$3 or less per ton.

# Poultry.

## Fences for Poultry Yards.

No material would seem to be more suitable for fences than woven galvanized wire, were it not that this, of its own accord, provides no protection from winds in winter. Where the yard is well sheltered by plantations of ever-green trees, not too far away, this objection, of course, loses its force. Then with the green verdure of the trees in near conjunction the year round, a well-painted woven-wire fence presents a neat and pleasing appearance.

A picket fence six or seven feet high makes a complete kind of a barrier, but the expense is an objection to many. Where something cheaper is wanted we would suggest a lath fence. One of these, if rightly built, will last for three or more years, and answers for all ordinary purposes well, indeed.

In making a lath fence, a height of six feet, at least, should be aimed for. If it be seven it would be better. The addition of a board next to the ground would of course bring the six-foot length, which we recommend for the lath part, up to this.

Posts for the fence should be set eight feet apart. They should bear three strips lengthwise, on which to nail the lath; or the lower one might be dispensed with, nailing directly on the bottom board. The middle strip should be raised two feet above the lower strip, or board, and the top one three feet higher.

As to lath: Use four-foot ones in whole and half lengths. The former are to be nailed from the middle strip upward, and will project beyond the upper rail one foot. The latter should be used on the lower space, between the horizontals. As these are but two feet long, if placed close together, say an inch apart, and well nailed, the bottom of the fence will be strong enough to resist considerable pressure, keeping off dogs, and even larger animals. The upper section may have the laths somewhat further apart, say two inches.

The outlay needed for such a fence is very small. If it be well made and treated to a coat of crude petroleum thickened somewhat with mineral paint, and applied with a brush, it will not only look remarkably neat, but will last for a number of years.

## Keeping Individual Records.

Mr. E. L. Requa, of Highland Mills, in this state, is right when he says that if we kept individual records our poultry would soon be laying more eggs. By this course one can see exactly which birds produced the largest number. Poor hens can be weeded out, with no poor progeny to follow. Here are his practical observations on this matter, from the *Poultry Bulletin*:

Take, then, 12 hens of any breed, as a good number to try with. Do not let them run at large, or you lose track of the eggs laid in stolen nests. The true test is one year's time, with hens well cared for; this will give the excellence of the flock as egg layers. Keep the male bird confined by himself, except during the breeding months.

In keeping an egg record you will learn many things about your birds that you never before noticed. Three hundred and sixty-five days is a long time to keep a daily record, but it is in setting down the figures of month after month that you will find out the valueless nature of any record taken at some particular season of the year, when the hens are either laying very well or very poorly.

If the record shows poorly for certain fowls it will cause you to look into the reasons why it is so. If it shows well you may then know just what to do to make hens lay, as you've only to go right on as you've begun. Therefore, I say, keep an egg record! My egg

record is as follows: 12 Leghorns—number of eggs laid between November 1st, 1883, and November 1st, 1884, 2916; average per hen for year, 243 eggs. This I call a big record.

## About Roosts.

Nearly one-half of a hen's short lifetime is spent on the roosts. We should, therefore, not be always planning for her when off of the roosts, and then giving the matter of night accommodations hardly a thought.

As for room on the roosts, each hen in a house should have at least one foot of space. One hundred hens would then require ten roosts ten feet long. Keep them as near level as you can, else there will be strife for the higher places; with "upper ten" crowds, consisting of the pluckiest.

The perches should be placed not nearer than a foot apart—fifteen inches would be a better distance. Make them part of a frame that is hinged against the wall, and which can be raised up out of the way for cleaning out the droppings. Another thing: We cannot approve of placing the roosts as high up as they are often put, but rather within two feet of the floor. Our reasons: The air is less pure the higher up we go—a most important consideration for the health,—and fowls, especially heavy ones, are often lamed by flying down from high roosts.

For the perch, a rough pole with the bark on answers better than any other. To such an one the claws cling more readily than to a smooth one; besides, the bark is softer than wood. By far the greater number of perches are too light. In our houses we want them not less than three inches in diameter, and from this running up to four inches. Small and smooth perches are a prolific cause of deformed breast bones, for the fowls cannot cling to them without an undue strain as to posture and to certain important muscles of the body.

## Incubators and Handling Them.

Mr. P. H. Jacobs, a correspondent of the *Rural New Yorker*, writes on this subject as follows: It is impossible to state which is the best incubator. Many are offered, each with some particular merit of its own. Though some of them are well equipped for regulating the heat, supplying moisture, and turning the eggs, yet, after all, almost everything depends upon the operator. The novice may have been led, by the exaggerated praises of the makers, to rely upon the machine too exclusively, and thus have been induced to overlook many little details that require human attention. While it would require a lengthy article to fully describe an incubator, it may be said that any device, by which the temperature can be kept uniformly at 103°, with proper provision for air and moisture, will hatch eggs, though success depends largely upon the vitality of the parent stock.

In operating any incubator, the common errors are the handling of the eggs too much, and the meddling of curious people. Let method and business-like conduct prevail. The first two days the eggs should not be disturbed at all, not even to turn them, as the heat should be well maintained at a temperature fully up to 103 degrees, and without variation, in order to give the germ an advantageous start, which is very important. After the second day the eggs should be turned twice a day (morning and evening), and cooled well once daily. A pan of water under them, with a few moist sponges in the egg drawer, will usually supply all necessary moisture where there is not a constant stream of warm air flowing through the incubator. When the chicks have nearly reached the time for breaking the shells, they will partially heat the egg drawer with their bodies, and at the time of coming out a temperature of 102 degrees is better than a higher one. At Hammonont, New Jersey, all the incubators used are home-made, some being

heated with lamps, while others are operated simply by pouring in a supply of hot water once or twice daily, and the hatches vary from 40 to 90 per cent, according to the quality of the eggs and the care bestowed upon them during incubation. Upon one farm two young ladies managed the hatching of 3,000 chicks last winter and propose to double that number this season. The prices obtained for the chickens ranged from 35 to 65 cents per pound, according to earliness.

## CONDENSED POULTRY NOTES

**Neatness** is its own reward.

**Brown eggs** are favorites with buyers.

**Hens** are early risers; feed to correspond.

**Never** breed Javas from red-feather fowls.

**A very common fault**—allowing too many fowls to run and to roost together.

**Eggs laid** without shells come from overfeeding, and lack of lime in the feed.

**The best plan** is to change the poultry run once a year. With portable fencing it can readily be done.

**Time.** It perhaps ought to be told for the benefit of some, that hens' eggs hatch in 20 days; turkeys' and ducks' in 28 days; geese's in 30 days.

**For lining** coops and houses tarred felt is to be preferred to any other material; insects have decided objections to taking up their residence within the layer.

**Rats** are a pest about the chicken yard. Cats, sometimes, are almost as bad. Do you know how the former detest chloride of lime? If this is scattered about their runs freely they will clear out.

**Meat**, in some shape, is always recommended as one important element of the food of laying hens. But meat is not always to be had for this purpose on farms. A good substitute is milk, in one form or another, and no farm is without this.

**In considering** the profit of keeping poultry about the home, too often we forget the large item of home consumption of the products. Now, we suggest that you keep a close account of this, day by day, during the year. You'll be astonished at the footing next December.

**We visited** some poultry houses a short time ago, the floors of which were asphalt, of smooth surface. On this was scattered an inch deep of sawdust. The appearance certainly was clean and nice. The sawdust was swept up with a hand broom and replaced, every Saturday.

**Not enough light**, especially the sunlight, is very objectionable in a poultry house. Too much light is also not good, for this means much glass surface, and glass is cold. Put windows of ample dimensions, and make them movable to admit of their use as ventilators. Shutters, to close up against the windows in cold nights, are of great value.

**The poultry raisers** are taking a lively interest in P. G., and this we expected. Some even declare that its contents yield as much pith and substance on hen matters as the regular journals in this line. This we will not contradict. Now, what we want, is, that every poultry raiser hatch out a club of ten subscribers for us. That 50,000 must come, somehow! The earlier at it the better.

**With laying** begun, there will be an appetite for more food; with more food there should be more exercise, so don't neglect now to get up an ample scratching box. Most any kind of light, dry material in it, into which some grain has been scattered, and worked in a little with the food, will do. Remember how that hens, more than any other live stock, naturally exercise themselves in gathering food. Besides roaming about for it, they scratch, scratch, and peck, peck, almost constantly, working the muscles of the body at a great rate. It is policy to meet this natural want. How very easily done.

**Stoves in the Hen House.** The *Poultry Journal* is of the opinion that the principal value of artificial heat in the poultry house is when its situation is against getting the full benefit of the winter sun. In such cases the use of a small heating stove during the coldest weather will be found very beneficial. A little heat will guard against any danger from frost-bitten combs and wattles, and will materially aid in producing a more satisfactory supply of eggs. However, where the house is fitted up warm and comfortable, and there is plenty of glass in the south side of the coop, which will give the fowls the full benefit of the winter's sun, there is but little need of any artificial heat, as they will get along nearly as well without it.

# OUR YOUNG PEOPLE

## Treeclimber's Talks.

### EVERGREEN LEAVES.

My remarks on leaves in the December issue, have brought out a request from a young reader in Western Pennsylvania, that I say something about the leaves of Evergreens. I suppose the beauty of some Pines or other Evergreens, near my correspondent's home, leads him to think that this class, which have such attractive coats of green in the winter, are more entitled to attention now, than such kinds as are not. If so, I think him quite right.

The most striking difference between the leaves of Evergreens and of deciduous trees (the kinds that shed their leaves annually) is found in their

### TIME OF DURATION.

Those of the latter, we know, fall at some time not long after the end of each season's growth, a new crop appearing the following season. The leaves of evergreens, on the other hand, not only keep their color and live through the winter, but in some instances reach considerable age. Those of numerous sorts get to be three or four years old before falling; while kinds like Spruce and Fir hold theirs six or seven years, and the Yew, of which an engraving is shown, even longer.

My young friend, no doubt, has noticed the leaves of evergreens closely enough to see, that in structure they are well fitted to endure for a long time. Take the leaves of other trees, and it is a common thing to see them

### MARRED BY BREAKS

and cracks before the end of their season, because of being somewhat fragile in structure. Not so with the needles of Pines and other evergreens, which usually possess a tough texture, that prevents this very effectually.

Then when an early fall of snow arrives, our Maples, Horse-chestnuts, and so on, have their leaves often much broken by the snow, that adheres to them. But evergreens are rarely seen to suffer from snow-falls, however heavy they may be, for their leaves, being glossy, tend to cast off the snow. Indeed, young evergreens may be completely drifted under, and yet owing to the nature of their leaves, they will suffer little, or none, when the banks settle and melt away.

And did you ever see

### CATTLE BROWSE OFF THE LEAVES

of evergreens? I think not, although they will freely devour the young leaves of deciduous trees, when they can reach them. Here, nature has again provided for their protection, but in different ways for different kinds. In most of the resinous evergreens the leaves have either an astringent or aromatic taste which render them distasteful. You can easily test the difference between evergreen and other leaves, in this respect, yourself.

Then there are a number of other kinds of evergreens, the leaves of which are

### PROTECTED BY THORNS AND SPINES.

so that no browsers care to nip them. Of this class, the Holly, with needles set firmly along the edge of the leaves, is a familiar example. The branches of this bush, which are much used for room and church decoration at the holiday season, can only be handled with impunity to delicate hands, by wearing gloves. The Junipers, in numerous sorts, afford another example of this, the sharp points to the leaves

pricking almost like thistles. The Hemlock, and in fact, most kinds of evergreens possess, to some extent, this armed feature for defense.

I am glad my young correspondent has invited notice to this subject of evergreen leaves, for those of no other class are more interesting or beautiful. Indeed, as we consider that they are present both along with the leaves of deciduous kinds, and also in their absence, lending a peculiar charm to the snowy scenes of winter, we must count upon them as among the most desirable of all the herbaceous embellishments of the Temperate Zone.

TIMOTHY TREECLIMBER.

### A Lost Ring Found by a Vegetable.

A curious instance of this kind transpired some time ago in Sweden. A lady at garden-



EVERGREEN LEAVES OF THE YEW TREE

making time, neglected to remove a gold ring that she had on her finger, when she went out to sow some seeds. During the work, the ring unconsciously slipped from her finger, and when missed, could nowhere be found. As the sequel goes to show, she must have dropped it into one of the holes made when setting out some Celeriac. The ring was given up for lost, and with the exception of an occasional regret at this, attention to the matter passed away. But when winter came around, some Celeriac was being prepared one day for soup, when, imagine the surprise of the woman, to find her lost ring on one of the finger-like roots of the vegetable. This root somehow found its way through the ring, and here continued to grow until filled out, afterwards holding it securely.

### They Began at the Foot.

General Garfield once said that he always felt like doffing his hat to the ordinary American boy, because of the possibilities that were wrapped up in him. He said that he might be saluting a future president or senator in the boy. Boys, and especially those of poor parents, are not so apt to take such a view of the case, and yet they should remember that a large proportion of the great men of our country started life as poor boys, in very humble circumstances. The following clip-

ping from the *Cincinnati Enquirer*, shows in a striking light the great rise of some of our leading men since their youth:

In 1882, a dinner party was given in New York City. Senator Henry G. Davis sat at one end of the table. Ex-Secretary Simon Cameron of Pennsylvania sat at the other, and Gen. W. T. Sherman at the head. The General began a reminiscence of his life by saying:

"When I was a Lieutenant . . .

"Come, now, Sherman," interrupted Mr. Davis, "were you ever a Lieutenant?"

"Yes, Davis," he replied, "I was a Lieutenant about the time you were a brakeman on a freight train."

"Well, boys," observed Cameron, "I don't suppose either of you ever cut cordwood for a living, as I did."

"Is this my train?" asked a traveler of a depot lounger. "I don't know," was the reply; "I see it's got the name of some railroad company on the side, and expect it belongs to them. Have you lost a train anywhere?"

A child who is taught to observe and to think is educated. The child who is taught to remember, only, is merely loaded as a pack-horse. He carries a great deal, but it does little good.

### PET BIRDS, ANIMALS, ETC.

**Mocking Birds** must be kept warm

**Canaries** set two weeks, or a day less.

**Avoid draughts** on cages if you would avoid colds.

**Young Cuban Parrots**, warranted to make talkers, can be bought for \$6 each.

**A queer**, whisper-like cough in a bird, should be looked upon as alarming; it may lead to asthma and death. The best remedy is a little Cayenne pepper sprinkled over the food.

**The tenacity** of pussy's life is proverbial; she has, "nine lives," as the saying goes. A western editor whose office cat was accidentally killed by a printing press, announced the circumstance with a striking head-line, as follows: "DREADFUL ACCIDENT! NINE LIVES LOST!"

**Breeding Canaries.** Hatching requires care, for not all birds will mate. An old cock and a young hen or *vice versa* should go together; so too, those with well-contrasted colors,—for instance, a Juncque cock should have a mealy hen, and a green bird a yellow mate, or a clear yellow cock be mated with a variegated green and white hen; two crested birds must never be put together, or the progeny will be baldheaded. Keep the birds to be mated in separate cages until they attract each other and show a loving mood, when they should, after a day or so, be put into a perfectly clean breeding-cage. For the nest, provide a nest bag and some moss, cow hair and cotton wool—not too much of the latter, lest the birds get their claws entangled in it. After this, no more needs to be done besides the ordinary care in feeding, keeping clean and so on, but to wait for results.

**Monkeys.** It is hard to account for the prejudice against monkeys as pets, for they are amusing, intelligent and not hard to care for in cages. They learn to eat and drink almost everything that is used by man, and show a great fondness for sweet things, and it must be added, for alcoholic liquors. As to kinds, *Golden Days* lately had the following to say: "There are about four kinds of pet monkeys kept for sale. The ring-tail, from Africa, is so called because it swings and helps itself to climb with its tail. All others climb with their hands only. The pig-tail monkey comes from the Isthmus of Panama and is about the same size as the ring tail. His tail is stubby and short, like that of a pig. If not considered a handsome monkey, he is very popular. The Java monkey has a long tail, but it seems to be more for ornament than use. All of these monkeys are worth from twenty to thirty dollars each, according to size. The little marmoset, a native of Brazil, is the most diminutive of known monkeys. In fact, he is too small to be very healthy in our harsh climate. They can be readily purchased for ten dollars each. Placed in company with a larger monkey, they seem to thrive better. The bigger one takes great care of the smaller one, shielding him, as far as practicable, from the cold, and exerting himself to keep him clean. Some times, indeed, he kills him with kindness."

# The Household

## Home Upholstery.

The covers of well-made chairs, sofas and other upholstered furniture, yield to wear and tear long before other parts do; the woodwork, in fact, should outlast a number of covers. It is less of a job to re-cover such furniture than some would suppose, and many a dollar could be saved by frugal housewives, with little detriment to the appearance of the work, if they would undertake the doing of this themselves.

The old cover, carefully removed by drawing the tacks, and laid out on new fabric, at once furnishes a perfect pattern for the new cover. So of any linings, back-covers, etc., that ought to be replaced. Care should be taken to mark the place of the buttons on the new cloth before it is brought into position for fastening.

Usually, but not in all cases, the springs will need to be changed for new ones. You can procure such of any upholsterer at about the price he would charge if he was to put them in himself. Buttons, tacks and other trimmings can be picked up at dry goods and furniture stores; as a general thing the expense for these is very small. The cloth may be procured from the same source. In choosing a fabric do not be misled into taking one of poor quality because the price sounds low. The best is the cheapest here in the long run, always.

One of the best fabrics for covering furniture is mohair plush. It is handsome, and in point of durability can hardly be excelled by any other material. Do not confound this with the more showy and equally expensive silk plush; the latter will not begin to give equal satisfaction to the other.

Ready for the work, put the springs, linings, and so on in place precisely as they were before. The outside cover should be exactly the same shape as the old one was. This brought in place, should first be secured by buttoning down. For this use a long darning needle and double linen cord. Push the needle up from the under side, string on the button and return the needle a little to one side of the starting place. Then tie the threads tightly.

After the buttoning is evenly done all over, tack down the edges. Do not start at one place and finish completely as you go, but first stretch out the cover and drive in a stay tack here and there, all around, first. After tacking, trim off the edges of the cloth where needed, and finish with upholstering braid, either fastening this with ornamental tacks or sewing it on with a crescent-shaped needle. A coat of furniture varnish or oil over the woodwork, will complete the job.

## Behavior Towards the Sick.

Sickness is one of the conditions of our error-committing humanity; every home, sooner or later, sees more or less of it. But with an advancing civilization the knowledge of how to treat the sick, and how to render them more comfortable, is on the increase, while less of drugs are in use than ever before.

We have asked a proficient nurse, a graduate from the Buffalo General Hospital Training School, to prepare a few notes on the subject at the head of this article, for our columns, to which she very kindly responded as follows:

"Convince any patient under your charge of your willingness to serve, then allow her to do about all the asking as to whatever will add to her comfort. When leaving the room it is proper enough for the nurse to inquire whether 'anything more' can be done, thus making it easier for the patient to ask for the little services which, while often important, might otherwise be passed by.

"Never appear fussy in the sick room. Never appear hurried, for no sick person can feel comfortable in requiring aid from an attendant who is 'flying around' as if she had no time

to spare for her. Never hurry a patient in making up his or her mind; weak or aching heads often think slowly.

"General visitors, as a rule, are the dread of every good nurse, and sometimes the death of the patient, I verily believe. Why persons who are interested in the recovery of a sick friend should persist in fatiguing that friend by a visit, when every effort is being made to add strength to strength for her recovery, is one of the marvels. While injudicious visiting is to be condemned, let not the well-neglect paying attentions to the sick; it really is a great comfort to those who are afflicted, to know that their friends in the busy world remember them. This can be done by making inquiries, mentioning your name and regards, or by sending a sympathetic note or message, or an occasional bunch of flowers, books, fruit or little delicacies which it has been ascertained can be eaten. All these attentions are in order and will afford helpful pleasure without exhausting the strength that is being so carefully husbanded. A golden rule for all friends of sick persons should be this: 'Consider your own satisfaction secondary to the welfare of the patient.'

"Convalescents, chronic cases, and some surgical cases, usually enjoy visitors. But even then, as a rule, visits should be short and only by members of the family or intimate friends. They should not follow each other so closely as to preclude the needed rest between."

## Brieflets.

**Weighed** in their own scales—fish

**Dry** the tin dishes before putting away

**Good sleep** and good health go together

**Blue** for table-ware does not harmonize with white.

**Use** a warm knife in cutting warm bread and the like

**A layer** of leather in the ironing holder makes it cooler to use.

**In changing** dinner courses have the plates removed from the right side

**Celery** has two good qualities on the table; strictly useful, strictly ornamental.

**Unaired** and unclean cellars are very unhealthy. If the emanations from them do not kill in a night, they frequently do undermine the health of families in the course of time.

**Prunes.** They are not appreciated as they deserve. They are easily digested, and wholesome even to stomachs that will not bear much variety. They are refreshing and healthful to all; they are inexpensive. They are conveniently prepared. Stew slowly for two hours.

**Soup.** It is said that "many cooks spoil the broth," but instances have occurred where one cook has not succeeded in making good soup. Here are three fundamental principles in the art: Start with the meat in cold water; don't salt it until after the skinning; boil slowly, or better yet, keep it at a simmer.

**Don't whine** about your real or imaginary complaints. As a common thing people who always appear well and happy are the most popular. When asked about your health, make a favorable reply if at all possible. It doesn't make you feel any worse, and your interlocuter will go away in a better frame of mind than if you had given him a full and detailed account of your many aches and pains. If you must tell your internal troubles go to the doctor, who is paid for listening to just such matters.

**To Cook an Old Hen.** I killed a hen, more than six years old, but in good condition. Cooked in the ordinary way she would have been uneatably tough. Instead, I gently stewed her about four hours. I cannot guarantee to the maintenance of the theoretical temperature, having suspicion of some simmering. After this she was left in the water until it cooled, and on the following day was roasted in the usual manner, *i. e.*, in a roasting oven. The result was excellent; as tender as a full grown tender chicken, roasted in the ordinary way, and of quite equal flavor, in spite of the very good broth obtained by the preliminary stewing. A writer in *Chemistry of Cooking*.

**Worth Knowing.** A medical journal, the name of which we cannot now command, gives the following simple antidote for home use: If a person swallows any poison whatsoever, or has fallen into

convulsions from having overloaded the stomach, an instantaneous remedy is a heaping teaspoonful of common salt and as much ground mustard, stirred rapidly in a teacup of water. It is scarcely down before it begins to come up, bringing with it the remaining contents of the stomach. Lest there be any remnant of poison, however small, let the white of an egg and sweet oil or butter or lard—several spoonfuls—be swallowed immediately after vomiting, because these very common articles nullify a larger number of virulent poisons than any medicines in the shops.

## Notes on Dress and Home Art.

**Light** tan-color for gloves.

**"Home spun"** fabrics continue in vogue.

**Clocks** mounted on helmets is a late device.

**Odd** and new colors are sought for in velvets.

**Black** is the favorite color for dress trimmings.

**Marbled** note paper is the latest English novelty.

**Velvet** with a short, thick pile is better than that having a long, showy nap.

**Horse-chestnut** foliage and burrs, appearing as on a branch, afford a favorite design for embroidering.

**Short women** should wear long slender wraps covering the wearer from neck to foot, and lengthwise trimmings.

**For spring dresses** pretty, soft shades will be worn, but crude harsh colors. Delicate greens will be among these.

**A new photograph album** is designed, with a place in the cover for the last picture received, here to remain on view until another comes arrives.

**Why** are the tailor-made suits so satisfactory, it might be asked. Because they are plainly made, and the material is usually good wool—two sterling qualities combined.

**A rule** rarely to be departed from in dress-making where two fabrics are used, is to select a plain material for the most important parts, and figured stuff or stripes for the accessories.

**To Clean Engravings.** Pin the paper at the four corners on a board, and tilt it an angle so the water may run off; pour boiling water over the surface until it is clean. So directs the *Art Interchange*.

**Thank common sense,** the attempt to introduce low-necked and short-sleeved frocks for babies is not successful. They are allowed to be attired in full yoke dresses gathered at the neck, with long lace edged sleeves.

**If velveteen** is to be the material of your costume, be sure to choose the best. You will be quite in good style and have the satisfaction of having a garment that will wear much better, and keep its original shape much longer.

**Crepe Veils and Health.** Dr. Robert B. Morison, of Baltimore, is of the opinion that the long thick crepe veil is very injurious to the complexion and health of those wearing them. The rough crepe, he says, in rubbing the skin takes in the poisonous matter into the circulation in that way, as well as carries it into the lungs in breathing. Such a veil worn for two consecutive years seldom fails to produce evil results. Similar goods about the neck, and black silk and black cotton goods, also produce bad effects. Paris has a feather dyer's disease, produced from the dye in which the feathers are dipped.

**Portieres** or hangings for doorways and walls continue to be a favorite adornment for parlors and other rooms. A set of these of exquisite appearance is thus described: The ground was pale-yellow silk canvas wrought in crewels, with a great branch of horse-chestnuts. This branch showing the foliage of autumnal coloring, and accompanied by great bristling burrs from a border of deep terracotta plush on the right hand side of each section. The plush was also carried across the bottom in a much deeper hand than the upright one. Rising from this deep plush dado, were a tangle of grasses and ferns embroidered boldly in greens, reddish greens, reddish browns and so on.

**Remedying Shiny Clothes.** No one enjoys seeing his or her best clothes come to the point of wearing shiny, and few can indulge themselves by then casting them aside. We find in the *Scientific American* directions for remedying this trouble, which coming from such a reliable source, we gladly print: Take of blue galls bruised 4 ounces, logwood, copperas, iron filings free from grease, each 1 ounce. Put all but the iron filings and copperas into 1 quart good vinegar, and set the vessel containing them in a warm water bath for twenty-four hours; then add the iron filings and the copperas, and shake occasionally for a week. Keep in a well corked bottle, and apply to glossy or faded spots with a soft sponge.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON

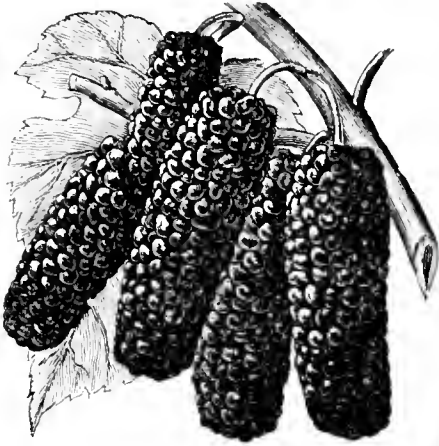
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## About Mulberries.

Within a few years, not a little space, in some nursery catalogues, has been given to illustrations, descriptions, etc., of the Russian Mulberry. The attention thus bestowed quite suddenly on a Mulberry, reminds one, mildly, of the craze which was incited some thirty odd years ago over the Chinese Mul-



NEW AMERICAN MULBERRY.

berry and silk culture with us, and which now, so far as the tree is concerned, is rarely heard of. We have no fear whatever, of a Russian Mulberry fever at the present time, to be followed by serious results, but we think it timely to make some general remarks on Mulberries, for the benefit of our readers.

Of the various species of Mulberries known, the Black (*Morus nigra*), the White (*M. alba*), and the Red (*M. rubra*), but especially the two former, have long been prominently before the world. All other cultivated sorts, of which there are many, are mostly descendants of these. Of the genus Mulberry or *Morus*, it may be said that it is closely related to the Fig, the Osage Orange, and more distantly to the Bread Fruit tree and the Cow tree of the Tropics.

The Black (also called the English Mulberry) has been grown from the earliest times. The berry is large, black, of a sugary and rich flavor, and much esteemed wherever known. In this country it is scarcely hardy enough to thrive north of New York, except in sheltered places. The tree has large, deep-green heart-shaped leaves, and is valuable as an ornamental tree aside from its fruit.

The White Mulberry, the most famous member of this genus, is so, because of its furnishing in its leaves the best known food of the silk worm. It is grown on an extensive scale wherever silk culture is followed. The fruit is yellowish white, and while borne abundantly, is insipid to the taste, hence of little value. The tree is hardier than is that of the Black Mulberry.

Having been much cultivated along with silk raising, from time immemorial, the White has become the parent of countless varieties. Among these are the Russian Mulberries, referred to above. The Chinese

Mulberry also mentioned, is another variety. As for the Russian sorts, the description given of the parent, will apply in part. These were introduced by the Russian Mennonites quite largely into the West some years since.

There is no distinct variety known as the Russian Mulberry, for being raised as these have been from seed, they vary much in minor respects. The trees are good enough to grow for silk or for timber, being of rapid growth—hence very desirable in treeless regions—but for fruit, they possess no marked value, especially where other good fruits abound. Let us add that these are excellent trees to plant for shade in poultry runs, as the growth is quick, the shade heavy, the fruit is much relished by the fowls, and its time of ripening extends through several months. It has been observed too, as an excellent point in favor of this class, that where planted, birds take of the fruit in preference to garden fruits.

The Everbearing or Downing Mulberry, is a vigorous and productive American seedling, surpassed by none except the Black English, while it is hardier, and possesses the same rich sub-acid flavor; ripens gradually, a long time in succession.

The New American Mulberry, of which an engraving is shown, is regarded very highly by those who have grown it for fruit. Its bearing season, extends through about six weeks. The fruit is said to be jet black when ripe, and of an agreeable flavor.

The Red Mulberry is a native species of more value as an ornamental tree than for fruit, although this is not unpalatable.

As ornamental trees, the Mulberries, for the most part, have handsome shining leaves, that present a singularly fresh and luxuriant appearance, even in dry seasons. Were it not for a fault of taking on with age an open style of growth that is not consistent with beauty, they might be ranked among ornamental trees of the first-class. As it is, they must be consigned to the back-ground.

Between the fruit and their other attractions, one or more Mulberries would be well in place in every fair-sized garden. They do the best in a deep, rich, well-drained loam.

## Notes From Lyndale.

BY A. H. E.

What is a tree worth? I think the value of established trees is not sufficiently appreciated. Last Saturday I was called upon by the owner of grounds to be taken in by, a new street, to testify as to the value of the trees on the place, before a commission of appraisers.

On the place I found 102 trees, shrubs, and vines, including 36 Raspberry bushes, that would be destroyed. They had mostly been planted from three to seven years ago. After a careful examination of these, and after mature and unbiased deliberation, I placed my estimate of their worth at \$827, feeling, however, in my own mind, that if there was a mistake, it was on the side of this being rather low. The figures, accompanied by explana-

tions, met with no opposition from the commission; the owner was well satisfied.

\* \* \*

Now, a point I want to direct attention to in these Notes, is, that the owner of the trees referred to had at first not thought they were worth enough to say anything about. Then he called to mind how he had, one season after the other, paid out a good deal of money for the stock, and for careful planting. The care given them, in the meantime, was also worth something, he well knew. Besides, the fruit trees were beginning to bear handsome crops of fruit, the cost of which in the markets, if bought, would be considerable. Some Pear trees last season bore three pecks of fruit each.

Being a sensible business man, he concluded to call in the services of one familiar with trees, to estimate on their worth, with the result noted. He will hereafter have greater respect for the worth of trees.

The estimates made, and accepted were as follows: 13 Apple, 8 to 11 feet high, \$12 each; 17 Dwarf Pear, 7 to 12 feet high (the soil seemed remarkably well adapted to this tree), \$20 each; 1 Crab apple, 10 feet high, \$20; 7 Plum, 6 to 9 feet, \$5 each; 2 Cherry, 10 to 12 feet, \$10 each; 4 Grape vines (last year planted), \$2; 36 Raspberry, \$1 each; 3 Horse-chestnut, 15 feet, \$30 each; 2 Hard Maple (3 years planted), \$4 each; 4 Silver Maple, 20 to 25 feet, \$15 each; 2 American Mountain Ash, 12 feet, \$5 each; 1 European Mountain Ash (handsome), \$20; 1 Magnolia, 5 feet, \$8; 1 Clematis, \$4; 1 Lilac, \$2; 1 Norway Spruce (not thrifty), \$1; 6 Ampelopsis, \$1.50 each.

\* \* \*

While the owner of these trees felt that I fully appreciated their worth, more so, in fact, than he himself had done, yet I claim, as already intimated, that the figures were, if anything, below rather than above the true worth.

Take the Pears, for example, a number of them bore three pecks of magnificent fruit each, last season. This would have cost, to have bought it, no less than \$1.50 per basket, or say \$2.25 per tree. And \$2.25 is the interest, at six per cent, of about \$37 for one year, which, to make no allowance for care and garden room, might be considered as representing the worth of the tree. But I estimated these trees at only \$20 each, and they will go on continuing to improve in bearing right along for years to come. While by this kind of reckoning, the price seems even too low, yet at this rate, it made the planting of the trees years ago a good investment indeed, just such in fact, as I am satisfied usually attends judicious planting.

\* \* \*

Much is from time to time printed in the papers concerning tree agents and their rascalities. Of this, no doubt a great deal is well merited, yet we must remember that not all tree agents are rascals. While not a tree or a shrub of the hundreds growing at Lyndale, was bought of an agent, because for myself, I never deal with the class, yet after all I feel to pat them on the back—that is the honest ones, who represent reputable nurseries—and wish them success in their work. In a sense they are missionaries of horticulture. By their enterprise and persistency in inducing planting, they have in cases without end, converted land owners, who were not tree planters, to become such, and in time to further become ardent lovers of trees, and prosperous fruit growers.

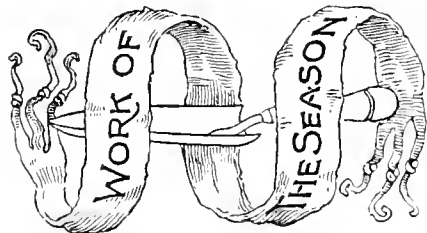
As I have said, I do not patronize the agents. This is because I can deal more cheaply and with vastly more satisfaction, directly with the nurseries; but I was converted to horticulture years ago, and by a different process.

These buyers to whom I have referred, would perhaps never have gone to the nurseries to buy. They probably paid to the agents much higher than I do by direct dealing, for the same stock, but that is far better than for them never to have planted at all. So I say that the honest horticultural missionary is worthy of the added price above catalogue rates which he gets, but I have no use for his services.

\* \* \*

A neighbor who built a small greenhouse in connection with his dwelling last summer, came to me to-day for advice on stocking it with some handsome climbers. Being a new beginner at running a glass house, I directed him to try some of the kinds that may easily be raised from seed to form beautiful festoons and masses with ordinary care. I refer to such plants as *Maurandias*, *Ecceprocarpus*, the former lilac and white, the latter rich orange; *Thunbergias*, yellow and white with that striking dark eye; *Trapeziums*, various and many others, the seed of which, if sown now, will soon form handsome climbers.

Of course where one is somewhat skillful in managing plants, I would, along with these, recommend such kinds as the *Habrothammus*, *Lagerflora*, *Clematis*, *Fuchsias*, *Plumbago*, *Hoya*, etc., by all means. All of these kinds which I have named may be successfully grown in a cool greenhouse.



#### HOUSE PLANTS.

**Begonia.** The *Weltoniensis*—one of the best, should be cut down about this time, if unattractive looking, and given a dry-soil rest for six weeks.

**Carnations.** Young plants for next winter's bloom should have much light, but not much heat, until planting out time, a month or two later.

**Chrysanthemums.** As young plants are obtained, they should be given a light place, to urge them on; the hot-bed being a very suitable place.

**Dormant plants** in the cellar or pits, such as *Oleanders*, *Hydrangeas*, *Cactuses*, *Lantanas*, *Pomegranates*, *Laurustinus*, and so on, that can be accommodated in the window, may now be brought in. Where room for them is lacking, they can remain at rest until the season allows of moving out doors.

**Gas.** Its use for illuminating is a drawback to plant culture in the same rooms. If the plants can at night be cut off by partitions, or moved to unlighted rooms, it should be done. If not, harm may largely be prevented by capping them with paper covers, while the gas is lighted. Plants are better off, for being in rooms that are never lighted much artificially.

**Geraniums** propagated this month make the best plants for winter bloom. Grow in pots: keep down the flowers until fall.

**Half-hardy plants** kept in pits must receive plenty of air on the mild days now at hand.

**Insects.** Be vigilant in meeting these now, for at no other season would they increase more rapidly, if once they get a start. Keep them so scarce, that the thumb nail remedy is all that is needed.

**Oxalis** are now at their best, provided they have plenty of sun; in the shade the flowers do not open.

**Propagation.** This is the most suitable season for general propagation. Cuttings of soft-wooded plants like *Geraniums*, *Coleus*, *Petunias*, etc., are now very readily struck in sand, in a light, warm place. Choose such slips as are neither over-hard nor yet very soft.

Air-layering, which we illustrate on page 63, as applied to a Rubber Tree, is one of the best means of propagating ordinary hard-wooded plants. The process is so simple, anyone may succeed with it. Several leaves are first removed from the shoot to

be used, nearest to where the cut is to be made, as shown at A. Then a light stick is attached by twine to the shoot for support, keeping one place near the centre clear of twine, when winding, for an inch or more in length. In this clear place a sloping cut is then made upwards fully three-fourths way through the branch, and a small pebble or other substance is placed under the tongue to keep it open, all as shown at A. The operation is finished by clapping a double handful or more of soft moss, containing a slight admixture of soil, around the cut portion, and binding it as shown at B. This ball of moss must then be kept well watered, and in the course of from three to eight weeks the shoot above the cut will have roots, and by potting will at once make a handsome dwarf plant.

**Richardia** for pots should be started this month.

**Shade** for the sunniest windows, during midday, is a good thing. *Primula* flowers and *Camellia* plants especially receive injury if not shaded.

**Soil** for pot plants, should be carefully prepared always. For this, there is no better foundation than well decayed turf that is full of root fibres. Many plants would need nothing more; strong feeders should have manure added. Perhaps the soil that will best suit the majority, is two parts decayed turf to one part of well rotted manure.

**Violets** for winter bloom: treat as for Carnations.

**Watering** needs close attention at this time.

#### LAWN AND FLOWER GARDEN.

**Annuals** of all kinds may be sown, the hardy ones out doors as soon as the ground works up well, the others, half hardy and tender sorts, if wanted early, in the windows, hot-bed or greenhouse.

**Borders** must not be dug until quite dry; to add a coat of well-decayed manure every season is the right course—spading it in.

**Box edgings** if to be set should have this done early, using only well-rooted plants.

**Bulb beds** planted and covered in the fall should be uncovered, but not all at once. First take away, say, two-thirds of the cover, then when they begin to push through, the remainder.

**Canna** and *Caladium* tubers should be started.

**Edgings** to walks and drives, when kept properly attended, add much to the beauty of a place, hence an edging hoe should be owned for use. If one can not be bought in the vicinity, then have one made. We show by an engraving taken from the *American Agriculturist*, how this may be done out of a common hoe by any blacksmith.

**Lawns** should early be rolled to take away the roughness of surface, that is brought on in the winter; the sward will be finer all the season for this. Now is the time to apply fertilizers where needed, as is the case with all lawns every second or third year. For lawns about the home, our choice is for bone manures, as being less offensive both to the eye and the nose than stable manure, and quite as effective. Nitrate of soda at the rate of 2 or 3 pounds per square rod is now considered to be an



EDGING IRON; AN EASILY MADE ONE.

excellent fertilizer for lawns. Take much pains to have whatever manures are used spread evenly.

**Pansy Beds.** See directions given for Bulb beds.

**Paeonies.** If any are to be planted or reset, it should be done at the earliest possible moment.

**Planting.** In general the earlier the planting of hardy trees, shrubs, vines and plants can be done, after the ground is dry enough to work up well, the better. From the time the stock is dug in the nursery, until it stands newly planted, great pains should be taken to keep the roots from drying out. Where any time intervenes between receiving it and setting out, the roots should be protected by heeling in—that is, covering closely with fine earth. As to pruning, see article on page 66. In planting set the trees as deep as they stood in the nursery only. Use plenty of fine earth, working it well between the roots, and firm it thoroughly (you can scarcely make it too compact) as the hole is being filled.

**Roses.** Uncover and prune as soon as hard frozes are past, which should now be the case in the southern tier of states; next month will be early enough for the north. *Monthlies* of small growing kinds that were wintered outdoors, should be cut back severely, leaving not more than three eyes to each stem. The stronger growers may have twice as many left. *Hybrid Perpetual* and *Summer* sorts should be cut back to half a dozen eyes to the shoot,

or if any shoots happen to be specially strong, ten may be left. *Mass Roses* of free growing sorts may be similarly pruned, but the shy growers as well as all *Yellow Roses* require no pruning at all, save to cut away any dead wood. This should come away from all kinds at pruning. *Climbing Roses* need but little trimming, except to regulate general form.

**Seeds** of heat-loving plants designed for sub-tropical effects, such as *Castor-oil Bean*, *Japanese Striped Maize*, *Perilla*, *Tobacco* and so on should be sown.

**Sodding.** The earlier it is done the better. Choose close turf as free from weeds as possible—that from a sheep pasture being the best. In lifting use a sharp spade; cut of an even thickness, not less than an inch nor over two inches thick. It may either be divided up into slabs 12 to 15 inches square, or else be in pieces about a foot wide each, and four feet long, rolled up as it is cut with the spade, for convenience in handling. In laying have a well prepared surface to receive it, with the soil, in the main, well firmed by rolling or otherwise. Bring the pieces closely together, using a knife for trimming, to secure evenly fitting joints. Should any pieces be thinner than others, some loose earth must be worked underneath to properly bring up the surface even with the surroundings. After laying, beat with a turf mallet to settle the root surface well into the bed, and unless quite wet finish by watering.

**Trellises**, arbors, and other garden structures, should be repaired and painted before pressing spring work or the new verdure interferes.

**Walks and Drives.** As soon as the frost is out of the ground, those of gravel should be well rolled. Once in every few years the gravel should be worked over in the spring, following with a good rolling.

#### PLANT CULTURE UNDER GLASS.

**Achimenes.** Some of the tubercles should be started each month up to May, for a succession of bloom. When they show an inch or two of growth, transplant into the pots in which they are to grow. They need heat, moisture and shade; they are a class well worth the attention of amateurs.

**Begonias**, belonging to the fine-foilage class, should now be having plenty of root encouragement to push them rapidly along in growth.

**Camellias** as they go out to bloom, should receive a higher temperature, say 60° or 70°, and a moist atmosphere, with shade from the sun's rays, for this is the season of new growth. Shifting into pots one size larger than before occupied, should precede the growing season.

**Cineraries** neglected but once, to suffer from drought—and they now need much water—will show it very perceptibly in foliage and bloom. Guard against it by all means. Air freely. Use liquid manure often, nothing will help them more.

**Double Primroses** propagate now from slips.

**Gloxinias.** The directions for *Achimenes* will apply

**Insects.** See last month, also pages 64, 65.

**Orchids** will require an abundance of atmospheric moisture now, and general attention to plants newly-potted, and those coming into growth.

**Palms.** To raise from seed, sow all such now.

**Pelargoniums** need close attention. Air strong plants freely, and give liquid manure once a week.

**Propagation** of *Coleus*, *Alternantheras*, *Heliotrope*, *Verbenas*, *Climbers* and *Droppers*, for summer use may still go on. Also of all winter flowering plants for next season.

**Roses.** Be not deceived by the brightness outside into admitting cold air too freely upon these, for this is a common cause of mildew. Air must be admitted, but when raw and chilly, only in small streams, and on the side away from the wind.

**Watering.** Now that growth is rapid, too much attention cannot be given to watering. The houses must be gone over on every bright day with pot or hose, and some plants will even need looking after several times daily all through the spring season.

#### FRUIT GARDEN AND ORCHARD.

**Arranging.** As a general rule, plant the Apple and Cherry trees on the outside of the fruit garden, and especially towards the prevailing winds, to provide protection, to the more delicate other kinds.

**Black Knot** or *Plum Wart* must be cut out at first sight. It should be looked for on the Cherry, too.

**Cuttings** of *Currants* and *Grapes* should be planted very early, of such kinds as it is desirable to increase. To take such off close to the old wood, they will be more certain to root than if made from long pieces cut up. Set at a depth so that but one eye of the Grape cuttings, and two of other kinds, show above the surface of the ground.



**Girdled trees.** from mice, rabbits and the like, afford a sorry looking sight, but if the inner bark is not entirely gone, they may be saved by binding on a plaster of fresh cow dung and soil. If the injury is severe, and the tree valuable, grafts are sometimes set in around the trees, with one end inserted in the bark below, and the other in that above the wound, to save it. This plan, in theory, seems to be all right, and may be worth trying, but permanently good results from it are rather rare.

**Grafting.** Commence with Cherry very early to avoid failure; Plums almost as early; Apples and Pears later still, while the Grape is usually grafted in June with the best success.

**Insects.** There is no time for fighting some of our worst insect pests like early spring. Take the *Tent Caterpillar* for one, you can destroy 200 or more eggs, (equal to that many worms later), as easily now as a single worm in June. Their nests encircle small branches of Apple trees near their ends and are easily seen. Cut out and burn. Early in the spring is the time that the female moths of the *Canker-worm* ascend the trees. The simplest preventative and destroyer is a tight band of tarred paper a foot wide, around the trunk, and kept painted with tar and printers ink. To this, the moths will stick and soon die. Renew this paint every time it becomes glazed over. Troughs of metal, filled with kerosene, are also used, and with less trouble, but the first cost is much greater. To scrape the trees of rough bark, will take away the chance of the beetles of the *Flat-headed Borer's* finding a secure place to lay eggs later. Do not scrape harshly.

**Pruning.** See directions in previous months. If any branches have become broken during winter, cut them away. All large wounds from whatever cause, should have the surface thickly painted.

**VEGETABLE GARDEN.**

**Asparagus.** Now is the time to make new beds for family use, do not bother to raise from seed but buy one or two year old roots, at from \$1.50 to \$3.50 per hundred, prepaid: thus gaining a year or more.

**Cabbage.** Sow out doors as early as the soil will work up well. To avoid disaster from the Black Jumping Beetle, sow three to five pounds of superphosphate to the square rod, for hastening growth beyond their reach. It is a good plan to sow in drills twenty inches apart, with a drill of Turnips midway between, to attract the appetites of the Beetles. Dusting the young Cabbage plants with lime, ashes or soot will help to save them from these pests. The seed-bed should occupy new soil each season. For small quantities, sowing in seed beds elevated four feet, will place them above their reach.

**Cauliflower.** Treat as for Cabbage plants.

**Chives.** Trim off the dead leaves. For new beds divide old plants, and set in rows 12 inches apart, 6 inches in row.

**Cold frame** plants may now go much uncovered—the sash can be used, to forward Lettuce, or on hot-beds. In case of cold, board shutters will answer to protect them for a brief time.

**Culture.** Do not be impatient to work the soil very early; a wet soil unduly worked will not get into its best condition all season. In forking or plowing it should crumble freely when turned. Use plenty of manure; for most vegetables the ground cannot very easily be made too rich.

**Egg Plant.** See directions below for Peppers.

**Hot-beds.** March will be early enough to start these in most places north. See last month's notes.

**Parsnips.** Dig those left in the ground, and sow for a new crop in drills 15 inches apart.

**Peppers.** Seed should be sown in a warm place in the hot-bed, window or greenhouse, if not yet done. As soon as the seedlings can be well handled transfer singly to small pots, or plant in boxes. To allow them to become crowded and choked is very injurious. Use light rich soil.

**Plant** Potatoes and Onion sets among first things.

**Radishes** are a favorite crop. They need a deep, rich soil, the growth must be rapid. Sow as early as the ground works up well; they may be sown in the same line with Beets or Carrots. The maggot is the dread of all; an abundance of coal ashes well mixed with the soil will prevent their work.

**Rhubarb.** The earlier new plantations are made after the soil is fit to work, the better. Choose deep rich soil, plant stout pieces of several eyes each.

**Salsify.** Treat as directed above for Parsnips.

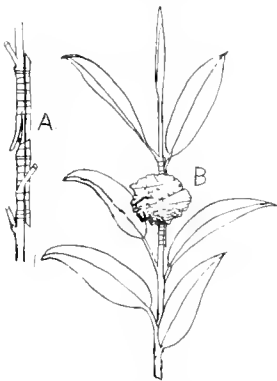
**Sorzonera.** Treat as directed for Parsnips.

**Scowings** in the open ground may be made of such hardy kinds as Early Beets, Cabbage, Carrots, Leeks, Cress, Lettuce, Radish, Peas, Parsley, Spin-

ach, Turnips, as soon as the soil is tillable. A good distance for garden rows is 15 inches apart

**Spinach.** Uncover the fall sown plants. Sow for spring and summer use in drills one foot apart

**Tomatoes.** Directions under Peppers will apply. The gain in earliness of fruit that comes from sow-



Air-Layering of an Indian Rubber Tree (Ficus.) See Propagation on Opposite Page.

ing in heat over sowing in open ground about May 1st, is, however, not as great as is generally supposed.

**FRUIT AND VEGETABLES UNDER GLASS.**

**Asparagus,** in forcing pits, must have air and light to develop well. The growth should be quick

**Cucumbers.** Stop regularly beyond the fruit. Beds that have lately been started should be carefully aired every morning to let off rank steam.

**Figs** in forcing, need liberal watering and syringing. Stop growing shoots at about the sixth joint. Give steady heat.

**Grapery.** In early houses pinch laterals; thin out superfluous bunches as soon as the berries are fairly set, the thinning to be done with a bold hand; air freely, but avoid chilly draughts, water abundantly. In colder houses as the leaves begin to expand syringe daily until fully out.

**Pinery.** Plants that are required to start for fruiting must not have too high a temperature, 75° for bottom heat and 65° degrees for top heat will be about the thing. Ventilate freely, to keep the young growth stocky from the very first.

**Strawberries.** Fruit just ripening off must be freely exposed to the light and air to bring out the full flavor. Drop the use of liquid manure as soon as the fruit begins to show the first signs of color.

**The Catalogue Crop; A Grand One, and not all in yet.**

The mission of POPULAR GARDENING is to popularize improved gardening. In the many fine catalogues put forth by American Seedsmen, Florists and Nurserymen, and which now are being sent out, it recognizes an able class of helps in the same field. We therefore gladly bring all such as reach this office, before the attention of our readers, for the mutual advantage both of the publishers and the people. These catalogues contain an immense amount of practical information, as well as fine engravings of flowers, fruits and vegetables. As they are mainly free, we hope our readers will gather out of the crop, and make good use of it. If they will, when ordering, mention being of the Popular Gardening family, they may be sure of receiving real good, perhaps a little extra, treatment. See last month's list.

- \*Allyn Bros, Pahrnya, N. Y. Nursery Stock.
- \*Irving Allen, Springfield Mass. Small Fruits.
- \*S. L. Allen & Co., Philadelphia, Pa. Implements.
- \*J. Bolgiano & Son, Baltimore, Md. Seeds, etc.
- \*W. A. Lee-Barbee & Co., Phila., Pa. Seeds, etc.
- \*Robert Buist, Jr., Philadelphia, Pa. Seeds, etc.
- \*J. J. Bell, Windsor, N. Y. Seeds.
- \*Bloomington Nurseries, Bloomington, Ill.
- \*A. Brackenridge, Govanstown, Md. Orchids.
- \*Wm. E. Bowditch, Boston, Mass. Plants, etc.
- \*Hugo Beyer, New London, Iowa. Seeds.
- \*Geo. W. Campbell, Delaware, O. Grape vines, etc.
- \*O. W. Clark & Son, Buffalo, N. Y. Seeds, etc.
- \*Harry Chaapel, Williamsport, Pa. Plants, etc.
- \*J. Lewis Childs, Floral, N. Y. Plants, etc.
- \*A. D. Cowan & Co., New York, N. Y. Seeds.
- \*Henry A. Dreer, Philadelphia, Pa. Seeds, etc.
- \*The Dungee & Conard Co., W. Grove, Pa. Roses.
- \*Jno. F. Dayton, Waukon, Iowa. Small Fruits.
- \*Z. DeForest Ely, Philadelphia, Pa. Seeds, etc.
- \*Ellwanger & Barry, Rochester, N. Y. Nursery.
- \*Ellis Bros., Keene, N. H. Seeds, etc.
- \*Exeter Machine Works, Exeter, N. H. Heaters.
- \*J. A. Everett & Co., Watsonown, Pa. Seeds, etc.
- \*D. M. Ferry, Detroit, Mich. Seeds, etc.
- \*Frank Ford, & Son., Clyde, Ohio. Seeds, etc.
- \*J. A. Foote, Terra Haute, Ind. Seeds, etc.

- \*Jas. J. H. Gregory, Marblehead, Mass. Seeds, etc.
- \*L. W. Goodell, Dwight Mass. Seeds, etc.
- \*Edward Gillett, Southwick, Mass. Wild Plants.
- \*Chas. A. Green, Rochester, N. Y. Nursery Stock.
- \*Hale Bros, South Glastonbury, Conn. Nursery.
- \*Hill & Co., Richmond, Ind. Roses, Plants, etc.
- \*John W. Hall, Marion Station, Md. Small Fruits.
- \*J. Horner & Son, Merchantsville, N. J. Small Fruits.
- \*Joseph Harris Seed Co., Rochester, N. Y. Seeds.
- \*Robert Halliday, Baltimore, Md. Plants, etc.
- \*C. M. Hovey & Co., Boston, Mass. Seeds, etc.
- \*Hoopes Bro & Thomas, W. Chester, Pa. Roses, etc.
- \*Jno. G. Hartzel, Keokuk, Iowa. Seeds.
- \*W. C. Hunkley, Richmond, Ind. Fences.
- \*W. H. Jones, Philadelphia, Pa. Seeds, etc.
- \*Livingston's Sons, Columbus, O. Seeds, etc.
- \*J. T. Lovett, Little Silver, N. J. Nursery Stock.
- \*S. E. Leonard, Chicago, Ill. Seeds.
- \*E. N. Lang, Baraboo, Wis. Seeds.
- \*Wm. S. Little, Rochester, N. Y. Nursery Stock.
- \*Wm. Henry Manly, Philadelphia, Pa. Seeds.
- \*Wm. H. Moon, Morrisville, Pa. Nursery Stock.
- \*Jno. B. Moore & Son, Concord, Mass. Small Fruits.
- \*J. O. Mansson, Hanford, Pa. Seeds.
- \*Thomas Medhan, Philadelphia, Pa. Nursery Stock.
- \*F. H. Mooers, Pittston, Me. Seeds.
- \*Murray County Nurseries, Rochester, N. Y.
- \*John R. & A. Murlach, Pittsburg, Pa. Seeds, etc.
- \*J. W. Manning, Reading, Mass. Nursery Stock.
- \*Michel Plant & Seed Co., St. Louis Mo. Seeds, etc.
- \*A. C. Nellis & Co., Canadawarie, N. Y. Seeds.
- \*Nantz & Neimer, Louisvile, Ky. Plants, etc.
- \*Paragon Seed and Plant Co., Newtown, Pa.
- \*Paul Butz & Son, New Castle, Pa. Plants & Trees.
- \*Geo. Binney, Evergreen, Wis. Nursery Stock.
- \*Herbert Post, Selma, Ala. Seeds.
- \*E. D. Putney, Brentwood, N. Y. Small Fruits.
- \*Clark Pettit, Salem, N. J. Nursery Stock.
- \*R. B. Parson & Co., Flushing, N. Y. Nursery Stock.
- \*Price & Knickerbocker, Albany, N. Y. Seeds, etc.
- \*A. M. Purdy, Pahrnya, N. Y. Small Fruits.
- \*Chas. A. Reeser, Springfield, Ohio. Plants, etc.
- \*S. E. Rogers, & Son, Mt. Holly, N. J. Nursery.
- \*Beach & Co., Richmond, Ind. Plants, etc.
- \*Wm. Rennie, Toronto, Ont. Seeds.
- \*Arthur C. Rendle, New York, N. Y. Glazing.
- \*E. H. Ricker & Co., Elgin, Ill. Nursery Stock.
- \*J. B. Root & Co., Rockford, Ill. Seeds.
- \*Wm. H. Smith, Philadelphia, Pa. Seeds.
- \*Wm. W. Sterling, Catehogue, N. Y. Seeds.
- \*Hiram Shimley, Rochester, N. Y. Seeds.
- \*R. H. Sibley, Rockford, Ill. Seeds.
- \*John Saul, Washington, D. C. Plants, etc.
- \*The Storms, Harrison Co., Painesville, O. Nursery.
- \*Chas. T. Starr, Avondale, Pa. Plants.
- \*L. N. Stone, Fort Atkinson, Wis. Small Fruits.
- \*Anton Schulthess, College Point, N. Y. Roses, etc.
- \*E. D. Sturtevant, Bordentown, N. J. Plants, etc.
- \*A. E. Spalding, Ainsworth, Iowa. Seeds.
- \*Sodgwick Bros., Richmond, Ind. Fences.
- \*J. F. Tillinghast, La Plume, Pa. Seeds.
- \*E. M. Thornburn & Co., New York, N. Y. Seeds.
- \*J. H. Tracy, Willsburgh, Ind. Nursery Stock.
- \*J. H. Tryon, Willoughby, O. Grapes.
- \*J. C. Vaughan, Chicago, Ill. Seeds, etc.
- \*West Jersey Nursery Co., Bridgeton, N. J.
- \*Samuel Wilson, Mechanicsville, Pa. Seeds, etc.
- \*Willey & Co., Cayuga, N. Y. Nursery Stock.
- \*A. Whitcomb, Lawrence, Kan. Plants.
- \*Whitney-Doyes Seed Co., Binghamton, N. Y.

**An Alarming Measure. It Should be Opposed Mightily.**

Lately a bill was brought before Congress, by Senator Wilson, of Iowa, to double the rate of postage on Fourth-Class Mail Matter, which includes Seeds, Plants, Cions and similar articles. It is believed to have been instigated by the Express companies. For such a measure to become a law, would work serious injury, especially to the gardening interests of our country. Not only would all dealers in garden requisites be greatly embarrassed, but the people themselves would suffer through the increase of price on all seeds, plants, etc., and in their inability in many cases to procure these at all. This would be felt vastly more on the frontiers of our country, where Express rates, from lack of competition, are very heavy, than in the interior. Instead of putting up postage, it should be decreased to the lowest rate possible. This course is the only one consistent with American development and progress. All citizens are satisfied with low postage rates; the wealthy Express companies, alone, find fault with them. They have a rich income at stake, and it would, at the present crisis, be folly to under-estimate their influence and power in pushing this measure. All interested persons should at once communicate with their Representatives in Congress, and urge their influence against this bill. Blank forms of petition have been prepared, and will be furnished from this office, to all who apply. Send for them, obtain signatures and then forward to your Representatives promptly. Let the POPULAR GARDENING family make itself felt, in this matter. Every member should act. Delay, is indeed dangerous.

### To the March Flowers.

Keep your muddy covers close, flowers,  
Nor dare to open your eyes,  
For all this month your lover, the sun,  
Will only tell you lies.

Trust not, ye modest Violets  
His promises to you,  
Nor dare upon his fickle smile  
To broaden your kerchiefs blue

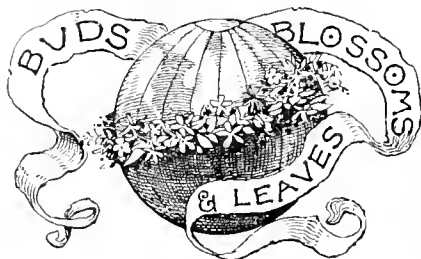
Oh Daisies, stay in your grassy house,  
Ye poor deluded things;  
And keep your little white fingers shut  
Away from his golden rings.

Ye Meadow Lilies, leopard-like,  
Under the mould so deep,  
Crouch close, and keep your spotted eubs  
For a month yet, fast asleep.

Alice Cary.

How sweet to come when storms hold reign,  
And winds sweep the meadows wide,  
To my little summer all shut in,  
From the frozen world outside;

To watch the beauteous pot plants grow,  
From the bud to the open flower,  
While the outer world lies under the snow,  
And bound by the ice kings' power.



Azalea time.

The months March

Set some trees every year.

The aim—50,000 subscribers.

Welcome F. W. Subscribers.

Don't spell Lily with double l.

Plant out some Gladiolus early.

The pleasures of gardening are pure.

Plant some fine climbers somewhere.

Careless sowing; imperfect growing.

The Mountain Ash is not a true Ash at all.

Advertisements should reach us by the 15 inst.

Just in; a (Floral) World of new subscribers.

Winter Aconites venture to lift their heads.

A yearly subscription makes a splendid present.

Pleasure and plant vigor are near of kin in gardening.

A country seat that always rents—the barbed wire fence.

Carnations were used in the floral chaplets of the Romans.

With the first open weather lift some Pansies for window bloom.

The finest Double Petunias come from seed, not from cuttings.

Why not set out one or more clumps of Evergreens, this spring?

Even a nosegay bespeaks the taste of the person arranging it.

The higher the civilization, the greater the love for fine gardening.

There is a variegated-leaved Grape Vine, suitable for ornamental planting.

How eager the Snowdrops seem to have spring come—they can't wait.

Snowflake Tree. This is what our White or Virginia Fringe is called in Germany.

To transplant the Holly, cut back very severely and remove every remaining leaf.

There is no better way of helping on this paper, than to get up a club of subscribers.

Its wonderful how much outright abuse plants will bear. They complain only by feeble looks.

George Eliot used to say she imagined that her flowers saw her, and could read her thoughts.

A number of seedsmen offer a semi-double Phlox Dummondii. True from seed, they say.

To be well watered, plants should not have well-water; cistern or hydrant water is better.

Floral World readers! behold here is a miniature "Floral World" department: as witness, its engraved head.

Many are doing what they can towards the 50,000 subscribers, but some are not. How is this, kind reader?

Popular Gardening would like to see more money laid out on embellishing the grounds, less on the buildings.

Poplars. Mr. G. H. Wright, of Sioux City, Iowa, reports that the Lombardy Poplar is worthless for his State.

A flower bed a mile long is contemplated by the proprietor of the Van Buren Point (Lake Erie), summer resort.

No "continued stories" in POPULAR GARDENING, therefore one month is as good a time to subscribe as another.

Says a Massachusetts subscriber: "I have kept house plants for over thirty-five years, and love them more than ever."

Mossy Lawns are usually a sign of poor land. Top dress with manure, scattering in some fresh seed at the same time.

Parisians are largely vegetarians, the smell of Onions is one of the first things to greet a visitor to the French Capital.

If your forcing Violets fail to show good color, look to lack of proper light, and unsuitable heat and airing as the cause.

The Oak-leaved Lettuce, one of the recent novelties, is said to be superior for table use, at the same time that it is decidedly ornamental.

We count every Floral World subscriber just as much one of our own subscribers now, as if they had subscribed direct. We want you all to feel this.

"Peanuts," says Mrs. I. L. White, of Illinois, "may be sown in the house, and soon make beautiful plants." Of course the seed must be of unroasted ones.

We want all correspondents of the Floral World, to be free in going right on with their communications the same as formerly, but addressing this paper instead.

Gardening in its every branch, is for one, a business that is fair towards women who engage in it. Equal pay for equal work here, sometimes even superior pay.

English Sparrows dirty up everything if allowed to take possession of climbers against the house. Stone them when about to occupy and they'll clear out. They did from ours.

"He who would have Chrysanthemums in his garden, must have Chrysanthemums in his heart," says Mr. Allen, of Woodbridge, N. J., one of our most skillful amateur florists.

If only the flowers of the new Jasminum gracillimum did not drop so soon, they would be the *ne plus ultra* of stove climbers. The plant is a mass of bloom during the winter.

It will not do to become so enraptured over the way plants shoot ahead, now under glass, to forget that insects at the same time increase with rapidity. The insects must be kept down.

"I would rather part with my fruit trees than with my Evergreens. I could buy fruit in the markets, but the charm of these Evergreens about my house could not be bought."—Parker Earle.

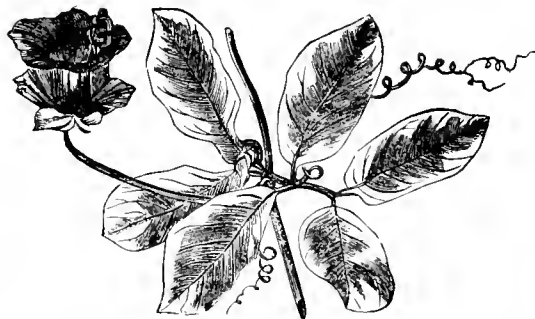
Soot for Plants. "N. M. P.," formerly a Floral World subscriber, finds this an excellent fertilizer for house plants used as stated: On a teacupful of soot turn three quarts boiling water; apply, when cool, to the soil.

Subscriptions that came through the Floral World transfer, will be dated one month ahead,

for we understand no paper was issued from the Floral World office for January. We propose to squarely make up for that skip.

The trees in the parks in Boston are labeled with the names by which they are known to science, so that the tramps cannot by any mistake loil under an *Acer pseudo-platanus* instead of *heterophyllum*.—Spruce Standard.

Rabbits and Trees. A subscriber at Rockport, Ind., offers an improvement on our published remedy against rabbits girdling trees. It is simply this: Grease the tree for one foot from the ground, with hog's lard. He says



VARIEGATED-LEAVED COBÆA SCANDENS.—See opposite.

he will warrant no rabbit will touch the bark after that.

To Our Readers. Now that the gardening season is opening, couldn't you help along towards that 50,000 subscribers, by introducing this paper among your friends who have gardens, and sending in a club? We are almost sure you could do this.

Single Dahlias from Seed. Mrs. I. L. White, of Knox Co., Ill., finds much pleasure and no difficulty in raising these. She says she starts the seeds, bought of the seedsmen, in boxes in the house, keeps them here until warm weather, when she sets them out.

Many of our readers now will be getting up clubs for seeds, plants and so on. But while at this, be sure also to put in some telling work for POPULAR GARDENING. Remember that 50,000 subscribers must come somehow. We are sure you'll not slight us.

Over-bearing. In gardening we naturally enjoy the prospect of a good yield; this often leads to the fault of harmful over-bearing. Try a few flowering plants or a few fruit trees and thin out the new-forming products, if you would learn how great is the former fault.

Let Us Try It! One of the former Floral World subscribers, but whose name has been detached from the communication, else we would give it, says that a weak solution of camphor gum in water, sprinkled over house plants, will aid in ridding them of insects, and prove beneficial to the plants.

Horticultural Art Journal. A new journal by this name has reached our table from the publishers, Mensing & Stecher, Rochester, N. Y. It aims to disseminate a knowledge of fruits, flowers and other garden products, by means of first-class lithographic plates. We shall watch for the future issues with interest.

Scarlet Runners. A correspondent of the *Gardener's Chronicle* informs us that this well-known climber may be stored away and preserved over winter in a similar manner to Scarlet Geraniums. Coming so easily from seed as it does, we would see little occasion for such a course, excepting when seed is scarce.

A lady of Flushing, N. Y., in subscribing for POPULAR GARDENING, along with saying some very complimentary things for the paper, adds: "I am indeed very much obliged to whoever sent you my name for a specimen copy, otherwise I should, perhaps, not have known of it." A hint to all our readers who have friends that would like such a paper. Send in their names and a specimen will go to each one of them.

How is this for an European idea of utilizing public squares as market places, without inter-

fering with their use as parks. The marketing is done in the morning of certain days only. Tents are used for stalls, and long before noon of each day everything is moved away sleek and clean. This leaves the place free for afternoon visitors and loungers, with hardly a suspicion of the use it had been put to in the morning. A Parisian idea, and said to work well.

**The Variegated Cobæa.** Unfortunately the variegated form of *Cobæa scandens*, of which we give a small representation, cannot, like the parent, be grown from seed. The only means of propagating it is by means of cuttings, and it is not, at that, the easiest thing in the world to succeed with. They should be taken in a young state, at about this season, or a little later. Insert in pots of sandy soil, in gentle bottom heat. Those amateurs who do not succeed in raising it can usually buy of florists.

**"Feet of Glass."** Friend Meehan, of the *Gardeners' Monthly*, reasonably enough thinks, that gardeners should adopt some general standard of meaning, when speaking of "feet of glass," in connection with heating and the like. Now no one can tell whether the actual surface of the vitreous substance in sloping roofs, gables, *lugs*, and every part that may be figured in, or merely the number of feet of the earth's surface covered over is meant. As being the most convenient, we prefer to have the phrase indicate square feet of earth surface.

**Learning.** A Jamestown florist has been making rapid progress in this, but on too costly a scale. He had worked hard and long to become established in business. Last fall his houses were well stocked, everything thriving and prospects good for the winter cut flower trade. Then he thought to improve appearances about the greenhouse, and so blacked the steam pipes with gas tar. They did look nice and shiny, but the loss in plants ran way up in the hundreds of dollars. He has our hearty sympathy in this matter, but we must publish the case, that our readers may guard against similar harsh experiments.

**Political Floriculture.** An English editor who deprecates the practice of making flowers of any kind the badges of party politics, or religious sects, because of the hatred liable to be evolved towards the innocent things through partisan or sectarian feelings, very sensibly gave expression to his ideas in his paper. The result of this was a general outbreak of explosions from Canons, thunders from Exeter Hall, protests from Radicals and growls from Tories, putting the editor completely into hot water. He still stands up for the innocent flowers as against the party men who would press them into their turbulent circles.

**Floral World subscribers,** who happened also to be direct subscribers to *POPULAR GARDENING* when the purchase of the former by the latter was made, will have their credit extended on our books for the entire time the combined subscriptions will pay for, provided they write to us stating the facts in the case. This they must do, or they will receive two copies of the present paper, for it is hardly likely that we could, with our thousands of names, detect the repetition. A better plan, we think, would be for you to get some friend to take one copy, notifying us to such effect. This then would be helping towards those 50,000 names, you see.

**Tree Pæonies.** These hardy shrubs, are so attractive, that it is not much wonder that their cultivation amounts almost to a mania among the Chinese, where they are at home. But why not oftener seen with us? They are hardy and thrive in any good garden soil. A well established plant will bear a hundred or upwards of the large showy flowers in a season. The plants may be bought of the nurseries for about one dollar each. Propagation may be done by layering or by renewing the suckers that often spring up around the old plants. It is not advisable to divide the plants, as they receive a serious check from this, which it takes a long time to recover from.

**Leigh Hunt**, in speaking of gardens on the street side of town homes, says: Imagine (what, perhaps, will one day be the case) whole streets adorned in this manner, right and left; and multitudes proceeding on their tasks through avenues of Lilies and Geraniums. Why should they not? Nature has given us the means, and they are innocent, animating, and contribute to our piety towards her. We do not half enough avail ourselves of the cheap riches wherewith she adorns the earth. We also get the most trivial mistakes in our head, and think them refinements, and are afraid of being "vulgar." A few seeds, for instance, and a little trouble would clothe our houses every summer, as high as we chose, with draperies of green and scarlet.

**Shifting Backwards.** "Did you really mean," writes Mr. B. H. Young, of San Diego, California, "that Fuchsias in being started from their dormant winter state should be shifted into pots a size or two smaller, as you said on page 38?" Yes, that was just what we meant to say. The remark was based on a long experience in Fuchsia growing. The reason for such a course is, that until the dormant plants referred to get fairly underway in growing, the soil in full sized pots—rich as it is likely to be—might become sour and be unfit for the roots before it was occupied by them. With the soil scant at the beginning, the roots can soon spread throughout the mass, taking in nourishment and moisture. Then as the soil proves inadequate, shift up into larger pots one time after the other as fast as required.

**Not in the Business.** Requests frequently come to us for catalogues of seeds, plants and so on, as if we were dealers in this line of things. Nothing is further from the truth. We haven't a thing in the world to sell but this paper and a few incidental books, we will not even offer seeds and plants as premiums, because we think it unfair to compete with those in this trade. We do aim to give every subscriber the full worth of his money or more, in the paper itself. When *POPULAR GARDENING* (unlike some other so-called garden journals) recommends a plant, it is from an unbiased standpoint, and not because it has some of the stock to dispose of. So don't send to us for catalogues, it will be a waste of trouble and expense. Apply to those who publish them and who advertise in our columns; or if they do not, who ought to. See the list of catalogues recently received at this office, given on page 63.

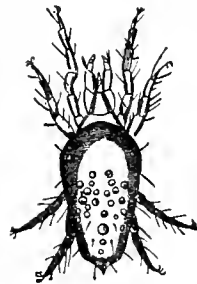
**A Fine Volume.** The members of the American Horticultural Society must feel that they are well dealt with, in return for what it costs to belong to this society, as they read the yearly volume of transactions, furnished to each one of them, not to speak of other advantages. Here before us lies the volume of this kind for 1885. It is a large, handsome, well printed and illustrated work of 257 pages. It is loaded with the wisdom of our prominent horticultural writers, as put forth in the essays and discussions delivered at the last annual meeting of the society. One such volume goes to each member. This thriving association should have many more members than it now has. Were these had, horticulture in general would greatly be the gainer. We would like to see the names of many of our readers enrolled. Full particulars, by addressing the secretary, W. H. Ragan, Greencastle, Indiana.

**The Red Spider.** Allow us to introduce this insidious enemy of the plant-grower by giving his portrait. But he is such a very minute fellow that we give it on a largely magnified scale. Our object in doing so is to show plant-growers, that this common and troublesome pest is not a spider at all, although it spins a sort of web. Many people hear about the Red Spider and look for it on their ailing plants, having the ordinary spiders and their webs in mind. Then they wholly miss finding the troubler. What they should look for, is a grayish discoloration on the under side of the leaves, and the scarcely noticeable web. Along with these

look for exceedingly minute and rapidly moving brownish insects, perhaps present in great numbers. This then is "Red Spider." It is very destructive, and yet there is one simple remedy that is sure death to it, namely, the free use of water in washing the under side of the leaves, and more moisture in the air.

**Double Poppies and the Railroads.** Perhaps these aesthetic and gorgeous flowers will soon be met along all our railroads at intervals, raising their heads and bowing to us as we speed by. At any rate, some French railroad managers have used of these plants with success for fixing the loose soil of newly-made embankments along their lines. They should succeed as well with us. Unlike the Grasses that are used ordinarily, but which need several months for developing a considerable mass of roots, the Poppy germinates quickly, and by the end of two weeks, it is said, grows enough to give some protection, with a rapid increase later. Though the plant is an annual, it sows itself freely after the first year. Let our own railroad officials give the Poppy a trial for such purposes. But *POPULAR GARDENING* suggests in the interests of the public, that distinct colors of the flowers be sown in different plots; this would add greatly to the effect, from an ornamental point of view.

**Grafting Clematises.** This is the course pursued in propagating the improved varieties; it accounts, in part, for the plants costing more than do those of most other climbers. A correspondent, who is at work in a nursery, thus tells in an interesting way about the operation: About the middle of February a few plants of each kind are placed in a slightly-heated greenhouse, and syringed once or twice a day. This treatment soon causes them to start, and as soon as the shoots are firm they are taken off and cut up into lengths for grafts, the two leaves and the piece of stem forming the inter-node being quite sufficient for each graft. The stocks upon which the grafting is done are the string-like fleshy roots of *Clematis Vitalba* or *C. flammula*, every root thick enough to take the graft being used. Either wedge or side grafting answers, and the tying is done with grafting cotton. Each grafted root is then potted into small 2 1/2 inch pots, the roots being twisted round in the pot so that the point of union is just buried. They are then plunged into a propagating frame, and very soon are ready to be hardened off.



The Red Spider—Greatly Magnified.

**Oleander Slips.** As the experience of our correspondent, "Aunt Addie," of Bergen Co., N. J., shows, it is much better not to give up in despair in floriculture, if our first efforts seem not at once to promise success. She writes: "The slip was given to me last June and I was sure it would root nicely, for there were two branches on the main stalk. Into a bottle it went, and the bottle in a sunny place. As late as November no roots were yet in sight, although the branches were fresh. I was disheartened and thought to throw the whole thing out. Off came a branch, then another; when my compassion arose in behalf of the pet, and plead to give it one more chance. So one branch was again put into water, and imagine my surprise and delight, to behold, only five days later, roots starting from the torn end. Now, at date of writing, the plant is well established in a pot of soil, and I see visions of floral beauty ahead." To which we add, that the trouble was in using too old and hard a section of growth, it having been a main stalk, with branches. The single branch was of a better age, as the result shows. See how patient the slip was to outlive ignorance, and do so well when it but had a chance.

### Prune When You Plant.

That a wide-spread need of common information on gardening matters prevails, is shown by the fact that about three out of every four persons who set out shade and

winds and cold, the root becomes overtaxed and enfeebled, and it will be a wonder if the tree escapes with its life—millions every year fail to do so. If it does escape, the chances are it will be stunted in nature, never to make the tree that a comrade would in the hands of a judicious pruner. Neither can free watering or rich soil ever make up for the absence of roots in a young tree.

### What Good Treatment Does

To claim that there is no difference in the merits of the different varieties of flowers, fruit or vegetables would be absurd. Yet we come forward to say that the differences here have less to do with results, than has the difference in treatment usually given by different growers. In other words, a good gardener will very often manage an inferior variety, to far excel some superior sort, in the hands of a poor cultivator.

At the annual fairs of the fall seasons, crowds stand around the exhibits of big Squashes, Pears, Pansies and what not, filled with admiration. They wonder at such amazing possibilities in the light, perhaps, of some scrawny and diminutive products of their own gardens. They do not see the fertile garden, the manure water tanks and the high tillage that are really at the back of the wonderful display. It would be well for gardening if something more tangible could be done in the way of exhibiting these. The products are there, the agents that produced them are too often lost sight of.

Now this is the season when the catalogues of seedsmen, nurserymen and florists arrive in grand array, to interest customers. They are a class of publications we are proud of—their value in promoting an interest in gardening matters, is beyond all measure. Much can be learned by reading these thoroughly, not excepting even the adjective-larded descriptions of novelties. But while we would not advocate poring over and studying the catalogues less, we would say, study methods of gardening even more. Let your hopes of success be based rather on good tillage and soil improvement, than on the special merits of the sorts and kinds to be employed, important as these are. Manure is really more potent than are splendid catalogue descriptions.

The true course in gardening of any kind, is to start right as to soil, fertility and good tillage. Then, with these, make a trial of the various standard sorts offered, to learn which are best suited to the circumstances of each particular garden, and for securing proper variety. We speak here, of course, to the inexperienced. You will be surprised in this way, to find

that often the sorts accompanied by the largest descriptions are not the best for your particular garden. Once a good line of sorts is struck, be slow to trifle with it in the way of supplanting good ones by new comers. But let some novelties be tried, of course.

### Clematises of Other Colors than Purple.

Perhaps the most popular hardy climber of to-day is the violet purple Clematis Jackmanii. This is easily accounted for, on the grounds, that the plant possesses numerous and exceptionally good qualities. It is an immense bloomer throughout the summer, and until freezing weather—in this respect being equalled by no other variety. The flowers are so distinct in appearance, with their intense, velvety richness, that they at once command attention. The plant is perfectly hardy, commences to bloom freely in its second year after planting, and never fails to produce large sheets of bloom while in health. It therefore advertises itself, and whenever once it is planted in a community, there seems to be no end to the call for the

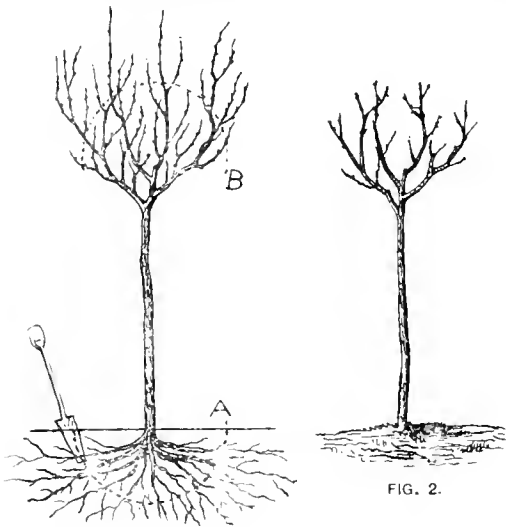


FIG. 1.  
THE TREE BEFORE AND AFTER PRUNING.

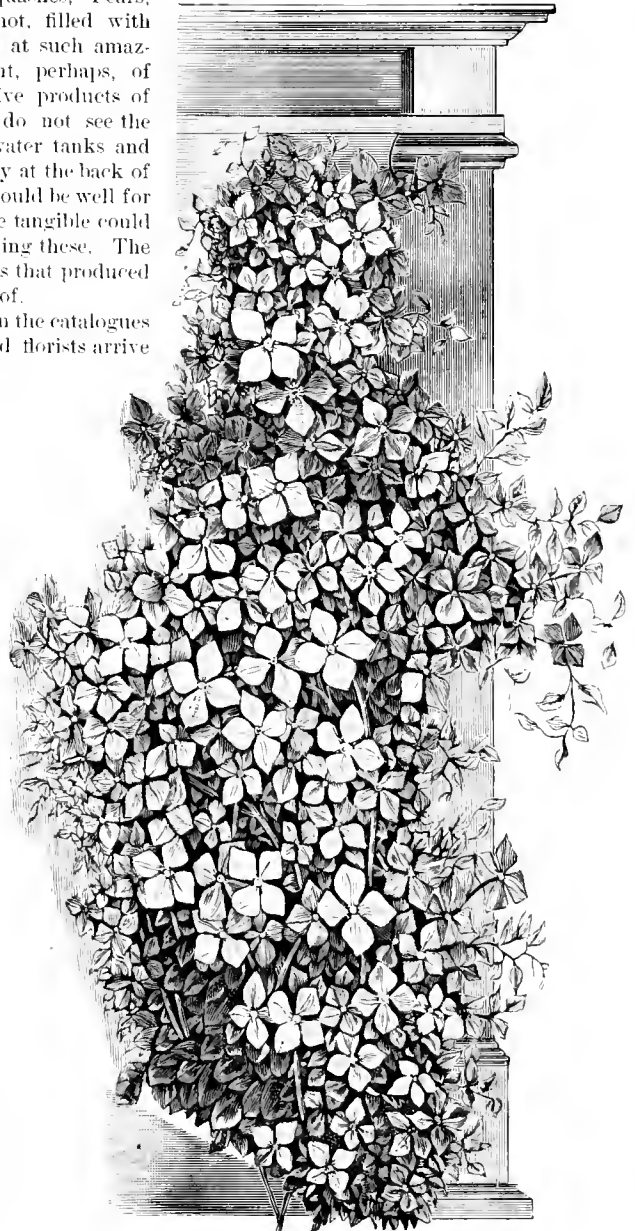
fruit trees, never prune when they plant. The one-fourth who do prune, embraces, we think, mainly the intelligent fruit-growers and other planters of the country, and they usually cut severely at this time.

Suggest such treatment to the non-pruners, and you are met with the response, that it spoils the tree; they don't want to wait a life-time for it to get large, by cutting one-third away at the start. We have drawn up an engraving, to throw light on the fact, that it is just the other way. The man who prunes freely at planting, gives his trees the best kind of a start for shortly regaining vigor in the new situation, and for rapid future development.

Fig. 1 shows a young, thrifty tree before transplanting, much as it is in reality, namely: with top and roots about evenly balanced, as to length of parts. Because the roots are out of sight in the earth, we fail often to realize what extent they have. But young growths, that are lifted with care, frequently show even a greater relative proportion of roots to the top, than is seen in the engraving.

Now, in the ordinary digging of trees, it is easy to understand by Fig. 1, that a large proportion of the roots must stay in the ground. If as many of these as are shown inside of the dotted line A, and of the spade, remain in digging, the planter may feel himself well off. With this view of the case, common sense at once would suggest that such trees should lose about the same proportion of the top, say about as much as lays outside the dotted line B. The head should not, however, be cropped off rounding. The better way is to cut back the last season's growth from one-half to one-third in the main, and remove some other branches throughout the top entirely, to reach the right measure. Fig. 1, should appear after pruning, about like Fig. 2 now does. Then the top will suit the root, the root the top, and with good planting, the tree will be in a promising shape. The same rule applies to evergreens and shrubs also.

To not prune at planting, gives the eye more to rest on at the start to be sure, but the tree is left in the sad plight of having more top than the remaining roots can support. Then come the vicissitudes of drouth,



A WHITE-FLOWERED CLEMATIS.

plants on the nurserymen who raise them. But the very fact that this plant is so conspicuous in beauty and so successfully grown,

tends to make it somewhat common in localities where a rage for it once exists. The object of this article, is to impress the fact, that there are many other species and varieties of the Clematis now offered by our nurserymen and florists. While few, if any of these can produce an equally large quantity of bloom with the Jackmanii, they

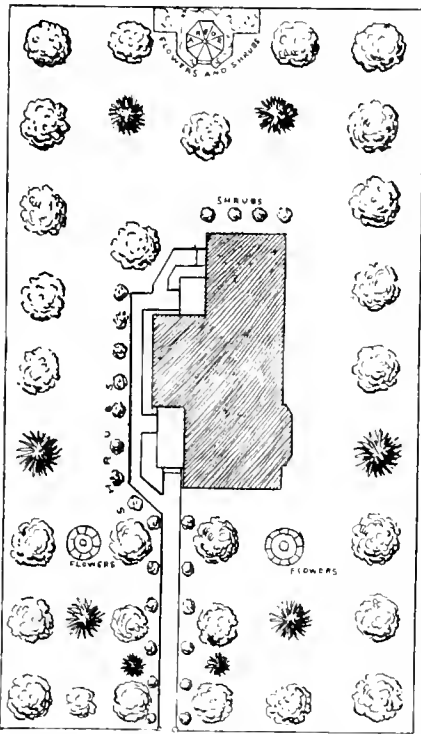


Fig. 1. Grounds Planted in a Stiff Style, Everything in Straight Lines.

are all attractive, and some, we think, are even handsomer, because flowering not in such solid sheets of bloom. Our eye finds more satisfaction, for instance, in several scores of the large white flowers of Otto Fröbel, or the pale lavender blossoms of Mrs. James Bateman, scattered over a given surface, than in several hundred of the smaller flowers of Jackmanii, over a similar area. This is especially true, after having become somewhat sated with the—in a degree—monotonous beauty of the latter.

Our growers are offering altogether some dozens of different Clematises that are well adapted to this country. The colors range from white, through French gray, lavender, reddish purple, claret, violet purple to mulberry black. By employing other colors largely, and not the violet purple of the Jackmanii almost alone, you will at least have the satisfaction in time to come, of not having it said that your Clematises are "like everybody else's," while the greater variety in color will be sure to be pleasing.

#### Straight Lines or Not, in Ornamental Planting.

Nature never arranges trees and plants in straight lines, it is man who does this. Nature displays lessons everywhere on how to dispose of the beautiful material she gives us in trees, vines and flowers, for creating effects to satisfy the eye and mind. Man takes of the same material, and seemingly with a lofty contempt of nature's suggestions, (as if that good dame did not know best how to arrange the material she offers) lays off squares and rows, and circles, and setstakes exactly in every fair-sized center, and at exactly the same distance apart on the lines,

and then plants by them. Then the wonder very often is, why we find so little real attraction in our own plantings.

It is our desire, to show by the aid of the accompanying two drawings, and a few brief remarks, that it is a great mistake to so utterly disregard the teachings of nature in the matter of arranging. We want to impress the idea, that the straight line in general planting should usually be dropped, as being at the bottom of most of our unsatisfactory planting.

Figure 1 shows home grounds, as often met, and which are planted with ornamental trees, shrubs and flowers, mostly arranged in straight lines. Figure 2 shows the same grounds planted with similar material, but with nothing set in straight lines. This we call the natural style of planting. Even the walk leading from the street to the house, is made to conform to the laws of beauty, as set forth in graceful curves.

It does not need more than a careful glance at these two plans, to show how well the natural style of arrangement is adapted to small grounds, and how vastly superior it is to the stiff, straight-line style for affording real satisfaction. Study figure 2 and one may find even here on a small plat, that strength of character, that freedom, that breadth and openness, which give to the natural landscapes and woods their greatest charms. In figure 1 these are largely absent.

Let another important point be noticed in the two plans shown. While there is precisely the same breadth of lawn between the house and the boundary on each side, in the two, there seems to be a much larger area on all sides (observe especially to the front and rear of the house) in figure 2 than in the other. This is a matter of great significance, for if one can lay out, plant and keep up a lawn of just one acre to appear as large as an adjoining plat that is really one and one-half acres, and requiring such a surface to be prepared, mowed and otherwise kept up, that certainly is a great gain, say nothing of the beauty. And such a gain always presents itself in some degree in natural plantations over more formal styles of arrangement.

Let us in conclusion lay down the three fundamental principles involved in natural arrangement, so that all our readers may become familiar with, and apply them in practice. First, absence of straight lines, so far as all leading features are concerned (in some future number we will take up this matter further, and show where the straight and geometric lines in planting may be applied). Second, arrangements mainly in irregular clumps or open groves (see upper right hand corner), with each class of growths such as shrubs, evergreens, etc., mostly by themselves. Third, the presence of open central areas of lawn here and there in conspicuous parts. This last matter is one of the most important, that can engage the attention of planters, and yet it seems to be the one most frequently disregarded.

#### Popular Gardening's Select Lists of House Plants.

To aid our readers, and especially the inexperienced, in the work of making good selections of house plants, herewith are offered three lists of what we can recommend as among the best, if not the very best plants suitable for this purpose—sixty altogether. It may be that we have skipped some very excellent ones which ought to be included

in one or the other of the lists; perhaps some of our readers with wide experience in plant culture, would substitute others or change them about in the classes. We invite them to do so, and at some future time will be glad to publish their suggestions.

At any rate no one can go much amiss, to rely directly upon the selections here made.

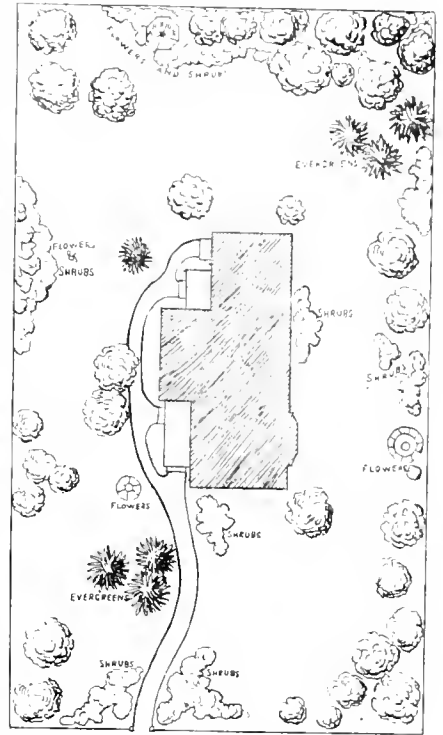


Fig. 2. The same Grounds Arranged More Naturally, with Nothing Set in Straight Lines.

Adaptability, ease of management and attractiveness, were the leading points kept in mind in making up these lists:

#### 10 HOUSE PLANTS WE CLASS AS BEST.

Aspidistras.	Begonias, flowering.
Calla.	Ficus or Rubber Tree.
Geraniums.	Hyacinths.
Ivies.	Oxalis rosea.
Pandanus or Screw Pine.	Tradescantias

#### 20 HOUSE PLANTS WE CLASS AS 2ND BEST

Abelias.	Agapanthus.
Amaryllises.	Cactuses.
Cobea Scandens.	Dracaenas (Cordylines).
Farfugium grande.	Fuchsias.
Laurustinus.	Maurandya.
Myrtle (Myrtus).	Oleander
Petunia	Primrose
Pteris Ferns	Roses.
Tulips.	Vallota
Narcissus.	Wax Plant.

#### 30 HOUSE PLANTS WE CLASS AS 3RD BEST.

Abutilons.	Aralia.
Alyssum.	Aucuba Gold Dust Tree
Azaleas.	Balsam.
Carnations.	Catalonian Jasmine.
Chrysanthemums	Cuphea - Cigar Plant
Cyperuses.	Cyclamens.
Cytisus.	Euonymus.
German Ivy.	Heliotrope
Hydrangea	Lantanas.
Leon or Orange.	Lobelia
Lycopodium	Mahernia.
Mignonette	Neprolepis Fern
Palms.	Pittosporum.
Peristrophe.	Richardia
Solanums, &c	Stocks.

Beyond these selections, there are many other plants, which those who are well versed in plant culture would succeed with about the house, under fair circumstances, and which all plant growers might try with some hope of success. Neither has any special reference been made, to kinds that are suitable for the fernery or Wardian case.

### Do You Grow Allamandas?

Whoever can gain access to winter quarters under glass, having a temperature of 50° to 60°, for some good sized plants, ought to be able to grow Allamandas. The genus gives us some of our most desirable stove and greenhouse plants; their management is quite easy. They are much grown as climbers, but some of the sorts are readily managed as pot shrubs.

In this place we invite notice to several of those Allamandas that are most suitable to grow in the bush form. To illustrate our article we were fortunate in securing the use of a fine engraving of one of the sorts, *A. Hendersonii*, from the catalogue, and through the kindness, of Messrs. Hill & Co., who are growers of Roses and other fine plants at Richmond, Indiana. The engraving shows the flower reduced in size, the individual blooms being usually three inches and upwards across. The color is a soft golden yellow, tinged with brown on the outside, and very agreeable to the eye. In form and texture the flowers are really charming. Add to these qualities the fact that they are produced in great profusion for about nine months in succession, and the appreciation with which the plant is held by those who grow it, is easily understood.

Another species quite as desirable as the last, but with smaller flowers, is the Oleander-leaved Allamanda (*A. nerifolia*). On account of its floriferous habit through many months in succession, it is unequalled for decorative purposes, while as an exhibition plant this Allamanda is excelled by none. The leaves are decidedly handsome.

Of late years the shrubby Allamandas have gained some fame in eastern cities as out-door summer bloomers. For this purpose they are grown under glass from September until May or June, when they are plunged, pot and all, in the flower border for the summer. It should be added that the time to shift the plants is just previous to putting them out into the summer border. One thing that goes far towards making the culture of these plants a pleasure, is their singular freedom from insects. They are treasures, for this.

Allamandas require but ordinary good soil, say such as consists of two parts rotted turf and one part of thoroughly decomposed manure. A little sand added is very useful. The plants enjoy good drainage in the pots, free watering and syringing when in a growing state, with an occasional treat to weak liquid manure during this period. To grow large specimens never allow the subjects to become pot-bound. In the winter months Allamandas require but little water. The time of pruning is in January or February of each year. Plants can be bought of the leading florists, including the firm referred to above, at 25 cents and upwards each. Such are of small size; they grow quite rapidly.

### Amaryllis and Other Flowers.

Our new correspondent, Mrs. S. A. B. Sherwin, of Minnesota, may well grow enthusiastic over her Johnson's Amaryllis and Petunias, for both are among the best of house plants. It is no strange thing for the former to bloom in the latter part of winter. Here is her letter:

"My Johnsonii has surprised me this winter, by throwing up two flower scapes, each developing one lovely blossom, another is to follow. My other varieties are growing thriftily, but show no signs of bloom as yet (Feb. 10th). What pleasure flowers do afford at this season. I must tell of my grandiflora varieties of Petunias last season: The flowers were enormous and of such dazzling brilliancy that they attracted all passers. Many could hardly believe they were Petunias. No ordinary varieties for me after this. I would say that the grandiflora strain of Drummond's Phlox is also superior: the flowers are larger than others, and each with a large white eye.

"Well, sisters of the *Floral World*, we find ourselves transferred to pastures new, but with the same common interests. Let us feel at home, write our letters as of old and do what we can in the good work."

### Selecting the Garden.

BY N. J. SHEPHERD.

Where a garden is to be selected pains should be taken to secure the best site. It should be convenient to the home; it should be accessible with team and wagon, that manure drawing, plowing and fitting up the soil can be done without unnecessary trouble.

Good drainage is very important. Often a piece of land can be chosen that is naturally under-drained; if not, then thorough tile draining should be done, or a good and early garden is out of the question.

A plot that slopes to the south or southeast, is better than one that is flat or sloping otherwise. Either an eastern or a western slope is



ALLAMANDA HENDERSONII

better than one to the north, for such an one takes a long time to warm up in the spring.

For soil, a light loam should be the first choice. You can make a garden on clay soil, by bringing some lightening material in addition to manure to it, but this calls for a good deal of work, and when done it will never till as readily or warm up as early in the spring as lighter loam. A cold, wet soil is always unsatisfactory. Light sand or gravel do not make the best of gardens, but by the use of enough manure, either one may be rendered passably good.

A good size for a family garden, is fifty feet wide by one hundred feet long. The advantage of having it in this shape is that a large share of the work of preparing the soil, and even of tillage, can be done by horse power. As compared with man or women power, horse power is so much cheaper, that its employment should be much more common about gardens.

Shelter from cold winds is important. If the natural lay of the land or the near presence of the farm buildings do not effect this, then a belt of Evergreens on the north and west sides should be provided. It is not desirable to have either buildings or large trees so near to the garden, that they will shade the surface.

### For the Fun of It.

Mr. S. Q. Lent, a correspondent of the *Michigan Horticulturist*, has some notions about gardening, with which we quite agree. He says, in substance, that he wants to see people

do more in raising flowers, fine trees, fruit, etc., for the comfort and satisfaction they bring, and not forever singing "wasted time" or "money out of pocket." Money is not good for anything unless it makes us more comfortable and happy; and time isn't worth saving unless we can spend it in some way to enjoy it. A lady may spend her time the whole summer long in growing a set of plants that shall take the first premium at the fair; the prize may be almost nothing, but there is no measure to the enjoyment gained by the effort.

A little girl may spend a large amount of time in growing a seedling (geranium until its flower is opened. The flower may not be as good as thousands of others, but she has grown this one as her own, has enjoyed its development, and if she has had the sympathy of her parents and the family, she has secured "lots of fun" out of the experiment.

We have a great deal of sympathy with the amateurs who are growing flowers, plants, vegetables and fruits, not for what they will bring in the market, but for the enjoyment of watching for new forms, colors and flavors. No time or money is ill spent that contributes to the true happiness of the one who spends it, and besides adds, as everything about gardening does, joy and comfort to the household.

### The Rochester Convention.

When the leading fruit growers, who have made Rochester and Western New York famous for nurseries and orchards, get together on a winter's day to talk over horticultural matters, the sparks of wisdom must fly. Such a meeting was the one held by the Western New York Horticultural Society in the last week of January. There were present, Patrick Barry (who is president of the Society), J. J. Thomas, George Ellwanger, Dr. Hexamer, Chas. A. Green, and more than 150 other prominent nurserymen and fruit growers, all brought together to discuss an interesting line of subjects. The following is the substance of the leading ideas brought out:

President Barry: When fruit is sorted, and only the best sent to market, you may keep the other grades at home, and the gross receipts would be nearly or quite as great. . . . Fruit crops may soon be doubled by enriching the soil, good culture, careful pruning, thinning, gathering, packing. . . . With the low prices of last year, results on the whole were more satisfactory than farming. . . . For winter storage uses, a barn over a cellar, the walls of which (the barn) are double sheathed with straw between the layers; double doors; the cellar provides some warmth; during severe cold straw mats are thrown over the boxes and barrels. . . . A new Weeping Apple was mentioned, as suitable to plant, both for fruit and for ornament.

J. J. Thomas: Keep the young on the farms by making the surroundings attractive. . . . Hire men who loathe themselves, that the women folks may have time for rest and culture. . . . Reported profits of some Black Cap Raspberries, at \$200 per acre, the fruit selling at 8 to 16 cents per quart; Strawberries \$300 per acre, fetching 5 to 8 cents per quart; one grower realized \$80 for one-fourth acre of Strawberries; an Apple orchard gave 144 bushels per acre, at from \$1.25 to \$1.50 per bushel, a part planted to Potatoes yielded the best fruit. . . . Three best market Plums, Bradshaw for early, Lombard for medium, Riene Claude for late. . . . Best fertilizer for Plums, he finds is barn-yard manure. . . . Plum rot in the fruit is no doubt caused or increased by over-bearing. . . . Pears on a mowed lawn yield fine fruit.

Chas. A. Green: Fashion demands birds for millinery purposes, and insects increase. . . . Estimated ten millions are slaughtered in America every year. . . . One swallow will kill more insects than a farmer with his Paris Green mixture.

Dr. Caldwell: Salt does not add fertility to land but only makes fertility more available. . . . Salt is not so good an absorbent as earth, plaster or gypsum, does not prevent escape of ammonia. . . . Salt keeps manure moist and prevents fire-fang.

On Raspberries: With Mr. Van Dusen the Shaffer produces more than any other red.

Reported to have yielded 4,500 quarts per acre on light sandy soil.

The Marlboro deserves more attention; is healthy, vigorous, productive, of acceptable quality. Hansel has not done well in Western New York.

Grapes: For keeping, Mr. Saunders deems the following points important: uniform temperature, darkness, packing simply in baskets as for marketing. Concord is now as fresh as when gathered. Bagging before ripening prevents damage by rot, birds, insects, fowls, and aids better perfection. The Worden has too delicate a skin for distant shipment; early, hardy, productive.

Average yield per acre of Concord is from three to five tons. Protect young vines for two or three winters after planting.

Miscellaneous: Dr. Hexamer reports salt as of no benefit to Asparagus. Mr. Caywood gets no Quinces without applying salt.

Others use salt for Plums and Pears with good results. Apples have a choice of soils. Mr. Woodward covers joints of tile in the orchard with cement, to keep roots from entering and clogging them.

Mr. Caywood dusts slacked lime over Cherries and Plums in fruit after showers, to ward off curculio and other insects.

### A Favorite Vegetable—The Pea.

Among green vegetables few, if any, are preferred above the Pea. To be most delicious it should be in its half grown state, and properly served; then it affords a dish to suit the most fastidious taste. The Pea has this advantage over most other vegetables; it can be grown on land not rich enough for most kinds of garden crops.

The Pea succeeds best on light soil. To keep the table well supplied, sowings should be made as soon as the ground can be worked, and then every fifteen or twenty days apart up to the middle of June. After that it would, for some time, be useless to sow, as a rule, for the Pea is not much of a hot weather plant. By sowing an early sort, again about the middle of August a fine fall crop may often be raised.

In the kitchen garden, Peas are usually "brushed." As this is in itself something of a task, a saving may be made in furnishing brush by sowing two rows of Peas to one line of brush. In this case the two rows are brought within eight inches of each other, with the brush between. Then a space of two feet is left on each side of the double line for a passage-way. About one quart of seed is needed for each seventy-five feet in length of single drill.

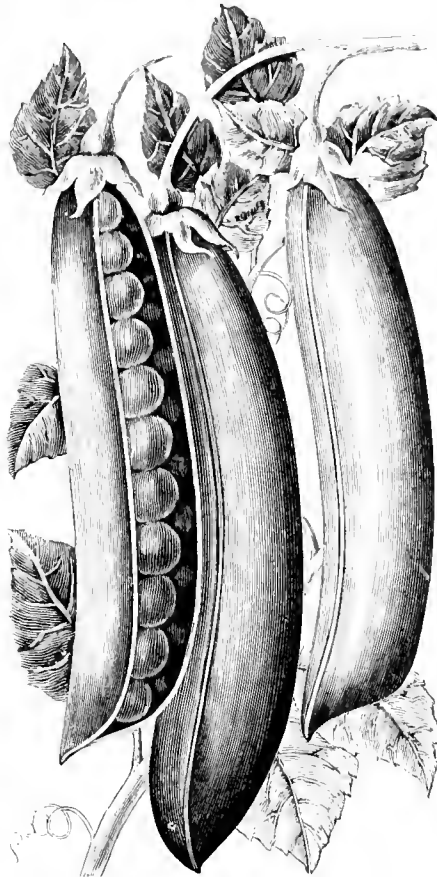
In field culture brush is seldom used for support. The seed is often sown broadcast here, but a better way is to mark out with a one-horse plow, rows three feet apart, and sow in these. Some well decayed manure or bone fertilizer may be applied in the furrow at the same time. One bushel and a quarter of seed will go over an acre. A hundred or more bushels may be counted on as the crop per acre on good soil.

The varieties of garden Peas are numerous, their names are vastly more so. A good collection for family use might embrace the following: First of all, American Wonder, McLean's Little Gem for earliest; Champion of England, White and Black Marrowfat, and Stratagem for general crop. The engraving is of the Stratagem, which is a fine wrinkled Pea.

### Petunias and their Culture.

The progress already made in improving the insignificant looking species of the Petunias that were first brought from South America, some fifty years ago, has been most remarkable. Our seedsman all now offer the fruits of this improvement, in the shape of fine seeds, that may be relied upon to produce a large percentage of very fine flowers. Although tender evergreens, the plants of which may be kept up indefinitely, it is better to raise young plants every year. Seed may be sown this month in the window or greenhouse in pans filled with sifted loam, to which has been added some sand, and if it is had, one-fifth of leaf-

mould; cover the seeds slightly and stand in 60° of heat, and they will start quickly. When the plants can be handled, move singly into small pots, giving them soil similar to that first



STRATAGEM; A WRINKLED PEA.

used; keep close for a few days, then admit more air, and plenty of light. Nip out the points of the shoots as soon as they begin to grow freely, giving a little shade from midday sun, with air and water as required. In six weeks move them into 5 or 6-inch pots, now using the soil without sifting, and adding to it some rotten manure; again stop the shoots, and after they have grown so as to need support put small sticks to each. By this course you may have plants that will bloom all summer, and if assisted with manure-water once or twice a week, even much longer.

**Fruit Culture in Manitoba.** An official report of the Manitoba Department of Agriculture, states that, generally speaking, for that region, ordinary fruits are abundant in their season. Among the fruits cultivated, the principal are currants, gooseberries, strawberries, apples, plums, raspberries and crab apples. Of these, currants, gooseberries and strawberries are the most generally grown and with the most success. Apples have not been wholly satisfactory thus far, but experiments are being carried out with kinds from northern latitudes, the results of which will be watched with interest.

When a gardener for any reason gets so enthusiastic over the use of artificial fertilizers, that he thinks they can as well as not wholly take the place of stable manure, he is, as a tiller of the soil, on the road to ruin. Turn right about face! Stable manure is the stuff.

**Culture for Pears.** Mr. Patrick Barry tells us that in his wide experience, he has found that Pears yield the largest crops and the finest quality, if the soil is kept cleanly tilled, but not so deep as to disturb the roots. Mr. Barry knows about these things.

The new Canadian Grape, Jessica, is said to have given great satisfaction in Canada last year. Such having been the case thus far north, and in a season not at all favorable to the Grape, indicates well enough for the sort.

**Faith in the Kieffer Pear.** John S. Collins, of Moorestown, N. J., claims to have this, and would seem to strongly show it by his works. He states that he has an orchard of 10,000 trees planted to this variety alone.

Given a temperature of 32° with moderate moisture, and the Roxbury Russet Apple will keep no one knows how long.

Clover, *The Nashville American* says, is "the grand elixir of our agricultural life."

Plant steep and rocky hill sides with the Apple.

It's the early gardener that catches the high prices.

A feeble young tree rarely amounts to much.

Fruit gardens are often over-crowded.

### The Readers, the Paper and the Editors.

OUR POPULAR GARDENING Family, with having received last month a new accession of members from the *Floral World*, is now not only an extensive one, but it is growing more rapidly than ever. There are members in every State in the Union, in Canada and other foreign lands. But however near or far apart we its members may be, all must be possessed of the one desire to find increased pleasure and profit in gardening.

Now the sum of knowledge concerning gardening matters, possessed by the members of our family, is in the aggregate very great. Could this be properly set forth so as to be available to all members, its influence for improved gardening would be vast. If kept hid, its power for good will mostly be lost.

But POPULAR GARDENING designs that the light of our experience and knowledge shall not be covered as with a bushel. The paper is here as a means of family intercourse. It is the mouthpiece of every member to speak to all other members. The departments are all open to their letters.

So we want every one of you to be sociable, speak out and get acquainted. Tell us how you manage your flowers, fruits, etc. Sister A., of Maine, Sister B., of Maryland, Brother C., of Minnesota, and so on all through the family. There will be nearly 20,000 others who will be glad to read what you have to say. Tell us what you know, and what you don't know but would like to. Occupy every department of our paper, and please observe that we want to hear of the useful little things as well as the great things of popular gardening. Whatever you meet when at your work that will be of real worth to the family to know, out with it.

The editors of POPULAR GARDENING, however, must lay down one or two restrictions in the interests of the common family good, as regards correspondence. First, we desire above all, to print facts; our columns are too much crowded to admit of long, spun theories, fancies or rambling talk. So we say give facts, and "be brief, evermore be brief."

Let each one who writes, bear in mind the rule which has made this paper so successful: "When ten lines will answer any end, twenty won't be used; if ten words will do, then ten lines are not admitted." Whatever is printed must be worthy of our near 20,000 readers (that is a large number). Postal cards, let us say, are a great convenience for family intercourse, for here we don't stand so much on the form of things. As for poetry, little can be admitted; it must be of a high order. Sketches of appliances and methods are always acceptable, in many cases they will be engraved for our pages.

With these various remarks let no member of the family be frightened with doubts as to their ability to write well enough for this paper. Our editors are of the "family," and whenever necessary, they will most gladly see to it that your ideas are set forth clearly and with credit to yourself. It is due to them to say that they are practical gardeners, who are as apt with potting stick, pruning knife and plow, as with the pen. They can follow and shape up a line of ideas in unskillful composition concerning gardening matters, as easily as to clean up a row of young Pansies or Peas in the midst of early weeds. They can also prune down "over grown" articles to the good of the same, as readily as to overhaul a greenhouse full of rampant growths, or dress up an orchard.

Of course these remarks do not apply to all our correspondents, but they are made to encourage every member to send in something. As for the drawings alluded to, send such along, however crude they may be, our artists can catch the idea, and bring them out in good shape.

Members of the POPULAR GARDENING family, let us hear from each one of you through the pages of this, our medium! Everybody send something

# FLORAL FASHIONS & FANCIES

When all the autumn leaves were pressed,  
Sighs from the maiden's bosom came;  
Her heart with sorrow was oppressed,  
For life was now without an aim.  
But, as one pleasure takes it flight,  
Another comes and grief's assuaged;  
The maiden has a new delight—  
In horticulture she's engaged.  
The upright grand no more she plays,  
The banjo's strings no more she thrums,  
Enraptured by the latest craze—  
She cultivates Chrysanthemums.

—Boston Courier.

Oh, March! we know thou art  
Kind-hearted, spite of ugly looks and threats,  
And out of sight, art nursing April's Violets.

—Helen Hunt.

The plummy Astilbe is in.

The Lover's Knot is still in vogue.

One florist forces Clover blossoms.

Floral muffs is one of the latest ideas.

How increased sunshine does suit Violets!

Water Lilies are brought from the South.

The Red Tulip signifies declaration of love.

Spring flowers have a fascination of their own.

Flowers are as gaudy during Lent as at any time.

Marechal Niel buds sometimes weigh an ounce.

Would the Forget-me-not really be as pretty by any other name?

Orchids have taken the place sometime held by Orange blossoms at weddings.

The exquisite Swanly White Violet is a favorite flower for boutonnières on evening dress occasions.

Home Dinner Favors. The leaves of the India Rubber Tree, with the name of the guest lettered on them in gilt. They are in use.

Let our fashionable belles assert their rights, by refusing to carry the monstrous stiff "mushroom bouquets." Good taste surely repels the innovation.

To wreath the hand-rail of the stairs with costly orchids, as on one late occasion was done, seems to be carrying decoration too far. Suppose there be a lame guest present, who needs the rail to lean on.

Not an Elephant Either. One of the wedding presents received at the recent marriage of Princess Marie d'Orange, has a queer sound to American ears. It was from Baron Edmond de Rothschild, and consisted of a splendid collection of orchids, estimated to be worth 25,000 francs, (\$5,000).

Have flower lovers noticed how satisfactory is the loose arrangement of some simple kind of a flower in a receptacle of quiet form and color? It's the way we want cut blooms displayed on our own table. There should also be foliage of the same kind of plant intermixed when possible. Even a few leaves are better than none.

He Didn't Young Mr. De L., in the conservatory. May I present you with a bud, Miss Societe, from this beautiful plant? Miss Societe (blushing)—Oh, thank you. You are very—Fairly of the Household (tripping in)—I guess papa wouldn't like you to pick any of the flowers; they are only rented for this evening.—N. Y. Sun.

Some of the pieces at Mrs. Secretary Bayard's funeral, are thus described: At the head of the casket rested a pillow composed of large white Camellias, interwoven with Maiden Hair Ferns, an offering from President Cleveland. There was one massive cross of purple Violets, with a bunch of Callas bursting from the centre. One pillow was made of Violets, bordered with Lily of the Valley.

Violets, with their impression of modesty and their sweet clean perfume, are very much sought for the corsage bouquet. These are made up in shaded effects like those of Roses and Carnations. The top of the bunch is composed of the pale Neapolitan Violets, then follow the deeper Marie Louise, and after these the dark purple (Zar, and the single Russian Violets. In making up Violets all matting of the flowers should be avoided. The more they show footstalks and foliage the prettier the cluster.

A floral-gift to new-born babies is quite in order. The cradle, in a small pattern, filled with bright Roses, and other delicate flowers, stands of course, at the head of appropriate designs. Still there are some others, quite as suitable, and more dainty. One of these is a pair of tiny silk socks, filled with delicate flowers. They should be fastened together

with narrow ribbon. If one contains sprays of Valley Lilies and the other Forget-me-nots, and some bright Rose buds, they will be exquisite.

**Smilax in England.** When the writer was in Europe, in 1881, he never once came across this plant, now so famous in America. Well-informed gardeners there knew of it, if they did not grow it, but again and again when florists were asked about Smilax, or more properly *Mysisiphyltum asparagoides*, they had never heard of the plant. However, it seems that our British cousins are slowly waking up to its worth, and some of them now grow and use it, judging by this item in a recent issue of the *London Garden*, on table decorations, to wit: "We find that the Smilax or *Mysisiphyltum asparagoides*, which is largely employed in table decoration in America, gives great satisfaction here also, and we cultivate a number of plants now, especially to afford a good supply of thriving growths." Americans are entitled to the credit of discovering the great merits of this plant for decoration purposes. First introduced by the English from the Cape of Good Hope as far back as 1702, it was soon discarded. Again it was received at Kew, in 1861, and from there it was disseminated American florists being the first to rightly appreciate it. Having been taking lessons in gardening from the English so long, it is some satisfaction to be able, once in a while, to give them points like this one, concerning the use of Smilax.

## Botanical Budget

Scab on Apple is like mildew, a disease.

Shelf Fungi four feet across have been found.

Root fibers are analogous to leaves, being renewed annually.

Wheat naturally an annual, becomes biennial by fall sowing.

Roots absorb, stems transmit, and leaves digest the plant's food.

In the main the line of plant migration has been from west to east.

Because of the bright yellow wood of the Barbary, doctors formerly administered it for jaundice.

One Sequoia or Giant tree of California which has fallen, measured 31 feet in diameter and 363 feet in length.

A study of plant distribution, shows a marked tendency in the smaller order of plants, to localization in a portion of the globe.

It is rumored that Prof. J. M. Coulter, of Crawfordsville, Indiana, will succeed the venerable Asa Gray, at Harvard College, who desires to retire because of advancing years.

It is a singular fact, that of the two known species of the Podophyllum or May Apple, one grows here and the other in the far-off Himalaya region. How is this for the theory that different species have descended from the same parent plant, something as varieties have done.

Mr. Henry Shaw whose well known generosity has done so much for horticulture and botany about St. Louis, Mo., has founded a school of Botany, endowing it with real estate, which even now produces an income of \$5,000 a year, and turned it over to the city of St. Louis as a gift, it being made a department of Washington University.

Mr. Sturtevant, of Bordentown, N. J., has met with great success in naturalizing the Nelumbium speciosum or Sacred Bean of India in his vicinity. The plant covers about half an acre in a mill pond near his home. Its growth is said to have been marvelous during the past season, as many as a hundred of the noble flowers appearing daily. This plantation affords in its season one of the most wonderful exhibitions of plant life to be found outside of the tropics.

The internal structures of leaves of the same species often varies according to where the plant grows. For example, if it is exposed to the light and air, its palisade cells will be well developed, its fibrous tissues the better marked. If growing in water, the inter-cellular and aerial passages will be large in proportion, and the frame work thin and weak, inasmuch as the water supports the leaf, thus requiring no stiff frame work. Plants of different species vary a good deal in relation to the effects of air and light on plasticity.

The Spring-flowering Oxalises are in bloom. They are among the prettiest of small flowering plants, showing much beauty when the sun shines enough to open their blossoms. In dull weather the buds have been known to decay, without having once been wooed by a little sunlight to unfold. The leaves too, fold at night—a very general habit of the whole family. Mr. Darwin spent many hours of patient watching of the sleep movements of the

Oxalises, as we may see in what he says of them in "Movements of Plants."

**Ferns.** Abundant as these are in the United States, they are vastly more so in tropical America. They reach their maximum concentration amongst the dripping rocks of the higher level of the Andes, the forests of their slopes and ravines, and the dense humid flats that border the innumerable branches of the Amazon. They require shade and a damp atmosphere, hence are the most abundant in their native fastnesses, where the sun's rays and the wind never penetrate. The geographical distribution of this order may be summarized something like this: Tropical America, 950 species, (42 per cent. of all known ferns); tropical Asia and Polynesia, 863 species, 427 being peculiar; tropical Africa and islands 346 species, 127 peculiar; temperate South America, 153 species, 21 peculiar; temperate North America, 114 species, 37 peculiar.

## Inquiry Column

This being the People's Paper it is open to all their Inquiries, bearing on Gardening. On the other hand, answers to published inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them, to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer; give facts and ideas and the editors will see that they appear in creditable shape.

In writing, give the number of the question you are answering; your locality and name, the latter not for publication unless you desire. Write only on one side of the paper.

Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that these be fully prepared. Third, that several specimens of each reach us in good shape. We cannot undertake to name "rich" varieties.

36.—**Petunias.** What makes the leaves of a young growing Petunia curl back, and then the plant itself collapse later? What is the best soil? MRS. L. S. H. GRAFFAN.

37.—**Propagating Roses.** What is the best method of Propagation? Can Hybrid Perpetuals be raised from seed? G. Q. S. MASS.

38.—**Violet not Flowering.** Mine is seven months old and thrifty, but does not bloom. Who will tell me why? FLORA, Holliston, Mass.

39.—**White Worms in Pots.** How can I prevent those minute worms doing injury in the flower pots? How can I destroy them? MARIA.

40.—**Camellia.** How old must a Camellia Japonica be before it blooms? What treatment ought it to receive? MARIA.

41.—**Geraniums.** I would like to know of a sure way of keeping through the winter, in the cellar? I mean such as have grown in the garden all summer, and are too large for pots? Heretofore, I have lost every one in the cellar. MAATA.

42.—**Sword Fern.** Are the plum-like growths in the Sword Fern poisonous? E. G. O.

43.—**Hardy Plants for Shade.** Please ask in your Inquiry Column for a list. E. D. R., Flushing, N. Y.

44.—**Books.** Will you give a list especially adapted, with information, for window gardening and for the house conservatory. MARY L. DISBROW.

45.—**Conservatories.** I would be glad to see an article on these, their size, location, arrangement and conveniences as best adapted for "non-professional" care and for the home. MARY L. DISBROW.

## REPLIES TO INQUIRIES.

38.—**Violet not Flowering.** The trouble is you have kept the plant too close and warm. The runners must also be kept down. A. H. E.

39.—**Tacsonia.** J. G. H. will find Tacsonia's grow easily from seed, but they are long coming up. Sow in early spring, in a temperature of 60°, here to be kept until the plants are 3 feet in height.—MRS. R. W. B., West Edin., Pa.

43.—**Hardy Plants for Shade.** On our place the following succeed well in a shady yard: Sweet Violets, Dicentra or Bleeding Heart, Bloodroot, Trilliums, Hepaticas, some Campanulas, Vinca, Moneyvine, several of the Herbaceous Spirae and Saxifrages, among plants; Tree-box, Privet, Ivy, Daphne and Kalmbas, among hard wood growths. A. H. E.

31.—**Bouvardia.** This plant is not strictly a perpetual bloomer. By growing young plants during the summer, keeping them bushy by trimming back occasionally, they will, with careful lifting and handling, flower very freely at intervals later, under glass. W. H. BANKS, Galesbury, Ill.

35.—**Puny Fuchsias.** We advise cutting in and shifting backwards (see note on page 65, this issue) into light, rich soil; if of decayed turf, with fine old manure and sand added, the best results may be expected. Eds. P. G.

33.—**Puny Geraniums.** I would encourage the sprouts to grow, and later cut away the parts with small leaves. Root seems to be in better order than is the top. MAS. H. M. GAARON, Willoughby, Maine.





### Treeclimber's Talks.

#### THE PINEAPPLE.

There are several reasons why I open my talk to the young gardeners of America this month by alluding to the Pineapple. One of these is that the fruit is American, being a native of the countries from Mexico southward to Brazil, hence it is well for us to know all we can about it. We may feel that we have little to do with, and are far from Mexico and South America, and this as regards most readers of POPULAR GARDENING, is true. But if you were to travel abroad, and talk with foreigners about Pineapples, Orchids and like plants that are peculiar to some parts of the Americas, you would very likely find, as I did, that they would quite naturally

#### EXPECT YOU TO KNOW

all about these things, precisely as if they grew right about your home. This places one, under such circumstances, in an awkward position, if he knows little or nothing about our noted American plants. To blunder out, as some most likely would have to, that you never knew the Pineapple was American, would at once show you to be very ignorant, in a well-informed foreigner's estimation.

Another reason for speaking of the Pineapple here is, that this delicious fruit of the tropics quite readily submits to

#### CULTIVATION UNDER GLASS

in northern regions. This can not be so well said of all tropical fruits. Not only is the raising of the fruit under glass not very difficult, but the product here is far superior in size, quality and beauty to the fruit we meet in the markets. This is to be accounted for in two ways: first, the imported fruit is gathered in an immature state, to aid its keeping. Second, the cultivated varieties have been much improved just as most of our garden fruits have also been. I trust that among my young readers there are many who take enough interest in gardening, that in time, they will be situated so they can try their hand at this fine branch of under-glass gardening. Not only will they find the plant interesting for the fruit it bears, but as may be seen in the engraving, it is also decidedly ornamental. There is a variety which has beautifully striped leaves that is solely grown for ornament.

You understand, of course, that if the Pineapple is a product of an American plant, it is

#### A COMPARATIVELY NEW FRUIT

to the world. Of the Banana, Orange, Coconut and other well-known fruits, it may be said, they have been known and cultivated from remote ages. The first Pineapple was taken to Europe only in 1555. It was received, among other products of this newly discovered country, with great interest. Sometimes its singular appearance seems to have incited fear. It is said, for instance, that the suspicious king, Charles V, of Germany, when given a handsome Pineapple, mistrusted it, and would not taste it. Every boy or girl who reads this knows better about the fruit than this king did, hence is just so much better off.

While the Pineapple is a native of America, it has been introduced into the tropical parts of the Eastern hemisphere very generally, by the present time. I but lately read an account by a traveler in the Congo Valley of Africa, in which he speaks of this fruit growing wild

#### AS COMMON THERE AS BLACKBERRIES

do with us. He tells how this was brought about, but before I relate this I ought to explain that the plant propagates by suckers appearing

below the fruit, and which root readily when the fruit is mature. The top of the fruit will also root and make plants.

This traveler says that along the trade routes of the Congo regions, the way-sides are strewn with the leavings of the fruit as it is eaten, and these taking root in the rich, red soil, serve to spread the plant along the path for very long distances. The inhabitants come a great way to the valley for the golden fruit, which forms a large part of their diet. It is said that the very skin of the people turns yellowish from almost wholly living on the golden flesh. So common is the fruit in fact, that even the dogs,



THE PINEAPPLE PLANT IN FRUIT

cats, pigs and goats, live on this diet. They would seem to have a Pineapple "picnic" all the while.

#### THE NAME PINEAPPLE.

Just how this pleasing name became attached to this fruit, may not be known. To the Spaniards, perhaps, is owing its origin, for they early called it *Pinas*, because the shape resembles the fruit of a species of Pine. From this name, one can see that it would be but a short route to Pineapple, the name by which it is everywhere known by English speaking people. Its Brazilian name is *Nana*, and this was turned to *Ananas* by the Portuguese. *Ananas sativa* is its botanical name.

#### THE EVERGREEN PINE TREE AS A FRUIT TREE.

I said that the Pineapple was called *Pinas* by the Spaniards because it resembled the fruit of a species of Pine tree. It may not be known to many of our young people, that there are species of evergreen Pine trees that bear delicious edible fruit. One such a species is a native of the extreme western parts of our country and is called *Nut Pine* or *Edible-fruited Pine*. The edible part is the seed; it is about the size of a Hazel nut, and sweet. Another species is the *Stone Pine* of Southern Europe. The seeds of this one are about three-fourths of an inch long, and when fresh, have a sweet taste, resembling that of Almonds. Were it not that they soon become rancid, after gathering, no doubt these nuts would be met in our markets. Occasionally, they are to be had in European cities, being brought in the cone, in which way they can be kept longer. But the bulkness of the cones is against this method of transporting the fruit, hence it can never become common. So we shall probably have to get along without the fruit of the Pine tree somehow.

#### TIMOTHY TREECLIMBER.

#### The First Corn Popper.

Are the boys and girls, who enjoy the snowy product of the corn popper, aware, that within the recollection of our middle aged people, the corn popper was unknown? Such is really the case, and in Pop-corn, which many of us never think to miss planting, we enjoy pleasant eat-

ing that suits all youngsters, but of which our grand parents in their youth never knew.

In the winter of 1851, Francis P. Knowlton purchased a sheet of wire netting in Hopkinton, New Hampshire, and constructed the first corn popper that was ever made.

The various parts were cut the required shape and sewed together with small wire. Several were made and sent to various parts of the United States as curiosities.

Mr. K., thinking that he could see a field of usefulness for the newly invented article, made a few and took them to a hardware store in Concord, hoping thereby to introduce and sell them.

His production was scorned and ridiculed by the proprietors, and they at first refused to have anything to do with them. He was finally told that he might leave one or two, if he would pay storage.

From necessity he took the others back to Hopkinton, little dreaming from the rebuffs received that, in so short a time, they would be found in almost every household in New England. At least, shortly after this, Mr. Kelley began pressing them into the required shape, and soon after they found favor in the market.

No patent has, so far as can be learned, ever been applied for. Within a short time, the identical corn popper has been presented from Mr. Knowlton, of Littleton, Massachusetts, to the Antiquarian Society at Concord, New Hampshire. *Globe Days*

#### A Tree that Severed a Boulder.

That "constant dropping wears away rocks," is a truth that has been handed down to us from our forefathers. It appears, however, that other seemingly mild powers, can sever hard stones as well as water can.

While George Barkinaw, of Dayton, Ohio, was walking on the farm of Mr. Brooks, near that town, some weeks ago, he found a stone which had been forced open by the power of vegetation, for a tall tree stood within a big crack at one edge of the boulder. The stone measured eight feet in length and five in breadth, and the thickness was about three feet. When looked into, it was seen that the tree had sprung from a seed dropped into a hollow place in the stone, and that the growing representative of the vegetable kingdom had made the big mineral give way before it.

#### PET BIRDS, ANIMALS, ETC.

The Cinnamon Canaries have pink eyes.

If American-bred Canary birds are inferior to imported ones, it is owing only to careless mating.

Birds in draughts sometimes become asthmatic, which may be known by short breathing. Only remedy: prevent the draughts.

When Parrots incline to pull their own feathers, by giving a piece of wood to gnaw at, they may find employment that will lead to giving up the fault.

Before the telegraph was invented Carrier-pigeons were employed to carry messages between Halifax and Boston. Flying, as these can, nearly one hundred miles an hour, they afforded the fastest possible means of carrying word from one point to another.

Beauty of appearance and quality of song do not always go together. The Belgian Canary, than which there is no more attractive variety, has a poor voice and short song. The birds are very tame and handsome, hence much esteemed, but being delicate require a great deal of attention.

Dog Ringing Bell. A lady in Scotland tells how she got a dog, within three weeks, to ring a bell. She began by letting "Tiny" smell the bone of a mutton chop, and then tied the bone to the string of the bell. At first "Tiny" was in a great tremor, but by taking her kindly and stroking her, she found that she could induce her to pull at the bone and so ring the bell. After that she tied a small piece of wood to the string, but the dog would not pull it. At last she pulled her gently back until the bell rang, and in this way, in the short course of three weeks, with not more than one or two lessons a day, the dog would go and ring the bell by being told "Tiny, go and ring the bell."

Ancient Cat Worship.—Wherever the cat is found as a domesticated animal it is held in great esteem. This feeling was carried to its greatest extent by the ancient Egyptians. On the death of a cat, the inhabitants of the house shaved off their eyebrows, and the deceased animal was embalmed and buried with great solemnity in a sacred spot. Many cat mummies have been found in the Egyptian tombs, and some are to be seen in the British Museum. Some were wrapped separately in ample bandages covered with inscriptions. Their movements and their cries were consulted as oracles, and the murder, or even the accidental felicity of one of them, was punished by death.

# The Household

## About Washing Compounds.

Washday comes around with great regularity once a week, in all good house-keeping; a day of hard labor. Much experimenting has been done in the past, with a view to the use of preparations that shall act upon the dirt in clothes, in a way that will separate this readily from the fabrics, thus making less labor of rubbing and cleansing them. The trouble with many of these is, that although they may have the desired effect on the dirt, they also prove injurious to the fibers of the cloth. The fear of such results, in the minds of prudent house-keepers, makes them often slow to adopt any so-called washing preparations; they prefer to apply more labor at the task than run the risk of injury to the clothes.

We have the pleasure of introducing in this place, directions for making a most reliable, simple and safe compound for relieving the burdens of washing day. It is better, safer and cheaper than pearline, and most other compounds offered at the stores. Years of use has shown that it will not rot the clothes or turn them yellow, and it does not harm the hauds.

Into 8 quarts of soft water, put one-half pound of lime and 1 pound of washing soda, from the dealers in groceries. Place on the stove and have come to a boil. Afterwards let it settle, and pour off the clear liquid into jugs or bottles, for future use. The preparation is chiefly used when boiling the clothes—one teacupful in the first boiler, and after that half a teacupful to each succeeding boilerful. But in soaking the clothes the night before washing day, a half teacupful added to a tub of clothes, will be very helpful. This compound is unequalled for cleaning unpainted floors.

### Brieflets.

**Ammonia** will soften hard water.

**A chain** dish cloth for cleaning iron.

**Keep** cold water from the children's ears.

**Salaratus** is less used than formerly. Good.

**In cooking** vegetables, start with boiling water.

**Have some** plants in every suitable sunny window.

**A bit** of baking soda will restore milk that has slightly soured.

**Start early** on the spring sewing. We'll warrant you'll not regret it when June comes.

**For Grocers.** Think twice before mixing chopped hay with the tea. Honest tea is the best policy.

**The holder** should have its place, and be kept in place. This will save you a burned cake or pie sometime.

**Try** the meat saw for severing squashes. Even the ordinary hand saw would not be harmed by such a use.

**To the Housekeeper!** Do your part towards planning a good vegetable and fruit garden. And don't forget earliness.

**When "tired to death"** don't eat heartily; start in with a cup of tea and a cracker, or beat up an egg in a half-pint of milk, sweeten and drink it.

**Coffee and tea** both lose their flavor if not kept in a close can each by itself; the former will impart its odor to other articles it comes near, if exposed.

**Sachets** of silk or satin, for holding gloves, handkerchiefs, letters, watches, jewelry and endless other things, were never more popular than now.

**A small shelf** near the stove kept for an extra pepper and salt dish, will save miles of weary walking, in time. Merely for exercise, far better walk in the open air.

**The very fact** that the Creator has provided so great a variety of food in fruit, vegetation and flesh, on the face of the earth, should lead us to see the need of variety for our bodies, and to study to make the best use of it.

**It's not always** easy to start a fruit jar cover. Instead of wrenching your hands and bringing on blisters, simply invert the jar and place the top in hot water for a minute. Then try it and you will find it to turn quite easily. The law that "heat expands" accounts for this great difference.

**To those** who have not tried the non-greasing, perforated tin baking pans, which never "stick," we would say that they are excellent in every way. Most tin-ware dealers now have them; the cost is but little, if any, above that of common ones. Our house-keepers must give them a trial.

**There** is nothing like getting out sometimes to an interesting lecture or concert, and away from the home cares, for inducing sweet and wholesome sleep. In absence of these, a good share of the evening work, read, converse and visit. Work will turn off easier the next day for this course.

**A thoughtful** woman sends in this item: "Paste on the sewing machine this query: 'Is it necessary or really beautiful? Is it worth my time, strength and thought?' Measure the sewing by that rule, and it will beat all how those torments of the mother, who does her own keeping of clothes in order, namely: tucks and ruffles, will vanish."

**How to Cook Water.** Few people know how to cook water, Charles Delmonico used to affirm. The secret is putting good fresh water into a neat kettle already quite warm, and setting the water to boil quickly, and then taking it right off to use in tea, coffee or other drinks before it is spoiled. To let it steam and simmer and evaporate until the good water is all in the atmosphere and the lime and iron dregs only left in the kettle, bah! that is what makes a great many people sick, and is worse than no water at all. He says the Delmonicos were the first to recommend the new hot water cure to guests who complained of having no appetite. "Take a cup of hot water and lemon and you will feel better," was the formula adopted. The lemon juice takes away the insipidity of hot water.

# Poultry.

## Setting the Hens.

Improve and praise the patent incubators as we may, still the hatching of hens eggs will always be left, by the mass of the people, for the hens to do. We urge early hatching, say in this month, to deferring it much into the future. Even where eggs and not early chickens for marketing, is the object, there is a great gain in beginning the hatching season early. If chickens are hatched in March they will lay before Christmas, if not hatched until June, the chances are against perfect development by winter, and with it poor wintering and poor laying the first season.

In setting give no hen more than thirteen eggs. If the nest can be made on the ground hatching will be more certain. A sod placed in the bottom of an ordinary nest furnishes a fair substitution. To have the hatching done in a separate apartment, where other hens cannot disturb the sitters, and lay eggs with her, is an advantage. Otherwise the hen will try to cover all added eggs, thus endangering those first given by just so much. Marking then also becomes necessary. Small hens should not be used for sitting. The Brahmas are a preferable breed for this business. As they never get too much of sitting, it is well when the broods of the same date are hatched, to give them to one-half of the mothers to care for, returning the other half to new nests of eggs.

Never feel your sitting hens on the nest, it is better for them as well as for the eggs that they leave the nest occasionally—they will not stay too long. The room where they are kept, should be furnished with dusting boxes, drinking vessels and well-supplied feeding troughs.

## CONDENSED POULTRY NOTES

**Large** fowls: small layers.

**Ice** cold water is bad for hens.

**Keep** a record of dates, in hatching.

**A lime** plastered hen-house has advantages.

**Clean** the trough every time before giving water.

**Sprinkle** the hatching nests with a little sulphur.

**One** cock bird to twelve hens, is the safe rule when hatching is the aim.

**Hens** have been known to lay 2,000 eggs in a lifetime. Useful lives indeed.

**Add** a panful of fresh ashes to the dust bath occasionally, say once a week.

**Five million** dozen eggs from Canada last year! The American hen must be put to work in earnest.

**Let every** meddlesome person tinker over your incubator, and you may whistle for a successful hatch.

**Chicken raising** and gardening go well enough together, provided only, that a six foot picket fence separates the two.

**If possible** set all the eggs that are to be set at from one to three separate times only. Our reason: you can attend to one hundred chickens, with hardly any more trouble than half that number.

**Carbolic acid** is a most potent insecticide. A small quantity of it in solution with a caful of water, and this sprinkled with a fine rose over the floor, walls and roosts of the hen-house, will keep down insects very effectually. The liquid imparts a wholesome smell at the same time.

**Young Chicks**, after twelve or fifteen days old, need some grass, for best results in their growth. But if the chickens come before the grass does, a little may be raised artificially for them. If no better method presents itself for this, sow a box of oats in a frame, or in the kitchen window or the greenhouse.

**Do the thaws** and spring rains make the floor damp? Then you must not wonder if colds and roup set in, unless you remedy the situation. The floor, of course, needs to be raised. If this cannot be done permanently so early in the season, then take the next best step; put down some rails, and on these some boards, and litter on top to keep the poor cheerless fowls directly out of the wet.

**We must not forget** now that the limy substance from which shells are formed must first be consumed by the hens. Burn all the old bones and break them fine; get oyster or other shells and burn them; take raw limestone and reduce as fine as peas or finer, and have these convenient for the fowls to reach at pleasure. It will be observed that these substances will disappear and need replenishing at times, and the egg shells will be stronger.

**How to Begin.** Which is the best way to begin the poultry business, to buy eggs or fowls? is a frequent question. Mr. W. H. Johnson, Mineral Ridge, Ohio, answers the question like this: "If you get the 'hen fever' in the fall, buy young stock; if in the spring, buy eggs, as no breeder will then part with good stock, excepting at a high price. Three or four settings of eggs from the best yards will not cost more than a good trio at that time; from them you may get a good start, including, perchance, some prize birds."

**Eggs for feeding** to newly hatched chicks should be boiled half an hour, mashed or chopped fine and mixed with bread crumbs. Sprinkle clean, coarse sand on a board and drop the food on this, and let the little fellows help themselves. As soon as they begin to eat they need gravel, and this the coarse sand supplies. Cracked corn, cracked wheat and coarse oat meal dry, may form a part of the diet of young chicks from the start, provided water or milk be supplied. We think that at least two-thirds of the food should be fed dry, and we are in doubt about the other third.—*Farm Journal*.

**Improved Breeds.** A score of years ago one could hear a good deal of opposition talk to these. To-day they are the rule rather than the exception, where poultry interests receive any attention. Their coming in has almost revolutionized the old system of poultry-keeping, for with being more costly to get a start with, and requiring better care on the whole, more thought and care has been bestowed upon the entire matter of management. So we can see that the improved breeds, while often over praised, are entitled to a good share of credit for the present state of improved poultry raising.

**Sense and Nonsense about Laying Power.** The statement that a hen has a certain number of germs or ovids in the ovary at birth, and that every one of these, no more no less, must mature into eggs at certain periods of her life, is nonsense. At birth a hen has no apparent ovids, and the ovary is not fully formed. With age and size this grows and matures, by much the same process by which the bone, muscles and other parts of the system are produced, that is, from the blood which is made from the food that is eaten. And all this accords with good sense. If there is a lack of sufficient food for all demands of the system on it, life is just sustained and the reproductive functions must be dwarfed. A hen will therefore not lay eggs unless fairly fed, simply because the ovids that should develop into eggs are wanting, because of the lack of forming substances that must come from food. The better the feeding, the greater will be the product of eggs always, other things being equal.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE."—MILTON.

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## Waterside Plants.

The opportunities for waterside gardening are not very common perhaps, but where present, they are worth making the most of. A rill, lakelet or larger body of water on the grounds or bordering it, will afford the situation; those plants natural to wet places,

In fact, any wild plants of pleasing appearance, but not too weedy in character, that could be found in wet soil could be utilized.

Some of the regular hardy plants of our gardens, besides the few included above, would answer very well at the water side, provided they were set a little in from the

edge. We would mention for this, such sorts as the Day Lilies (Hemerocallis), Golden-spurred Honeysuckle (Aquilegia chrysantha), Canadense and Superbum Lilies, Bell-flowers (Campanulas), Phloxes, Forget-me-nots, Loose-strifes (Lysimachias), Spiræas, Aruncus, Palmata, Ulmaria fl. pl, Venusta, Lythrams, Epilobiums, Wood Lilies, etc. The Great Reed (Arundo Donax) and the Eulalias, among ornamental

Grasses are great lovers of moisture, and when planted where they can enjoy unlimited draughts of it at the

roots, assume great proportions in stalks and branches, yielding a most picturesque effect.

Where the soil, in places to be devoted to waterside gardening, is fairly rich in black vegetable matter, little preparation will be needed to fit it up for any of these plants. Often along streams it will be quite otherwise, then we would recommend a course of preparation to suit any other kind of plants, on poor and shallow soil, namely: working in manure or rich garden loam, or both, to a depth of a foot, in all parts.

## A Selection of Good Shrubs.

For years we have been urging, as best we could, the free use of flowering and other hardy shrubs in planting both large and small places. It has afforded us great pleasure, therefore, to receive the inquiries of several readers of POPULAR GARDENING for lists of these, and to answer all such, by appending the selection of good, easily grown sorts, which follows below.

The aim in making up this list was to provide for a continuous display of beauty throughout the year. The months following each name indicate the time of flowering, or of the greatest attractiveness otherwise:

Mezeron Pink (Daphne mezereum), April.  
Golden Bell (Forsythia), early May.  
Japan Quince (Pyrus Japonica), May.  
Double Flowering Plum (Prunus triloba), May.  
Flowering Almond (Prunus), May.  
Thunberg's Spiræa (Spiræa Thunbergi), May.  
Plum-leaved Spiræa (Spiræa prunifolia), May.  
Lilacs (Syringia), many sorts, May.  
Tree Pæony, May.  
Bush Honeysuckles (Lonicera), May.  
Rough-leaved Viburnum (V. rugosum), May.

Lantana-leaved Viburnum (V. lantanoides), May.  
Garland Mock Orange (P. coronarius), June.  
Double-flowering Mock Orange, June.  
Large-flowered Mock Orange (P. grandiflorus), June.  
Silver Bell Shrub (Halesia), June.  
Lance-leaved Spiræa (S. lanceolata), June.  
Roses, Summer, Hybrid Perpetual, etc., June.  
Dwarf Snowball (Viburnum plicatum), June.  
Graceful Deutzia (Deutzia gracilis), June.  
Double Deutzia, in several varieties, June.  
Weigela Rose and varieties, June.  
Red Branched Dogwood, June.  
White Fringe (Chionanthus), June.  
Alder-leaved Clethra (C. alnifolia), July.  
Billiard's Spiræa (S. Billardi), July.  
Fortune's White Spiræa (S. callosa alba), July.  
Fortune's Spiræa (S. Callosa), July.  
Japanese Spiræa (S. species Japonica), July.  
Oak-leaved Hydrangea (H. quercifolia), August.  
Altheas Double and Single (Hibiscus), September.  
Large-panicked Hydrangea, September.  
Purple Fringe (Rhus coccinea), July to October.  
Moneywort-leaved Cotoneaster, August and later.  
Prunus Pissardi, dark red foliage, all season.  
Purple-leaved Berberry, dark foliage all season.  
Varieg'd Cornelian Cherry, white-blotched foliage.  
Silver-leaved Corchorus, white-edged foliage.  
Holly-leaved Mahonia, evergreen.  
Box, in different varieties, evergreen.

## Making Lawns by Seeding.

Any but lawns of the smallest area, and in unfavorable places, can be made in this way for about one-third the expense of turfing. To be sure, it requires waiting for several months, before anything like a fair-looking sward will appear (by good turfing a presentable lawn appears almost at once). But then we are of the opinion that a good seeded lawn, in the long run, is finer than one made in any other way.

The three essentials for securing a fine, close sod, by seeding, are: Rich ground of a suitable character, seed of good quality thickly sown, and frequent mowing.

In preparing the soil for the sowing it pays to be at a good deal of pains at the start; results extending through years of time will depend chiefly on this part. With plow or spade, the surface should be worked over to the depth of one foot at least; if it could be three or six inches deeper yet, all the better. Along with this process, some finely-divided manure, say at the rate of a good two-horse load to each four square rods of land, should be worked into the soil.

As the bed is finished, it must be seen to that at least six inches of good soil (that is, not sterile subsoil) is present in all such lawns as are not to be kept watered in dry weather; but this is quite as essential to those made by turfing as to any others. Wherever the surface is broken by walks, drives, flower-beds and the like, the edges next to these should be made of sod to a width of six or more inches. This will keep the sowed parts from breaking away, as it would do if not thus protected. All stones and roots lying at or near the general surface must be cleaned away, the area be made even and firm with the proper implements, and the surface be worked up fine by the use of a rake or light harrow—the finer the better. Use good seed and plenty of it, applying at the rate of one



A BIT OF WATERSIDE GARDENING.

the materials, for producing some of the most charming garden effects obtainable.

Once the brook plants are set out there should be little more trouble with them. The kinds suitable to the place, are chiefly such as take care of themselves in grass or in a wild state; moisture at the roots being one of the great needs of their natures.

Among plants suitable for the purpose, we would include the Blue Flag, and other native Irises, the Japan Irises (I. Kämpferi and seedlings), and the German Iris, as being among the most attractive ones. Our illustration shows some of them employed in this way. In addition there might be the pretty Yellow-flowered Marsh Marigold (Caltha palustris), the Marsh Calla (Calla palustris) with white flowers, the brilliant Cardinal Flower (Lobelia cardinalis), the Blue Cardinal Flower (Lobelia siphilitica), the Arrow Head (Sagittaria purpurea), the Cattail or Reed Mace (Typha latifolia), the Pitcher Plants (Sarracenias), the Fringed Orchises (Habenarias), of different colors, and so on. Some of these could be procured in wild places along streams or in swamps, with no cost whatever but the trouble of gathering. Many of the Sedges and Ferns which abound in such places are also decidedly attractive in this style of gardening.

quart and one-fourth per square rod. As for seed, the following is a superior and inexpensive "mixture": 2 parts June or Blue Grass (*Poa pratensis*) to 1 part Red Top or Bent Grass (*Agrostis*). Sow evenly, this may best be done by double sowing. By this

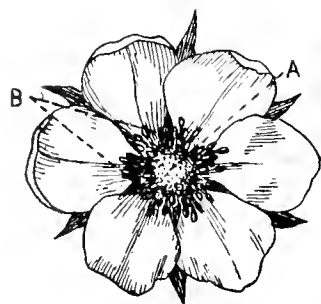


Fig. 1. A Perfect Strawberry Flower, somewhat enlarged, with both Pistils (A) and Stamens (B) present.

we mean, to divide the seed needed for a given area into two equal lots, sowing one-half of it over the plat walking back and forth across it one way, and then the remainder by walking crosswise of the first sowing. After this rake the entire surface lightly, then roll.

Mowing must commence with the first sight of any growth high enough to cut, be it grass or weeds (these will be present and perhaps ahead of the grass), and this must be kept up regularly through the season. To pass over the lawn with the mower once in each week, in growing weather, will not be too often; in dry weather something less than this will answer.

With the work of sowing done before the middle of this month, by the course prescribed above, there will usually be a perfect mass of

grass by mid-summer. In rare cases there may come just enough unfavorable weather, after seeding, to cause a miscarriage of one's plan. No one should be discouraged by this from trying the seeding over again. One of the best lawns the writer ever made was sown on the 6th day of June, but as a rule there is far more risk in such late sowings than in earlier ones.

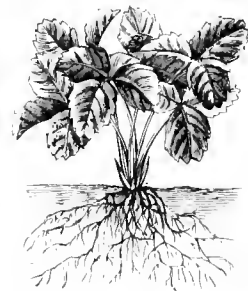


Fig. 3.—Rightly planted, with all the roots properly spread out.

one of the best lawns the writer ever made was sown on the 6th day of June, but as a rule there is far more risk in such late sowings than in earlier ones.

#### Have a Plenty of Strawberries.

Not every tiller of the soil has Strawberries in abundance, who might have.

It cannot be because the plants are costly to buy, or difficult to grow; good plants can be had for less than a cent apiece, by the hundred, and at much less by the thousand, while no useful plant is easier to succeed with in culture.

It can hardly be because the fruit is not appreciated when it is grown. We know human nature too well for that. We have a distinct recollection that when our own ample-sized bed has been loaded with ripe, blushing fruit in the June time of past years, no visitors at our house have been known in a single instance, we think, to need a second

invitation to walk over to it and partake. Then when the same persons have been invited to sit up to Strawberries smothered in cream and pulverized sugar added, at tea time, we cannot recall now that such a thing as a "regret" that they could not possibly accept, has ever been offered. It is a very old saying, that the proof of the pudding is found in the eating.

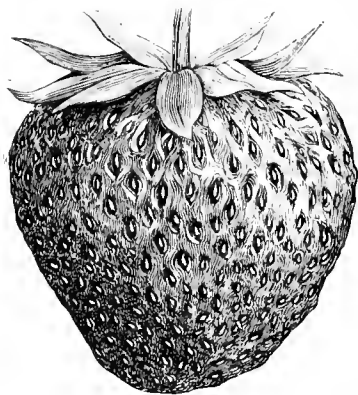


Fig. 2. The Sharpless Strawberry.

It cannot be that people who have land to till, are with out plenty of Strawberries for the excuse so often heard against planting fruit trees, namely: we must wait a lifetime for the fruit. Plant Strawberries this year, and next year brings a full crop. No other fruit will do so well as this. Even tenants with a two year's lease, can, if there is land to spare, have bushels of fruit before they quit the place. For such to plant Currants, Cherries or Apples would be foolishness; to plant Strawberries the part of wisdom.

The charge, if made, that the Strawberry comes at an unseasonable time, or when other fruits are plentiful, would not stand. With the Cherry alone it offers itself as the first fruit of the summer. It comes at a time (June and July) when the system is much benefited by partaking freely of a fresh fruit diet. It is also a most wholesome fruit, being easily digested. Unlike most other fruits, it does not grow acid by fermentation. Let us, too, not forget, that the great Linnaeus attributed the cure of his gout to the free use of Strawberries as food.

The absence of anything short of the universal culture of the Strawberry by land holders, can only be accounted for on the ground of neglect to plant. The common time for setting the plants is in the busy spring season, and in the crowd of work, this job is too often shoved by. It should not be so. We should take into account all the advantages of having an abundance of this fruit for next year and later, and then should set ourselves rigidly about to planting a patch—and a big one, at that.

And this is how to go about it: Select a spot of fertile soil, not less than two square rods in size, for a small family, and from that up. It should be in a sunny exposure. The deeper and richer the soil is, (of course there is a reasonable limit in this), the larger will be the berries.

Procure plants from a reliable nursery or from some grower of the fruit. As to kinds, let us caution the novice (others will not need such advice) to procure only well tried sorts. The catalogue statements not-

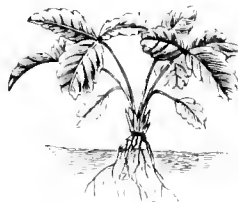


Fig. 4. A young plant set not deep enough.



Fig. 5. One set too deep.



Fig. 6. Planted with roots all in a mass.

#### HOW NOT TO PLANT STRAWBERRIES, (OR ANYTHING ELSE.)

withstanding, we still insist that take our country over, the old Wilson variety would give the best satisfaction to three out of every four inexperienced growers. Another point for the inexperienced: Choose only sorts

which, like the Wilson, bear perfect flowers. See figure 1. Some varieties that are grown are without stamens (B. in Fig. 1), needing the near presence of others with perfect flowers, in order to bear. The catalogues usually designate the former as "Pistillate" or by the letter "P." signifying that they have only the pistil organs of reproduction. For a small additional list of varieties bearing perfect flowers, we would mention Sharpless, shown in figure 2, Charles Downing, and for late, the Kentucky.

Two systems of planting the Strawberry prevail, the matted, or easy system, allowing the plants to throw out runners, and the hill-culture, or careful system, in which all runners are kept cut. It is well to try both. For the former, set the plants in rows, three feet apart, and a foot apart in the row. In hill-culture, plant at fifteen by fifteen inches apart, the rows extending across the bed, and then skipping every fourth row to provide pathways.

The operation of planting is a simple one, and yet it is often badly done. Figures 3 to 6 inclusive, impart a lesson as to how, better than we can do with the pen. A garden trowel is a very convenient tool for the purpose. We will only add that the soil should be pressed very firmly about the roots. After planting, practice scrupulously clean culture.

#### Sunflowers and Sun-Worshippers.

The people of civilization are not alone in their appreciation of the long unrecognized charms of the Sunflower. It comes to us, on good authority, that now this same blossom of conspicuous brown centre and halo of yellow rays, has become a much adored favorite with the aborigines of New South Wales. The facts seem to be, that these people, who are worshippers of the sun, find in our large American Sunflower, a blossom which they accept as a gift from their god, to whose worship they consecrate it.

We are quite ready to believe the report that this is the only flower ever introduced into that land, from the world outside, which the natives have shown a liking for. They, as a people, are not given to floriculture, for its own sake, yet they worship this flower more truly than it would seem possible for any aesthetic lass or swain of civilized lands to do. The Virgins of the Sun, it is said, when officiating in the ceremony of the temples, are crowned with the huge flowers, bearing many in their hands as well. Some are worn also at the breast—the corsage-bouquet idea having perhaps reached them.

It is further stated by travelers, that the natives procure the seed, plant them in patches about their huts, and delight with

the true taste of the Wilde-man, to see the development of these earth-suns. The seeds are looked upon as being almost sacred. They are carefully gathered and put away in bags each year—not for hen-feed, as we

do here in the north; not for oil with which to smear their own dusky skins, as might be done, but only as seed-stock with which to raise new crops of the "Sun plants" later.

Incidentally, it may be said that the writer of these words, converts a wet patch of land beyond his ice-house into a thick grove of Sunflower plants every year, for the sole purpose of giving their thirsty roots a chance to suck up the surrounding moisture, and the possible malarial influences.

#### Hardy Primroses—The Auricula.

Everyone of our readers, we are sure, has heard of the Auricula—that member of the Primrose family which is made so much of throughout England and Scotland—but perhaps not one in a thousand has an intimate acquaintance with it, derived from cultivating the plants. This last fact is, perhaps, sufficiently accounted for, on the simple grounds that the plant is ill-adapted to our hot summers and harsh winters.

The Auricula, *Primula auricula*, is a native of the Switzerland mountains. Even in England, where so much has been done for improving the species, it requires painstaking culture. But then its great beauty—in a measure set forth by our engraving—is a sufficient reward for all this trouble. That it can be grown in America under certain favorable circumstances, is also true. We are informed by

a very successful florist of this state, that with him it has succeeded for more than thirty years, by growing it in rich, heavy soil, on the north side of a house. The plants are raised from seed sown in spring, these flowering the second season afterwards. For winter protection, a sod is inverted over each plant late in autumn.

But if we cannot easily have the Auricula everywhere, we can at least have its beautiful relatives of the hardy Primroses, which do succeed readily in our gardens with common culture. Take for one class of these, the old-fashioned Polyanthus, *Primula vertis* (*ulgaris* of some). Our beautiful engraving of the relative will bring these to the minds of many. They are beautiful, free-flowering plants, that in the spring months are the delight of all beholders. The colors vary from a delicate straw color, to dark

maroon and pure white, with an endless variety of shades and markings. The plants are hardy, thrive in any fair garden soil, and are increased by division or by seeds.

Another valuable sort for the American climate is Siebold's Primula, *P. cartusoides*, the type of which is a pretty little plant six to nine inches high, and bright lilac flowers. Within the past few years a great many beautiful varieties of this hardy Primrose have been obtained, and are now being offered for sale. We notice in the catalogue of Woodson & Co., the extensive growers of hardy plants, at Passaic, N. J., the mention of colors of this one, ranging from pure white to the deepest red, in varieties suitable

once in cultivating it, or you will soon be "behind the times." Of course, everybody knows the Virginia Creeper, or American Ivy (*Ampelopsis quinquefolia*). This other creeper from Japan is a sister species, and one which, in time, must largely crowd the American sister out, I feel quite certain.

Besides the charms of this creeper of being new (comparatively) and distinct, it appears to have every good trait of the older sort, with some superior traits in addition. The leaves are smaller, and, while varying some in form, are chiefly of a lobed or cleft form, sometimes heart-shaped, and in general look more like those of the English Ivy than of our common Ampelopsis. As a creeper it has the tenacity and the beauty of the true Ivy, covering what-

ever it overruns, with a smooth, dense sheet of green, the leaves overlapping like shingles on a roof. In this respect it is of surpassing beauty. The plant is hardy, (still I cover my young plants for one or two winters, vigorous, although short-jointed, and in every way satisfactory. It should be in every collection. I see that plants may now be bought of all nursery-men at fifty cents, or less, apiece.

\* \* \*

How long, O, how long will people suffer from dishonest, swindling agents? Until they become educated to discriminate between the honest and dishonest salesmen, and no longer.

It is perfectly astonishing what an amount of

business these wolves in sheep's clothing manage to devise. Only the other day, one of my neighbors, as I was visiting him, called my attention to what I at once saw was a specimen of those fellows' work. He pointed out some "Dewberry Stalks" that he bought and planted last spring. He paid \$3 apiece for three of them. A glance showed that they were nothing more than some of the cheapest off cast grape vines, such as had perhaps been bought up after sorting in the nurseries, for almost nothing. The agent, by making great claims for the "Dewberry," showing a "specimen" of something in a glass bottle, took \$9 out of my neighbor's pocket, and in return, gave plants that had cost him, very likely, not above half a cent apiece. Of course he sees and admits he was humbugged, and the probability is that the next agent that comes along will be harshly dealt with, perhaps more so than he deserves.

\* \* \*

What I told my swindled neighbor I state as good advice to all, in the matter of treating the approaches of agents, namely: First, remember that to buy of agents at all, you must pay considerably more than if you bought directly from the growers of the stock. Second, if disposed to deal with them ask promptly to see their letters of introduction from the nur-



HARDY PRIMROSES—AN ENGLISH AURICULA.

either for out-of-door or pot culture.

It is to be hoped that, with the increased attention now being given to all classes of hardy flowering plants, we shall yet see further improvements made in this class. Then we might still more easily be reconciled to the fact, that the true Auricula hardly meets the conditions of climate and culture that generally prevail with us.

#### Notes from Lyndale.

BY A. H. E.

In this season of planting, I desire to say to those persons who are not yet acquainted with the Japan Creeper (*Ampelopsis tricuspidata*, synonym *Veitchii*) or, as it is often called, Veitch's Ampelopsis, get in line at

series they represent. If some are carried from reputable nurseries, and are of recent date, then you are measurably safe to order from them, otherwise not. Be especially wary of the men who offer wonderful new fruits and flowers, a thing the regular agents seldom do.

#### A Fine Flowering Tree.

We think that not enough attention is paid by flower lovers, who have lawns, to those hardy trees and shrubs which possess value for their flowers. Take, for example, the large Double-flowering Cherry, of which an engraving is herewith shown. It is a tree which on general accounts is deserving of a place on every fair-sized lawn. But when, in the month of May, it is loaded with its large pure white blossoms as double as Roses, and so numerous that they completely hide the branches, it presents a fine sight, unequalled by but few objects in the whole realm of flower-bearing plants.

Why should not, therefore, such a tree be common on the grounds of flower-growers, instead of being but rarely seen, as at the present time? The tree is not costly, for we notice in the catalogue of Ellwanger & Barry, Rochester, N. Y., it is offered at fifty cents per tree, and we presume in others also. We do not know how else one could invest such a sum, and the cost of transportation added, to secure a greater amount of satisfaction in the long run.

Just here is a point about this and all other flowering trees and shrubs which perhaps is too much overlooked. It is that an investment once made for stock, secures desirable results, not for one or a few years only, as in the case of many plants, but for a life time. Suppose the tree costs you one dollar, and then say for thirty years it continues to give you that great measure of satisfaction which fine flowering trees alone can give, what is the cost per year? This is the common sense way of viewing things of this kind.

Our engraving on this page was taken from Ellwanger & Barry's catalogue of ornamental trees, &c., referred to above. We cannot close this article on flowering trees and shrubs, without speaking a word for this valuable work issued by the largest growers of hardy ornamental trees, shrubs and plants in our country. It contains 140 pages, and many original engravings, descriptions, cultural directions, select lists, etc., and is devoted *entirely* to hardy ornamental stock. Its price is but twenty cents; it possesses an amount of information not to be found in any one dollar book on similar subjects, with which we are acquainted. It should be owned by every lover of fine gardens.

#### Big Stories About the Florist Business.

Some newspaper men, aided on, as it would seem, by certain florists themselves, never know where to stop in getting up exaggerated accounts of the profits of the florist business.

Concerning this matter, "W. J. S.," a leading florist of Boston, calls attention in the *American Florist* to how a daily paper of his city sometime since committed some striking pranks of this kind. Here is one of the things that was said, "It is estimated that more than 500,000 violets were sold at Christmas in Boston alone." This correspondent—and he is well in-

formed on the subject—answers, that to divide this figure by *ten* would be nearer the truth.

The paper again speaks of there being in Boston "Twenty-seven florists doing an annual business of something like five million dollars." This is probably just about four times too high. In speaking of flower growing, the same paper remarks, that "a man with a small plant of a couple of hundred feet can secure profitable returns." A "couple of hundred feet" is equal to a house 10 x 20 feet in size, a mere hencoop of a greenhouse.

In opposition to all this the same writer continues further on in this sensible style, "Extravagant statements about the profits to be made from growing flowers are especially



THE DOUBLE-FLOWERING CHERRY—FLOWERS WHITE.

vicious. The sooner the public knows that the business of raising or selling flowers is one of incessant toil, full of disappointments, and requiring great skill and constant attention in order even to make both ends meet, the better it will be for the public and for the florist. Let it be thoroughly understood that fortune does not come any faster in this business than in any other. Florists complain about the competition coming from men of wealth who have made their money in other lines of trade, and who have now built vast establishments for the production and sale of cut flowers. But, pray, who is responsible for this, if not too often the florists themselves? Would these men have invested their money in greenhouses if it were not for the extravagant and absurd stories about the business and its profits which these same florists have invented and circulated, and which the daily newspapers in their turn have spread before the public?"

#### An Almost Costless Rustic Vase—How It Was Used.

Our subscriber, "T. R. T.," of Lee's Summit, Mo., when he wanted a rustic lawn vase, instead of going to a dealer in vases, for an imitation affair at a fancy price, as many people would have done, introduced the real article from the woods. Here is what he has to say to our household of gardeners about it, and how it was used with good effect:

"I got a three-foot section of a hollow tree, 2-1/2 feet in diameter, and set it on my front lawn. After filling it with good soil, and some large stones to retain moisture, I set for a cen-

ter piece a large Gen. Grant Geranium, with others around it of different colors. In addition I used two plants of Vinca Harrisii and two of Parlor Ivy to droop and twine around, edging off with Alyssum and Lobelia. In the grass at the base of this vase I laid out a bed of Maltese cross shape, and set it with Achania, Abutilon, Geraniums, Coleus, Heliotropes, Pinks and Pansies. It became the wonder of our neighborhood for the season."

#### Something About Plums.

BY JOSIAH HOOPES.

There is little doubt that Plums may be grown successfully in every section of the North. Perhaps no other fruit will return more profit to the skilled person, but the trouble is, few seem willing to give the care needed.

The Plum is mostly restricted to heavy soils well underdrained, growing with more vigor here than on lighter land. In the case of light soil, however, the trees may be budded on Peach roots and with rarely an exception will thrive quite as well as the Plum roots on clayey land. In either case this fruit needs constant cultivation and a rich soil; experience shows that it is useless to undertake to raise it unless properly cared for.

That arch enemy, the Curculio, is not so numerous in some districts as formerly, but in others it ruins the crop. The remedy, and it is almost a complete one, is systematic jarring of the tree over a sheet spread on the ground beneath.

For the dreaded "rot" no cure is yet known, nor are we assured of its cause. The most reasonable theory attributes it to a low order of Fungi. I have employed

wood ashes as a destructive agent with marked effect. At any rate, the potash thus introduced to the tree through the soil caused a more vigorous growth. Planting in the chicken yard is in vogue with many who feel sure the fallen Curculio are devoured by the poultry. Others have stated that fowls never eat the insects.

Some varieties appear less liable to rot than others, but when largely prevalent none, not even the Chickasaw sports, are exempt. All varieties do not succeed well on the Peach root, so that owners of light soils must govern their choice of kinds accordingly. The following are among the best: Coe's Golden Drop, Yellow Gage, Duane's Purple, Schuyler's Gage, General Hand, Danson and its seedling Richland, Lawrence's Favorite, Imperial Gage, German Prune, Prince Engelbert and Huling's Superb. Where the plum-on-plum is grown exclusively, the following may be substituted for some of the above: Washington, Bradshaw, Green Gage (true), Reine Claude de Bavay, Columbia, Jefferson, Smith's Orleans, Lombard, Bleecker's Gage, McLaughlin and Red Diaper. The Danson family yield immense crops, and when free from disease will perhaps pay as well as any other, but some seasons the crop is entirely ruined by rot.—In *New York Weekly Tribune*.

#### A Miniature Hot-Bed—Capital Idea.

"Sister Gracious," of the Michigan branch of our family, lives where, as she cleverly puts it, "the springs are generally, winter continued." So she has to wait until near May for garden-making time. This has led her to devise a

miniature hot-bed for the house, to get a start on the season by bringing along young plants early. She writes about it as follows:

"I took several cigar-boxes, in which I planted seeds of Chrysanthemums, Petunias,

this, that they require heat for making progress. Both of the last two classes are frequently sown under glass and grown to some size before the time for planting out arrives.

Having now defined classes, let us advance to

der annuals at the time most suitable for the hardy sorts, and *vice versa*. To be sure, hardy annuals may be sown at intervals in succession for several months after the first early sowing is made, but from no sowing will plants and



The California Poppy.



A Fine Aster Plant.



The Lacinated Chinese Pink.



Single and Double Calliopsis.

USEFUL FLOWERS THAT COME FROM SEED.—See "A Chapter on Annuals."

Oxalis, Pansy, Larkspur, etc., using sifted soil that had been kept in the cellar since fall. After sowing I covered each box with a woolen cloth, resting it on the earth, and poured warm water on the cloth. This filtered through, wetting the soil, but not disturbing the seeds. Then I kept the boxes on the water-tank of the stove. Every morning I took off the cloths dipped in warmish water and returned them.

"I expected it would take ten days or more for the seeds to come up; on the third morning some sprouts were out; then the cloth was discontinued. Two months more will see them in thumb-pots, and these in a discarded large tin baking-pan, with some earth under and between them to prevent rapidly drying out. After that I shall put them in a sunny window, and know I shall take more pleasure in watching them grow here than later on in the garden."

**A Chapter on Annuals.**

The annuals are well entitled to be called everybody's flowers. They are inexpensive, they are beautiful, they yield returns sooner after the investment than do most other kinds; while, added to this, no class is easier to manage.

So far from annual flowers being cheap in quality because cheap in price and trouble to raise, we have but to ask: What flower is sweeter than the Mignonette; what ones richer in color and texture than the Chinese Pinks, Zinnias or Balsams? Where can lovelier blossoms be found than the Sweet Pea or the Nasturtium afford; a grander flowering plant than is found in the improved Asters? Yet these and many others equally fine are annuals, or may be treated as such.

Addressing itself, among others, to many new beginners in gardening, who are unacquainted with plants, POPULAR GARDENING will say that the special characteristics of annuals are that they owe their perpetuation, in our climate, to seeds which need to be started newly every year. The plants from these grow up, flower, produce a new crop of seeds usually, and then die—all in one season. Annuals are brought under different classes, according to their hardiness, namely—Hardy, Half-hardy, and Tender Annuals.

Hardy annuals are such as may be sown in the open ground at early garden-making time: they are in this respect analogous to peas, lettuce, oats, wheat, etc., among the garden and farm crops. Some kinds may be sown even in the fall of the year to advantage. Half-hardy annuals are more like corn, beans and tomatoes in their requirements, and should not be committed to the soil outdoors before "corn-planting time"—that is, when warm weather is near at hand. Tender annuals are even more delicate than the last named, being much like squashes, melons, egg-plant, pepper, etc., in

the matter of kinds. The limits of our article will not permit us to go into descriptions at the present time. Neither is this necessary, for any one of the hundreds of catalogues issued by seedsmen who sell flower seeds, and which can easily be procured, lay sufficient stress on descriptions of kinds to answer all ordinary needs. What we desire to do is to help those amateurs who, in consulting a catalogue, are confused by the large number of kinds offered, not knowing which to choose.

We therefore present some selections of kinds, to guide, especially our inexperienced readers, in choosing judiciously, referring to the dealers' catalogues for further particulars. In the lists offered, each name is followed by an abbreviation, which at once shows the class to which it belongs, as to hardiness. The abbreviations are these: *h* for hardy annual, *hh* for half-hardy annual, *t* for tender annual; a star (\*) indicates a running vine.

A SELECTION OF TEN "NO FAIL" ANNUALS FOR BEGINNERS.

- Balsam, *hh*.
- Chinese Pinks, *h*.
- Larkspur, *h*.
- Mignonette, *h*.
- \*Morning Glory, *h*.
- \*Nasturtium, *hh*.
- Phlox Drummondii, *h*.
- Portulaca, *h*.
- Poppy, *h*.
- \*Sweet Pea, *h*.

A SELECTION FOR THOSE WHO WANT ONLY THE CHOICER KINDS OF ANNUALS.

- Aster, *hh*.
- Balsam, *hh*.
- \*Canary Bird Flower, *hh*.
- Candytuft, *h*.
- \*Cobaea Scandens, *t*.
- Cockscomb, *t*.
- \*Cypress Vine, *t*.
- Larkspur, *h*.
- Marigold, *h*.
- Mignonette, *h*.
- \*Morning Glory, *h*.
- \*Nasturtium, *hh*.
- Phlox Drummondii, *h*.
- Portulaca, *h*.
- Snop Dragon, *h*.
- Stocks, *hh*.
- Sweet Alyssum, *h*.
- Verbena, *hh*.
- Zinnia, *h*.
- \*Sweet Pea, *h*.
- \*Scarlet Runner, *t*.
- \*Maurandya, *t*.
- Chinese Pinks, *h*.
- Pansy, *h*.
- Petunia, *hh*.

A SELECTION OF GOOD ANNUALS, BUT HARDLY EQUAL TO THOSE OF THE LAST LIST.

- Abronia, *h*.
- Ageratum, *h*.
- Calliopsis, *h*.
- Callirhoe, *h*.
- Campanula, *h*.
- Batchelors' Buttons, *h*.
- Collinsia, *h*.
- Dwarf Morning Glory, *h*.
- Centranthus, *h*.
- Clarkia, *h*.
- Browallia, *hh*.
- Four O'Clocks, *t*.
- Nigella, *h*.
- Poppy, *h*.
- Salpiglossis, *h*.
- California Poppy, *h*.
- Erysimum, *h*.
- Godetia, *h*.
- \*Gourds, *t*.
- \*Hyacinth Bean, *t*.
- Sunflower, *h*.
- Lycchnis, *hh*.
- Lupin, *h*.
- Flora's Paint Brush, *h*.
- Gaillardia, *hh*.
- Salvia, *t*.
- Mourning Bride, *h*.
- Sensitive Plant, *t*.
- Sweet Rocket, *h*.
- Swan River Daisy, *hh*.
- Thunbergia, *t*.

As to culture we advise, in the first place, a close observance of their natures and needs as to hardiness. Do not, for instance, commit the blunder of putting out the seed of the ten-

flowers be so fine as from the earliest one. Likewise with half-hardy and tender annuals, while nearly all gardeners sow some in heat to get an early start, there is not near as much gain in earliness (while there is with some kinds positive loss in quality) by this move over that of sowing directly where they are to flower, when warm weather opens, as some suppose.

For directions on sowing see Work of Season.

American Horticultural enterprise is being recognized abroad, as may be seen by what Messrs. Dickson & Co., the great nurserymen of Edinburgh, recently said in the *Garden*: "It certainly speaks volumes for the energy, enterprise and intelligence of American fruit-growers that they have, in a comparatively short time, raised hundreds of varieties, both of apples and pears, which are better suited to their climate than the best sorts brought from countries where fruit culture has for centuries been carried on. Fruit-growers of these islands, should be stimulated by their success, to devote far more attention to the raising of new and better varieties of our own."

**Have You a Good Asparagus Bed?** If not, why not? In ordinary soil, that is properly worked up and manured, no crop is easier to manage, none is more certain to do well. Once a bed is started, it does not require renewing every year like a lettuce or onion bed, or every two or three years like a strawberry bed, but goes on and on, yielding freely for an indefinite length of time. Turn over the soil to a good depth by trenching, make it rich as deep as it is worked. Set the plants 20 inches apart and 4 inches beneath the surface. Should the soil be inclined to be wet or heavy, it is better to plant in raised beds. Give clean culture.

**Black Currants.** Many who despise the common sort, would think well of the variety known as the Black Naples. While similar in general appearance, it is larger and in every way finer. Another improved sort and the largest of all is Lee's Prolific. The plants succeed well where any Currant succeeds. Neither the Currant Worm, nor any other injurious insect ever troubles them. The fruit is useful for jam, jelly or wine.

The Michigan Celery-growers propose to organize a Celery Exchange. They shipped \$25,000 worth of the crispy product in 1885. Well done, as to the last; a genuine good move, as to the first.

A Correspondent from Atlanta, Ga., writes: "We think the Wilson Strawberry is the best for this climate, after growing it alongside of both Crescent and Sharpless."

"Popular Gardening" insists that you can tell whether a man is a good gardener or not by the straightness of the rows he makes.

Don't manure against the roots in planting.

Onions must be put to bed early.

Till Deep and laugh at dronchs.

# FLORAL FASHIONS & FANCIES

## My Easter Lily.

In the black earth the root I laid—  
A dry, unlovely thing.  
It seemed so far from what was fair,  
"I only waste," I thought, "my care."  
"Nay, nay; it holds a royal flower;  
It keeps a pledge of spring.  
Wait," whispered Faith, "in patient trust;  
Thou shalt see beauty rise from dust."  
To-day thy shining-silver robe,  
O Easter Lily, wear.  
Unfold thy golden heart; make sweet  
With incense all the air.  
Sing with mute lips, thy Easter song.  
I hear it, and my faith grows strong.  
He sees, who waits in patient trust,  
Immortal beauty rise from dust.

—Harper's Bazar.

The Pansy season opens.

Roman Hyacinths are done.

Cut flowers keep best in a cool, close place.

Red and yellow is a fashionable combination.

Baskets of Pansies are favorite souvenirs now.

Jacqueminot buds have declined to a decent price.

Lily of the Valley signifies the return of happiness.

Spring flowers are in good demand with all flower buyers.

A more elegant affair than a miniature ship loaded with flowers can hardly be conceived.

**Why Not.** A few Sundays ago the pulpit of one of the churches of Brooklyn was embellished with a bouquet made of the stems and leaves of the White Plumbe Celery.—*Rural New Yorker.*

At a recent dinner at Delmonico's, in New York, the centre piece on the table consisted of an immense flat basket, filled with Golden Dawn Geranium flowers, with an edging of leaves of the same.

A vase-shaped flower basket, filled completely with English Violets, excepting a bunch of Valley Lilies in the center, was one of the attractive pieces at a recent wedding. The Violets were loosely arranged, harmonizing to a charm with the gilded holder.

The Violet is the emblem of the Bonapartes. Whilst the first Napoleon was in exile this little blossom was adopted by his followers as an emblem, and a small bunch of the flowers hung up in the house, or worn by a Frenchman, denoted the adherence of the wearer to his fallen chieftain.

We have no objection to the use of flowers at funerals or in cemeteries. What we would like to see would be more bouquets used as gifts to the living—to wives, sisters, mothers, and to the unfortunate in sickness, where the gift can carry the idea of appreciation along with it, as it cannot after death.

The Chrysanthemum—the national flower of Japan—is honored every year by a special Imperial Chrysanthemum Garden Party in the palace grounds at Akasaka, one of which was lately given by the Mikado. The Chrysanthemums there are unequalled throughout the world, and some of the plants display from 375 to 430 fully-developed blossoms at a time.

**Pansy Floral Designs.** For funerals no others are more appropriate, or handsome, than those covered with Pansies alone. The designs of wire should be filled full to firmness with soft moss. Light wire, cut in lengths of an inch and a half, with one end then thrust through the base of the flower, and bent down, answers as to stamining. These should insert easily into the moss. In making up we do not like to see the indiscriminate mixing of colors. Sort out the flowers according to color and shade, then begin at the top of the design, working in the darkest ones first, in cross or oblique lines, and so on down through the colors, with the light yellows or whites at the base.

**Bougainvillea** branches are an attractive material in floral decorations, but often poorly used for best effects. For one thing, its striking purple color does not harmonize well with most other kinds of flowers. Used alone in one heavy garland for adorning chandeliers, not by looping or winding it about much for this cannot be done—but by bringing it around from top to bottom in one bold sweep, even if it be rather stiffly, the effect is superb. It is

just the article to use here or about large mirrors by those who tire of the more "fussy" arrangement of finer greens, as often used. Callias, however, combine well with this material wherever their use is appropriate. Cyripediums and Allamandas are other kinds that harmonize charmingly with Bougainvillea.

**Shipping Cut Flowers.** The American Express Co., recognizing the growing importance of the cut flower trade, has determined to favor it in a most worthy manner. Mr. Antisdel, General Superintendent of the N. W. Division, has instructed all his agents to give special attention to packages of flowers having a mark consisting of a white label, 4 by 6 inches, bearing the word "perishable," in red letters and a large red leaf covering nearly its entire surface. They are to be kept right side up, and as nearly as possible, at a moderate temperature. They are also to be delivered promptly. When refused by consignees, the shipper is to be notified by telegraph and asked for instructions. So says the *Prairie Farmer*.

## Botanical Budget

Buds have scales only in cold climates.

Nature makes the useful, the beautiful.

Plant leaves are arranged in a definite order.

Decay in the wood affects the quality of the fruit.

In hot climates deciduous trees lose their leaves in the dry season.

Many evergreens have leaves only of annual duration; the old ones drop after the new crop appears.

The marvelous stories about grain growing, that has laid in the hands of mummies for thousands of years, are without foundation.

**A Warning.** The common thistle plant is found to contain an average of 65,000 seeds, and the burdock 38,000. Many other weeds are quite as prolific.

**Linnaeus**, the greatest of naturalists, whose life, at an advanced age, closed nearly a century ago, had several American correspondents, one of which was His Excellency Cadwallader Colden, Governor of New York.

**Young botanists** may find interest in studying the ovary or seed vessel of the Mignonette. Curiously enough this is open from the first, and as it develops, the seeds become exposed to the sight long before they are ripe.

**Young trees** produce larger and more juicy fruit than old ones, because the materials which enter into the fruit are conducted through shorter and more open courses. But the fruit of old trees is richer and higher flavored.

**Binomial nomenclature**, that is, where each species is indicated by two names, the one standing for the genus, the other for the species, is a great improvement over the older method of distinguishing each one by explanatory phrases. For example, *Viola canina* was a hundred years ago known as *Viola foliis cordatis oblongis, pedunculis fere radialis*.

**Botany for Young People.** Interesting as the study of botany is to all, it is particularly so to young people, as it appeals to their natural curiosity and their desire of knowing about things. The study of plants and flowers first, by the young, and then afterwards of the other natural sciences, is one of the most profitable, as well as interesting, trainings young minds can be put to. It would be an advantage to have this study begin even before that of language.

**The Smallest House Plant.** Our studious friend, Mr. C. D. Zimmerman, of this city, says that the Yeast Plant is the smallest cultivated house plant, and no doubt he is right about it. To "make Yeast" as the bakers say, is in his estimation as absurd as to talk of making Geranium plants or Maple trees. Yeast increases by growth; when in bread-baking the "Sponge" is set in properly sifted and warmed flour, and kept at a temperature of about 80°, the Yeast multiplies very rapidly and in a short time is sufficiently strong for the dough it is intended for.

**Horticulture and Botany.** Says the *L'Illustration Horticole*: The progress of horticulture, had it need of proof, would find one in the development of the botanical gardens everywhere, and in the greenhouses established in these institutions. The Jardin des Plantes, at Paris, has a new winter garden. The houses of the garden of Glasnevin have been renovated and made larger. The botanical institution of Liege has attained vast proportions. The greenhouses of the botanical garden of Grefswald, under the direction of Dr. Edm. Goetze, have been rebuilt, and now in turn those of Tubingen; the Legislative Chamber of Wurtemberg has voted

125,000 marks to this purpose. We also learn that there will be four iron frame-houses in the botanical garden of Brunswick. The enlargement of the fern house in the gardens of Brussels is just completed.

**Plant Life in the Arctic.**—During this short summer, the plant life of the Arctic grows very rapidly under the constant stimulus of an ever-shining sun; and before the snow is off the ground, flowers will be in bloom so near the banks of snow that, with the foot, they may be bent over against them. The vitality in these hardy Arctic plants appears phenomenal, and they almost seem endowed with intelligence in knowing what a brief time they are allowed to spring up, blossom and bear seed. They commence early, and hold tenaciously on to all their growth after plants which we are used to seeing, would be prone upon the ground. Midden-dorf has seen an Arctic Rhododendron, in Siberia, in full flower all over it, when the roots and the stem were solidly encased in frozen soil as hard as ice. On King William's Land, we had four nights in July and thirteen in August, when the thermometer sank to freezing; and yet I picked flowers in bloom, within the last three days of the latter month.—*Lieut. Schwatka, in Independent.*

## ABOUT THE PLACE.

Little wastes carry away profits.

Tile draining promotes earliness.

Soapsuds should go to the compost pile.

A cheap implement is usually a dear implement.

Make up your mind to have a lawn mower this year, if you never have had one before.

Slats across the pig trough, will prevent the stronger animals from plowing away the weaker.

"I am satisfied a well-fed cow will make from her droppings at night alone, \$25 worth of manure in a year."—F. C. Furman.

Dr. Holland makes one of his characters say, "The pig (pig) 'll ate wot there won't nothing else ate, and thin you can ate the pig."

A neighbor of ours keeps his milk cow as clean and well-cared as he does his carriage horse. The cow is a picture to look at. It's the right way.

**Johnson Grass.** As to its probable value as a pasture grass in warm climates, the *American Agriculturist* says: We have seen this grass growing in Georgia, and were favorably impressed with it. It is a very tall and coarse grass, and would be better for soiling the cows than for pasturage. Where manure costs nothing but the transportation, and the land can be irrigated at will, we should advise a trial in the South, not only of Johnson grass (*Sorghum Holopense*), but of the "Pearl Millet" and of the different kinds of Sorghum advertised by seedmen.

If there is a lack of trees, shrubs and vines about the place, take our advice, and before this month is out, order and plant a good assortment of these. Then give the trees some fair care and they will pay for themselves two-fold with every year that comes around. This will be in the actually increased value of your place, in case you wanted to sell, to say nothing about the increased pleasure and comfort to be derived from such a course. Without the beauty and quiet influence which a good showing of trees and shrubs will produce, your home may be so cheerless and unattractive that no one about it can work with energy, or take pride in it.

**Shade for the Well.** More than one advantage comes from it. Trees, or even vines, (the latter supported by trellises), growing near enough to shade the pump, render the water cooler in summer, hence more refreshing to man and beast, than without it. Then, too, there is more or less waste of water from a pump in the process of drawing it; if there are roots of trees or vines to absorb this, it's return to the well, besides an unhealthy moisture in the soil, is in a large measure prevented. Trees and the like grow very fast usually about wells on this account. Another consideration is that trees growing near wells, in some degree provide winter shelter for them. So we say at this season, plant trees or vines to shade the wells.

**Early spring weather** is very trying to bees; the sunshine of some days alluring them out of the hives, and cold winds chilling and often destroying them in large numbers, before they can get back. At other times the temperature may be so mild that their flight and return may be made without any loss. This, then, is a gain for the bees. Rye meal, placed in shallow boxes in the sun near the hive, will attract them; and large quantities will be carried back for food for the young brood. Should there be a lack of pollen in the hives, as might be the case, such feeding becomes very important. They may also be fed a thin sugar syrup, to stimulate breeding. Offering these near the hives, tends to prevent wide ranging and its perils at this season.





**Treeclimber's Talks.**

NATURE AS A BUILDER.

As soon in the spring as the sun drives the frost out of the earth, a great stir begins to take place under ground, for the plants start to grow. The subject of what plant growth is, its various forms, and extent, ought to be a very interesting one for all of my young friends, as well as for older people, to consider at this, its season of beginning. All about us, now, there are endless millions of tiny seedlings and larger forms of plant life to be found in weeds, grasses, useful plants, bushes, and on

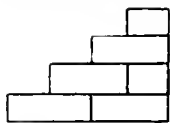


Fig. 1. Bricks as arranged in building.

up to the great trees of our meadows and forests, all starting into activity, as if there was no time to be lost in getting at the work of making the growth of the year.

Great, indeed, will be the change that a few mouths will bring about, as the result of this plant growth. At the time of this writing I cannot yet see one new leaf on tree or plant; in a short time there will be

**MILLIONS UPON MILLIONS**

of them to be seen in all directions. Each small seedling that survives will soon have formed a plant of some size, each healthy shrub and tree will have enlarged by many new shoots. Besides this, every growing trunk and branch will have gained in size, by the taking-on of a layer of new wood over all its parts, and crops of flowers and fruit will appear before the season is ended.

Now, let me aid my young readers in taking a peep at the process by which all these marvelous changes, of the next half year, are to be brought about. To go into all the known details of this matter would be impossible here. But I can at least introduce you to the great fundamental factor in the case, namely,

**THE VEGETABLE CELL.**

That minute part, from which all plants are built up in the process of growth. Even as to the vegetable cell, so much has been discovered and written, that I cannot expect to treat of more than some of its forms and its importance here. To give an idea of the former, I show a few, among many forms, in the accompanying figures, 2, 3 and 4. But these engravings show the cells magnified several hundreds of times in diameter, for ordinarily they are much too minute to be discerned with the naked unaided eye.

To convey a conception of the relative nature of the vegetable cell in plant growth, let me compare plants to the stone, brick or other materials, that enter into the construction of buildings. As buildings, by the work of masons and carpenters, enlarge from small beginnings by the

**ADDITION OF BRICKS UPON BRICKS,**

stones upon stones, etc., (see figure 1), so plants enlarge in all their parts—roots, branches, leaves and fruit, by the addition of cells upon

cells, until the full development of parts or of the whole is reached.

Now, as the materials of different buildings vary a great deal in size, shape and density, so it may be said that vegetable cells also are far from alike. When they begin to grow they are usually spherical in form, but in time many of them become curiously changed by the pressure of one upon another. Some become so much elongated, that they may well be likened to lath and boards in the walls of buildings.

But there is a great difference, after all, between plant cells and building material, in one respect (not to speak of the vast difference in size). It is that while the latter is dead inorganic matter, which must be moved and put into place by some outside power, as when we build,

**PLANT CELLS ARE LIVING ORGANISMS,**

which are produced in the growing plant itself, by a kind of propagation, either through multiplication or division, and which is perpetually going on in growth. In figure 2, showing the cells of a plant, at A, is seen one of these in the process of increasing to two cells, by division, the dark line across it being where a complete cell wall, as at B, is directly to appear.

In this figure 2 is given a section of the stem of a plant showing the cells magnified nearly 300 times. Figure 3 represents the outer layer of cells on a small rootlet, some of the cells being extended as root hairs. In figure 4 is shown what will interest especially many of my young friends who have nice flower beds, namely, the highly magnified

**SURFACE OF A PANSY FLOWER**

showing the cells. Here, as may be seen, the cells are more or less prolonged outward, giving rise to the rich velvety appearance of the petals of this favorite blossom. Were we to examine the beautiful texture of our other fine flowers with a powerful microscope, it would be found that they, in many instances, would present quite a similar appearance.

Now, as you see plants all about you enlarging by growth, just remember that this process is the increasing of the vegetable cells in these, in all of their young parts. And as our towns grow by adding brick to brick and timber to timber, so all the plants and trees of the world increase by the addition of cells to cells. Then you may rightly comprehend not only how nature builds, but also what a great builder she is.

TIMOTHY TREECLIMBER.

**The Hanging Gardens of Babylon.**

No doubt the young gardeners who read this paper, have heard of those famous gardens of ancient times, which were reckoned among the wonders of the world. Perhaps you have been troubled to know whether they were really gardens suspended in mid-air, something after the fashion of our popular hanging baskets. While they did not exactly hang in a similar manner, as these miniature affairs of ours do, yet they were held far up in space, by means of strong pillars and arches, and were literally grand gardens in mid-air. One of the descriptions of these gardens is as follows:

They formed a square, with an area of nearly four acres; but rising in terraces curiously constructed with stone pillars, across which were placed flat stones of large size, covered with cement, brick-work and lead, to prevent the leaking down of moisture, and finally with a sufficient layer of earth to support trees, shrubs and plants.

The upper terrace was elevated three hundred feet above the base, so that, with the intervening ones, at a distance, the whole presented the appearance of a pyramidal wooded hill. A large reservoir for water, with which to irrigate the gardens, and to supply the many fountains, was at the top.

Fountains and banqueting rooms were distributed throughout the numerous terraces. Lawns and avenues of large trees, as well as parterres of flowers, diversified the scene.

**Country and Town.**

"Man made the city but God made the country" goes the old saying, and it is a very proper way to look at things. People may have

their tastes so warped by cultivation as to enjoy the din, clatter and gaiety of town life, but to the person who is open to all the impressions of nature as found in the country, the change from living here to living in the city

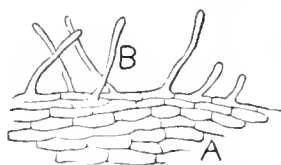


Fig. 3. Magnified Cells at the surface of a Maple rootlet, some extending as root hairs, after Gray.



Fig. 4. Prolonged cells on the petal of a Pansy flower.

is a grievous one to be endured. Most, if not all of the great men of the world, are lovers of the country, and have lived here. The men who are our most successful merchants, lawyers, manufacturers, and even presidents, were, in nine cases out of ten perhaps, country urchins in their day. These things indicate what wholesome surroundings those who live in the country have, as compared with livers in towns.

Take a country boy for the first time to see the wonders of the town; he is bewildered, then amused; at last wearied, and then he wants to go home. But bring out your city boy into the green fields. Let him romp upon the broad lawn, run up and down among the flower-beds, or by the stream; does he want to go home? Not a bit of it. And what is more you can let him take his fill of such enjoyments, for you are certain it will never vitiate his tastes, nor corrupt his heart, nor injure his mental, moral or physical health.—*Nature.*

**PET BIRDS, ANIMALS, ETC.**

**Metal perches produce cramps.**

**Provide lukewarm water for the bird bath.**

**Canary birds have been taught to speak words.**

**To split a parrot's tongue,** that it may learn to talk, is as foolish as it is cruel. Never do it.

**You will always find a wide difference** between the condition of a dog that gets much exercise, and one that does not.

**Hatching birds** are liable to become infested with lice; a slight dusting of insect powder about the nest will prevent this.

**Do not leave matches** within the reach of mocking birds or parrots—they may be poisoned by pecking the phosphorous end.

**Water for Gold Fish.** River water is best, and filtered water the worst, for the fish. Do not use rain water in towns, nor any that is not comparatively fresh. With river or pond water no feeding is necessary. Small insects should be given at times, and hard biscuit, when very pure water is used. The water should be changed every other day, drawing the old by the use of a siphon of light rubber hose, or by baling.

**Raise Your Own Bird Seeds.** The heaps of paper boxes in the stores show an immense trade in bird seeds. Such seeds are no better, for passing through the hands of jobbers, wholesale dealers and retailers, each exacting a high profit. So why not grow them ourselves; it is nice, light work for the children, to raise crops of food for their feathered pets. A Mr. E. S. Gilbert, in the *New York Tribune*, gives some good instructions in this matter, as follows: Canary grass, rape, and hemp seed make sufficient variety. A bed ten feet square will provide for at least one bird, if soil and culture are good. Canary grass is an annual from Central Asia, as easily raised as oats. Sow in drills a foot apart and thin to three inches. Cut off the heads as they ripen—there will be a succession until frost, if not too dry and hang them in a dry place. Rape, which is a triennial, except that it has no edible root and runs up to seed the first year, may be drilled, and thinned to eight inches. Pull the plants when ripe and dry them. Hemp may be in hills, 2x2 feet. The male and female flowers are on separate plants—one or two male plants will be enough to fertilize the females, which are known by their thick leaf spikes; pull the rest of the males soon as they show their flowers. Do not sow until danger from frost is past, and hoe often. In addition, let us tell of a trick of the bird-seed men. Most bird mixtures contain millet, which is seldom eaten; the packages might as well be weighted with sand instead, and \$6 a bushel is pretty high for seed that is mostly wasted. The scientific accuracy of the mixers, which printed labels insist upon, amounts to nothing, since each brand differs from all others.

## April.

Come up April, through the valley,  
In your robes of beauty drest,  
Come and wake your flowery children  
From their wintry beds of rest.  
Come and overflow them softly  
With the sweet breath of the south;  
Drop upon them, warm and loving,  
Tenderest kisses of your mouth.

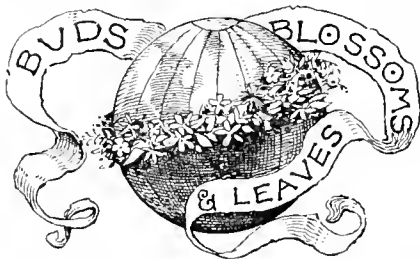
—Phoebe Cary.

## Far Reaching.

We scatter seeds with careless hand,  
And of the act think little more;  
But for a thousand years  
Their fruit appears.  
In weeds that mar the land,  
Or healthful store.

"Ye have no history. I ask in vain  
Who planted on the slope this lofty group  
Of ancient pear trees, that with spring-time burst  
Into such breadth of bloom. One bears a scar  
Where the quick lightning scored its trunk, yet still  
It feels the breath of spring, and every May  
Is white with blossoms. Who it was that laid their  
Infant roots in earth, and tenderly  
Cherished the delicate sprays. I ask in vain,  
Yet bless the unknown hand to which I owe  
This annual festival of bees, these songs  
Of birds within their leafy screens, these shouts  
Of joy from children gathering up the fruit  
Shaken in August from the willing boughs."

—Bryant.



Daisies like a cool soil.

As ye sow, so shall ye reap.

Crocuses keep the bees busy.

Going to seed: the gardener.

The Weigelia dates from 1845.

Remember that 50,000 subscribers.

We say try some new things every year.

'Mums is the short for Chrysanthemums.

Never surrender in the war against insects.

Has the lawn been rolled? Don't forget this.

The flowers appear glad for April's coming.

Flowers: ever a rich theme for poet's songs.

Look out for putty adulterated with blue clay.

Flowering Fuchsias need free draughts of water.

Pussy Willows are an attraction to all youngsters, we think.

At garden-making time many a person would subscribe if asked.

Drummond's Phlox has got a start as a wild plant in some parts of Florida.

Advertisements must reach us by the 15th of the month, for the month following.

We Thank You. This we say most heartily to our many friends who have sent in clubs.

A Butterfly came out to greet the Crocuses in her garden, the other day, writes one sister.

Hardy garden flowers show off the best in wide beds, having a back ground of evergreens.

A variegated Ficus repens, of striking beauty, is reported from Cambridge Botanic Gardens, Boston.

A friend, complaining to us about her plants not blooming, says they look as if they felt ashamed of it.

In tying up plants, see how few strings you can have in sight, instead of how many, as some seem to do.

An idea for spring:—Do a little now, in enlarging our family circle, for now if ever, people will want the paper.

Let the children have some of the responsibility of the light garden work. They naturally incline towards gardening.

The Robin and other spring-songsters are on hand again, to charm us with their sweet music. It seems sweeter than ever before.

No use to look for flowers on newly planted Chinese Wistarias under half-a-dozen years; but when they do come, they pay richly for the waiting.

One's name may not live far down into the ages, but he who plants a tree does an act that is destined to carry blessings through many generations.

Blood-leaved Trees. The three best for the lawn are, perhaps, River's Purple-leaved Beach, Blood-leaved or Schwerdler's Maple, and the Purple-leaved Birch.

To get half-a-dozen persons to unite with the P. G. family in your neighborhood, would tend to improve the tone of the gardening about you most decidedly. Try it.

Pleasure Gardening had made considerable progress under the ancient Romans; it is believed that the Italian style of gardening is very nearly a perfect continuation of it.

When ordering anything from our advertisers do not fail to mention where you belong—that is in the POPULAR GARDENING family. It will bring special attention, mind you.

Trees, whether planted for ornament or in orchards, do best for the society of other trees near by, through affording mutual protection from winds, and extremes of heat and cold. But don't crowd them.

Small, Sweet, Numerous. A Pennsylvania correspondent writes, that although he thinned out 1,200 pears from one Seckel tree in his garden, last summer, those remaining footed up 1,750 at gathering time, total 2,950.

If you want Virginia Creeper it's hardly worth while to buy the plants, if some wood can be had. Make into cuttings a foot long, set these uprightly in the soil, with an inch out of the ground, and you'll soon have plants.

Flowers for gifts are as adaptable as they are charming; where, in all creation, is there anything like unto them. A queen may give them to her subjects; the poorest child can obtain and fitly present them to a monarch.

White worms in flower pots are sometimes a great torment. One member of the family who modestly signs herself "N. M. P.," offers to the others this remedy: add one teaspoonful of carbolic acid to one quart of rain water, and with this water the plants.

The Eutoca is an easily grown Californian annual, with bright, intensely blue flowers. The plants are rather coarse-looking, but being easily grown, and the flowers good for cutting, it is worth giving a place sometimes. Branches set in water will continue to flower for weeks.

Still Ahead. Write—"There! the paper says that the Redwood family, out in the Yosemite valley, are often seen with trunks forty feet in diameter. Now, don't you ever complain of the size of my trunks again, Richard. These Redwoods aren't much of a family, either. I never heard of them."

The power of example is often well shown in gardening. A single enthusiastic amateur in a neighborhood, will plant trees, improve his lawn and set out some flowers and vines for a year or two. Then others will take up the same course in a small way, and very soon the signs of such improvements will appear throughout the entire village or region.

It makes a difference where the break comes in. The florist's heart warms with gladness when his plants break forth in vigorous growth. But when some panes of the greenhouse glass overhead crack and break under the weight of prowling cats, on some cold winter night, it's perfectly shocking how the chills run down his back—through the house.

In grading your lawn, keep in mind that you work to please the sense of sight, but that this

sense is often deceptive. To bring the surface to a true plane, for instance, there would really be the appearance of sagging through the center, and this is not pleasant to see. The remedy is obvious; finish each plat to be a little crowning, at least, in the middle parts.

February Numbers Wanted. The call for our February issue was so heavy, that before we were aware of it, our stock was very low, and now we need some. Should any of our readers happen to have copies on hand, in clean shape, which they could spare, by returning such to this office, we will be glad to advance their subscriptions by two months on our books.

Of what use are flowers and plants? Let the words of one of our readers answer: "Our garden consists of two windows, and these in the room of an invalid mother who is entirely helpless. We cannot afford many luxuries, so the plants are almost our only recreation, and how much joy they do give. At this date (Feb. 9) they are blooming beautifully."

A Fair Offer. Mr. Benj. Hammond, the maker of Hammond's Sing-Shot Insecticide, takes a most effectual way of silencing those who are disposed to question his claims as to its great worth. He comes right out and offers every reader who wishes to know the article, a 5 pound package as a sample, if they will but pay the transportation charges. There readers! you have what we call a straight and business-like offer, with no risk to run on your part. His address is Fishkill-on-Hudson, N. Y.

Nasturtiums. What could be more delightful than an abundance of the sweet, fragrant and bright-colored flowers of these, for the table next summer? Most easily secured. Sow the seed any time during the spring in common garden soil; they will soon start up, and after a brief spell will begin to bloom abundantly, giving an endless number of fine long-stemmed flowers for months. A mixture of good seed can be bought for about 15 cts. an ounce. Here is something for the children to take a hold of.

Talks About Flowers. Our readers are a class who enjoy "talks," of this kind, as we happen to know very well. So we take pleasure in introducing to their notice the charming little book by this name, written by our correspondent, Mrs. M. D. Wellcome, of Yarmouth, Maine. It is just what its name indicates, while the language is direct, comprehensive, sensible, and deals practically with several scores of subjects. There are 161 pages. Mrs. Wellcome is her own publisher, to whom orders for the book should be addressed.

Gardening is capable of affording pleasures which nothing else can do. Friends of W. K. Vanderbilt say that he is arranging plans which promise him a vast deal of substantial pleasure. He will sever his connection with a good many business cares, will abandon speculation, and establish one of the finest country residences known to this land, where he will devote much of his time to leisure. We believe that in time, such a course will be followed much more largely than at present, by many of our men of wealth.

Plant Culture at the South. Mrs. L. M. H., Atlanta, Ga., has this to say about her plants under date of Dec. 25th last: "My Wax plant has done remarkably well. A year ago last August it was a cutting without root; now it has two main runners several yards in length, with some side ones also. It seems as though it would certainly bloom by the time it is two years old. Last summer my plants all did very well. Among these were the Scarlet Tecoma and the Night-blooming Jasmine, the latter with its sweet odor perfuming the house and grounds, from evening through the night."

Smilax. A two line allusion to this plant in the house, in the February issue, has aroused several readers to inquire as to the essentials to its successful culture. A long experience in growing the plant leads us to answer as follows: It delights in a moderately damp atmosphere, with a uniform temperature of between 50° and 60°; it dislikes a dry heat and dust.

Wherever the former conditions can be supplied and the latter obviated, there the plant will grow. A soil consisting of two parts of rotted sods and of old cow-manure will be suitable. The plants, unless they be in their first year, should have partial rest during the summer.

Peter Henderson, the veteran florist of Jersey City, N. J., spent a good share of last summer



Old Man Cactus.—*Pilococcus senilis*.



*Echinocereus Cespitosus*.—Rosy Purple.

#### TWO FINE CACTUSES.

in Europe. In speaking of his stay on the Isle of Wight, he refers to some common plants he there saw, as follows: "We have seen some wonderful things in Fuchsias and Geraniums, which often attain twelve feet in height, in this favored region, where the thermometer ranges from about 40 to 70 in the shade the whole year. At Arreton Church, Isle of Wight, we saw a Scarlet Geranium that is said to be fifty years old. It had been so cut for slips that it is at present but four or five feet high; but still as vigorous and healthy as in its youth."

What Popular Gardening now really needs more than anything else, is a great increase of subscribers. We believe it is within the power of its present friends to easily help us to these. Is there one reader in our family, who, with such a paper in hand at such a price, could not readily interest from one to ten persons to become subscribers to it? Many have done as well. We feel certain that every one could do this. Such a lift would place the paper on a fair paying basis, and admit of a number of contemplated improvements, which its publishers even at present have in view. Now we feel disposed to assume just so much for the good will which every one of our friends bears toward this paper, as to believe that they will try if they have not yet done so, the very thing we suggest. Let us have a rousing increase of subscribers, in this fair spring month of April.

If there is to be found as fine a trade publication in the gardening line, in the whole world besides, as that issued by the B. A. Elliott Co., of Pittsburg, Pa., then we have not seen it, and our acquaintance with such publications is not slight either. It is not a catalogue in the common sense of the word, although in part answering that end. It is a magnificent pamphlet on ornamental gardening; size of page, 7 1-2 inches by 10 1-2 inches, with engravings, presswork and general appearance on a level with the fine work peculiar to the *Century* and other high-priced magazines. Need anything more be said? Admiring, as we do, fine engravings, paper and printing, as all readers of POPULAR GARDENING must know by this time, we must pronounce this a work after our own heart. An announcement on another page gives some further particulars.

**Liquid Manure.** Every successful florist uses it. But plants are not at all times in shape to receive it and here is where the inexperienced often make mistakes. To suppose for instance that when a plant is in a feeble, stand-still condition, that liquid manure will help it, is a mistake. At such a time leave it away. Just when to apply it is when plants are in active

growth, and when a stronger growth or a more prolonged season of growth is desired. This month may find numerous plants in the greenhouse fit to receive it. Let it be weak, but apply often. How to make: The neatest way is to have a tub for the purpose, over which, resting on two cross sticks, is placed any kind of a barrel having holes bored in it. Fill the barrel

with manure, packing it somewhat; then pour in water at intervals, and the leachings into the tub are what you want. Dilute before using.

**All Helping.** When even the good contemporaries of POPULAR GARDENING are interested in seeing us make an excellent paper for our readers, the outcome surely must be good. Our friend of the *Floral Cabinet*, who has made the geographical location of plants much of a study, calls our attention to an error in our issue of four months ago, in which we unwittingly confused the Isle of Natal with the District of Natal, places both so obscure as rarely to be given notice in the geographies. For this he has our sincere thanks. But why will not this esteemed contemporary, aside from thus assisting us on to perfection in our work, notice the number of fine and instructive engravings which appear in each issue of POPULAR GARDENING? We are lead to this question, through perceiving that the journal referred to, persists in asserting that it gives "more illustrations than any other periodical devoted to the same topic." Readers of both papers must "smile" at such a statement, when it is seen at a glance or by count, that our paper averages more than twice over the number of engravings per issue on gardening matters, to be found in the issues of that paper.

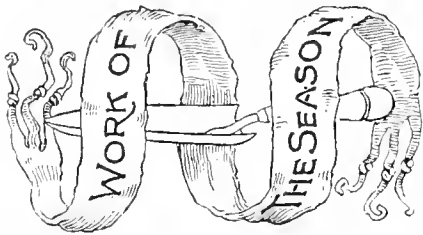
**Kennedias.** Here and there may be met a greenhouse in which some of these handsome climbers are kept up in good shape. Wherever such is the case, from even earlier than this, on, may be seen a remarkably grand display of pea-shaped blossoms, scarlet, blue, pink, etc., according to the variety. The plants have neat evergreen foliage. They are not too difficult for the average amateur, who devotes careful oversight to his plants, to undertake. The best plan for getting up stock is to raise it from seed. The seed can be obtained from dealers who furnish seeds of greenhouse plants. Of these *K. Comptoniana*, *K. Macryattii*, *K. rubicunda* and *K. monophylla* are among the best. Sow early in the spring in well drained pots of light soil, soaking the seeds before sowing. During after culture, shift promptly before the roots become much matted on the surface of the balls. The soil should be composed of two parts turfy peat, one part well rotted manure, with the addition of some sharp sand. Good drainage, careful watering and free syringing are important at all times. Keep perfectly clean of the small, white scale, which is the principle enemy of these plants.

**"Floral World" Premiums.** Occasionally a letter is received at this office making inquiries about such premiums, perhaps referring to

their non-receipt or the like. As our own readers know, we have never gone into the plant and seed premium business. This is because, first, we prefer to give for the price asked for our paper, the full worth and more in the contents of the paper itself; second, we have always had a notion, that somehow such a premium business is unfair to those in the seed and plant trade. Of course, on such grounds we preferred not to become interested in any *outside* premium contracts; hence, in the recent transfer of the "Floral World" to us, it was done with the distinct understanding that the late proprietor of that journal, fulfill all premium obligations due former subscribers, *he having retained all the money which fell to the premium accounts.* Therefore, while we most gladly include every one of those readers as members of our family circle, we expect to keep them with us and shall supply them with the full quota of papers for which they paid, we must ask them to address all matter concerning "Floral World" premiums to Mr. Gillette, of whom they were originally ordered.

**Sweet Peas.** Who does not love them? Who would not have them, so beautiful, so fragrant, so convenient for use with their long stems, next summer, from June until frosts? You easily can, either in the garden or in boxes, by following POPULAR GARDENING'S five rules for raising them. Here they are: First, choose for them, the coolest, dampest (not a wet, undrained) spot in the garden, if you have a garden, if not, make a good-sized veranda, window or roof box, say 7 inches deep, 10 inches wide and of any length; the site for the Peas should be in the sun, at least one-half of the time. Second, plant with the first things planted, that is, as early in the spring as the ground is found to work up decently; the seeds should be covered at least two inches deep. Third, at half a foot high, give brush, trellises or strings, five feet high. Fourth, with the bursting of the first flowers, mulch liberally over the surface of the roots, say two feet on each side of the row in the garden, using hay, straw or litter; this is designed to provide that most important need of the plants; moisture at the roots; if there is drouth, water in addition. Fifth, sooner or later cut every flower before it develops into a seed-pod. These rules followed, and you may have plenty of Sweet Peas the summer through.

**Two Fine Cactuses.** Mr. A. Blanc, of Philadelphia, whom we must style America's most enthusiastic Cacti grower, has furnished us with the fine engravings of those shown herewith, also with some notes. The "Old man" Cactus, *Pilococcus senilis*, will at once attract notice; it is one of the curiosities of the plant world. It derives its name from the long silvery white hairs (really soft weak spines), which cover the upper portion of its stem, and impart a peculiar resemblance to the hoary head of a man. The plant is easily managed in cultivation, provided the simple precaution of growing it under a glass shade, to keep the dust from it, is observed. Our other subject, we must introduce by its botanical name, *Echinocereus Cespitosus*, for we know of no other one. It is nearly related to the *Cereus* section of the Cactuses, among which the large Night-blooming *Cereus* is so famous. This plant is conveniently dwarf in habit, making it desirable for the window. It is easily grown by amateurs. It flowers freely, bearing rosy purple blooms. But the feature which renders it attractive at all seasons of the year is its fine and pretty spines symmetrically arranged. POPULAR GARDENING is glad to see that Mr. Blanc is disposed to give the public the benefit of his attainments, in collecting and growing (out of pure love) the many subjects of this too much neglected family, by offering some of them for sale at reasonable prices. We have long known the gentleman as a leading artist and engraver, and the head of a large fine-art establishment. We hope to know him long in the future, as a promoter of the culture of fine Cacti.



### THE HOUSE PLANTS.

**Air.** The plants have for a long time been without an abundance of fresh air; admit it freely to them; set them out doors in warm days, and especially in warm showers, if such there be.

**Callas.** See answer to Inquiry No. 53, on opposite page. The treatment thus given is equivalent to a rest. If kept growing steadily on all summer, their power to bloom next winter will be impaired.

**Camellias** now, more than at any other season, need frequent syringing or sponging off.

**Chrysanthemums.** Care must be taken that they do not get pot-bound; their growth must be constant; for late plants cuttings may still be struck.

**Flowers** should now be abundant in the windows. If bedding plants are to be bought from the florists, it is well to select some of these now. Keep them in the window for their bloom here until the planting out time is at hand. A pretty plan for temporarily covering window flower pots, especially if they should be unsightly, is here shown. Sheet cotton batting is used for the cover, and this is kept in place by two or three ribbon ties. Colored paper is sometimes used instead of the cotton.

**Fuchsias** in bloom, aside from needing much water, are benefited by an occasional dose of weak liquid manure. On shifting, see Heliotrope, as follows:

**Heliotrope.** The beauty of this plant depends on never allowing the roots to become pot-bound; before this occurs shift. Large shifts suit these plants and some others like Fuchsias, Cinerarias, Callas, and so on admirably.

**Mignonette** should be sown where the plants are wanted, whether in pots or in the garden, as few kinds of flowers transplant so poorly.

**Oleanders** of small size do better for being bedded out for the summer, taking them from the pots.

**Petunias.** If old plants have grown unshapely, a thorough cutting in now will improve them much in the course of six weeks or two months.

**Propagation** may now be going on with many kinds of plants for stock to bloom next winter.

**Start up** the dormant Dahlia, Canna, Richardia and Caladium tubers that have been kept over.

### LAWN AND FLOWER GARDEN.

**Annals.** This month is the time for early sowings, over a large range of our country. We prefer sowing in drills, to sowing broadcast. Drills about an inch deep should be opened in which the seed should be scattered quite thickly. A covering of fine earth should follow; it is a good plan to use some light mould that has been sifted for this purpose. Spat down the covering afterwards with the hoe or the back of a spade.

Half hardy and tender annuals may be started under glass, or in a sunny spot that is sheltered from the wind by buildings, and which may be sheltered by mats or shutters in cool or frosty nights.

**Bedding plants** of all kinds are much better off to be in hot-beds for the last six weeks before planting. Then in warm days the glass may be wholly removed, and this will tend directly to the making of strong, robust plants.

**Cold frame and pot plants** should at this season be hardened off by full exposure.

**Evergreens** may be planted some weeks later than is well for deciduous trees. They should be pruned at transplanting, the same as any other kinds. For general pruning, this is the best season.

**Hardy Bulbs.** Beds of these should in all cases be lightly raked over before the plants appear.

**Hedges** may now receive their annual pruning.



Simple method of covering Flower Pots. See "Flowers."

**In staking trees** bind them fast by means of a strip of duck or leather, rather than with a cord. A piece of such material brought around the tree and crossed on top of the stake, driving one or two nails through into the stake, is all that is needed.

**LOBELIA** the blue kind as a bedding plant affords a rare color, but it does not remain handsome very long. It should be managed by getting up successive propagations, replacing the plants in the beds about every two months. Propagate by division, slips or by sowing the seed.

**Lawn.** The directions of last month followed out in the spring, and little needs be done to a lawn all during the season, except to mow whenever the grass gets to be one or two inches high. Mow carefully, that no uncut strips will ever be seen, and attend to having the gauge wheels elevated alike on both sides. See Weeds.

**Lilies,** if to be planted, should have this done early. Fall is a better time, excepting for the old Candium, which should be transplanted in August.

**Roses.** Plant hardy ones as early as they can be procured, and the soil is fit to receive them.

**Street trees** should not be planted unless protected against the gnawing of horses, (they sometimes do great damage), by some kind of a guard. Those made of slats are better than such as are made of boards, for injurious insects find a safe retreat behind the latter. We notice by their catalogue, that J. R. & A. Murdoch of Pittsburgh, Pa., make and sell a circular tree guard of pickets, which we think so well of, that we have taken the liberty of reproducing it in an engraving.

**Tender Bulbs.** Such as Cannas, Caladiums, Dahlias, etc., ought to be starting and getting into shape for planting. Have your supply of Gladiolus, Tiger Flower, Tuberoses, etc., ready for putting out as soon as warm. Some authorities recommend doing early planting for Tuberoses, saying that they produce more and larger flowers if started while the soil is cool.

**Weeds** have no place in a well-kept garden. Some kinds, like the Shepherd's Purse, Chickweed, and so on start up, flower and seed very early; they should be speedily destroyed as soon as seen. Dandelions, Plantains, etc., make themselves at home in lawns if allowed to, giving them an inferior look. Remedy: Cut them out with a short, strong-bladed knife, just below the crown.

### PLANT CULTURE UNDER GLASS.

**Achyranthes** for good color need heat and light.

**Alternantheras** are a fine class of bedding plants, well adapted to our hot summers. By dividing the stock on hand up in pieces so small that but each one has a bit of root, potting separately and set in a close frame rarely admitting air (they love high heat), each one will make a fine plant for bedding out in six or eight weeks.

**Annuals** sown early must not get crowded; transplant or thin out; straggling ones should be topped.

**Azaleas** after flowering should be shifted, and when the growth of the season is pretty well over should receive an increase of air. Water and syringe freely.

**Carnations,** if given a top dressing now, will repay the trouble by a great increase of bloom later.

**Climbers** for summer, like German Ivy, Maurandya, etc., will be the better for cutting back now.

**Crowding** at this season is a common foe to the well-doing of plants. Make hot-beds or frames to accommodate the overplus until planting out time.

**Cuttings** lately put in sand should be frequently examined, and immediately that roots, however small, are present, they should go into pots.

**Fall Plants.** Propagate for fall use, Alyssum, Heliotrope and any other plants thus needed.

**Ferns.** Shift or renew the soil of those in pots; in doing so break up the old outside roots somewhat.

**Ivy Geraniums** if cut back at once will get into fine shape for summer use by June 1st.

**Orchids.** At this season keep up the moisture by sprinkling the paths and shutting up early. Any plants requiring repotting must be attended to as soon as in a growing state. Shade from the sun as directed under "Shade."

**Roses** are liable to be troubled with fly now; fumigation is the simple and safe remedy.

**Shade** lightly with whitewash or with naphtha and whitelead over Camellias, Azaleas, Fuchsias, Double Primroses, Caladiums, Callas, Fancy Coleus and Geraniums. Ferns and other plants liable to spot. Sometimes a blister in the glass will cause a streak or spot. Spy it out and paint on the under side.

**Shift** all subjects as they require more root room, for if active plants have their roots confined to in-

sufficient or poor soil, their vigor and beauty will be much impaired. Use clean pots always; the reason why plants do better in new pots, is because the pores are unclogged, hence air has ready access to the roots, and this is wanted. Thoroughly washed old pots have a nearly similar good effect on them.

**Stove Plants.** Rapid growers among these, such as Gesnerias, Gloxinias and the like should now most likely be shifted; if given bottom heat directly afterwards it will be a great help.

**Verbenas** propagated the fore part of April will be early enough for making good bedding plants.

### FRUIT GARDEN AND ORCHARD.

**Berries.** Plant Raspberries in rows 4 feet apart and 3 feet in the row. Blackberries in rows, 8 feet apart, and 3 feet in the row. Strawberries may be set in rows 3 feet apart, and 12 inches in the row. The soil should be fertile, but good cultivation counts better than much manure for all of them.

**Currants** would give better satisfaction if not so generally slighted. They repay very liberally for manuring and fair care.

**Cuttings.** See last month's paper under this head.

**Grapes.** In planting young vines cut back to two eyes.

**Insects.** See last month's paper under this head.

**Manures.** Wood ashes, where available, are the cheapest fertilizer for fruit trees. In their absence, bone manure three parts, and Muriate of Potash (German Salts) of high grade, one part, make a superior article, having the strong endorsement of the Massachusetts Agricultural College.

**Old Orchards** should be manured and plowed, using lime and ashes.

**Strawberries** covered last fall should have the cover drawn apart where the plants are.

**Trees,** as soon as they arrive from the nursery, should be heeled in by the roots, until wanted one by one for planting. Should, however, any be received in a shriveled up condition, bury the whole tree in the ground for several days, until plumpness is restored. If they become frozen *en route*, do not unpack while in this condition, but place the package in a cool cellar that they may thaw gradually.

### VEGETABLE GARDEN.

**Asparagus.** The time to cut is when the shoots are 6 to 8 inches long. Careless cutting spoils many stocks. Use a knife with a pointed blade and cut with the point, so as not to injure any other shoots that are out of sight.

**Beets** are better sown in well dug soil without much manure. They then make small, handsome well-colored roots, such as are most desirable.

**Cauliflowers.** A good crop can be looked for only on ground that is well enriched before planting.

**Celery** for main crop, should be sown early in April, in a nicely prepared seed bed in the open ground.

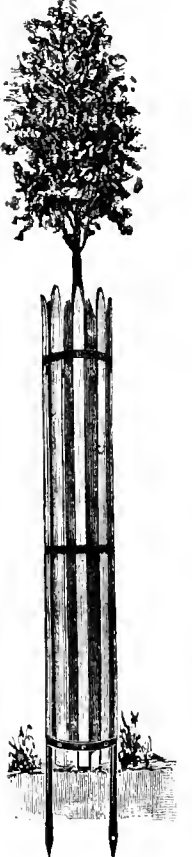
**Culture.** Keep the soil between plants and drill rows frequently stirred to free them from weeds.

**Hot-beds.** Give plenty of air in the day time; keep close at night using mats, also when frost or wind threatens. For watering at this season use water with the chill taken off.

**Onions.** Use manure freely, or a good crop need not be expected. When large enough to weed, a good top-dressing of wood ashes will help the crop.

**Parsley** may be sown thinly in drills and then if covered with tiles or stones for about ten days, the seed will begin to show itself, instead of its taking as commonly several weeks for its germination.

**Fleas on Plants.** Watch the Turnip and Cabbage plants for these pests, and as soon as they show themselves dust with soot, wood ashes or air-slacked lime, going over the plants repeatedly.



A circular Guard for Street Trees.

**Radishes.** Sow two weeks apart, for succession.

**Seed Sowing.** Do not trust seeds of doubtful vitality, but test them first. Count out two dozen seeds, sow in a flower pot or other vessel of soil, covering but lightly, and note what share comes up. Sow the kinds mentioned last month under this head, before the middle of the month. Start in a well prepared seed bed such kinds as Brussels Sprouts, Broccoli, Cauliflower, Celery, Endive, Kale, Kohlrabi, Lettuce and Parsley. Where frosts are over plant Bush Beans, and start Lima Beans in sods in the hot-bed.

**Sweet Herbs.** Look ahead to a supply for next winter, by sowing now for later transplanting, Sage, Thyme and Sweet Marjoram. Summer Savory must grow where it is sown.

**Sweet Potatoes.** Start these toward the end of the month in the hot-beds, for plants to be ready for planting out by the first of June.

**Tomato plants** that have been brought along in hot-beds or seed boxes, must be transplanted promptly to frames, using pots, boxes, or not, as you choose, before they become drawn in the least by crowding.

**Tools.** Put each one in working order before the day it is called into use.

**Wet land** ought to be well drained, as such is always late in the spring, before it is ready to work.

**FRUIT AND VEGETABLES UNDER GLASS.**

**Cucumbers in Frames.** Continue to use linings to keep them growing; if stable manure is scarce some other material like grass may be used now instead.

**Grapery.** Where the Grapes of early vines are changing color, air freely, leaving ventilators open a little at the top during the night. Keep the air rather dry to prevent shanking, but it is a mistake to maintain a parched atmosphere at this time; sprinkle the floor but withhold the syringe for the present. Where new vineries are started or old ones replanted, this is a good time for planting. Attend to former directions concerning grapevines.

**Peaches** that are being forced will now be swelling fast, and the last thinning must be done without delay. Water thoroughly at the roots and use manure water freely till the fruit shows color. Syringe twice each day. Good heat and much air are necessary at the fruiting stage.

**Pines** that show fruit should be given manure water, warm and weak. Before shutting up, syringe. Robust growth may be induced in plants for succession by free ventilation.

**Strawberries** in heat ought to be hardened gradually after fruiting, if the plants are required for new beds, before removing them outside.

**List of Catalogues Continued.**

Here is another long list of catalogue publishers, who have sent to us their catalogues since our last issue. It is a pleasure to bring all of these to the attention of the 10,000 families who now receive POPULAR GARDENING. Our only regret is that space cannot be spared to describe them to a unit, as they deserve. But all are at the command of the public, and our readers can order such as they may desire to use and judge of their worth for themselves. Some publishers, reasonably enough, ask that the postage (but a small fraction of the cost) be advanced, a matter concerning which, can readily be determined by postal card inquiry. You had, in any case, better mention being of the POPULAR GARDENING family.

As more than once intimated in these columns, all these fine American Gardening Catalogues, indicate a healthy and growing interest in gardening matters with us. POPULAR GARDENING as a journal for the million, commits itself to earnestly and faithfully do its full share in promoting improved gardening in all its branches, hence it also takes pleasure in mentioning all catalogues in this line. And while, as it trusts, the people may find increased pleasure and profit through its humble work, it should also follow that the dealers, too, should be benefited by any improvement here, through the more intelligent and liberal patronage that naturally must attend this. Thus we hope to merit the confidence and good will of both of these important classes, while striving always to benefit both:

- H. S. Anderson, Union Springs, N. Y. Nursery.
- C. E. Allen, Brattleboro, Vt. Plants, etc.
- Chas. H. Anderson, Baltimore, Md. Nursery.
- R. H. Allen Co., Water street, New York. Seeds.
- Aluer Bros., Rockford, Ill. Plants, etc.
- Albertson & Hobbs, Bridgeport, Ind. Nursery.
- Beach & Co., Richmond, Ind. Plants, etc.
- Joseph Brock & Sons, Boston, Mass. Seeds.
- Bassler Bros., Manhattan, Kan. Seeds.

- John G. Burrow, Fishkill, N. Y. Grapes.
- Caleb Boggis, Morton, Del. Fruit.
- Alfred Bridgeman, New York, N. Y. Seeds.
- J. Butterton, Hammoncton, N. J. Small Fruits.
- \*Bailey & Hanford, Makanda, Ill. Tree Seedlings.
- Brown Chemical Co., Baltimore, Md. Fertilizers.
- B. L. Bragg & Co., Springfield, Mass. Seeds.
- L. G. Bragg & Co., Kalamazoo, Mich. Nursery.
- E. Bonner & Co., Xenia, O. Plants, etc.
- Bannockburn Greenhouses, Rochester, Fruits, etc.
- Wm. C. Becker, Allegheny, Pa. Seeds.
- James E. Bousall, Salem, O. Plants, etc.
- Bowker Fertilizer Co., Boston, Mass. Chemicals.
- F. Barteldes & Co., Lawrence, Mass. Seeds.
- Everett Brown, Bluff Point, N. Y. Grapes.
- \*Martin Benson, Swanwick, Ill. Tropical Plants.
- Crosman Bros., Rochester, N. Y. Seeds.
- John S. Collins, Moorstown, N. J. Small Fruits.
- H. G. Corney, Cornwall on Hudson, N. Y. Fruits.
- R. G. Chase & Co., Geneva, N. Y. Nursery.
- S. W. Cull, Perry, Lake Co., O. Nursery.
- W. E. Chapin, Des Moines, Iowa. Nursery.
- B. P. Critchell & Co., Cincinnati, O. Plants, etc.
- R. Douglass & Sons, Watkegan, Ill. Nursery.
- \*Peter Devine, Chicago, Ill. Heaters.
- Albert Dickinson, Chicago, Ill. Agricultural Seeds.
- \*B. A. Elliott Co., Pittsburg, Pa. Plants, etc.
- E. S. Fitch, Bay City, Mich. Fertilizers.
- R. & J. Farquhar & Co., Boston, Mass. Seeds.
- S. Freeman & Sons, Racine, Wis. Iron Goods.
- Frank Finch, Clyde, N. Y. Seeds.
- Wm. L. Ferris, Jr., Poughkeepsie, N. Y. Seeds, etc.
- S. Green & Son, Perry, O. Nursery.
- P. M. Gideon & Son, Excelsior, Minn. Nursery.
- Graham, Emken & Passmore, Phila. Lawn mowers.
- David Hill, Dundas, Kane Co., Ill. Evergreens.
- Harkett's Floral Nursery, Dubuque, Iowa. Plants.
- Harvey Bros., Buffalo, N. Y. Seeds.
- Hanes & Borden, Red Bank, N. J. Nursery.
- Geo. W. Hawkins, Newburg, N. Y. Nursery.
- W. W. Hilborn, Arkona, Canada. Small Fruits.
- Island Seed Co., Muscatine, Iowa. Seeds.
- Iowa Seed Co., Des Moines, Iowa. Seeds.
- Johnson & Stokes, Philadelphia, Pa. Seeds.
- Ed. Jansen, New York City, N. Y. Floral baskets.
- J. Jenkins, Winona, O. Grapes, etc.
- Geo. S. Joselyn, Fredonia, N. Y. Grapes.
- Fred W. Kelsey, New York. Trees & plants.
- \*Geo. J. Kellogg, Janesville, Wis. Small Fruits.
- J. N. Kramer & Co., Marion, Iowa. Florists.
- Samuel Kinsey, Kinsey, O. Nursery.
- C. P. Lines, New Haven, Conn. Nursery.
- J. & J. L. Leonard, Iona, N. J. Small Fruits.
- Aaron Low, Essex, Mass. Seeds.
- Louis C. Lischy, Nashville, Tenn. Nursery.
- Chas. C. McColgan & Co., Baltimore, Md. Plants.
- F. E. McAllister, New York, N. Y. Seeds.
- Mendenhall & Co., Indianapolis, Ind. Implements.
- J. M. McCullough's Sons, Cincinnati, O. Seeds.
- D. S. Marvin, Watertown, N. Y. Grapes.
- T. C. Maxwell & Bro's, Geneva, N. Y. Nursery.
- Niagara Wh. Grape Co., Lockport, N. Y. Grapes.
- Wm. Parry, Parry P. O., N. J. Nursery.
- J. C. Plumb & Son, Milton, Wis. Fruits & Shrubs.
- Plant Seed Co., St. Louis, Mo. Seeds.
- F. S. Platt, New Haven, Conn. Seeds.
- Phoenix Nursery Co., Delavan, Wis. Nursery.
- \*F. R. Pierson, Tarrytown, N. Y. Garden Supply.
- Rakestraw & Pyle, Willowdale, Pa. Nursery.
- Wm. B. Reed, Chambersburg, Pa. Plants, etc.
- Robert C. Reeves, New York, N. Y. Garden Imp.
- E. C. Selover, Geneva, N. Y. Nursery.
- R. A. Swain, Philadelphia, Pa. Heaters.
- Thos. F. Seal, Unionville, Pa. Carnations.
- Schlegel & Fottler, Boston, Mass. Plants, etc.
- John A. Salzer, La Cross, Wis. Seeds.
- C. H. Thompson & Co., Boston, Mass. Seeds.
- S. Temple & Sons, Calla, O. Plants, etc.
- Trumbull, Reynolds & Allen, Kansas City, Seeds.
- Thos. Tagwell, Sooke, British Columbia. Seeds.
- Wm. Toole, N. Freedom, Wis. Pansies.
- T. C. Thurlow, Newburyport, Mass. Nursery.
- E. B. Underhill, Poughkeepsie, N. Y. Sm. Fruits.
- Robert Veitch & Son, New Haven, Ct. Seeds, etc.
- C. L. Whitney, Warren, O. Evergreens.
- J. C. Wood & Bro., Fishkill, N. Y. Nursery.
- \*Albert Williams, Sharon, Pa. Plants, etc.
- \*Woolson & Co., Passaic, N. J. Hardy Plants.
- A. Whitcomb, Lawrence, Kan. Plants, etc.
- Wm. C. Wilson, Astoria, Long Island. Roses, etc.

\*See advertisement elsewhere in this issue.

**Well Done! Gardeners of America. Prospects of even Cheaper Postage.**

That the members of our POPULAR GARDENING family, together with other American gardeners (florists, etc., of course included) not yet with us, are a power in the land, is forcibly shown, by the prompt reversal of the increased postage prospects as to seeds, bulbs, etc., referred to in our last issue. As a result of the influence brought to bear upon the introducers of the "increased postage" bill, by our readers and others, not only has the bill been promptly revised to exclude all gardening articles, but we are also happy to report, that in view of the light given on this subject in general to the Postal Committee, there are good prospects now that postage on this class of matter will be reduced from one cent an ounce to one cent for each two ounces. But as this measure has not yet fully passed, we advise any of our readers who have as yet not communicated with their Representatives at Washington regarding it, to do so at once, and thus aid in making assurance doubly sure. We desire here also to recognize the valuable service done in this matter, by the Society of American Florists, and their efficient organ, *The American Florist*, of Chicago.

**Inquiry Column**

This being the People's Paper it is open to all their Inquiries, bearing on Gardening.

On the other hand, answers to published inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the convenience of many being more valuable than of the few, however rapid that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no true writer, you facts and ideas and the editors will see that they appear in creditable shape.

In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper.

Flowers will be gladly named provided first, that no name than three be sent at one time. Second, that these be fully prepared. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.

45 **Agapanthus.** How old must this plant be to bloom? JULIA D. SHANKLIN.  
46 **Oxalis.** What shall I do to make Oxalis bloom? Does it want to be wet, and to have sun?  
48 What treatment do Amaryllis Treataea need? I have a half two years old; has made another bulb, but never blossomed. MRS. A. E. VAN SERY, *Brookston, N. Y.*

49 **Currant Worms.** What will destroy the green worm on Currants and Gooseberries, that are so destructive to them? and oblige, A NEW SUBSCRIBER, *Bedford, Ind.*

50 **Hyacinths and Daphnes.** What time must Hyacinths be planted to have spring bloom? How should Daphne odorata be treated to have bloom next winter? A READER

51 **Curculio and Salt.** Will a liberal sprinkling of salt under the Plum trees in the spring, destroy the Curculio? E. M. VAN AKEN.

52 **Rose Cuttings.** I never had luck with Rose slips. Can any of the "Popular Gardeners" enlighten us on the subject? SISTER GRACIOS.

53 **Callas.** Will you be kind enough and tell me how to start Calla Lilies? I have some young ones from last fall that are long and slender. How shall I treat an old plant, the leaves of which curl downward? A READER, *Englebo, N. Y.*

54 **Cannas.** I would like to know how to raise from seed, and how to treat them during winter.

55 **Callas.** Do Calla Lily bulbs bloom the first season? N. H. E.

56 **Buds, but No Flowers.** Will not some one of the family tell me how to treat my plants so they will flower? They bud profusely, but the buds hardly ever open. Those of the Fuchsia nearly open, then drop. Geraniums blight in the buds. Coleus are sickly, with only a few leaves at the top. I am at a good temperature, I sprinkle them and faithfully care for them, but they disappoint me. "EARNESTINE," *West Peabody, Mass.*

**REPLIES TO INQUIRIES**

41 **Geraniums to Keep Over.** Procure small boxes, say from grocers, and when you lift your Geraniums put them in these, and pack a spadeful of earth firmly over the roots. For a lamp cellar, have the earth dry; if a dry one, then let it remain moist. I am always sure of mine coming out well in the spring. F. E. E., *Pa.*

51 **Curculio and Salt.** We would have no faith in salt as a remedy, but if applied very moderately it would have a good effect as a fertilizer, and to that extent help. See article on Plums, page 76, Eps. P. G.

37 and 52 **Propagating Roses.** Nearly ripened wood, made into cuttings of two eyes each, with most sorts propagate quite easy. Guard against excessive moisture and heat, and admit air to the cuttings freely. I have had excellent success with striking cuttings of about four eyes each in October, putting them in a box of sand for one half of their length. Hybrid Perpetuals cannot, in the ordinary sense, be propagated from seed. A. H. E.

39 **White Worms.** I have used a very weak solution of Carbolic Acid for white worms and find it a sure cure. N. H. E., *Waltham, Ont.*

36 **Petunias.** It must be a defect in the root or else the soil. Sometimes cuttings stand a long time, having the appearance of rooted plants, but without one root eventually these behave as you speak of. Petunias like a rich, light soil. A. H. E.

40 **Camellia.** In greenhouse culture, young Camellias often bear one flower at two years old. They require a moderate to cool temperature, plenty of air, frequent sponging of the leaves, and thorough draining in the pots. R. H. G., *Baltimore, Md.*

41 **Books.** Henderson's Hand Book of Plants, (Price \$3.00, The Home Florist, (Price \$1.50), we think would best answer your purpose. Both can be furnished from this office. Eps. P. G.

53 **Callas.** Plant in a rich bed of soil this spring, taking them from the pots. Lift in August, putting in good soil. They may drop their leaves by this course, but no harm in the end they will be all right. PRACTICAL FLORIST.

54 **Cannas** are easily raised from seed, if first soaked in lukewarm water for four days. A. H. E.

# The Household

## Fussiness in Housekeeping.

We are of the belief that there is no one common foe to domestic peace and comfort, like that of fussiness—a making much ado about trifles. It arises more often, perhaps, from a lack of system or plan in managing the affairs of the house than otherwise. The house-cleaning season, now upon us, proves to be a time for aggravating this unpleasant quality in a more than ordinary measure. It is therefore a fit time to study to avoid it. Some women when cleaning stir up every room in the house at one time, a step that must add directly to the discomfort of the family. The right plan of procedure, is to sit down at the beginning of the cleaning campaign and quietly survey the field of work, deciding promptly what must be done to begin with and what will bear deferring. This done, then begin at the beginning, and follow out systematically the course decided upon. The wise housekeeper never gets into a "stew"; she aims right at the mark through every movement of hand and foot. She studies especially to take no useless steps in doing her work.

System is as essential in the government of the household as to that of the State. Order, punctuality, industry and good judgment are necessary and efficient forces in the home; by adding cheerfulness, patience, and a thoughtful care for the general comfort and happiness of its members, you will avoid unpleasant friction, and make the home what it should be—the center of all that is best and dearest to the human heart.

### Brieflets.

**A wet knife** cuts hard soap, with ease.

**Plates** are more and more Japanese in tone.

**Narrow plaiting** on the edge of skirts tends to graceful effects.

**Half a teaspoonful** of table salt dissolved in cold water, will relieve heart-burn or dyspepsia.

**Salt-cellar**s are looking up; a favorite device is a silver vase, about two inches high, with a shell to hold the salt.

**Stand** at your work when you must, of course, but never, when the work is of a kind that can be done as well seated.

**How much easier** it is to get along with damp wood for fuel, if you fill the oven with it after each meal to dry it for getting the next one.

**In French** Cashmires for early spring dresses, the most prominent colors are the bronze and moss green shades, and all ecru and beige tints.

**Knives and forks** are now to be had with crystal handles set in silver. These come from Bohemia, and are very ornamental and clean-looking.

"**One who knows**" writes to POPULAR GARDENING thus: If you want baby to learn to go to sleep without being rocked, choose a day when he has been unusually bright and happy; keep him up, and awake, until a little after his regular hour for sleep, then give him a cup of milk nicely sweetened and warm; have the bed soft and cosy, and on this lay him down gently and soothe him with a little kissing and patting, and, if not spoilt, he will soon close his eyes in the sweetest kind of sleep.

**A cleaning mixture**, excellent for removing grease and stains from carpets and clothing, according to a popular English journal, may be made as follows: 2 oz. lump ammonia, 2 oz. white Castile soap, 1 oz. glycerine, 1 oz. ether. Cut the soap fine, and dissolve in a pint of water over the fire; afterwards adding 2 quarts of water. This article should then be well mixed with water at the rate of one teaspoonful to a common pailful of water. In this, wash any soiled and greasy articles. To remove spots, apply with a sponge or clean flannel, and rub well afterwards with a dry cloth.

**It is well** for every mother and girl not to say every young man; to face the fact that a young woman who deliberately marries without understanding the art of cooking, is taking upon herself a serious burden. Especially is this true of those in modest circumstances. Sour bread, leathery steaks and wisly-washy coffee are not conducive to happiness. One may thoroughly understand art,

music, science and philosophy, be familiar with astronomy, mythology, politics, &c., yet if the simple art of making a loaf of good bread has been neglected, the education is sadly incomplete.

**Here is an idea** from "Babyhood," that ought to interest mothers who have young children. It relates to what the one who gives it, calls a "Palace Car." It is designed for protecting babies from draughts while on the floor. To make it, take a box three feet long by two feet wide, or larger, if you choose, and just high enough for baby to look over as she sits in the box. Fasten strong cleats to each end underneath, and into these put good casters, that it may be readily wheeled. Pad the inner sides and cover with pretty calico; cut pictures from linen picture books and "button hole" them on the sides. Place several layers of newspapers in the bottom, and over this, a piece of carpet. The child will soon get to like its palace car and with it can learn to creep as well as to stand; the sides being soft, a bump will not hurt her.

# Poultry.

## Summing Up the Necessaries in Poultry Raising.

There are many things and appliances about poultry keeping that are useful, convenient and ornamental, but not strictly necessary to success in the business. Some other things, are indispensable to the best, or even good results, and these should be made much of, by all who keep poultry. The *Poultry World* has something to say on indispensables lately, from which we condense the following:

A good house is one. It may be a part of some other building, or it may be a separate structure. It must be comfortable, light and properly ventilated. The style of architecture may be anything from a low shed up, but it must be suitable for the fowls, and the sanitary conditions be complied with.

Variety in food is another need. Fowls can live upon a single article of diet, but profits under such circumstances are not to be expected. Variety in diet promotes health, health secures activity of the reproductive organs and upon this profits largely depend.

Fresh water is indispensable. Without it there will be disease, and sick hens are not a paying investment. To expect dividends in eggs, if fresh water is not provided, will surely end in disappointment.

Cleanliness must be provided. The droppings corrupt the air, which leads to disease, then to vermin, to sap the life of the fowl. The health of hens demands its frequent removal.

Good stock is also indispensable. Get the best. Beauty in figure, carriage and plumage may not add to usefulness but they do add much pleasure to the business. But what is necessary to success is strong, vigorous and productive fowls. If eggs are an object, a laying strain of the chosen breed should be selected, for there is a great difference in strains of fowls of given breeds. It is not enough to procure Leghorns, but it is necessary to procure a good family of Leghorns. It does not suffice to purchase Plymouth Rocks, but it is requisite that a good strain be obtained.

Good care is decidedly indispensable. This means, that in addition to providing proper food and drink and keeping things clean, that every little detail should be attended to when it needs attention. Flowers flourish best when attended by those who love them; the same is true of poultry. Loving care is the best of all care; it sees little wants and ministers unto them. It sees what others would overlook, and to see a thing means with it to do that thing.

### CONDENSED POULTRY NOTES.

**Clean** care, clean profits.

**Don't** give up the incubator on one trial.

**Pale combs** may indicate lice on the fowls.

**Fowl** diseases often spring from the use of foul water.

**Burning** the old nests: A sure cure for vermin in them.

**Very small chicks** need very small seeds. Millet answers well here.

**Nearly all** the winter shows of poultry have been successful financially. We like to hear this.

**Enough** of dust the year around, to suit the hens' desires, will play havoc with the thrift of vermin on their bodies.

**A Michigan** Plymouth Rock hen leads in earliness of bringing off a brood we think. A full hatch came off on the 27th of January.

**Equal rights** for the sexes prevail in poultry raising; in fact we think the woman ahead in this, because possessing some superior natural qualifications for the work.

**One** of the first jobs of spring should be to scrape up all manure, and decayed refuse about the yard, and sprinkling afterwards with some dry lime to sweeten up the place.

**Few Against Many.** One correspondent from the Badger State, has found greater profit in keeping twenty-five hens well fed and cared for, than a hundred after a fashion that is yet too common in her section and elsewhere.

**Sand** alone is not the material that hens would first choose for a dust bath; in fact, they can hardly be said to like it. Common soil is about the best material—that from the chip yard or barn yard, and containing more or less foreign matter being much enjoyed.

**Green food** is so necessary to the well-doing of confined fowls, that the matter of providing some should always hold a prominent place in the keeper's mind. Where there is no grass run, some grass sods thrown to them are excellent. Fresh-cut grass is good. At this season some quick growing plants like Lettuce, Spinach or Oats could be sowed to permit green food later. Onions chopped fine and mixed with the soft food of non-layers and chickens, is wholesome and often prevents or checks disease; if fed to laying hens they will taint the flavor.

**Food for Young Turkeys.** Not so many young turkeys would die, if greater attention was devoted to their food, from the start. For the first week equal quantities of hard-boiled eggs chopped fine, and good wheat bread will suit them. This may be followed by curd made of sour milk, and bread made of coarse flour or wheat shorts. If confined, some chopped roots or Dandelions, as well as some clean sharp sand should be furnished. Beyond six weeks old, screenings or small wheat may constitute a large part of the food. Young turkeys need frequent feeding and pure water.

**He Don't Lay It to a Revolving Chair.** Mr. F. A. Mortimer, a correspondent of the *Poultry Monthly*, writes as follows about successful management: We are frequently asked the secret of our success. It is this: We do our own work, and know at all times the condition of every bird on the place. We know of no other way to be a successful fancier. We do not run a poultry farm as some do, on a revolving chair in front of an office desk. Now that the spring months are upon us, we look out for dampness. If the floor of the poultry house is not perfectly dry, look out for roup. Board it over and cover with dirt and ashes. A stitch in time saves nine. Also keep an eye on the chicks; keep them perfectly dry, and keep them confined mornings until the dew is off the grass. If you expect success, breed only from your best birds. Pay strict attention to health, vigor, symmetry and plumage, and you can mate to produce any desired results. Cockerels and hens, *vice versa*, make the best matings. Remember, in mating, that the male influences symmetry and style, the female size of the progeny. A word to the wise is sufficient.

**Going for Them Sharp.** Our friend of the *Ohio Farmer* believes in doing so when he wants eggs, or else he would not deal out such sharp directions as these which follow, but which we believe are well worthy of being observed by readers of POPULAR GARDENING: To make hens lay, put two or more quarts of water in a kettle, and one large seed pepper or two small ones, then put the kettle over the fire. When the water boils stir in the coarse Indian meal until you have a thick mush. Let it cook an hour or so; feed warm. Horse-radish is chopped fine and stirred into mush as prepared in the above directions, and for results we are getting from five to ten eggs per day; whereas, previously we had not had eggs for a long time. We hear a good deal of complaint from other people about not getting eggs. To such we would warmly recommend cooked and spiced feed given warm. Boiled apple skins seasoned with red pepper, or boiled potatoes seasoned with horse-radish, are good. Corn, when fed alone, has a tendency to fatten, rather than produce the more profitable egg laying. A spoonful of flowers of sulphur stirred with their feed occasionally, will rid them of vermin and tone up the system with fine effect.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON

Vol. I.

MAY, 1886.

No. 8.

## Japanese Zebra Grass.

In our garden the hardy ornamental grasses have always been favorites. But among our collection of these, comprising many sorts, there is no other one kind which gives better—we were about to say gives equal—satisfaction, to the Japanese Zebra Grass, *Eulalia japonica zebрина*.

The accompanying engraving affords a very good representation of the plant we are speaking of. Unlike all other variegated grasses, this one has its striping or marking across the leaf, instead of longitudinally. It grows five or more feet in height, forming a most striking and graceful plant, resembling nothing else that we know of, in cultivation. The expanded flower spikes resemble the ostrich plumes, and when dried, last for years.

This variegated Grass we find useful in many ways. In the mixed border amongst herbaceous plants it is a pleasing and striking object, and in a cut state for the decoration of large vases it is most valuable, as its graceful arching leaves gives a degree of brightness to floral arrangements not otherwise obtainable. The variegation, too, is clear and well defined, a circumstance which adds to its beauty. It is a great gain to be able to cut spikes of it four feet high for indoor decoration.

When first introduced from Japan it was believed that this plant would not prove hardy. Years of cultivation with it as far north as Buffalo proves it to be entirely so, and we are able to cut from it in the open borders up to the end of November.

Any soil not too rich suits it; in rather dry poor material we find that the variegation is more clear and defined. We have grown it in pots the year around, and find that it makes a capital plant for mixing with Ferns and other fine foliaged plants in the conservatory.

This very desirable plant may now be had of all dealers in hardy plants. It can also be raised from seed, packets of which can be bought for about twenty cents each.

## The Abutilon, or Flowering Maple.

BY MRS. M. D. WELLCOME, YARMOUTH, ME.

This is one of the best of plants for the window, garden and bedding out. It is a strong grower, does not mind the close heated atmosphere of our dwellings, and it is not fastidious in regard to soil. It needs some training, for it seems in so much of a hurry to grow, and all, that it rarely stops to branch, unless forced to do so by being decapitated.

In my management of the plants, when they are about a foot high I cut off a few

inches of the tips, and this leads quickly to the putting forth of two or three side branches. After these have grown sufficiently, I cut these back also and thus keep on until the plant has seven or eight branches.

Of course such a method retards the blooming somewhat, but is it not far better



THE JAPANESE ZEBRA GRASS.

to have half a dozen branches full of flowers a little further on, than one tall stalk earlier?

As Abutilon plants do not generally bloom very much during the early part of winter, I begin in December to cut back the plants, and by March they are ready to bud. This year I counted 22 buds on one plant in March, and they were only the beginning of an abundance to follow.

The double flowering Abutilon is a beauty, both in foliage and blossom. Those mottled-leaved are very attractive, even should they never have flowers. Due de Malakoff is specially beautiful with its large maple leaves marbled with green, yellow and white.

Not only do I cut back Abutilon, as indicated above, but all plants that are disposed to grow tall and branchless. Fuchsias I train a good deal in this way.

## Shady Gardens.

The grounds of many homes are shaded heavily by trees and buildings, a condition of things not at all favorable either to the growth of grass or an abundance of flowers. When trees cause most of the trouble, if

sufficient courage could be summoned to thin them out freely, the results in most every way would be more satisfactory.

In our opinion it is a wholly wrong notion, that heavy, extended shade, is more pleasant than shade that is broken up by numerous open spaces. Such spaces admit sunshine to give comfort in cool weather and breezes in hot weather, and together life and health to grass and plants as well as to the dwellers in the home.

But even with thinning the trees a good deal, some dark shaded spots against buildings and elsewhere will still exist. These are usually a source of great perplexity to the manager, regarding how to have the surface furnished to look well. Too often such places are perfectly bare, even of grass. Ordinary grass, or such as is brought by the soddens from meadows, is ill adapted for use here, as countless experiments have shown; but by preparing the ground for seeding—and then sowing such kinds of grass as the Creeping Bent (*Agrostis stolonifera*), or Green or June Grass (*Poa pratensis*), both of which do well in partly shaded places—a respectable looking cover might be had in many such spots that now are bare.

Aside from this class of grasses, there is quite a long list of plants that will thrive where it is shaded from one-half to three-fourths of the day. At the head of the list stand the Ferns, and such bulbs as the Tulip, Hyacinth and Crocus. Then there are the Snow-drops, Tiger Lily, Valley Lily, Solomon's Seal, Wake-Robin, Spring Beauty, Periwinkle, Money-vine and other hardy perennials which seem to prefer partial shade.

Among annual flowers that need but little sunshine, are the Adonis, Daisy, Pansy, Whitlavia, and Marigolds.

Fuchsias, Lobelias, silver-leaved Geraniums, Achyranthes, Begonias, Callas, Alternantheras, and Caladiums, from the greenhouse, all succeed fairly well in shade.

With an array of materials like this, it ought not to be difficult, in most cases, to make the shady places beautiful with foliage or flowers.

## The Trembling Aspen.

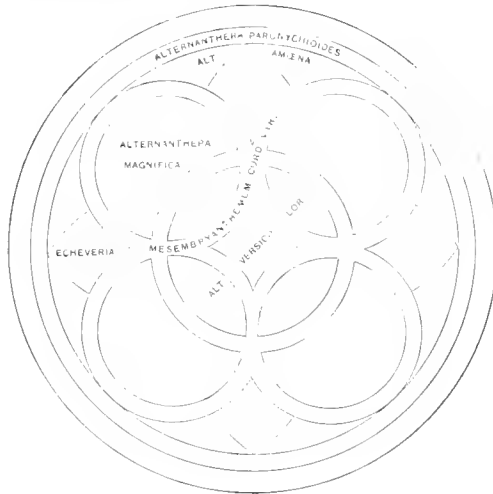
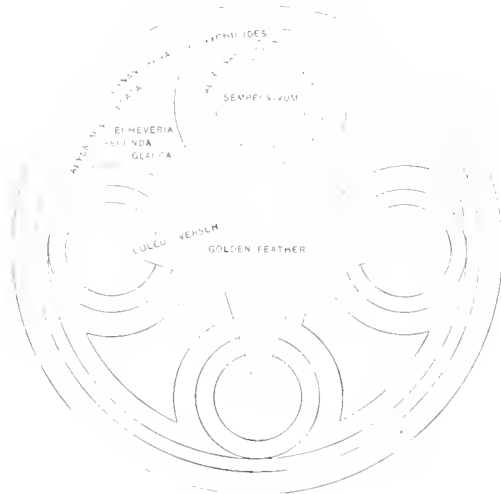
This is a favorite lawn tree with many planters. Henry Ward Beecher, a gentleman whose knowledge of trees is very wide, is for one, enthusiastic in recommending it. It is a species of Poplar, and is known botanically as *Populus tremuloides*.

Aside from the characteristic charms this tree possesses, through its leaves being agitated in a lively manner by even the slightest breeze, it assumes a handsome form and majestic proportions under the most ordinary circumstances. Unlike some of the Poplars, if

it does not send up shoots from the roots, to interfere with all attempts at neat gardening. It is in every way a fine looking tree for large sized grounds and streets.

their natural condition, and to nature, the more freely may they be employed for ornamentation, if generally appropriate, without offending good taste, and *vice versa*.

gardener will not hesitate to employ substitutes either in kinds or in other colors, where this would be desirable in adapting his available planting stock to the plans given.



CARPET BEDDING.—PLANS OF TWO CIRCULAR BEDS.

Although the Aspen is a native tree, it is well known and much employed in ornamental planting throughout Europe. Perhaps the fact that it was taken 3,000 miles across the water tends to make it more popular there than at home, a state of things quite common as regards many such matters. But let us hear how one English lover of the tree picturesquely referred to it some time ago, in *Woods and Forests*, of London.

Every country place should have that very coquette among trees, the Aspen. It seems never to sleep. Its twinkling fingers are playing in the air at some arch fantasy, almost without pause. If you sit at a window with a book, it will wink and blink and beckon and coax, till you cannot help speaking to it. That must be a still day that does not see the Aspen quiver. A single leaf sometimes will begin to wag, and not another in the whole tree will move. Sometimes a hidden breath will catch at a lower branch, then, shifting, will leave that still, while it shakes a topmost twig. Though the air may move so gently that your cheek does not feel it, this sensitive tree will seem all a shiver, and turn its leaves upward with a shuddering chill. It is the daintest fairy of all the trees. One should have an Aspen on every side of the house, that no window should be without a chance to look upon its nods and berks, and to rejoice in its innocent witcheries.

To illustrate: Grass is embellishing material that is very near its natural condition. With plants and flowers and arrangement of the average carpet bed it is different, they are largely in the line of artificial productions. It certainly is true that most of our richest plants and flowers, thus used, are in their improved states, the result of high artificial cultivation. Now, one might devote a small town lot, or any other area, up to a plat of many acres, to grass alone, and there would be nothing distasteful in the effect. But plant every foot of similar areas solidly, with improved plants, arranged in geometrical lines, and the effect would be positively shocking. It is easy to overdo in the use of the one class of materials or styles of arrangements; not so with the other.

This leads us to conclude that the formal carpet style of bedding has its place in adornment, but it must be as a *minor* feature, in the general embellishment. Brilliant and rich in its character, it is to the garden what rich jewels or bright ribbons are in dress, and like these must be used in

in paper bags till fall. In September I take these same bulbs that had flowered indoors once, and plant in a bed of light rich soil outdoors. Before winter I give a slight protection of litter or leaves to the bed. The bulbs thus treated will bloom the following spring, thus doing double duty, and they will continue to do well with little care for a number of years.

“Let me tell your readers that I have grown a bed in that way that is 80 feet long by 4 feet in width. It now has in bud and bloom 360 spikes of lovely Hyacinths. Some of these are of immense size, and they show every variety of color.

“Growing with my Hyacinths are Daffodils, Trumpet Narcissus, Crocus, Grape Hyacinths, Jonquils, Star Pink, Snow Drop, etc. As I write all of these are in bloom, and looking very gay and beautiful. The bed is close to the walk on Main street, and is the admiration of every passer-by.”

EXPERIMENTS MADE IN sowing a row of Peas very early in the spring, when the soil

**Carpet Bedding of Plants.**

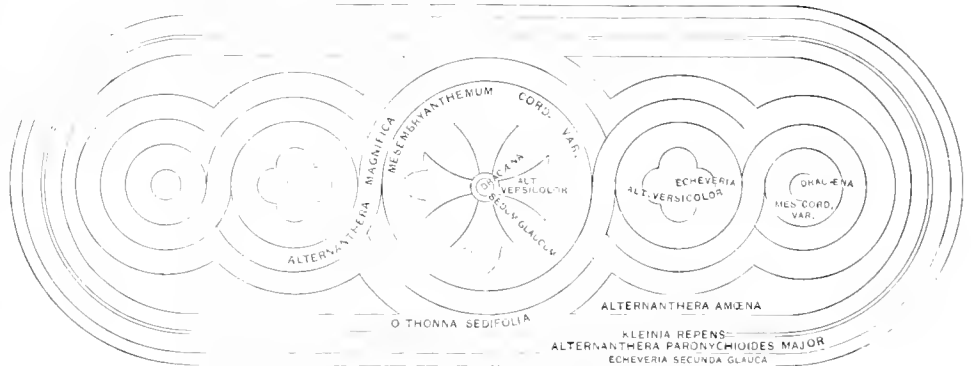
We do not agree with those advocates of an ultra-natural style of garden-making who hold that the carpet bed is wrong, both in principle and in taste. Neither do we agree with those persons who run into the other extreme, and hold that no style besides the formal, geometrical style of embellishing grounds is worthy the attention of intelligent gardeners. We take middle grounds and say that all styles of gardening are right in their place.

In the use of flowers and plants of every kind for embellishing purposes, the extent to which, and the style in which any kinds may be used, is to be determined by their individual characters. We should observe that the nearer materials and styles are to

a limited degree and subordinate to something else that possesses less capacity for ornamentation. Such beds seated here and there on ample areas of lawn, and these perhaps skirted by trees and shrubs, serve to embellish the parts where they are introduced very richly, and here nothing could be more appropriate than their presence.

The accompanying engravings show some pleasing designs for carpet beds. The names of some plants that are suitable for the various parts are given on the plans to aid in the planting. Of course the intelligent

was in a pasty condition from wetness, resulted in failure; a few plants only showing above ground and these never became robust. Seed of the same lot was later sown in dry ground, at a seasonable time, and a strong growth, seemingly a plant from every seed, and a heavy crop was the result. In germination, seeds need air, as well as moisture, without the former rot must ensue. In the desire to have the garden started early, no doubt seed is sometimes spoiled by injudicious planting in wet. Then the seedman is perhaps accused of selling bad seed.



CARPET BEDDING.—PLAN OF AN ELONGATED BED.

**Pot Hyacinths, After Flowering.**

One of the commonest questions asked by flower-growers at this season is, What shall be done with Hyacinths that have bloomed in the winter indoors? We have received from Mrs. L. D. Hamlin, of Bennington, Vermont, a contribution to *POPULAR GARDENING*, in which she tells of her way of managing such bulbs after flowering. She says:

“I cut the blossom stalk away and keep the plant growing until the leaves begin to decay. Then I gradually dry off the bulbs, and later store



### The Single Dahlia.

The Single Dahlia is not a new flower; it is older than the well-known double ones. The fact is, the doubles sprang from the single ones. The Single Dahlia is a Mexican plant.

For a long time previous to a few years ago, as every one knows, there was a great rage for double flowers of all kinds. It seemed as if single flowers were almost despised by florists. It was a great thing in favor of any flower during that time, if it tended towards doubling.

The Dahlia was accommodating. In the hands of ambitious florists, it doubled and doubled, until it became as full, formal, stiff and gigantic as possible. Then the Dahlia was thought to be a great flower. For a long time everybody tried to believe it was very handsome and very desirable; howbeit some persons with notions of their own about such things would talk about stiffness, and unloveliness.

But later on, a change occurred in the popular taste. The double flowers began to be pronounced against, and the more simple forms of these were sought out again. Fashion, very sensible, for once at least, declared in favor of the Single Dahsies, Asters, Dogwood, and many like flowers. The reform was taken up in all directions; even the long-despised Single Dahlia was given due notice. Now the attention of florists was devoted to raising beautiful single forms of these, and with results really astonishing.

To-day the Single Dahlias, the Mexican Butterfly Flowers, are in their improved forms among the most popular of flowers. But they are even less so than they would be, were it not for the prejudice against them because of the present distaste for "Dahlias." To show their appearance, as near as it is possible to do in black and white, we present herewith a very fine engraving of these flowers. This it is our privilege to do through the kindness of Mr. F. R. Pierson, Tarrytown, N. Y., who loaned us the engraving for this use. Mr. Pierson, we may add, has paid a great deal of attention to procuring fine varieties of the Single Dahlias, and in his beautiful and valuable catalogue, "Garden Supplies of all Kinds for Country Homes," he describes his fine collection. This catalogue should be in every gardener's hands.

The advantages of the Single over the Double Dahlias are very obvious. They are much more suitable for cutting. They are light, elegant, brilliant, entitling them well to be called Butterfly Flowers, and

are wholly unlike the double sorts in appearance. They flower earlier, and the blooms are not so readily injured by dull or wet weather as the double sorts. Lastly, they are just as easily grown as the old sorts, with the one advantage that they may readily be raised from seed, treated as annuals. We

Whenever Tuberous Begonias do succeed, there are good reasons why they are much thought of, being of excellent habit, profuse in flowering; ranging as to color, from delicate yellow to a brilliant scarlet, and they are of comparatively easy culture. To be sure, different varieties require different treatment, some standing the sun almost as well as the Geraniums, which they rival in brilliancy. Others do best in partial shade, and many are unequal for culture in pots.

For planting out in beds, some varieties prove very satisfactory.

However, let me forewarn those who undertake the culture of Begonias, that failure often results from neglect of having free drainage, both in beds and in pots. They delight in a light, rich, loamy soil, through which water percolates freely, preventing stagnation, as the plant detests this. Shelter from strong winds is also desirable, or they may suffer from being broken off at the ground.

As for procuring stock of the Tuberous Begonias, many of our most skillful florists favor raising from seed. Good strains of seed can be obtained from most all reliable seedsmen. As the seed is very small, much care needs to be taken in sowing. Place in a pan or box containing several inches of potsherds, on top of which place a thin layer of moss. Then fill with light, fine soil to within 1-4 inch of the top. After sowing, scatter over enough fine sand to keep the seeds in place. Cover with glass, and on this paper, and keep in a temperature of 65 to 70 till the plants are up. Gradually harden to the air, transplanting when they have roots 1-4 inch long. As the plants are very delicate, they must be handled gently at all times. Keep shaded for several days, after which place near the light, protected from the direct rays of the sun. Keep shifted and growing till safe to plant out. Those to be grown in pots should finally reach the

7 and 8 inch size. It is during the growing season that the bulbs are formed.

As to keeping over the bulbs, allow those in pots to remain over winter in a warm place and quite dry, though not dry enough to wither. The soil should be renewed after starting, each spring.

Those bedded out should be lifted at the same time as Dahlias, dried and then kept in a temperature of 50 to 60, covered with charcoal dust. Start up early in the spring and later plant out into good soil.

E. E. S.



are free to say that no flower garden should be without some of these very charming and easily grown flowers. Many florists now furnish the started plants at a low price.

### Tuberous-Rooted Begonias.

In England these plants have reached a great degree of popularity, both as bedding plants and in pot culture. From here and there, in this country, favorable reports have been heard in late years, as to their well-doing.

### A Remarkable Canna: *Canna Ehemanni*.

The handsome engraving of *Canna Ehemanni* which we present on this page, can after all give but an imperfect idea of this magnificent plant and its flower. The flowers are shown at about one-half of their natural size, being about three inches long and two inches wide. They are of a magnificent glowing crimson color, and may be used to advantage in bouquet making, being singularly rich in appearance.

We take especial interest in calling the attention of our readers to this recent plant; first, because of its great superiority, and second, because, in common with all Cannas, it is very easily grown. It is quite distinct in appearance from all other Cannas, its rich green tropical foliage resembling the *Musa* or *Banana*.

Its greatest merit, however, lies perhaps in the flowers, which are nearly as large as, and more attractive than, the finest *Gladiolus* blooms. They are produced in masses on the summit of whip-like stalks, single plants having seven or eight stalks, with a score or more of flowers on each.

One remarkable quality of this plant is that, after flowering in summer, the roots can be lifted, and will bloom all winter in the conservatory, and perhaps in the house. During a recent visit to the Government Botanic Gardens, at Washington, we met this plant in bloom in the midst of numerous flowering exotics, in the temperate house, and were pleased to see that the flowers even here, were in general attractiveness, equaled by few, and excelled by no others in the collection.

It may be said of the culture of Cannas in general, that they grow with the greatest vigor, either as pot plants or bedded in the garden, and produce a stately tropical effect, with their broad massive foliage and beautiful flowers, with little care. There is only one thing to be particular about in managing them, and that is to provide a rich soil and plenty of water and then they will produce astonishing results. The *Canna* is freely propagated by division of the root at planting time. During the winter the roots should be kept in dry sand in a cellar, frost-proof room, or under the bench in the conservatory.

Bulbs of the *Ehemanni* variety may now be bought of all the leading plantmen at half a dollar or less a piece. Those who give the plant a trial can hardly fail to be gratified with their investment in it.

### Carpeting *Gladiolus* and Lily Beds.

Our correspondent S. L. W., of Chicago, Ill., instead of cultivating the surface of his *Gladiolus* and Lily beds, sets out some interesting low-growing plants to keep the ground covered. We think this is a plan worth trying and gladly give space to his account of the course taken:—After having properly set out the *Gladiolus* bulbs, I plant over them *Othonna crassifolia*, close enough to cover the ground by the time the *Gladiolus* get half grown. *Liatris cyathularia* will answer the same end and spreads very rapidly; both these plants cover the ground with a nice green carpet figured abundantly with small flowers. Such a carpet adds considerably to the beauty of the bed and

at the same time answers as a mulching for the *Gladiolus*, with benefit I think.

I take the same course with my Lily bed, but here use the hardy *Arabis aptina* with its fragrant white flowers. In early spring this plant covers the ground close and I find under such a coat the Lilies grow and flower to perfection.

### The *Tritelia* and Lobster Cactus. A Vermont Sister's Experience.

Mrs. M. De Pouter, of New Haven, Vt., rightly says that the sisters of our family are to blame if they do not keep up an interesting gardening correspondence through this, their medium. So she briefly gives her experience, with two of her favorites, about which we were very glad to learn.



A FINE CANNA: *CANNA EHEMANNI*.

"I had a gift of a *Tritelia uniflora* last fall, the name of which implies solitary flowers. It was new to me. I watched it closely, and judge of my surprise when the first bud opened, it developed into two sweet star like flowers. All the others of which there were six, were solitary.

"What a pleasure it is to watch a new plant bud and bloom. I have a Lobster Cactus that blossomed as usual in the fall, is in bloom again now, and more buds coming, I never have had one do so well before. Some look upon the care of flowers as work, to me it is a great pleasure, I hope to hear from some of the other sisters soon."

### The Confusion of Names.

The Directors of the New York Experimental Station at Geneva, have taken upon themselves a task for which they are entitled to the thanks of all gardeners. We refer to the large and difficult work of straightening out the con-

fusion that prevails in the names and synonyms of Vegetables at the present time.

Careful tests and comparisons made last year on the State Farm, with seeds procured from leading dealers, go to show that in numerous instances the same variety is sold under many different names by the different seedsmen. For this, the seedsmen themselves are largely to blame, through the too common practice of associating names of their own devising, along with standard sorts.

Just how far this evil has progressed, may be seen for one thing in the case of the French Horn Carrot. This Carrot is now offered and sold under no less than a dozen different names, in the same number of catalogues. A planter might make a selection of French Horn Carrot from one catalogue, of the Early French Scarlet Forcing from another, Early Forcing Horn from another, Early Frame from another, Early Short Scarlet from another, and so on through a dozen or more catalogues, naturally enough thinking, he was getting as many different Carrots as the number of those names would indicate. But when further along his crop would show only one and the same sort in all of these, then it would very likely dawn upon his mind that he was the victim of a great wrong, somewhere. And this certainly would be true. In the case of garden Peas this multiplicity of synonyms, is fully as bad, while no leading vegetable is free from the trouble.

It is evident that here is room for a great reform. That the work of effecting this, as referred to, is in good hands, no one will question. But it can only go on to the best results through the agreement of those who sell seeds, coupled with the voluntary efforts of some such unbiased growers as those of the Experimental Stations. We trust that by this time all dealers and growers begin to realize the folly of and the actual hindrance there is to gardening interests existing in this confusion. We trust also that they will render the aid which easily lies in their power to assist the institution referred to, in its praiseworthy efforts to go

on and establish a true nomenclature and description of vegetables.

### Sweet Potato Culture.

From the latter part of May, to July 4th, the rooted Sweet Potato sprouts should be transplanted to the field or garden. Break the land thoroughly, but not necessarily deep; low, level and damp lands will not do; high, dry, mellow or loamy soils are best, and the fresher the better. Lay off rows three and a half to four feet apart, and in these furrows, apply two to four hundred pounds of ammoniated superphosphate, containing potash, per acre. If home-made manure is used, be sure that it is old and thoroughly decomposed, and if possible mix some ashes and acid phosphate with it. Cover this furrow by running on each side of it with a one-horse turn plow, thus making a narrow ridge, on which plant the slips eighteen inches apart; keep clean of weeds and grass

until the vines begin to run freely, then hill up and lay by. It is as well not to permit the vines to take root between the rows, as this will diminish the crop. Loosen up the vines occasionally. A fork hoe is good for the purpose. Just before or soon after the frost in the fall, dig the potatoes and store away in a dry, warm place for winter. In the South, a good way to do this, is to select a spot on the ground where water will not stand, and throw up the earth three or four inches above the natural surface, in a circular shape, about four or five feet in diameter; press down firmly, and on this, place twenty-five or thirty bushels of potatoes piled up in a cone-shape, sharp at the top, cover with corn stalks or grass two or three inches thick, then cover with earth six or eight inches deep. Place a few boards over the top to keep rain out. Make as many of these banks as you please. In the Northern States it is advisable to store in some good, warm, dry cellar. Leave the top of the bank open a day or two, as the potatoes will sweat somewhat when first banked; after this cover up entirely. Be sure to keep them warm. The vines make very good cattle feed. Most of the cultivation may be done with a plow.—M. W. J., in *American Agriculturist*.

### Sweet, or Sugar Corn.

No kitchen garden should be without this rich and delicious vegetable, unless the product in its green state may be bought for a reasonable price. By proper management as regards the time of planting it may be had on the table from July until frost. The first planting should be made before the middle of May, and be followed by others at intervals of three weeks, until the latter part of July.

All varieties of Sweet, or Sugar Corn, may be either sown in rows four and a half feet apart, and the seeds placed about eight inches apart in the rows, or planted in hills at distances of three or four feet each way, according to the variety grown or the richness of the soil. The taller the variety, or the richer the soil, the greater should be the distance apart.

A well-worked light loam is the best for Corn. While it may succeed in some that is disposed to be heavy, provided it is well drained, still for an early crop it should go only on that of a light nature. It is desirable to have it at least moderately rich by the use of well-rotted manure applied before planting. Bone dust, used at the rate of 300 or 400 pounds to the acre, answers a good purpose as a fertilizer.

Numerous varieties of Sweet, or Sugar Corn, are offered by seedsmen. Among the more recent ones introduced, the New Egypt (illustrated herewith) is highly spoken of. Concerning this variety, Peter Henderson & Co. say, in their last catalogue: The ear is of large size, and the flavor peculiarly rich and sweet, and so superior that hotels and families using it will have no other kind as long as this variety is to be had. The introducer, who is a large grower and canner of corn, states that the superiority of this variety is so well understood in his neighborhood, that the prices he receives for it, both in the canned and green state, will average nearly one-half more than he can obtain for any other sort he grows. Like all other large sorts, it matures late.

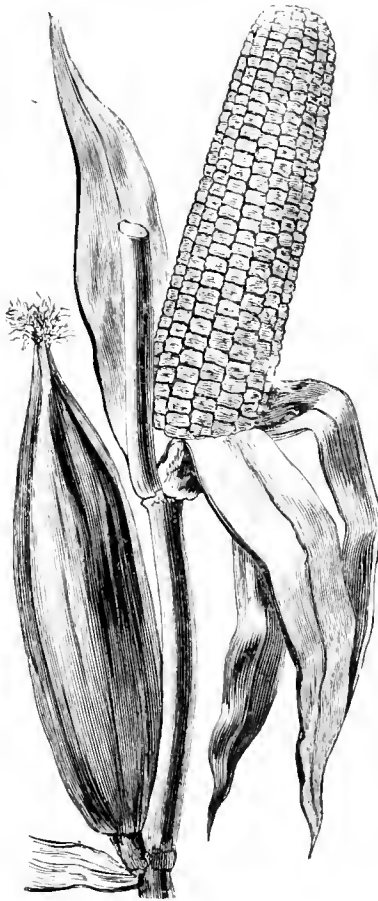
### About Some Summer Flowering Bulbs.

BY MRS. T. L. NELSON OF WORCESTER, MASS.

Some of the summer-blooming bulbs are better kept in pots or tubs. There are many places in the garden and about the house where a pot of *Vallota purpurea* is very ornamental. *Amaryllis lutea* is a hardy variety, blooming in early autumn when yellow flowers are scarce. *A. Hallii* is a lovely pink variety, blooming in August. The *Zephyranthes* in all its varieties of pink and white is desirable. They require no care beyond planting in

spring, digging up in autumn, and storing in a dry place. *A. Belladonna*, *major*, *minor*, and *alba*, are all summer-blooming bulbs. They flower in August and September, and require entire rest after they have matured their foliage. *Amaryllis Johnsonii* will bloom in the ground, and is used by some to bed out in the summer by keeping the bulb dormant through the winter. *Isome calathina* is beautiful in the garden, the plant being fine without the flower. *Chorocissidius* and *Pancratium calathinum*, like all those mentioned in this paragraph, belong to the *Amaryllis* family, and require the same general treatment.

The Tuberose is as easily flowered in the ground as any other bulb, but as it takes about four months to bring it into flowering, it must



NEW EGYPT SUGAR CORN.

be started either in a hot-bed or a greenhouse; but if you have neither of these, plant the bulbs, after the ground is thoroughly warmed, in a sunny place, and after they have started give plenty of water. When they are well budded, pot them in rich soil, so that they can be removed to shelter when in danger of frost.

*Tritoma varia grandiflora* (Red-hot Poker) and *Hyacinthus emulicus* are two conspicuous plants which form a fine contrast to each other. *Aquilegia umbellatus* is one of the few really blue flowers. It does well taken from the pot and planted in the border. *Caladium esculentum*, *Richardia alba maculata* (a very ornamental species of *Richardia*, our common calla) and *Amorphophallus Riverii* are desirable plants. The *Tigridias* (Tiger flowers) in the different varieties, are all showy. *T. grandiflora alba* forms a beautiful contrast to *T. conchiflora* and *T. Paronia*. *Milla biflora* is quite new, and has slender, rush-like foliage, and white tubular star-shaped flowers, on long slender stems. The Dahlia is a very important tuberous-rooted plant; its only drawback is that it requires too much room to grow it; but there are places where such plants are very much needed, and the pompons and single varieties are especially desirable.—*Extract from an essay contributed to the Massachusetts Horticultural Society on February 13th.*

**Deep Planting.** People who set out ornamental trees, or for that matter, any kind of trees, shrubs, or flowers, often have a notion that very deep planting is beneficial. Scarcely anything could be farther from the truth. If one is setting out kinds that have heavy tap roots, like Oaks or Standard Pears, in lightish soils, it does not matter so much, but with the majority of kinds, to set them deeper than they grow in the nursery is decidedly hurtful. Especially such fibrous rooters as Maples and Ashes should be kept quite near to the surface, while things which have a mass of fine roots, such as Rhododendrons and Azaleas, need to be kept almost on top of the surface, unless growing in very light soil. The clump of roots in a Rhododendron should as a rule be only partly bedded into the earth, and then, bringing a low mound of soil over the roots, to beat it down quite firm.

**Forced Fruits and Vegetables.** On the 1st of February a reporter of a Philadelphia paper found that Strawberries, of the Sharpless variety, grown in a Wilmington, Del., hot-house, brought 87 per quart. "They are also received from New York State. Ordinary-sized Cucumbers, from the Continental Hotel farm, raised in hot-beds, sell for 75 cents each. For New Jersey hot-house patches of not unusual size, the sum of \$1.50 each is asked. The sales of these are said to be slow. Continental Hotel hot-house Asparagus is also on sale at 50 cents per bunch. A Wilmington, Del., hot-house also furnishes ripe Tomatoes, for which 80 cents per pound is asked. Winter hot-house Grapes, it is said, are about gone, and the spring production will not be here until May. City-grown Mushrooms are also on sale at 75 cents per quart."—*Gardeners' Monthly*.

**Label the Trees.** There is great satisfaction in having all trees and shrubs properly labeled, a matter often neglected. The labels that come on the trees from the nursery should not be relied on, as the names soon wash off. These also are fastened on with wire, and that, too, is an objection, for in time as the branches enlarge the wire is liable to become filled out, cut into the growing branch, and kill it sooner or later if not removed. Sheet zinc cut in the form of a long tapering wedge, makes the best cheap label we know of, being indestructible, easily applied, and can never injure the tree by strangulation if rightly put on. This is done in the easiest possible way by merely coiling the tapering end around a small branch several times, and thus it will yield to the increase of the size. The writing may be done with a common lead pencil, and will increase in distinctness with time.

**Horse-radish.** The best product comes from very rich ground. The roots to be set in starting a plantation should be strong ones, but these may be cut into lengths of less than an inch each. In planting, a hole at least a foot deep, should be made with a crowbar or stake, and one piece deposited at the bottom, filling up the hole afterwards. The root will easily find the surface and make a straight, clean root in the future.

**Keep the Tools Clean.** This is a lesson for the boys to learn, and also for some men. Loss of time, strength, and satisfaction in doing the work must be endured, if it is not done. It takes but little time; its neglect is a sure sign of a poor or slovenly gardener. Now then, boys, fix upon good habits in this matter as well as in others.

**Unpleasant as is** the sight of fruit-robbing by birds, it should be remembered, that all in all, they do vastly more good in the insects they kill than harm by the other. Even those kinds which live partly on insects and partly on vegetable substances destroy immense quantities of insects, particularly in the spring, for feeding their young.

**Some Strawberries** may be ripened earlier by placing sash over a part of the bed, resting them on a frame, or even on bricks or stakes.

**Burning** a light layer of straw on Strawberry plants, it is said, will kill many injurious bugs.

**The toad** is a garden assistant; he destroys twenty to thirty insects per hour. Don't kill the toad.

**While** the cutting season of Asparagus lasts, no shoots should be allowed to grow.

**Give Peas** brush before they are six inches high.

**A white Black Currant** is announced.

**The Apple** likes a rich soil.

**Weeds** consume profits.

## FLORAL FASHIONS & FANCIES

A beautiful bunch of Rosebuds  
Some one gave to my little boy;  
Half open, and dewy and fragrant—  
His eyes just danced with joy.

And with tenderest care he watched them  
As they faded day by day,  
And when the last had fallen,  
He said in a wistful way:

"If I could choose me a present,  
Do you know, mamma, I'd take  
Some more of those little roses  
That weren't quite wide awake."

—Bessie Chandler.

The Daisies peep from every field,  
And Violets sweet their odor yield;  
The purple blossom paints the thorn,  
The streams reflect the blush of morn.  
Then, lads and lassies, all, be gay  
For this is Nature's holiday.

—Pindar's May Day.

Arbutus flowers are in request.

White Violets are in demand for bridal flowers.

Bitter with the sweet—the florist's all night work.

The language of the Narcissus is egotism, over-confidence.

Pink-tinted Lilacs and pink Larkspurs are sought for festooning.

May weddings will display a profusion of bluish-colored blossoms.

Dark crimson flowers harmonize well with golden ones in floral arrangements.

Outdoor Violets now crowd their cousins of the flower stores against the wall.

This department is enriched by numerous paragraphs from our regular New York contributor.

The wedding bunch is made of medium size of white Violets with a cluster of Orange blossoms at one side. Violet leaves finish the edge. The breast bunch is a small knot of Violets, and the veil is fastened with a trail of these interspersed with Orange buds.

The wedding branch is to be formed of Apple Blossoms for a May wedding. This branch or bough is formed naturally on wire so that it spreads and bends gracefully. It is thickly covered with flowers and is one of the most charming pieces for a wedding canopy, if carefully finished.

Those who preferred not to indulge in bouquets of Jacqueminot Roses during the winter, because of their high price, may be gratified to know that they are now sold as low as Tea buds were two months ago. Being very large, they are the cheapest Rose in market. They smell just as sweet as at any other price.

We saw a beautiful home-made bouquet at a funeral lately, which showed what can be done in this line without having access to the florist's stand, even in early spring. It was made wholly of single Snowdrops and the handsome dark-green foliage of the Periwinkle, both of which grew freely in a home garden near by.

The choicest luncheon parties have been decorated with Clover or Sweet Pea blossoms, both of which are to be had, for their price. The satin cloth is the palest pink; Sweet Clover or Pea blossoms are arranged in low dishes of glass. Corsage bunches of the flowers tied with narrow sashes of bluish colored ribbon are the favors.

Young ladies' luncheons are made with English Primroses for the center embellishment and Daffodils for the favors. The stems of the latter are left long and are bound with a piece of grass. Cottage-maid Tulips are also much in demand for young ladies' luncheons. Hindsale or Grace Wilder Carnations are used for "pink luncheons." For rosebud parties, Bon Silene buds are chosen.

The "chime" is the most fashionable piece of resistance for weddings; under this, which is composed of from three to five bells, the nuptial ceremony is performed. The bells in the chime are all of different sizes, the largest being swung over the bride and groom. The inside of the bells are made of two different colored flowers, which contrast handsomely. The bell pulls are satin ribbons.

Golden wedding decorations are elaborate. The pyramid is made of Daffodils or Streptosolon

Jamesoni and occupies a prominent position. Mantels are banked with Calendulas and fringed with Othonna. Bushes of Genesta in full blossom are placed on pedestals and are formed in an arch against pier glasses. The golden harp is made five feet high, and with cords of bullion for strings. This piece is usually placed in a corner where it is highly decorative. It should have casters to be easily rolled.

"Green Dinners" are still much in vogue. Table cloths of white satin show off the lacy foliage used, more elegantly than others. Chains of vines, such as Asparagus, *Lygodium scandens* or Ivy extend through the table, garlanding candelabra. The center effect is made of Maiden Hair Ferns, and the favors are fanciful bunches of Ferns with a cluster of Geranium leaves or Lemon Verbena to provide odor. The Clover Leaf, made on a light wire frame of delicate foliage, is a popular favorite for these green decorations.

## Botanical Budget

Leaves absorb one part of the plant's food from the air.

The little Spring Beauty is a near relative of Portulaca.

The fragrance of flowers varies in strength throughout the twenty-four hours.

We clip the following lines regarding Dr. Asa Gray from a recent *London Gardeners' Chronicle*: English botanists claim Asa Gray as one of themselves, despite the accident of his birth on the other side of the Atlantic, and he is held in as great esteem here as in the land of his birth.

A clump of Thrifty Mandrake, (*Podophyllum peltatum*), plants graces a lawn near by. They seem to be almost as much at home here as in the woods, and flower well. We encourage the idea of seeking out attractive wild flowers and giving them a place in culture, for many of them succeed admirably.

Botanical students are sure to be richly rewarded for their weary tramps through the meadows, choppings and woods during May. The Wake-robins, Spring Beauties, Wood Anemones, Blood Roots, Adders' Tongues, and numerous species of Violets are now to be met with almost everywhere North, besides many other less attractive wild flowers.

The Horse-chestnut is an interesting grower among trees. All the growth of one season is made in the space of a few weeks in the spring. During this time the shoots extend very rapidly on vigorous specimens, in fact one can almost "see them grow," as the saying is. As the growth of this tree proceeds from a comparatively small number of buds, it is always a misfortune to have any of those injured or broken, for thereby the symmetry of the tree is sure to be impaired.

Arctic Plants. Sergeant Elison, one of the victims of the Greeley expedition, was an enthusiastic botanist and collected some very rare Arctic plants, two of which had never been classified. The plants are from six inches to two feet in height, and under a magnifying glass present a very beautiful appearance. Of the thirty-two classified specimens, all but two were flowering plants. At the latitude at which they were gathered (81° 4F) the sun is quite warm in July and August, and vegetation, though stunted and short-lived, is not a rarity.

A Glue for the Herbarium. Carriage glue is an excellent medium for mounting. It is always ready, and one dispenses with the intolerable nuisance of a water-bath. Work which accumulated on my hands to a formidable amount I have been able to quickly and surely discharge by its employment. The glue, which is a semi-fluid, easily thinned by water, comes in tin cans of various sizes and prices, from thirty cents upwards. Given the glue, the curator has then only to provide the small boy to apply it.—W. W. Bailey, in *Botanical Gazette*.

Botany for the Sick. Says *Popular Science Monthly*: "Invalids, as a rule, have a great deal of leisure on their hands—more of it than they like—and to fill this time pleasantly is a question involving a good deal more than mere amusement. The importance of mental distraction to invalids is a fact too universally recognized to call for comment here, my object in this paper being merely to suggest a mode of distraction that, in my own experience, has not only been attended with the happiest results physically, but has proved a source of intense and never-failing pleasure. I allude to the study of botany—not the tiresome, profitless study of text-books, but of the woods and fields and meadows.

The beauty of this pursuit is that it takes the student out-of-doors, and throat and lung troubles,

as has been truly said, are house-diseases. I am speaking, of course, to those who have begun to fight the enemy before he has captured the inner defenses, and who are supposed to be strong enough to do a reasonable amount of walking, and some solid thinking, for botany, though the simplest of the sciences, cannot be mastered without some effort. You are met right at the threshold by that fearful, technical vocabulary, which must be conquered before advancing a single step—a labor so formidable and repellent, when undertaken according to the old school-book method, that I do not wonder so many have shrunk away from it in disgust or in despair."

### ABOUT THE PLACE.

Have dry walks: Do not wade mud.

Pine water pipes average fifteen years.

If not yet done, bee-hives, and all necessary appliances, should be gotten around in anticipation of the swarming season near at hand.

An Iowa correspondent says that the benefit derived from having a small fruit patch surrounded by evergreens surprised him very much. It doubled the amount of fruit, and the plants were better than those not protected.—*Home and Farm*.

Bee Moth Worms. These show up on the bottom boards of hives, on chilly mornings, in the spring. Destroy every one that can be discovered. By so doing much loss and vexation in the future may be avoided, as they increase very rapidly; every one now killed being equivalent to hundreds at the end of the season.

Neat and attractive yards add very much to the appearance and value of any home, and there is a direct money return for the labor and trouble expended in the additional value which such attractiveness imparts to the property. Besides this additional value which a well-kept lawn always imparts to the property, everything which will add to the attractiveness of a home brings its own reward in making what is all essential in a happy home—beautiful and attractive surroundings.

Riches Flying Away. The air of every stable reeks with the fumes of ammonia, unless it is absorbed as it should be. Ammonia, slippery article that it is to hold, is one of the most valuable elements of plant food. Allowed to escape through the stable, besides being lost, it unfit the air for breathing, and takes the life out of the well-oiled harness, which it can reach. Dry muck and earth makes most excellent absorbents. They will draw ammonia into their keeping as a sponge draws up water. Dry muck will hold more moisture than any other available substance. Dry, loamy earth ranks next in this quality, and in the absence of muck will do very well for a stable absorbent. A few shovelfuls of either muck or earth sprinkled over the stable floor after cleaning out will make the air sweet and pure by absorbing into itself the impure substances.

House Drains. Disease and death often lurk in the house drain. It is a treacherous thing. It is put in, covered up, and finished with a receiver and the house-lord congratulates himself on having made a genuine, good improvement. Some weeks or months later, the hopper is found stopped and running over. If in the winter, it may be from freezing; but if summer, it is choked and may be opened; that done, a nauseating sight is disclosed and a stench given off enough to poison the lungs and blood of a whole neighborhood. Where there is considerable fall, and free outlet for the slops, and free inlet for purifying air to circulate, a drain may serve well excepting the loss of the manurial matter. It is much safer and also more economical to carry all slop to the compost heap. This is a matter of so great sanitary and economic importance that it can scarcely be too much impressed.

Have a Stencil Plate. The cost of a good plate with its accompaniments, but little to begin with, would pay it back many times on every farm, through preventing the loss of bags, horse blankets, Buffalo robes, umbrellas and similar articles, by having all such plainly marked. One can be gotten up at home if not convenient to patronize a regular maker of plates, by marking the letters out plainly on a piece of sheet lead, copper, tin, or even a heavy grade of manilla paper, and cutting them out with chisels and knife. In letters that have loop parts, such as O, R and A, the cutters must be connected with the outside by some uncut parts, to give them a complete shape. In using the plate, thin paint should be applied with a short brush, using but a small quantity at one time. Thick paint, and much of it, is what causes blurred letters. Let the plate lay close to the article to be marked, first laying this out on a flat, even surface.



### Treeclimber's Talks.

#### A CURIOUS PLANT—THE ASIATIC PITCHER PLANT.

Plants are often classed as useful plants and ornamental plants. While this is for many purposes quite necessary, still I think that the true lover of nature finds beauty in all useful plants, and use and value in all plants, even such as are merely ornamental.

But there is another class, that may well be called curious plants, and among these none are perhaps more so than the Pitcher Plants.

Of what are termed Pitcher Plants, there are a number of different kinds, belonging to different botanical orders. One of these is an American kind, also known as

#### THE HUNTSMAN'S CUP,

and the Side-saddle flower. Of this one, no doubt many of my young readers have met specimens growing wild, for it is found in many parts of America thriving in peat-bogs. The leaves, very curiously, have the form of an open cup, and are usually half filled with water, much of which may be rain. In this water many insects find their way during the season, only to drown.

But even more curious than the common American Pitcher Plant, is the Asiatic Pitcher Plant, of which an engraving is herewith given. It is over sixty years ago since the first species of this was met by Europeans, in China, and introduced into their hot-houses. Since that time various other species have been found, but none is more interesting than the one here illustrated. This one is known botanically as *Nepenthes Hookeriana*.

In the engraving the peculiar appendages to the apex of the leaves, which give it its very appropriate name, are conspicuous. This formation is a veritable Pitcher,

#### EVEN TO THE LID,

which is hinged to one side. When the Pitcher is in a young, forming state, the lid in some species is closed. As it develops, it opens, and even then, water is found in the receptacle, which proves that this fluid is a secretion of the plant. After the lid is fully open, no doubt additions are made to the water by rain and heavy dews. In this water, insects and even small animals are often drowned. A very remarkable quality of the fluid is that it

#### HAS A CERTAIN DIGESTIVE POWER,

and it is believed that the plant derives some direct benefit to its growth by the consumption of insects. Plants of this class have therefore been called Carnivorous or Insect-eating plants. The Pitchers vary in size to hold from half a pint to near a quart of water each.

The Asiatic Pitcher Plants are no strangers to American hot-houses. The plants require in cultivation, conditions of treatment not very unlike those suited to the Orchids. When any of my young readers have an opportunity to visit a good collection of hot-house plants, no doubt their eyes may meet some specimens of these interesting exotics.

#### THE DANDELION.

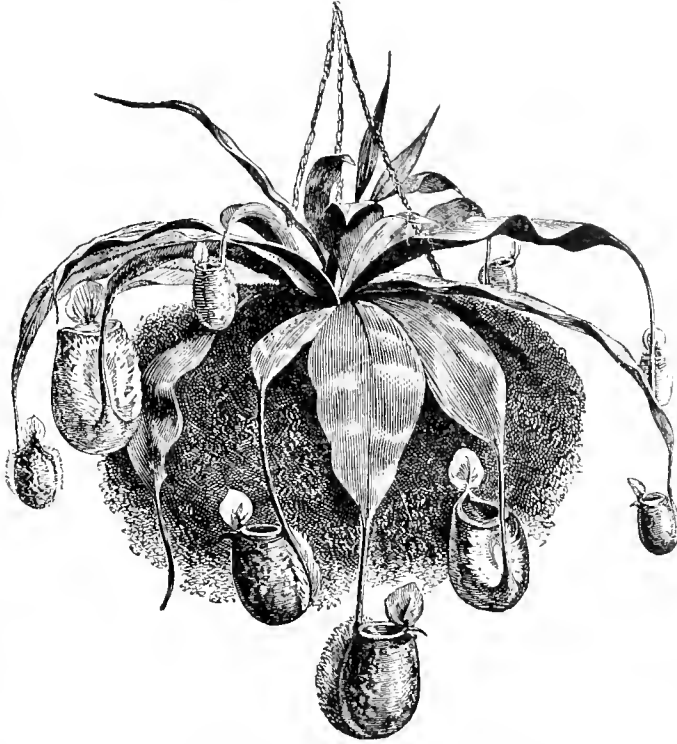
From rare plants let us turn to this common flower, which all youngsters of all lands hail with gladness at its first appearing. I really wonder if there is in creation another flower

that turns up so many pretty posy-faces to the sun as does this one.

If each rod of lawn in our land does not show from a dozen to a thousand of the brilliant double blossoms, it is, I presume, only because a very close-cutting lawn mower has prevented, or else that a systematic course of weeding has expelled the plants, or by barest luck that none ever got a footing.

#### AT HOME IN ALL LANDS.

The Dandelion is at home in many lands besides our own. Indeed, wherever civilization has extended, and even far beyond this,



A CURIOUS PLANT.—THE ASIATIC PITCHER PLANT.

throughout the globe, it has become naturalized and comes forth to greet the sight of man in the spring. It is supposed to be a native of Europe, but makes itself at home wherever it has a chance, from equator to pole.

Perhaps you have noticed that its bright flowers open and close at about the same hour each day. It was for this that Linnaeus selected it as one of the flowers of his floral clock.

Every flower now stands for some sentiment, and so the Dandelion has its own. In floral language, one might easily guess that it should signify coquetry.

#### LIKE A TRUE COQUETTE,

it smiles on all, and winning the admiration, if it be but momentary, of every one by its undeniable beauty. It may hardly be necessary to say further that the globes formed by its seed have in all lands and ages been looked upon by young people as oracles, in matters of the affections. I think all of my readers understand about this. Still as I am on the subject, I may as well repeat

#### THE LEGEND,

as follows: If you are separated from the object of your love, pluck one of the feathery heads, charge the little feathers with tender thoughts, turn towards the spot where the loved one dwells, and blow, and the aerial travelers, it is said, will faithfully convey your secret to his or her feet. To ascertain if that dear one is thinking of you, blow again, and if a single tuft is left standing it is proof that you are not forgotten.

TIMOTHY TREECLIMBER.

#### The Century Plant: Too Long to Wait.

The humorous story which follows below, clipped from the *Detroit Free Press*, might be

true enough as regards the incident related. But we desire here to say to the young readers of POPULAR GARDENING, that there is more fable than truth in the current notion that the plant referred to flowers but once in a century. In Central and South America this plant (properly *Agave Americanum*) in its wild state has been known to flower in its eighth year. In our hot-houses they perhaps rarely flower under thirty or forty years of age, one reason being, that they are purposely grown slowly to keep them as long as possible from getting unwieldily as to size. But here is the story:

There was a man at the Central vegetable market yesterday with a small and sickly-looking Century Plant in a cheap pot, and he was nud.

"Look a here!" he said to the owner of each flower stand in succession, "did you sell me this 'ere plant five years ago?"

Each one answered in the negative. Then he made such a row that a policeman came up and told him to hush.

"Haven't I got a right to talk?" demanded the man in high dudgeon. "When I have been swindled, cheated, robbed and made a fool of must I keep silence in this free land?"

"What is the cause of your woe?" "I bought this plant of somebody here about five years ago. They told me it was 95 years old, and that it would bloom this spring. I've looked away enough time on the thing to build a house. I've set up nights to nurse it, and I've gone home by day to keep it from freezing."

"Well, what's the matter?"

"They lied to me! I've had two botanists examine it, and they tell me the plant isn't ten years old! Think of my fooling around for ninety years to see the infernal thing flower out!"

"But what can you do?"

"I want to find the hyena who put up the job on me. I'll make him eat the whole outfit or break his neck!"

"Don't get excited. Take your plant and go home."

"Never!"

He lifted the pot high in the air and dashed the life out of the poor plant, and then sat stiffly down on a bench, folded his arms, and said:

"I'm going to sit right here till I get eyes on the man who put up a ninety-five-year job on a confiding citizen!"

#### PET BIRDS, ANIMALS, ETC.

**Do not keep Parrots always caged.**

**Without fresh, clean water, no bird can be healthy.**

**The Carrier Pigeons** are easily recognized by the curious ring of flesh about the eye, and they usually have a fleshy wattle beneath the head.

**The dog** is placed at the feet of woman on monuments, in token of affection and fidelity, just as the lion is placed at the feet of men to signify courage.

**Canaries** in a wild state even surpass in loudness and clearness the song of domesticated birds, but lack the numerous acquired strains of the latter.

**Can Shepherds' Dogs Count?** It would almost seem so, the way they will gather every individual of a large flock of sheep from an area of several square miles.

**Lady:** "Have you given the gold-fish fresh water, as I told you, Maria?" **Maria:** "No, ma'am; and why should I? Sure, they haven't drunk what they have yet!"

**Who** has not seen a dirty cat, that would have been handsome but for the discoloration. Such a one may be thoroughly cleaned by washing in warm water and drying before the fire, combing and brushing at the same time.

**The Birds and the Bath.** M. T. O. writes to the *New York Tribune*. "We put two large saucers belonging to plant jars, about two inches deep, in a shady place not far from the back porch. These we fill with fresh water daily, and the birds come regularly to perform their ablutions. The robins are especially fond of it. One day we saw within ten minutes three robins, a blackbird and a sparrow bathe. But woe to a peevish sparrow if he ventures to make his toilet at the same time that an aristocratic robin is making his in the adjoining saucer. He is at once taught to know his place by being driven off. These bathing places were the means of our catching a stray canary. Seeing him bathing, we put a cage on the grass which he soon entered."

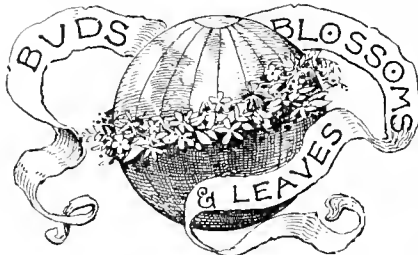
**Firstlings of Spring.**

Pretty golden Dandelions,  
 With your seeds of feather,  
 Starring all the country side  
 In the sunny weather.  
 Violets filled with dewdrops,  
 Delicate and sweet,  
 Giving out your fragrance  
 Underneath our feet,  
 Daisies in the meadow  
 With your silver frills,  
 Roses by the wayside,  
 Kingcups on the hills;  
 When I see you blooming,  
 All a honeyed crew,  
 Into songs of gladness  
 My heart blossoms, too.

- G. Hall.

**A Spring Song.**

Scatter in spring-time a handful of seeds,  
 And gather in summer a lapful of flowers;  
 This is the song of the birds in the bowers,  
 This is the song of the wind in the reeds.  
 Down by the roadside and over the meads,  
 Under the sunshine and under the showers,  
 Scatter in spring-time a handful of seeds,  
 And gather in summer a lapful of flowers.  
 - Harper's Young People



Magnolias are opening.  
 Tulips close in the dark.  
 Cuttings root easily now.  
 Protect the roadside trees.  
 Spring clubs continue in order.  
 Stick mainly to the old, tried sorts.  
 Everybody's flower: the Dandelion.  
 Pretty-faced Pansies are companionable.  
 Have you sown the Morning Glory seed?  
 The Tuberose appeared in Europe in 1632.  
 Heliotrope comes richly colored now, if ever.  
 Pelargoniums are less popular than formerly.  
 The May crop of subscribers should be a large one.  
 The variegated Cobia does not come from seed.  
 Various gains come from staking newly set trees.  
 The Berberry shrub makes a fine ornamental hedge.  
 Thunbergias flower all winter out of doors, in Florida.  
 A big increase of subscribers last month. Keep it up.  
 Away with too much formality in the garden arrangement.  
 Be cautious about trusting tender plants outdoors too early.  
 Mulberry leaves are used to fatten sheep in some parts of Syria.  
 The old-fashioned Sweet-brier Rose is being planted considerably.  
 A thin scattering of straw makes a good shading for seed beds.  
 Wanted! At this Office. More Postal Card correspondence, giving news and other items about gardening.  
 Pot Mignonettes that are looking unattractive, if planted out, will flower freely again later in the season.  
 We maintain that good care has more to do with having fine house plants than good position has; though they go well together.  
 Begonia for Name. To "Sister Beatrice," of Nebraska, the editors would say that the plant of which she sends a leaf and flower, is the Coral Begonia, *Begonia Saundersii*.

One thing is sure, no Dock or other weed, however vile, can live long in your lawn if you will only persist in cutting it off, just below the surface, every time a shoot appears.

**Talk in the Garden.** "Wife dear, why is a good gardener like your cheeks?" "Now, John, you know I never can guess conundrums. Why is he?" "Because he is the culler of roses, love."

**Poor Plants.** If the room at your disposal is limited, weed out the poor plants rather than crowd the good ones to their detriment. It is easily seen that poor plants detract from the beauty of the good ones.

**The large-leaved Catalpas** are often not handsome trees until they are quite old, but by cutting them down to the ground every year, they will send up a multitude of stems, bearing immense bright green leaves, which give a very striking effect.

**A Sportive Geranium.** Mr. George Urban, Jr., of this city has handed us the truss of a Geranium, one half of which is a distinct brilliant scarlet, the other half a clear salmon. Similar freaks are not uncommon, but rarely is one of quite such a striking appearance met.

**The white-flowering Roman Hyacinth**, so much prized in winter for cutting, is perfectly hardy. Being of comparatively recent introduction it is seldom seen in gardens, but wherever found, true to its nature, it is fully two weeks ahead of all other Hyacinths to flower.

**New York City** can boast of having had two very successful Flower Shows within one month, recently. Our old friend, Mr. C. F. Klunder, was the projector and main exhibitor of one of these, and fairly outdid his former liberal efforts in this line of Spring Exhibitions.

**No Doubt of It.** John Thorpe is of the opinion that the 1886 Chrysanthemum shows will excel those of last year. Why not? There are hundreds of towns that might get up such shows easily and with great credit to themselves. This is something for the POPULAR GARDENING family to be leaders in.

**Spare the Birds.** Says a government report: In the United States the loss of agricultural products through the ravages of insects amounts to probably more than 200,000,000 of dollars each year, and that, with a little care, from one-quarter to one-half of this vast sum might be saved by preventive measures.

**It is an excellent plan** to have vases and hanging baskets planted early enough so they can remain under glass until the plants become well established. But if this is done two weeks before the time for putting them out, they will do better than if it should go longer. If confined under glass, in the baskets, too long beforehand, there is danger of the closely crowded plants becoming drawn and delicate.

**Fresh All Around.** "I like the mild spring air," said Deacon Gillipin, as he sat down on Squire McGill's porch floor the other morning, for a friendly chat. "How fresh everything seems. Do you know of anything fresher than the gentle fresh spring zephyr?" "No, I don't know as I does," replied the Squire, "unless it is that 'ere paint you're setting in. Tain't been on the floor over two hours."

**Who Owns the News?** We are sorry to see the *American Florist* of Chicago, the new trade paper which has more than once been favorably referred to in these columns, acting for all the world as if it held a copyright claim on every floral news item of the continent. Of course, an attitude like this, for any paper, is simply ridiculous in the eyes of all periodical news-gatherers outside of the staff of the *Florist*.

**Nip the First Flowers.** We mean on newly propagated Heliotrope, Geraniums, Fuchsias,

etc. It is usually the case that the slips of these are taken from end shoots, having flower buds coming on, and these develop and would flower perhaps within a few weeks after the cutting is rooted. To allow them to do so is doing the young plant an injury, as it is not at this time sufficiently well established to bloom.

**The Scarlet Sage or Salvia.** During the latter part of summer no object of the flower garden can be more attractive than a plant of this. Set out a plant after frosts are past, be it ever so small, in rich earth, in a sunny exposure, and by fall it may be five feet high and the same distance through, and completely covered with spikes of dazzling scarlet flowers. Those of our readers who have never tried the plant should do so by all means.

**Sometimes the leader** of an Evergreen, or Birch, or some other ornamental tree of tapering form is broken out by storm or accident. To preserve the natural form of the tree a new leader should be provided. This may be done by tying a stout stick on the trunk to project a foot or two above the break, and then, bringing the uppermost remaining strong branch against this, secure it by binding, for a new leader. After one season's growth this will retain its new position unsupported.

**The Bleeding Heart.** This conspicuous May flowering plant, botanically known as *Dicentra spectabilis*, has long been prized as one of the best ornaments for lawn and border. As regards its adaptability to different climates it is interesting. A native of Siberia, where the ground remains frozen until June, and where plants barely come in flower until mid-summer, yet it is hardly counted as reliable in the open ground of England, while thriving grandly with us. The plant is a great favorite with the Chinese.

**Massachusetts Horticultural Society.** To the Secretary of this society, Mr. Robert W. Manning, Boston, Mass., we are indebted for a Report of its Transactions, for last year, and for other courtesies extended. Some of the papers read before the Society and here given, together with the discussions they called forth, are of unusual excellence. We refer to such as "Old



THE SCARLET SAGE OR SALVIA.

and New Roses," by Joseph H. Bourn, Providence, R. I. "Propagation of Trees and Shrubs from Seed," by Jackson Dawson, Jamaica Plain. "Herbaceous Plants vs. Bedding Plants," by E. L. Beard, Cambridge, and there are others. The Society has our thanks for placing its valuable reports in our possession.

**Hydrangea.** Brother G. B. L., of the N. Y. branch, very truthfully writes of these plants, that they are heavily taxed in bearing their many monstrous clusters of flowers. On this account, he says, they need a rich soil. A good

way to treat them in the spring is to remove an inch in depth of the top soil from the pot or box, and put some strong, thoroughly decayed manure in its place. If old enough it will be no more offensive than earth. Every time the plant is watered some of the strength of the manure will be carried down to the roots, greatly to the help of the flowers. There must be no stint in the watering of these plants if the best of results is desired.

**Keep Down the Sprouts.** Many kinds of flowering trees and shrubs, as well as others, are propagated by budding or grafting upon free-growing stocks of an allied sort. Among these are Flowering Plums, about all weeping trees, as Willows, Mountain Ash, Poplars, etc., the finer Maples, "budded" Roses, and others. The mere fact that such stocks are free growing naturally leads buds to start, and growth to proceed from these often earlier than from the improved portion of the tree. A sharp lookout must be kept, to prevent all growth below the point of union, or else in time the tree or shrub will be worthless.

**Where room is abundant** a bed of hardy Roses, if kept in good shape, proves very attractive. Roses do not stand being crowded in with other shrubs, or being planted against fences or buildings very well. The best accommodation for them undoubtedly is a somewhat centrally located bed cut in the lawn, with a good stretch of grass on all sides, allowing plenty of air and sunshine. Circular or oval forms of beds are pleasing ones. The plants may be set two or three feet apart each way, starting near the edge, and they should receive clean culture the season through. Setting plants of other kinds in the bed or between the Roses is not advisable.

**Clematis Crispa.** "Blue Bell," of Wilmington, N. C., in the vicinity of which town this interesting vine grows wild, sends to us the following about it: "I had long wished to possess this dainty vine, but was never so fortunate until recently, for although native here, it grows in almost inaccessible swampy places. I will try to describe it, but my knowledge of botany is somewhat limited. It has gracefully drooping flowers, of a pale lavender-blue shade on the outside, with the same on the margin of each of the four petals, and ivory-white (like the inside of a white kid glove) on the inside. It is delightfully fragrant, and a profuse bloomer. It has compound leaves, and is very easily cultivated."

**Geraniums in the Cellar.** Our subscriber, M. Dippel, Waterloo, Ont., in answer to our inquiry concerning the successful keeping of Geraniums over winter, by hanging them by their roots in the cellar, writes as follows:

"The cellar in which the Geraniums were thus safely kept, was not very damp, but one in which ordinary vegetables wintered well. Light was admitted through one window, on the south side. For this purpose a cellar must be cool else the plants will dry too much. Care must also be taken in planting them out not to water too freely. Young plants rarely succeed as well as older ones, and these are quite safe. Some people leave as much soil on the roots as they can, but I have not tried that plan.

**Strawberries.** The illustrated article in our last month's issue, entitled "Have a Plenty of Strawberries," has attracted wide attention to this subject. After writing the article referred to, there came to our desk a handy little treatise of fifty or more pages, entitled "How to Grow Strawberries," which we think well of. Mr. Geo. B. Knapp is its author, and the H. D. Watson Co. its publishers, all of Greenfield, Mass. The work covers the whole ground of structure, sexuality, propagation, soil, cultivation, marketing, manures, insects, varieties, etc., giving much information in a small compass. There are numerous illustrations. For the convenience of our readers, the book will be furnished from this office. As its price by mail postpaid, is but 25c. per copy, there should

be a good call for it from amateur fruit growers and from others.

**Treatment of Shipped Plants.** The plants, if in the least wilted, should be placed with the paper about them in shallow pans with water



*The Globe Mirror.* As a lawn ornament it is rightly called "A Garden Horror," by friend Robinson, of the London Garden.

comfortably warm to the hand, where they should remain twenty minutes to half an hour; this restores their vigor, revives their leaves and increases their vitality. If it is the season when they can be planted out doors, the ground should be first well dug up and pulverized; the plants when set out should be first well firmed about the root, copiously watered once only when planted, and shaded for two or three days when the sun is out. No further watering should be done, but a mulch of moss, manure, or leaves around the roots would be beneficial. When received at a season when they cannot be put out, they should be placed in a size larger pot than they have been growing in.—*Harry Chappell's Book of Flowers.*

**Early Outdoor Flowers.** No class of flowers affords greater pleasure than the hardy ones that come forth of their own accord in the first warm days of spring. The Crocus and Snow-drop are conspicuous among these, but there are a number of others no less charming. Of these the Winter Aconite, with beautiful star-shaped yellow flowers, coming even earlier than the Crocus; the blue-flowering Pulmonarias, with handsome spotted foliage; the Spring Adonis, with bright, yellow flowers and finely fringed leaves, and the fragrant English Violet, may be named as being among the very earliest outdoor bloomers, and first-class in every respect. Among pretty native flowers that early appear, the Sanguinaria and the Anemone nemorosa, both of which may be found in the woods and meadows of many parts of our country, are very attractive.

**Rose Slugs—Wisconsin Heard From.** "What matters it," says Sister O. A. Sheldon, of Racine, who was a former subscriber of the *Floral World*, "if we were transferred to 'pastures new,' does not that suggest better herbage possibly, and with it stronger development in the fields of gardening knowledge?" And then she further contributes this share to the general Knowledge Box, to which all our readers may give, and from which all may take. "Are the ladies troubled with slugs on their Roses in summer? Just use flour three parts, hellebore one part, and apply with a whisk broom in the early morning, as soon as the foliage is developed. Don't wait for the slugs to appear, but if they do, repeat if necessary. One application may be sufficient. This remedy is also good for currant worms, but expensive, if you have a large plantation."

**Mow the Lawn Frequently.** During growing weather once a week is none too often. Then the mower will run very lightly, not appearing to take one-half the work to propel it

as when twice as much time elapses between the cuttings. Besides this, the clippings will be short enough to readily dry, sink into the turf and in time decay, serving thus as a perpetual fertilizer to the roots. While if they are long, as a result of lengthy intervals in mowing, raking is necessary, or else they will remain on the surface, to turn an ugly color and clog the sward. Another point that bears strongly on the case is that a good lawn should consist of grass plants that are very thick together, and while the individual plants may thus be kept in good condition, if cut back frequently, some will surely receive injury from their closeness, whenever the general growth is allowed to shoot up high. In this respect a lawn is not unlike a hedge, thriving best with close clipping but soon showing bare spots if poorly attended.

**Rock-work.** A bit of rock gardening is always interesting, if judiciously made and stocked, and affords the means for growing certain kinds of plants, that would not do as well in any other place. If there are no natural rocks to work with in getting up the mound, certain kinds of artificial material may be used with good effect. Some clinkers from furnaces dipped in hot lime water are useful, as are also the fused and distorted masses of bricks that are part of the rubbish about a brick-yard. With either these, or rocks, and an abundance of good loamy soil, the "rock work" is formed, placing the former in such a position over the mound that spaces or cavities from two to ten inches wide are left all over the mound in which to set the plants. In these, all kind of hardy and creeping plants may be planted, besides the hardy Sedums, Campanulas, Lychnis, Cerastium, Lysimachias, Phloxes, Saxifragas, and the entire list of plants classed as Alpines in the catalogues. Some bright-flowering greenhouse plants are also in place, to add richness to the effect. A well-made rockery is sure to prove an attractive object on well-kept lawns.

**Not Readers of Popular Gardening we are Sure.** Some time since the ladies of Springville, N. Y., were invited by two traveling agents to pay \$6 a dozen for "Roman Lily" bulbs, which were offered as being something very rare and beautiful. Quite a number of them invested in the bulbs only to find, when they came in flower, that they had been badly swindled. The strangers represented themselves as agents of a foreign house engaged in the importation of the rare bulb—a variegated lily of remarkable beauty. They canvassed the village and sold many of the bulbs from house to house. The gentlemen who introduced the goods seemed anxious that the plants should thrive. They insisted on setting the bulbs out with their own hands in pots prepared for the purpose. The Roman Lily was too tender a treasure, they maintained, to be handled save by the deft hand of a skillful florist! But the bulb business waned, and the two strangers departed. Tenderly did the buyers care for their Roman Lilies, and vie with each other to possess the first blossoming plant. The opening of the first flower was heralded through the columns of the local papers, and the home of its owner was thronged with visitors all the next day. But what did they behold? Simply a common yellow Daffodil! Since that day all interest in Roman Lilies has departed forever. It now transpires that these men were seen digging up Daffodil roots in a vacant lot on one of the back streets of the town referred to; and it is rumored that one good lady at the West End is minus a certain board bill.

"Lilies," said Mrs. T. L. Nelson in a recent admirable address, "are among the most reliable bulbs after the bloom of spring flowers is past. *L. candidum* (the common white lily) is one of the hardiest, but one of the most particular about the time of planting. This must be done when the bulbs are in a dormant state, about the last of August or first of September. After that time they start again, the leaves

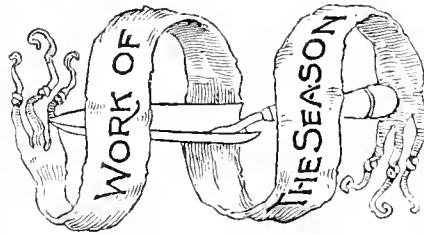
remain green throughout the winter, and the bulbs will not bloom if disturbed after they commence growing. *L. longiflorum* is not as hardy as many of the species, because the bulbs are liable to start in the fall if the weather is warm. It is best to cover early with leaves or light compost, as a hardy frost after the bulbs have started almost invariably kills them. They are easily transplanted. *L. auratum* is quite uncertain, even with the best protection. A few bulbs may be planted every year, and the cost counted as of bedding plants, for they are worth growing if they afford one season's bloom. Some of them will survive the winter and bloom again, but they cannot be depended upon. All the varieties of *L. speciosum* are hardy. *Album procerum* is a much finer variety than *album tuberosum*; *roseum*, *pauciflorum*, *Melponense*, and *purpuratum* are all desirable. *L. pardalium* (sometimes called Leopard Lily) is fine and hardy. *L. eccelsum* is of bright buff color and one of the most beautiful. *L.*



A Gardening Apron

*Brownii* is rare and costly, and from its peculiar purple outside and the pure white waxen inside presents a striking contrast to *longiflorum* and others of that class. *L. Leichlinii*, *L. monadelphum* and *L. Turryi* are fine yellow varieties. All the varieties of *L. Martagon* (the Turk's Cap Lily) are good. *L. Chalcedoniense* (Scarlet Turk's Cap) is one of the best. *L. tenuifolium*, one of the earliest, if not the earliest, has slender stems and foliage and a lovely scarlet flower with reflexed petals. *L. Pomponianum cerium* is much like *L. tenuifolium*, but a little more robust and blooms a little later. There are many inexpensive varieties, like *Thunbergianum*, *umbellatum*, and the varieties of *tigridium*, which are showy and perfectly hardy. Lilies are easily cultivated, but they will not thrive on low land, unless it is thoroughly drained; water at the roots or wet, heavy soil is fatal. The soil should be light and rich; it must be remembered that it is not the bulb that needs feeding, but the roots beneath. If annuals or some light bedding plants are planted between the bulbs it will serve to keep the surface cool and moist.

**A Gardening Apron.** "My sisters of the POPULAR GARDENING family," asks Sister Gracious, of Detroit, "Have you a gardening apron? If not, get two yards of common ticking; cut off about a foot of the cloth and sew it across the bottom, and make four deep pockets out of this, as I show in the sketch presented herewith. If you want it to be very fancy, work down the seams between the pockets with crazy stitch in red yarn or worsted. Put two more smaller pockets higher up. Now you have places for seeds, trowel, strings, tacks, sticks, hammer, weeder, and I am not sure but you could tuck in the shovel and the hoe. I have used mine all winter while working in my window garden. The cloth is so thick it keeps my dress dry, and my knife or scissor's are always at hand. And my temper has improved amazingly since I have worn the gardening apron."



HOUSE PLANTS.

**Cactus.** Such as require a shift should receive it now at the beginning of the season's growth. Many of these interesting plants bed out well.

**Camellias** may be moved out into some shady place, sheltered from winds. Water and sprinkle freely.

**Chrysanthemums** will now be growing rapidly. Shift whenever dense masses of roots appear on the ball of earth. See February issue for extended directions on culture.

**Cyclamens.** Some of our best gardeners now recommend managing them through summer, by planting them out this month, in the flower border.

**Hydrangeas** should now go out. Treated to an occasional dose of liquid manure, and the growth will be stronger, the flowers very much finer.

**Ixias.** See the directions given below for Oxalis. **Oleander.** See directions for Hydrangeas above.

**Oxalis** that are done flowering, should have the pots turned on the side to ripen the roots; later, shake out, wrap in paper, keeping them dry.

**Palms.** Shift, if needing it, when moving the plants out. Unless growing very fast they do not require this oftener than once every other year.

**Shifting** of all large subjects is best done just as the season's growth begins. Where one has fine plants, neat and well made boxes add much to their beauty; if made so that the shifting of large specimens can be done conveniently, and without injury to the boxes, so much the better. A drawing is herewith given of a fine plant box with two fixed sides (a) and two movable ones (b) which allows of shifting with the greatest ease. Such boxes may cost a trifle more at the start than ordinary ones, but the increase here will be money well spent.

**Summering.** During the month, all plants may be moved to their summer quarters; the hardier one like Agaves, Azaleas, Oleanders, Hydrangeas, Laurestinus, Daphnes, etc., first, followed by the more tender ones at the end of the month. Most kinds do best in partial shade. To plunge such as are in pots, in soil, sand or coal ashes will save much labor in their care. Arrange the plants with taste according to their size and appearance.

LAWN AND FLOWER GARDEN.

**Annuals** of all kinds may now be sown out doors. See directions given last month.

**Caladiums** rejoice in nothing more than in a very rich soil it may be one-half manure and in plenty of water. Then their growth will be a marvel.

**Cannas.** See note on Caladiums, which will apply.

**Climbers.** Tender ones, such as Cobaea, Pileogyne, Madeira or Mignonette vine, potted Clematis, etc., may go out when hard frosts are past.

**Culture.** For the care of flower beds, we want nothing better than a narrow rake and hoe combined, the rake part of which is used by far the most. The surface of the bed should frequently be gone over, say whenever small weeds appear, and after each rain, to break the crust of earth.

**Dutch Bulbs.** After blooming, and when ready to set other plants in the beds, dig the bulbs, carefully preserving the tops and whatever soil adheres to the roots, and heelin in some out-of-the-way place, so that the bulbs may mature properly. When ripened store away, until planting time in the fall.

**Edgings.** Keep tidy by using an edging knife on them several times during the season.

**Evergreens** may still be moved. Be sure to keep the roots from drying.

**Gladiolus** do well in almost any kind of soil. Plant at least three inches deep.

**Lilies.** Greedily sometimes trouble these in beds, to prevent which, mulch with wet tobacco stems two or three inches thick.

**Morning Glories** are very attractive, and useful for hiding unsightly objects. Sow of the best seed.

**Perennials.** Even if well started, most of them can be transplanted.

**Phloxes** of the hardy section are, in the improved sorts, among the very best border plants. For doing

their best, strong stools should be reduced to a few leaders, and these be supported by stakes.

**Plans** for the summer flower beds should be all in readiness before the day of planting.

**Planting Out.** This work is in order for the hardier kinds, such as Verbenas, Carnations, Stocks, etc., which may, excepting in the North, go out at anytime now—the earlier the better. Do not hurry out the tender plants, like Coleus, Alternantheras, Tuberoses, etc., before warm weather is surely here. We have seen, more than once, June-planted tender sorts get way ahead of the same kinds set out in May.

**Weeds.** No good gardener will allow them to get ahead.

PLANT CULTURE UNDER GLASS.

**Achimenes.** Shade the plants lightly, keep in good temperature, moist atmosphere and plenty of air.

**Asters** are very suitable as pot plants. Do not allow to become pot-bound. Air and water generously. They need a rich, light, sandy soil.

**Balsams.** See note on Asters.

**Camellias** that are through growing should have plenty of air and moisture, but less water, than earlier, which does not mean, however, that they should be stinted.

**Cinerarias.** Any plants that are specially desirable may be propagated by filling the pot almost full with sandy compost, in which the suckers will form roots. Afterwards divide and pot separately.

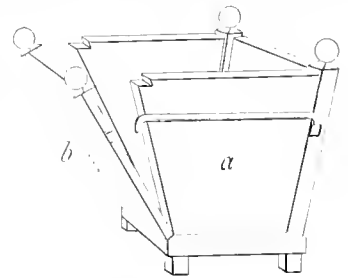
**Fuchsias** that have flowered during the past winter should now be brought to a state of partial rest by reducing the supply of water.

**Gloxinias.** See directions for Achimenes.

**Orchids.** The Indian species must now be in their glory, as to thriftiness, or never. They must be freely supplied with water and moisture in the atmosphere at this time. Such kinds especially as the Dendrobiums, Stanhopeas, Aerides, Saccobiums, and Vandas, easily receive injury if this is neglected.

**Pelargoniums.** Provide shade, plenty of air, and coolness, as they show flowers, if you would maintain their beauty for a good period.

**Plants** of many kinds that are kept in pots through the summer may go outside about the end of the month. Plunge the pots of free growers in soil spent hops, or other material to prevent rapid drying out. To set all such on a deep layer of



A Plant Box with Movable Sides. See "Shifting," under House Plants.

coal ashes or on flagging, to keep angle worms out of the pots, is a good precaution.

**Propagation.** This is a good time to get up stock of Begonias, Euphorbias, Justicias, Heliotropes, Geraniums and all other quick-growing, soft-wood plants for display next winter.

**Specimen Plants.** It is well to assist these with liquid manure sometimes. Attention to good forms by stopping the shoots of shrubby and branching sorts is in order now, the season of free growth. Kinds that are in flower must have shade.

**Watering** needs close attention now, at this season of rapid growth; plants cannot suffer once, from drying out, without great injury. Wetting down the walks, under the stages and the sides of the houses will provide favorable moisture, and will discourage that pest, the Red Spider.

FRUIT GARDEN AND ORCHARD.

**Blackberries.** More suckers will appear than are needed for the next year's plant; all unneeded ones should be cleaned away. Tie up the new shoots when large enough.

**Insects.** The *Teat Caterpillars*, a common pest, hatch out early and should be destroyed as soon as ever the nests show. These are readily seen when livened up early in the day by the glistening dew in



the sunshine. With gloved hands gather and destroy every brood.

**Borers** should be cut or probed out wherever they are present. This may be known by the sawdust like castings of the insects, or by depressions in the bark. Look very sharply for these.

**Curculio**, that dread of all Plum growers, especially, it attacks Cherries, Peaches and some other fruits also will commence operations before this month is out. By one course at least can they be destroyed and the crop be secured, and that is a safe and sure one, namely: to jar the insects from the trees early each morning into sheets spread under the branches, afterwards burning them. Systematically followed, the task is not so great as might seem; the gains are worth far more than the pains. **Apple-borer**, or **Plant Lice**, sometimes appear early on the young leaves; destroy with a solution of whale oil soap, or with tobacco water that looks like tea.

**The Currant Caterpillar, or Worm**, starts in early on its attacks on Currants and Gooseberries. Powdered white Hellebore is the specific. It may be applied either by dusting the foliage when moist with dew, or in a liquid form, using a heaping tablespoonful to a gal of water, and sprinkling or syringing the plants with this. Apply at intervals of half a week, until no more appear.

**Mulch** all newly-set trees before drouths set in. **Raspberries**. See directions for Blackberries. **Strawberries**. A dressing of fine bone dust or of guano preceding the fruiting is very helpful to the crop.

**Thinning** fruit is one of the things that amateurs should accustom themselves more in doing. Experience is the best instructor. Try a small number of plants or trees at least, thinning the fruit of different ones in different degrees, and note the effects.

VEGETABLE GARDEN.

**Beets**, for the main crop, should be sown about corn planting time. We drill ours in lines fifteen inches apart. The early sowings should be thinned as needed.

**Carrots**. See notes on Beets. **Celery seed beds** should be kept weeded, and the plants thinned where standing too thickly.

**Dandelion** is a favorite early "greens" with many. Improved sorts may easily be raised in the garden from seeds sown now.

**Egg Plant**. Guard from the potato bug. They seem to have a great relish for this plant.

**Herbs**. Sow Sweet Marjoram, Sage, Thyme, etc., this month, in light soil in rows one foot apart.

**Hot-beds** may be turned to good account later by clearing several spots in each one now, and sowing Cucumber or Melon seeds in them, to take possession later.

**Insects**. Let Fleas on Turnips, Cabbage, Radish, etc., be met by dustings of lime. The Radish Maggot does not trouble much in soil which has been freely treated to coal ashes for one or two years. A bed for Radishes should be fitted up in this way.

**Lettuce**. The early sowings may be dibbled out into rich soil at 12 to 15 inches apart for heads.

**Melons, Squashes** and the like, being rank feeders, should be planted in manured hills; six feet apart is a good distance.

**Rhubarb** should have the flower stem broken out. Do not take stems from newly-set plants.

**Savoy Cabbage** is by many thought to be superior to the ordinary sorts. Treat like any other Cabbage. The Drumhead we think is the best variety, the head being large and solid.

**Sow** the more tender things, like Beans, Corn, Cucumbers, Melons, Squashes, Tomatoes, Martynia, as soon as the ground is warm. Also for succession crops, Lettuce, Radish, Spinach, etc.

**Squashes**. See directions headed "Melons." **Sweet Potatoes**. Do not hurry the planting. See article on page 88.

**Weeds**. Keep them completely down from the first. When small they are easily eradicated; not so after they are strong.

FRUIT AND VEGETABLES UNDER GLASS.

**Cucumbers** in frames cannot have too much sun and light. Ventilate with caution, and be prepared against cold nights by plenty of covering.

**Grapery**. Vines in cool houses should again be thinned, being careful not to handle the berries. Early crops that are hastening on towards ripening should be kept rather dry, and with a temperature of 70° with sun heat, and 65° by night.

**Peaches**. When the fruit begins to soften for ripening, syringing may be almost wholly stopped and water at the roots considerably reduced. As for gathering, every peach should be removed before ripe enough to fall from the tree, placing in shallow boxes, in a dry, airy room, until fit for use.

**Pines** will now be in their season of strong growth. Use water freely about the walks, and in wetting down the plunging material. Although the sun now supplies most of the heat, the fires can not be got along without; they may be kept banked much of the time.

**Strawberry Plants** that have been forced may be planted out. Soak the balls, run the soil very hard, mulch with rotten manure, and water if dry weather prevails.

INQUIRY COLUMN

This being the People's Paper it is open to all their Inquiries, bearing on Gardening.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fair writer; give facts and views and the editors will see that they appear in creditable shape.

In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper. Flowers will be gladly in word provided first, that no more than three be sent at one time. Second, that these be fully prepared. Third, that several specimens of each rank us in good shape. We cannot undertake to name florists' varieties.

51. **Quince Grafts**. Where can good ones be obtained?

52. **Blueberries**. Will this fruit grow in this climate, thirty miles south of Chicago?

53. **Pond How to Treat**. Are there any plants that I can sow or set out in what is a shallow pond the first half of the summer, and an unsightly dry bed the latter half, to make it look well at the latter time? Mrs. F. E. WARD, Oskage, Ill.

54. **Sweet Violets**. I am anxious to know how to cultivate them. M. L. DISMORW, Lyons, Iowa.

55. **Wintering Tubers**. Will some one give a good plan to keep Caladium and Tanna over winter. Mine always rot. CORA JEWELL, Shinnouddle, Ind.

56. **Fernery**. Will you give me particulars for starting one of these? Is a glass case necessary? How must I start the seed and care for them?

57. **Calceolarias**. What season of the year do these bloom, and what care should they have?

58. **Cannas**. Do Cannas bloom the first year from seed? What must I do with the bulbs in winter? 59. **Richardia**. Is the Spotted Calla a summer or winter bloomer?

60. **Angle Worms**. Do angle worms in the earth injure the plants; also, do small white ones injure? MISSIE E. STOWE, Sun Prairie, Wis.

61. **English Ivy**. When the leaves have fallen from this plant can anything be done to restore them? MAE CRONE, Des Moines, Iowa.

62. **Ants**. Will small ants injure plants? If so, what will drive them away something not poisonous to people? Mrs. M. CARRUTH, Sun Prairie, Wis.

63. **Fairy Lily**. Will some one please tell me how to treat these? Do they require a season of rest? FLORALIS.

64. **Bouvardia Humboldtii**. Mine does not bloom. It grows finely during the summer, but loses its leaves in winter. Can you inform me how it should be treated? ANXIOUS.

65. **From Seed**. Will Abutilons, Begonias, Celosias and Fuchsias blossom the first year from the seed? Miss. E. O. LOCKE, Clapper, Iowa.

66. **Dahlias**. The first year they had very fine blooms. Since that time they have been deteriorating. Why is it? How may it be prevented? M.

67. **Bulbs**. Please tell me in your paper how to raise Tulips, Narcissus and Hyacinths in this tropical climate. P. M. COLE, Key West, Fla.

REPLIES TO INQUIRIES.

50. **Oxalis** needs to be freely watered if in a warm exposure and dry atmosphere, and needs sun. This is all the attention mine has had, and has blossomed all winter. MISSIE E. STOWE, Dane Co., Wis.

49. **Currant Worms**. A mixture of equal parts of wood ashes, air-slaked lime and sand plaster, sprinkled on currant bushes after a dew or rain, is an effectual remedy for currant worms, not injuring the fruit, but rather improving it by fertilizing the soil. I have tried it for five or six years, always saving our fruit. If the worms make a second appearance, use again. M. E. STOWE, Dane Co., Wis.

56. **Buds, but no Flowers**. Probably your Fuchsias need larger pots and more water. It is wonderful how much water they will take, and roomy pots are a necessity. Geraniums need comparatively small pots and little water; otherwise the buds are sure to blast. MISSIE E. STOWE, Dane Co., Wis.

51. **Curculio**. Barring coal tar under plum trees just as the blossoms begin to fall for, say every morning for a week, will prevent the ravages of the curculio, as I have proven. MISSIE E. STOWE, Dane Co., Wis.

50. **Hyacinths**. Plant Hyacinths early in the autumn. MISS E. O. L.

55. **Buds, but no Flowers**. I think the trouble with Earneston's plants is too dry an atmosphere, to avoid which, keep water continually on the stove in the room where the plants are. E. S.

50. **Daphnes**. Froeze strong young plants. Keep shut and growing during the summer plunged outside. As cold weather comes on, take in a cool house for winter flowering. F. E. S.

53. **Callas** do not bloom the first year; they need to be several years old. E. S. E.

48. **Anaryllis Tritrea**. The bulbs should be allowed to rest for several months after this season's growth, then start in very rich sandy soil, well drained, and plenty of water. F. E. S.

61. **Cannas**. If sown early, February or March, and carefully and quickly grown, they will bloom the first season. Keep same as Buddha tubers over winter. E. E. S.

51. **From Seed**. Yes, if sown early; but it is better to not grow too rapidly.

72. **Dahlias**. We would attribute this to the fact that the tubers are not as strong as formerly. Give higher fertility and culture. A. H. E.

List of Gardening Catalogues Continued.

- F. H. Brining, Kent, Union Co., O. Red Cedars
- Albert Benz, Douglastown, N. Y. Seeds
- Bristol Sisters, Topeka, Kan. Florists
- Francis Brill, Horse Head, N. Y. Seeds
- Bush, Son & Meissner, Bushburg, Mo. Grapes
- Carpenter & Gage, Fairbury, Neb. Nursery
- Cole & Bro., Pella, Iowa. Seeds
- J. Curwen, Jr., Villa Nova, Pa. Plants
- Cincinnati Outragating Co., Cincinnati, O. Iron
- F. O. Cole, Jersey City, N. J. Insect Exterminators
- H. Cunnell & Sons, London, Eng. Plants
- L. C. Demian, Coshocton, O. Poultry
- John Dick, Jr., Phila., Pa. Plants and Heaters
- J. L. Dillon & Co., Bloomsburg, Pa. Plants, etc.
- Wm. Desmond, Kewanee, Ill. Plants
- S. C. DeCon, Moorestown, N. J. Small Fruits
- J. Evans, Omaha, Neb. Seeds
- James D. Ferris & Co., New York City. Bulls
- Jos. D. Fitts, Providence, R. I. Small Fruits
- S. E. Hall, Cherry Hill, Ill. Small Fruits
- Thos. G. Harold, Kingston, Ind. Plants, etc.
- W. F. Heikes, St. Louis, Mo. Nursery
- C. Hennecke & Co., Milwaukee, Wis. Vases
- E. Hppard, Youngstown, O. Plants, etc.
- Stephen Hoyt's Sons, N. Canaan, Conn. Nursery
- Hitchings & Co., Mercer St., N. Y. City. Heaters
- Hallock, Son & Thoppe, E. Hinsdale, N. Y. Florists
- A. H. Hews & Co., N. Cambridge, Mass. Pottery
- \*A. E. Higgins, Oudlar, Pa. Nursery
- H. G. Higley, Cedar Rapids, Iowa. Florist
- Z. K. Jewett, Sparta, Wis. Spaghnum
- Thomas Jackson, Portland, Me. Plants
- James King, Chicago, Ill. Seeds
- Joseph Kift, West Chester, Pa. Roses
- Henry Lee, Denver, Col. Seeds, etc.
- Ludwig & Richter, Allegheny, Pa. Veg. Seeds
- Mendenhall G. H's, Minneapolls, Minn. Plants, etc.
- Miller & Hunt, Wrights Grove, Ill. Florists
- Geo. Mullen, Boston, Mass. Wholesale Florists
- Oelshlag & Meyer, Savannah, Ga. Roses
- John Poste, Columbus, O. Nursery
- John Perkins, Moorestown, N. J. Small Fruits
- Parsons & Sons Co., Flushing, N. Y. Nursery
- Pringle & Horsford, Charlotte, N. Y. Plants
- Phoenix & Emerson, Bloomington, Ill. Nursery
- Parker & Wood, Boston, Mass. Implements, etc.
- J. F. Pease Furnace Co., Syracuse, N. Y. Furnaces
- Jos. Peunty, 41 Pearl St., N. Y. City. Hort. Builder
- J. T. Phillips, W. Grove, Pa. Plants, etc.
- A. D. Perry & Co., Syracuse, N. Y. Agr. Imp't.
- J. A. Roberts, Malvern, Pa. Nursery
- W. W. Rawson & Co., Boston, Mass. Seeds
- Aug. Rolker & Sons, Day Street, New York. Seeds
- Shaker Seed Co., Mt. Lebanon, N. Y. Seeds
- W. P. Simmons & Co., Geneva, N. Y. Florists
- Wm. & J. Smith, Geneva, N. Y. Nursery
- W. S. Smith, Aurora, Ill. Plants, etc.
- Wm. H. Spooner, Boston, Mass. Florist
- Delos Staples, W. Sebawa, Mich. Blueberries
- A. E. Spalding, Ainsworth, Iowa. Plants, etc.
- Springfield Seed Co., Springfield, O. Seeds
- Richard Smith & Co., Worcester, Eng. Plants
- H. H. Tammam & Co., Denver, Col. Minerals
- A. R. Whitney, Franklin Grove, Ill. Nursery
- H. J. Weber, Gardenville, Mo. Nursery
- Thos. W. Weathered, Marion St., N. Y. Heaters
- Wagner & Co., Shawmut Ave., Boston. Nursery

\*See Advertisements elsewhere in this issue.

Annual Meeting of the Association of Nurserymen, Seedsmen, etc.

The next meeting of this association will be held in Washington, D. C., for three days, commencing with Wednesday, June 19th next. The place of holding the meetings is to be in the Department of Agriculture buildings. Full particulars of what promises to be one of the most interesting gatherings of this association, together with programme, information about hotel and railroad arrangements, etc., may be obtained by addressing the Secretary, Dr. Wilmet Scott, Galena, Ill.

# The Household

## Clean Cellars Necessary for Healthy Homes.

In the city and country alike, it is the dark corners, the neglected and little used places in a house, that most frequently contribute to its unhealthfulness. In this respect the cellars of many houses have much to answer for, being dark and damp, with no direct rays of the sun to kill the mephitic gases which always seek those low levels, and no ventilation to disperse them, even where the cellars themselves are not depositories of rubbish and vegetable refuse.

Therefore the warning cannot be too often given, especially in the spring, to look to it that the cellar is not neglected. Their ceilings and walls should be plastered and white-washed to keep them dry and clean. They must not be allowed to become "poke holes" for rubbish; the floors should be well paved or cemented, to keep out emanations from the soil; and they should be ventilated by keeping open outside windows or doors, in dry weather.

Emanations from damp and mouldy cellars do not kill in a night. The cellar air is taken up through the rooms of a house gradually, and in small doses at a time, but the warmer air of the upper rooms produces an upward current every time the cellar door is opened, and neglect in regard to this matter is sure to entail serious consequences, because the real reason is so often overlooked.—*Scientific American*.

### Brieflets.

**An oil stove** for comfort in hot weather.

**Furs and woollens** should go into tarred-paper lined chests.

**Flour** the beefsteak; it will fry up more tender and delicious.

**A little sulphur**, carefully burned in the cellar, will destroy disease germs.

**Efface scratches** on furniture by rubbing on some linseed oil, following with a little shellac dissolved in alcohol.

**When washing** the woollens, just try a small quantity of borax in the water and see how it will help the work.

**Dampen** the dusting cloth the night before sweeping day, and you will find it will help greatly to do a neat job of dusting.

**The hands** very clean cannot be improved upon for mixing up cake batter. They are a great improvement over the doughstick or spoon.

**Try it by all Means.** Miss E., of Erie Co., N. Y., writes to this paper, that if a little parsley dipped in vinegar is eaten after onions, the breath will scarcely disclose the odor.

**To Clean Bottles.** Old bottles are often cast aside as useless, when a little pains would restore them for use or for sale. Put into each bottle some coal ashes or shot, fill half full with warm washing-soda lye, give a good shaking and rinsing and you have a clean sweet bottle.

**Washing a Feather Tick.** Many are puzzled to know how to care for the feathers. The best plan, if you have no old tick to empty the feathers into, is to sew together two sheets, leaving half of one end open and ripping the half of the tick to match it. Sew both holes together, thus emptying out the tick without spreading the feathers.

**There now, Girls.** The Empress Augusta presents every woman-servant in Prussia, who completes her fortieth year of unbroken service in one family, a gold cross, and diploma bearing the imperial autograph signature. During the past eight years she has thus honored 1,156 servants. This is quite a favorable contrast to servants in America, who are ever on the wing.

**Seasoning.** By discriminating in the use of seasoning the most appetizing novelty can be attached to rather unpromising materials. Fat meat and poultry are most palatable with sharp and acid condiments. Combination dishes, assoups, ragouts or "stews," and minced meats require several seasonings. Plain roasts and broiled meats are best with salt and pepper, or a single cold or relish.

**Home Bleaching.** Perhaps all our readers do not know that unbleached cotton, rightly bleached at home, gives far better service than that which is bleached when bought. We here give some simple and well tested directions for this process, that anyone can practice, and which will not injure the texture of the cloth. Weigh your goods and to each five pounds use twelve ounces chloride of lime dissolved in a couple of quarts of boiling water, and allow to stand until well settled. Boil the goods first in strong suds, wring out and rinse in clear water; then take sufficient water to cover the cloth and add the chloride solution, pouring off with as little lime as possible. Keep in from ten to thirty minutes, with frequent airing; rinse thoroughly. This is also excellent to remove any kinds of stains from cloth, including mildew.

**The Reticule.** This useful feature of the outfits of our grandmothers seems to be on the eve of a revival. The most convenient shape for these, says the *American Cultivator*, is simply a square bag of velvet, from ten to twelve inches square, lined with colored silk. A running, to hold a ribbon or cord and tassels to draw it together with, must be made about three inches from the top of the bag. This is the simplest form and the easiest to make. For more elaborate ones the bottom corners may be rounded or the bag made envelope shape, with a handle at the top. One of the prettiest is that made by taking a piece of velvet the size the bag is to be, and by cutting the lower ends into large vandykes, which must be sewn together so that the bag ends in a point finished off with a tassel. We have seen some more useful, but not such ornamental receptacles, in the shape of Brobdingnagian long purses with large rings and tassels. These cases, made of brown holland, trimmed with braid and closed with ivory rings, will prove very acceptable to travelers for holding boots and shoes and many other et ceteras. Night dress cases and comb-bags look very well, made in cretonne or sateen with the outline of the pattern worked around in outline stitch, or if a large design, in chain stitch.

# Poultry.

## About Guinea-fowls.

It is generally supposed that the Guinea-fowl is a delicate bird and difficult to rear, and through fear of creating too much care and trouble, people deprive themselves of the nicest dish it is possible to put on the table. When the shooting season is closed, this bird takes, with advantage, the place of the pheasant. We prefer at any time a nice Guinea-fowl to a prairie chicken killed in the wood.

The rearing of Guinea-fowls does not (says *L. A. Cultrier*) offer more difficulty than that of the most hardy chickens. They do not require that particular care so necessary for the success of partridges and pheasants. In a state of liberty, free to roam about in a large park, or over the farm, and from which they will not attempt to escape, they hatch out their young and provide for them without the help of man. If confined in a run or poultry-yard with other fowls, they never sit, but, on the other hand, they lay an abundance of eggs, which can be given to a broody hen, or put into an artificial incubator. For the first days the young are fed exactly like young chickens, viz.: hard-boiled egg, with bread-crumbs, chopped salad, with a little bruised hemp seed, mixed up together in a paste; millet, boiled rice, and lots of green food. As with the rearing of all the inhabitants of the poultry-yard, they require from time to time a small quantity of finely-minced meat, which gives vigor to the young, and a most robust constitution.

Young Guinea-fowls reach the adult period earlier than chickens, and consequently give less trouble in rearing. At a month old they can do without the natural or artificial mother, and can manage for themselves. We should advise our amateurs to try some this year and hatch out a few Guinea-fowls. They will thank us for our advice when in the autumn these young subjects are fit for the spit.—*Poultry Keeper*.

## CONDENSED POULTRY NOTES.

**Ground oyster shells** suit poultry.

**Shelter** young chicks from sun and rain.

**Hens do not pay**, as layers, beyond three years.

**Rats in the Poultry Yard.** A single rat will destroy hundreds of young ducks and chicks. Put chloride of lime in their holes.

**One must not forget**, for one time even, that hens are great seed raisers; if given the chance, they show decided enterprise at the business.

**While fresh** sweet meat is to be preferred for fowls, some that is tainted, if it is well cooked, will do no harm in supplying this important kind of food.

**We do not expect** every egg to produce a chick; this rarely happens except when a hen "steals her nest," and has her own way about things, and it don't always happen then.

**Eggs With Pale Yolks.** It is believed that restricting fowls to grain and vegetables alone for food, and in confined places, is the cause of pale yolks. Allowing them the range of the place and farm yard feeding is the remedy suggested.

**Linseed Meal.** An occasional feed (about once a week) of linseed meal, or oil cake, will prove a great benefit to laying hens, reddening the combs and increasing the appetite; but it should not be fed daily, as it is too rich in oil, and sometimes proves injurious.—*Poultry Nation*.

**Some of the most successful** poultry growers have the food so placed that chickens can have access to it at pleasure. A good contrivance is to have a high, narrow box placed inside, flat-side against a wall, with a narrow opening at the front side of the bottom, into a low, horizontal box that answers for feeding from.

**Don't expect every chick** to grow up into a first-class \$25-a-trio exhibition bird; you'll be most awfully disappointed if you do. And if you should even happen to have one disqualified bird out of the lot, don't make any great amount of fuss about it. Our best breeders raise a good many disqualified birds each year.—*The Farming World*.

**A Cure for Chicken Cholera.** I have had this disease twice introduced into my flock by the purchase of diseased chickens, and each time I lost from eighty to one hundred fowls. On each occasion, however, its ravages were entirely stopped in the course of four or five days, by feeding mixed food seasoned with fresh lime and salt, as strongly as the birds could be induced to eat it, the mixture being thoroughly wet. Salt and lime I find beneficial to chickens at all times.—*Rural New Yorker*.

**Profitable Poultry Raising.** Mr. Harrison, at the Western New York Farmers' Club, said he is satisfied that poultry can be kept by farmers profitably. To keep large numbers they must be separated into small flocks, twenty or thirty in a flock, especially at night. He has kept fowls many years, in a yard in the city; gets eggs enough to more than pay cost, besides chickens to eat, and a large amount of manure. Keeps White Dorkings and has kept them from his boyhood. Changes cocks every two or three years. Farmers too often leave fowls to shirk for themselves and roost on trees; but it will pay to take good care of them and have good, warm houses for them.

**The Wyandottes** are now recognized as one of the most useful breeds of fowls, and when well bred, will certainly give poultry raisers great satisfaction. When we first saw them, a good many years ago, they had the good points of cross-bred fowls. A few were well marked and handsome, but it would have been impossible in a flock of twenty, to have picked out a trio fit to put in a show coop. Their breeders said they were so good, grew so well, were so prolific; made such good broilers and grand roasters, that they ought to be admitted to "the standard." Still, year after year, the assembled poultry wisdom of the country kept them out, until 1883, when such uniform and handsomely marked fowls were shown, that they were admitted. They have won their way to their present popularity by combining real merit with beauty. In this latter quality they are superior to the Plymouth Rocks; but in other respects they strongly resemble this favorite breed of American fowls. They have beautifully laced hackle and saddle; solid black tail; breast white, heavily laced with black. The wings, when folded, show the much coveted duck-wing mark, or bar of black. They have a low, medium-sized, rich red comb, with well-defined spike of moderate size, and smooth, yellow legs. They are an exceptionally hardy fowl, standing out severe winters fully as well, if not better, than any other breed. They mature very early; pullets often commence laying at five months of age; and although not persistent sitters, they make excellent mothers when allowed to bring off their chicks, and they are very domestic in their habit.—*Am. Agriculturist*.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON.

Vol. 1.

JUNE, 1886.

No. 9.

## June.

When the pathway that winds to the woods  
Is hidden in Flag flowers blue,  
And the airy Birch has never a smirch  
On her silvery gown, but dew;  
When in Roses sweet and Honeysuckles,  
The breezes perfume their wings,  
When Strawberries hide in the meadows wide,  
And Laurels wake by the springs;  
When the blue sky laughs the whole day long,  
And the heart is light as the thrush's song,  
Oh, then it is merry June.

—Susan Hartley.

## Plants for Winter Flowers.

It is none too early to think about getting up the flowering plants that are to embellish the window or conservatory next winter. In fact the difference between having plants at that season that will be full of flowers or else flowerless, will be owing largely to whether or not some foresight is used in preparing such during the present summer.

Amateurs often wonder how the florists get such large crops of flowers through the winter while they succeed so poorly in raising the same kinds. It is not owing wholly to the superior conveniences of the former, but very largely to their knowing better how to prepare plants for winter bloom.

In the first place let us lay down as a main principle, the fact, that no plant can flower profusely all through the summer and amount to much for winter blooming.

Walk through a florist's grounds in mid-summer and many Carnation plants, for example, may be seen, but without a flower. These are designed for winter use, and the reason they have no flowers is only that all flower buds have been kept down by pinching. This is done to the plants until towards fall, with the result of producing vigorous, bushy stocks, which after that will throw off, and are capable of maturing heavy crops of flowers, right through the winter.

That which is true of managing Carnations is also true of Geraniums, Bouvardias, Begonias, Violets, Fuchsias, Heliotropes, and some others. Every one of these kinds, to be in the best shape for winter flowering, must be deprived of their summer flower buds, and the sooner after this date the pinching-back process is begun the better for the winter's crop.

Geraniums are justly great favorites as window plants in the winter. None others are easier to manage for having a fine show of flowers from November on, than these. Plants for this purpose may be grown during the summer, either in pots or bedded out. The former course calls for greater care in the matter of watering and shifting into larger pots during the season, but there is no chance of the plants receiving a check from being lifted from the ground and potted later on, as is the case, in some degree, through the other means.

Such as are bedded for the purpose should have ample space in the beds for development, and should then be taken up and

potted with great care during the first half of the month of August.

Of the plants named above, it may be said that the Heliotrope does not lift as well as most others, on which account, it is usually considered preferable, to bring the plants through the summer in pots.

While the growing of winter flowering plants during the summer in pots is considered the most gardener-like way of managing them, still it may be said of the other course, that there is a saving of perhaps one-half the labor, while the results may be nearly as satisfactory.

## Watch the Camellias Now.

A Camellia plant, growing in a pot, will suffer unto death from dryness, without so much as showing it by the leaves flagging.

On this account we caution growers to take particular pains, during the summer especially, to see that the plants have all the water they need, but not judging as to this by the appearance of the leaves. One may remove a branch of this plant, throwing it into hot sunshine, and the leaves will retain their color for days, wholly unlike those of other plants under similar circumstances.

A peculiarity of the Camellia, now also to be considered, is that its flower buds appear six or more months before they open. They may usually be seen as early as this month, and continue to enlarge during the summer and fall, flowering later on.

Now it should be understood, that had summer watering of the Camellia has much to do with the very common trouble, of the flower buds dropping from the plant before opening in the winter. Growing, as the buds do, all through the warm season, should the plants become injuriously dry a few times during this period, the former will receive injury in a way that will be almost certain to cause them to drop before developing into flowers, and yet they will grow on all the while.

In the summer care of these plants, therefore, it must be made a rule to water them enough each time they need it, so as to leave no doubt but that the ball of earth in the pot is soaked to its very center. This attended to rightly and almost the only critical point in their care at this season is overcome.

## A Rose-leaf Pillow.

We do not refer to one which derives its name from having Rose leaves embroidered or otherwise worked upon the surface, but to an easy and sweet cushion for the sofa or lounge, filled with dried Rose leaves, instead of with hair or feathers.

Such an one is easily made, and in June, the month of Roses, is the time to make it. As to how this should be done we are briefly told in a contribution from an esteemed reader from the western part of this State, who modestly signs herself "Sue." She says:

"Gather all the Rose leaves you can—those from fading Roses being just right. Spread these lightly over paper to dry, after which they may be stored in a paper bag as they accumulate, until enough are saved. One thing you will notice, and that is, that a considerable quantity will be needed. You will no doubt feel well repaid for all the work, even should two or more years be required to gather enough. Perhaps the help of some of your friends, or better still, of a neighboring florist, might be secured for furnishing the delightful material.

"Whether such a pillow contains any soothing or medicinal properties I am unprepared to say, but the fragrance is, at the least, very agreeable and strong enough to perfume an entire room, if it be kept somewhat close."

## Rose Culture in America. Why Not More Successful.

That the Rose, so far as beauty and fragrance are concerned, excels all other flowers is universally acknowledged. Were any proof as to this desired, none other would be needed, than the fact that where a business is made of the sale of cut flowers, nearly as much money is realized from the sale of Roses, as from all other kinds of flowers taken together. Such is especially the case in our large cities, where the increased taste in the use of flowers has so greatly developed in recent years.

But while this is true of Roses in the direction referred to, we wish it could also be said, that the extent of and success at their culture by the people in general, was nearer in proportion to the merits of this grandest of all flowers. Such a statement could not, in truth, well be made at the present time. All amateurs who grow flowers may admit the supreme worth of the Rose, but perhaps not more than one in five of the number, really pretend to grow Roses well and in fair abundance in their collections of flowers. Too often they have no faith whatever in their ability to grow Roses.

Is this because the Rose is not adapted to our climate and soils, as our other garden plants are? In answer it is enough to say that this flower, in some of its species, is native to every section of our country. Go where we will and thou, O Rose! in some of thy beautiful forms, art there before us. Even so far north as Hudson Bay certain species of Roses are at home. The fault is not to be found in this.

We believe that a fundamental cause of failure in amateur Rose-culture, lies in the matter of our cultivators ignoring too much the many fine and thoroughly reliable sorts, and attempting, instead, to grow such delicate ones as will only succeed by a course of very delicate treatment. This no doubt is often done through ignorance; if so, we should learn wisdom.

Let us bear in mind that most of the multitude of improved Roses offered in this

day are the products of European nurseries, where the highest degree of skill has for a long time been brought to bear upon Rose culture and improvement. They are largely the children of luxury. Many sorts of many classes, and even such as are reputed hardy, may possess enough of the blood of the tender Asiatic species to render them tender and of delicate constitution.

With all this, the flowers may be of superior quality, and, from a certain standpoint, entitled to all the praise bestowed upon them. But that standpoint in a large number of cases is the most skillful cultivation, under the most favorable circumstances only, and not the kind of treatment which the average American amateur in town and country can give. For these worthy persons to be led by fine descriptions and gaudy-colored plates, often to invest in such "improved roses" without great discrimination, submitting them then to the most common care, is almost sure to invite failure.

Now, while this thing happens very commonly, and Rose culture suffers accordingly, there is at least one remedy against it. Among all classes of Roses, from the real tender Asiatic section to the hardiest ones, there are not lacking various excellent sorts, that have proved their reliability and worth, for common culture. They are the few among the many offered, perhaps, but they are the ones that are needed in successful culture, and the ones which growers should look out to secure.

Every Rose propagator keeps in stock those sorts that are both very good and very reliable, and should know which they are. To obtain these the buyer of plants should, when dealing with the grower, take the safe course of insisting on having only such kinds included in his order. To do this he must leave the selection of sorts mainly if not wholly with the nurseryman, charging him with responsibility in making a good one. If he is a reliable dealer, he will not be likely to disappoint his customer in the selection of kinds made.

Of course in ordering in this way it must be stated which classes are wanted, whether hardy or tender ones, bush or climbers, moss or remontants, etc. Limitations as to color may be mentioned. It might be well also to state in what soil the stock is to be planted. The main point we are aiming to make clear

is, that the amateur should take advantage of the grower's acquaintance with kinds in making selections, letting him feel a share of the responsibility in the matter.

#### Moss Roses.

Among the hardy Roses which bloom in summer the Moss Rose deservedly holds a high place. Few products in the entire floral realm are more delightful to behold than the opening buds of these in their

well pegged down, is a pleasing way of managing the free-growing sorts.

These Roses are somewhat more liable to injury from mildew in damp, cloudy weather than other Roses are. If any appears, it may be dispelled by applying sulphur freely over the leaves when they are wet, at the first signs of the ailment.

The so-called Perpetual Moss Roses are in most cases destined to disappoint growers, if the perpetual flowering feature is much relied upon. A great many sorts have been

sent out under this head, not worth a place in the garden. The best of them will not produce more than a few flowers out of the regular season, and none of these give buds equal in quality to the regular summer varieties of such.

Such Moss Roses as the Common Moss and the Crested Moss, are still among the best sorts to be grown. For a white variety the White Bath is perhaps the best, being attractive both in bud and when open. Princess Adelaide

is a good variety, of a pale-rose color.

While Roses of this class as a rule bear rather close pruning annually, the last named one is an exception; it should hardly be pruned at all.

#### A Screen of Hardy Roses.

This may be made to divide different parts of the grounds, as for instance the ornamental lawn from the kitchen or fruit garden. It should be planted only with the hardiest kinds of Roses, as a safeguard against breaks occurring through some plants dying out. Such varieties as the Madam Plantier, the Hundred-leafed Rose, the Sweet-briar, and with supports the Prairie Roses, would be excellent for the purpose. Among hybrid perpetuals we would recommend such strong growers as La Reine, John Hopper, Antoine Monten, and so on. In the South the well-known Cherokee Rose should of course be one of the first to be chosen; it is a species that is not enough appreciated.

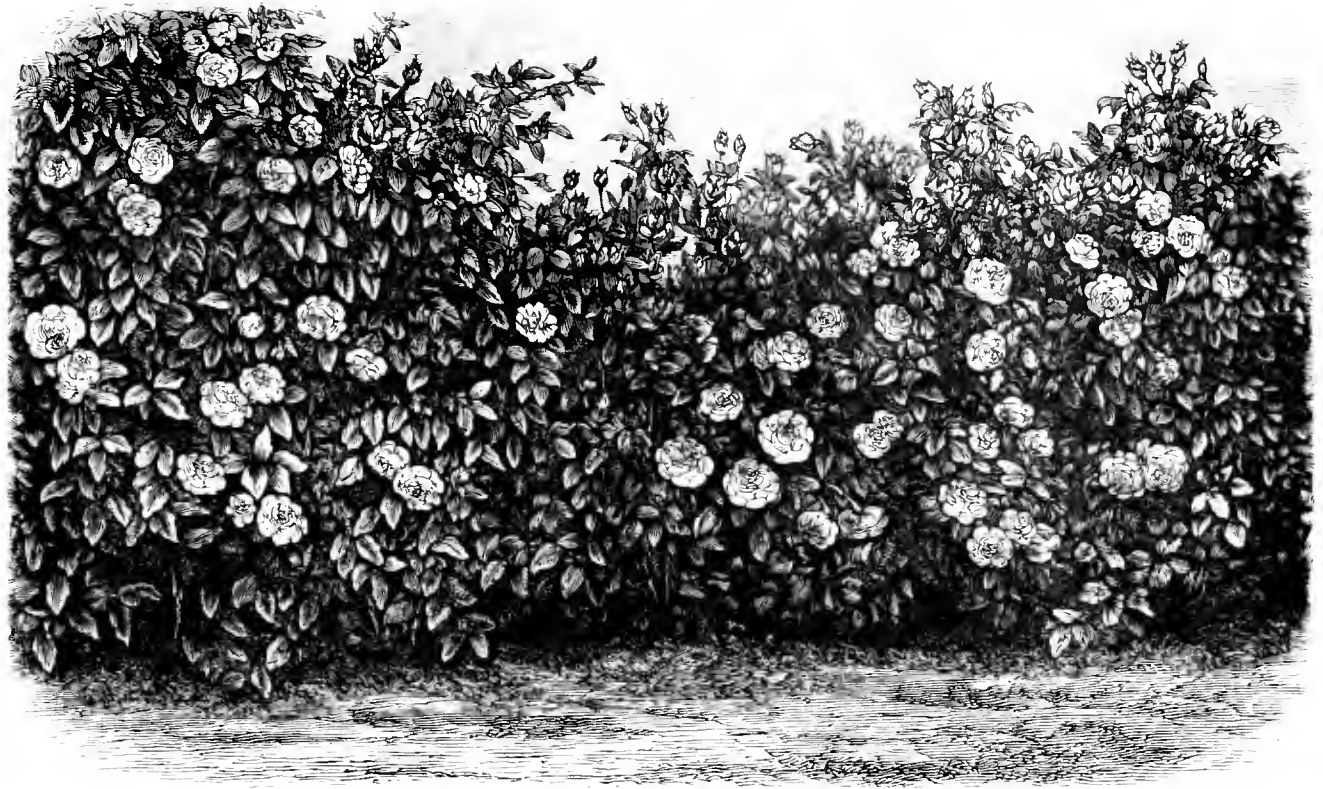
Aside from the peculiar beauty of a fine and thrifty line of Roses, planted as a screen or hedge, there would be some advantage in this arrangement, through giving ready access to the plants in caring for them. For example, when insects would appear, they could much more easily be dealt with than if the plants were arranged in large masses.



A FINE MOSS ROSE.

modest beauty, covered as they are with a delicate mossy growth. The bushes may not be as handsome as those of some other classes, growing as they do somewhat irregularly—perhaps we might say picturesquely—but they are on the whole very hardy, and no garden should be without some.

As a class, the Moss Roses should be treated to rich ground and good culture, for the best results, not but what if they must suffer hardship they will bear up under it as well as any Rose. A good coat of stable manure applied over the roots in early fall, for having the substance wash into the soil through the winter, is a good course. To set the plants in beds of rich soil, and keep them



A SCREEN OF HARDY FREE-GROWING ROSES.

In such a case one could readily pass along each side of the row, applying needed remedies with good effects.

While the plants of such a screen are young it would at least be well to keep the soil on each side of the line thoroughly cultivated. Later on, the grass might be allowed to extend up to and under the bushes, as shown in our engraving.

#### Insects which Trouble Roses.

These, as Mr. Ellwanger has said, are the bugbears which prevent many from cultivating the Queen of Flowers, but they offer little discouragement to loyal subjects; generally it is only the careless and indolent who greatly suffer from the pests. If proper attention is paid to soil, planting, watering, etc., and a few simple directions heeded, you will not often be much troubled. To be forewarned is to be forearmed; hence, we will here treat briefly upon the various kinds.

One of the earliest enemies to be met will have put in its appearance before this time in most places. We refer to the Rose Caterpillar, which appears with the coming of the leaves, and makes its shelter by bringing together several leaves, attaching them with glue. Its house easily leads to its discovery, and at the first sight of the former, the worm should be crushed in it. A daily lookout must for a while be kept against their appearance and increase.

Late in May, and up until some time in June, Rose Saw-flies present themselves, if at all. They are small, shining, black insects, hardly over a quarter of an inch in length, and may be met on the under side of the leaves, or flying around the plants. These cause a great deal of the Rose-grower's trouble, not so much directly (although they disfigure and feed on the leaves) as by their laying the eggs which develop into Rose Slugs. The latter are pale-green jelly-like

tormenters, that throughout June may cause great havoc with the leaves, turning them brown, as if they had been scorched.

Immediately this slug makes an appearance, meet it by sprinkling the leaves when they are in a moist state from dew or the water-can, with powdered White Hellebore. This will poison and destroy them. Repeat the application if necessary.

The Rose Bug, or Rose Chafer, is another frequent annoyner. It is a small grayish insect about half an inch long, and having a slender body. It appears usually about the middle of this month, and feeds mainly on the opening buds and flowers. We know of no remedy but hand picking, or brushing them into vessels of water and then destroying. The best time for this is early in the morning, the insects then being less active.

In hot and dry seasons the minute Red Spider often troubles Roses. Moisture it cannot tolerate; hence to sprinkle the affected plants frequently, and particularly to syringe the under side of the leaves, can be relied upon to destroy it.

That common insect the Green Fly or Aphis, does not often trouble outdoor Roses seriously, and yet it may sometimes be found abundant enough to need attention. As it usually attacks the end growth of shoots, these may be bent over into a pail of Tobacco or Quassia water, which will kill them with but little labor.

From the West it is reported that the Thrip is quite destructive to Roses in some places. This is a small black or brown hopping insect that is active on the leaves. A solution of whale-oil soap, made at the rate of one pound of soap to eight gallons of water, is spoken of as a sufficient remedy.

At the sight of any insects, in alarming numbers, on Roses, let vigorous steps at once be taken to overcome them. A little perseverance at the start will work wonders, and leave you, often easily enough, master

of the situation and in the enjoyment of the flowers you have cherished.

#### Notes on the May Number.

BY WM. FALCONER, GLEN COVE, N. Y.

SINGLE DAHLIAS grow from seed as freely as do Zinnias. Sown in April they begin to blossom in June or July.

THE JAPANESE ZEBRA GRASS is with me the best and strongest growing of its race, even more vigorous than the plain green-leaved typical form.

CANNA EHEMANNI is the grandest of all Cannas so far as I know them. Noble in foliage, robust in growth, and free and beautiful in bloom. But its roots are more apt to rot in winter than are those of the commoner kinds.

RHODODENDRONS. I don't protect ours overhead, but I mulch among them so heavily with dry oak leaves in fall as to exclude frost from the ground and their roots. Their heads shiver in the breath of zero, but their roots know no frost, and not a limb is dead!

HORSE-RADISH. I don't like the little sets put in a foot deep, p. 99. I use stout, clean roots ten inches long and dibbled deep enough to be three or four inches below the surface of the ground. These yield me large, solid, clean sticks next fall. I never keep it two years.

GOLD-FISH. The Gold-fish story, p. 91, reminds me of my first attempt at pisciculture. I got a roomy glass aquarium and several Gold-fish. I used well water and changed it daily but my fishes didn't thrive, and one after the other, several of them died. Upon advice I stopped using the well water and used rain or pond water instead. From that time on I had no further trouble, the fishes thrived splendidly.

CATALPAS. Some think old trees are handsome. In summer when in bloom they may be, but as a garden tree, apart from its flowers, I don't know of a dirtier tree under the sun than the Catalpa. From fall till next summer its pods keep dropping and littering up the place in the most aggravating way.

SCARLET SAGE. Sow some seed about the first of June, set out the plants in rich, good ground, and next October these late seedlings

will probably eclipse in healthy appearance and brilliancy any spring-raised *Salvia*.

#### SOME INQUIRIES ANSWERED.

63. **CALCEOLARIAS.** Sow in June or July. Prick off, pot and repot as required. Use rich open soil. Do not stint water. Keep as cool as possible in summer and in an airy place, but shade from sunshine. Mulch about the plants with tobacco stems to repel aphides which are extremely partial to Calceolarias. They bloom from February to May, but are in their heyday in April. I grow some 250 plants of them.

59. **POND.** Plant, do not sow. Yellow to purple Flags, Bull-rushes and the like, although pretty enough in spring and early summer get unsightly before fall. Why not plant it with Winterberry (*Prinos*), Swamp Azaleas, Button Bush, Clethras, Willows and the many other becoming trees and shrubs that might thrive in such a place? You could then introduce among them Sarracenias, Lilies, Ferns, "Cowslips," and a host of such like flowers.

60. **VIOLETS.** In summer plant them in a cool, somewhat moist or partially shaded spot; against the north side of a close fence or building is a good place. In fall protect them with a frame where they are, or lift and transfer them to a frame or elsewhere, in a warm sunny aspect where they may be protected. They will bear a deal of frost with impunity, but frost doesn't do them any good.

62. **FERNERY.** Better begin with plants and let "seeds" alone. Glass cases are often more ornamental than useful. During the winter a moister, and for Ferns, a more genial atmosphere can be maintained in a glass case than in the open room. Have nice, well-rooted, small plants, drain the case well, use open soil and not much of it, plant in August, don't shut the case till November or December, and don't drown the plants or render the earth pasty; shade from sunshine.

66. **ANGLE WORMS.** As for the open garden opinions differ, but in pots worms are injurious.

67. **ENGLISH IVY.** Gas, dried to death, or injury to the roots might defoliate your Ivy. Not knowing what caused the leaves to fall off, I cannot suggest how to restore them.

68. **ANTS.** That depends upon what species of ant it is. The most destructive ant in Texas is, I believe, the cut-leaf ant, and it is extremely destructive. Sulphur fumes injected into the holes in their "towns" destroys them. I have also used cyanide of potassium dissolved in water, I would pour a little of it into the ant holes morning and evening. The fumes killed all the ants that passed for a little while.

73. **BULBS.** I don't think you can grow them along as perennials in Key West, but you can get fresh bulbs from Holland and bloom them the first season all right. But observe to plant them in the coolest and shadiest part of the garden, and, say not before October.

Mulch the ground over them as soon as planted. Where are your Amaryllises, Pancratiums, Tuberoses, Crinums and the like so peculiarly fitted for favored nooks in your garden.

#### About Montbretias.

Within a few years these flowers, which for a long time occupied an unimportant place on the lists, have advanced to a more conspicuous position. Now they seem destined to become very popular, possessing as they do the good traits of being handsome and as easily grown as *Gladiolus* or *Tigridia*.



MONTBRETIA FLOWERS.

It was near the beginning of the present century when the first *Montbretia* was introduced into European gardens from the Cape of Good Hope. For a long time the flowers attracted but little attention, although the first sort introduced was soon followed by others, differing but little from their predecessor. The reason for this was, that the flowers of the early kinds were not of a character to fascinate flower lovers greatly. The colors were yellow, in different shades.

But within the last ten years a new species of these plants was discovered in Southern Africa, which was so great an improvement on its forerunners as to at once draw fresh attention to the class. This species was given the name of Pott's *Montbretia* (*M. Pottii*). Instead of having yellow flowers like the former sorts, it produced flowers of a bright orange red, and on free-growing *Gladiolus*-like plants, qualities which at once promised well for giving the plant a position among popular flowers. This one, like all the *Montbretias*, is bulbous, and in culture is found to be vigorous, healthy and

very productive of bloom, both when grown as a bedding plant and in pot culture.

Soon after the introduction of this last named *Montbretia*, steps were taken to develop improvements in these flowers, and not without good results. One advance made was the production of a beautiful hybrid, between *Montbretia Pottii* and the nearly allied *Crocossmia aurea*. This is known as *Montbretia crocossmia-flora* and is now, along with other *Montbretias*, being offered in a number of catalogues.

One good thing to be said in favor of these recent sorts, is that they not only grow and flower with ease, but they increase rapidly under ordinary culture, hence the bulbs are already numerous enough in the hands of growers to permit of their being sold cheaply. We see them offered as low as 25 cents each in some lists.

Among American florists who have given considerable attention to the *Montbretias*, are Messrs. Hill & Co., of Richmond, Indiana. In their catalogue of Roses and other plants recently published, they describe and offer a number of different sorts of these. It is to these gentlemen that we are indebted for the splendid engraving of *Montbretias* which appears herewith, it having first appeared in their catalogue referred to.

We think we cannot do better in this connection than to make an extract from the catalogue of Messrs. Hill & Co., bearing upon these plants and their culture, which we do as follows:

A most beautiful new class of bulbous plants, resembling miniature *Gladiolus* in foliage and form of flower. They throw up numerous flower spikes from a single bulb. The spikes often attain a height of 12 to 24 inches, with numerous lateral stems completely covered with flowers. Whilst they somewhat resemble *Gladiolus*, they are not

unlike some *Orchids* in their formation and in the manner of their flowering.

The *Montbretias* are destined to become popular, from the ease with which they are cultivated. They succeed admirably planted in the open ground, like other bulbs, and can be wintered in any place free from frost and excessive damp. One of the finest plants we ever grew in a pot was *M. crocossmia-flora*; it furnished hundreds of flowers on its numerous spikes, and the whole plant, both foliage and flower stems, radiated like an immense fan.

#### Dish Water and Plants.

Washing dishes is very wearing to the soul, coming three times a day, three hundred and sixty-five days in the year, but it lightens the burden, at least to plant lovers, to see the good the dish water may do in the garden.

I do not mean an indiscriminate pouring out of slops close to the house, health and neatness forbid, but a systematic applying of these day by day so that the plants or trees are treated to a dose about once a week, through the season.

Put in the coffee and tea grounds and even the scrapings from the sink. Begin with the Rose bushes, you will be astonished at the new growth, and on these come the flowers next year. My Scarlet Geraniums were admired for their rich colors and abundant bloom, the more we picked, the more they blossomed, and this bed received a liberal portion of the dish water once a week. A poor miserable apple tree that had never had a blossom, after one summer's treatment, bore a considerable number, and bids fair next year to have a large crop. But my Scarlet Runners surprised me, planted near an ugly looking old shed, they covered it with such a mass of rich red coloring that the old shed, always an eye sore, became a thing of beauty. To be sure they were "nothing but beans," but the flowers were so perfect in form and coloring that they were well worth cultivating, especially as this result was brought about by applying the simple and ready stimulant, dish water.

"SISTER GRACIOUS."

#### Rural Adornment.

The adornment of rural homes should be considered a necessity rather than a luxury. As the country becomes older and natural wind-breaks are destroyed, it is imperative that we plant for protection.

It should be remembered that the beauty of a home does not depend so much upon the number and variety of species of plants as upon the taste of the planter. The elements of attraction in landscape gardening are comparatively few and simple. A tasty and thoughtful disposition of a half dozen kinds of ordinary trees and shrubs is far preferable to a thoughtless mixing of twenty rare and more beautiful kinds.

So far as practicable trees, and shrubs should be planted in groups, especially at some distance from the house. In this way a greater variety is secured. These groups should be so disposed as to hide from the common points of view, especially from the windows of the residence, all undesirable objects and to afford glimpses of all attractive objects and landscapes. It is a serious mistake to pack the front yard full of bushes and flowers.

As over half our year is practically winter, it is important that we should plant for winter effect as much as for summer effect. It is surprising that so few people see any attraction in leafless trees. The aspects of deciduous trees in winter are singular and characteristic for each species. When one begins to study them he soon comes to appreciate their importance in winter landscapes.

Among deciduous trees I like best the winter aspect of the Pepperidge or Sour Gum, *Nyssa multiflora*. The peculiar tortuous short horizontal branches designate the tree from its companions. The Beech, when grown singly, approaches the Pepperidge in character, but never equals it.

The second best tree for winter effect is probably the swamp White Oak, *Quercus bicolor*. Then follow the Burr Oak, White Oak, especially slow-growing specimens, Beach, the exotic Weeping White Birch, Buttonwood, and finally the more symmetrical and straighter limbed trees, as Maples and Elms. I think it is desirable to plant with reference to the winter aspects of deciduous trees and shrubs.

The evergreens must comprise the chief attractions of winter landscapes, however.—*Professor Bailey, in Mich. Agr. College Bulletin.*

#### A Hundred White Grubs Killed at a Blow.

A single female May-beetle lays from one to two hundred eggs in the soil during May or June. In two weeks these hatch into little white grubs, which continue to increase in size and live for three, if not more, seasons, proving very destructive to the roots of plants.

It is impossible to compute the damage done by the progeny of one beetle during the years

they exist in the grub state. Anyone who is acquainted with its general destructiveness, however, should see the importance of sparing no pains to kill as many beetles during the season as is possible. It would pay to encourage the children to destroy them by laying

a premium on every dead body they could produce, say half a cent for each.

For killing this pest, both in its beetle and larva states, the crow's and robin's help should be counted valuable. Skunks also destroy great numbers of them, and on this account might be better thought of. Hens and turkeys will do good work on the grubs if given a chance when the land is tilled.

#### The Red Raspberry.

This fruit is held in high esteem everywhere. Not only is it one of the most refreshing and agreeable subacid fruits to be eaten in a fresh state, but its use in making jams, jellies, etc., in the family; and on a larger scale by confectioners in making syrups, as well as in numerous other ways, is very wide.

The Raspberry, like the Strawberry, which it follows quickly in early summer, commands the attention of those who scarcely have room for fruit trees. Another advantage it possesses, is that of coming early into fruit. A plantation of Raspberries will be in perfection at the third year from planting. Allowed then to bear for about six years, it must be broken up and a new one formed on another plat of land.

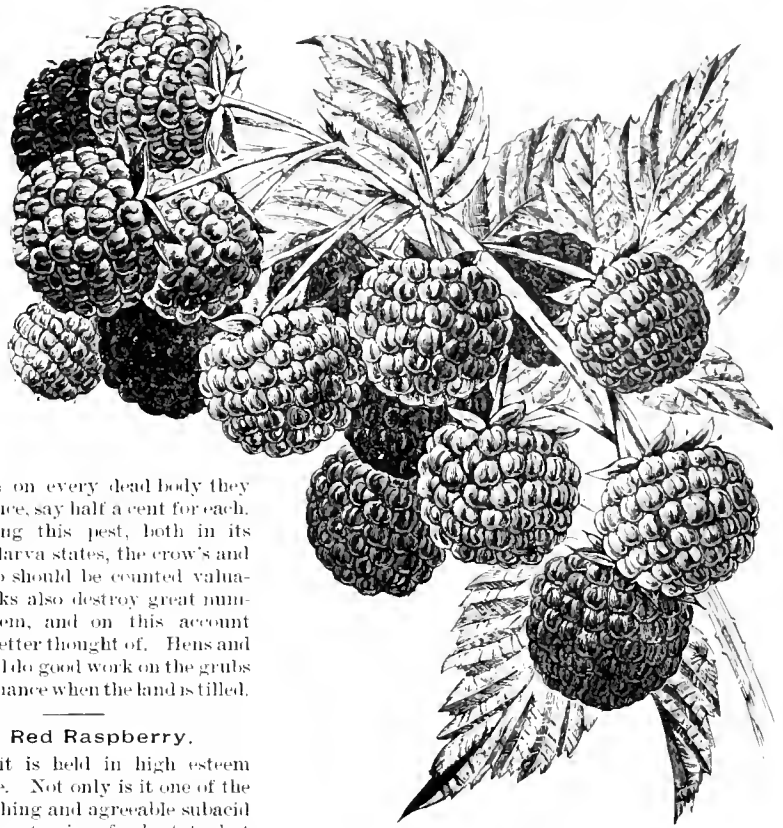
Not all soils are alike suited to the Red Raspberry, a rich, moist, light loam being the best. Where but a small plantation is grown, as for family use, if it is made in partial shade, the results will be more satisfactory. This is a strong point in favor of the Raspberry for the many small places, where shade is so abundant as to prevent the culture of Strawberries.

In planting this fruit, a good distance apart is four feet by three feet, putting two plants in each hill. Loving moisture as it does, to mulch the ground heavily with lawn rakings, salt hay or other material around each hill is a good course for summer treatment. This should be heavy enough to keep down the weeds underneath. Scrupulously clean culture should be observed between the patches of mulching. All suckers, excepting about four close to each hill, should also be treated as weeds.

The bearing canes of the Raspberry should early in the season be secured to stakes by tying. The canes it may be said are biennial; those formed in one season bearing the next, after which they die. After the fruiting season, therefore, the old wood should be cleaned out to give the new growth a full chance. Still some growers defer this until spring, claiming that the old wood serves to protect the new canes during winter.

At the approach of winter, the tender varieties should be laid down and covered with earth; a few inches of covering being enough, and this must come away in the spring.

Pruning the canes either in the fall, after the leaves have dropped, or early spring is important; very few cut with sufficient freedom. Not only should the canes be cut back to one-half their length on an average, but one-half or more of the laterals should also come away.



THE HANSELL RASPBERRY.

Then the fruit will be both larger and better.

The accompanying engraving is of the Hansell variety, which is one of the best for general planting, succeeding, as it does, over a wide range of country. It is especially valuable for its earliness, fine color, and the hardiness of the plants, together with their marked ability to endure the hot sun of our summers well.

#### To Prevent Whiffletrees Barking Young Trees.

A protector may be made of a strip of heavy harness leather eight inches at one end, tapering to four inches wide at the other, and about a foot and a half long. This should be folded once lengthwise, with the crease in the center, and a line of strong stitches run across the widest end near the edge, uniting the halves, to make a kind of open boot. This stitched end is to be placed over the end of the whiffletree, and the tapering end carried forward and fastened to the tug by tying. We get this idea from the *Agriculturist*.

**White Strawberry Rust.** So far as known the only remedy for this, likely to result in good, is lightly dusting the plants with lime, once soon after the plants start, and continue, with intervals of two or three weeks, until the fruit is nearly matured. The presence of this fungus is readily perceived by the rusty appearance of the leaves. When the berry is affected it is shown by its being dry, seedy and poorly developed. For the black rust there seems to be no remedy, though it is not very common, except in certain localities.

**Killing Insects.** A bright light at night is attractive to moths and many other insects. By building a fire in the orchard great numbers will be consumed. A good device is to set a lantern in a basin of water with a little kerosene added; the insects, flying against the glass, will fall into the liquid and drown.

**A Mulch** several inches in thickness of short manure or similar material, on the surface around spring-planted trees will help them more than anything else against drouth.

**The doctor** will not call so often if he sees that you grow plenty of good fruit and vegetables.

**Small fruits** can be raised while one is waiting for trees to come into bearing.

**Robins** never eat grain.

# FLORAL FASHIONS & FANCIES

## Ode to the Rose.

Rose! thou art the sweetest flower  
That ever drank the amber shower;  
Rose! thou art the fondest child  
Of dimpled Spring, the wood-nymph wild!  
Theu bring me showers of Roses, bring,  
And shed them round me while I sing.  
—From *Anacron.*

## A Dispute in the Garden.

The Pansy and Wild Violet here,  
As seeming to ascend  
Both from one root—a very pair—  
For sweetness do contend;  
And pointing to a Pink to tell  
Which bears it, it is loth  
To judge between; but says for smell  
It does excel them both.  
Where with displeas'd they hang their heads,  
So angry soon they grow,  
And from their odoriferous buds  
Their sweets at it they throw.  
—Drayton.

Who says Roses are dear?

Wild flowers are popular for wearing.

Greenhouse Rose buds are getting flabby.

The monthly Rose signifies beauty, ever new.

Lettering on floral designs should never be crowded.

The florists "corner" on Lily of the Valley has of late been completely broken.

It seems paradoxical that florists have more trouble to get the choicer kinds of flowers during the summer season than in the winter, but such is the fact.

A loose vase bouquet composed of two common June flowers, the Day-lily of the gardens and clustered Solomon's Seal of the Wood, is matchless for simple beauty.

Enjoy the gorgeous Jacqueminot ("Jack") buds while you may. The florists will sell you a dozen plump fellows now, for the price they asked for a single one in January.

A golden floral ring was made last week for a golden wedding. The flowers were Marechal Niel buds, and these were bound into a ring with gilt wire, using a metallic circle enwrap in gold-colored satin ribbon for giving it a perfect shape.

A Floral Cent. A floral design recently prepared in New York as a memorial, represented a Washington cent of 1783 and was placed on an easel. It was a charming bit of work and excited the greatest applause. Attached to it was a silk-plush book, inside of which were the face of a typical American girl and a fac-simile of the Washington cent of 1783.

Do those who use the elegant crescent as a funeral design always bear in mind the significance of the way it is laid down? First of all, it should only be considered suitable for young persons and old persons, not the middle aged. In case of the former, the points should turn to the left, like those of the new moon; in the latter, to the right, as in the old moon.

The eating of flowers is a nineteenth century reality. Crystallized Violets at \$6 a pound are the very latest things in confectionery. Candied Rose-leaves are also very popular. Girls like to eat flowers and will pay as high as \$10 a pound for some of the more expensive kinds. They are all brought from France; but, with the growth of favor for things American, we shall doubtless soon see a beginning of the flower-candy industry in this country and the girls will begin to munch crystallized Pumpkin Blossoms and Johnny-jump-ups.  
—Boston Record.

A Bridal Dinner was recently given in this city which presented some unique features. The table was a harmony in white and was, perhaps, the most poetic and complete in its appointments of any ever known in our dinner-giving society. The centerpiece, crowning the snowy damask, which was sprinkled with diamond dust, was a mass of the bride's favorite flowers—Lilies of the Valley. Over this *partee*, pendant from the smilax-wreathed candeliers, was a marriage bell of Maiden Hair Ferns, with a white clapper of Marguerites. A bell-rope of blood satin ribbon was swung from it across to the bride's place. Soft white tapers burned in

the silver candelabras, which flanked the centerpiece and rested on mats of white satin, fringed with Smilax. Each guest's place was indicated by a white satin ribbon bearing the initials of the bride and bridegroom and a card on which was inscribed an appropriate motto. Corsage bouquets and *boutonnieres* of Lilies of the Valley were also at each place. Everyone read aloud the motto on his card at the beginning of the dinner. Over the mirror behind the hostess was the legend:

Let those love now  
Who never loved before;  
Let those who always loved  
Now love the more.

The guests were the bridal party, maids, ushers and best man; the women, including the hostess, were attired in white, the bride in her wedding robes, and the young girls in their bridesmaids' gowns.

## Botanical Budget

The Sweet-briar Rose is an European.

The Meadows are gilt-edged with Buttercups.

Mushrooms have been known to raise a paving-stone from the pavement, weighing eight pounds.

Compensation. The Roses of the North are sweeter than the same kinds in warmer climates.

Of the various Roses which grow wild throughout the United States, perhaps not more than six are natives.

Flowers Exported for Their Sugar. The Malva tree of Central India (*Bassia latifolia*) bears flowers which are now being exported to Europe for their sugar, of which, it is said, they contain more than half their weight. The tree resembles the Oak, and a single specimen sometimes bears a ton of flowers.—*Boston Budget*.

According to a report of the Montreal Botanic Garden, there are 197 known botanic gardens. Germany has 34, Italy 23, France 20, Great Britain and Ireland 12, West Indies 6, United States 5. For our country to possess but five out of the entire 197 is not at all flattering to the American interest in such matters. We hope to see a great improvement in this some day.

Orchids. Not all of these belong to tropical countries. Throughout the woods and meadows of the Northern States we have numerous species, a few of which rival for beauty, if not for freakishness, many of those sent to us from the Tropics. When once a young botanist discovers and carefully examines an Orchid he will be able ever afterwards to readily class in their right order any others found. A leading peculiarity of the flower is the consolidation of the stamens, with the style.

A Miniature Wild Garden. There is a grave in Kensal Green Cemetery, London, the little garden belonging to which is planted entirely with wild flowers, so-called weeds. It is carefully planted and tended, but there is not a single flower in it which could not be got by anyone from the fields and lanes in the country. It is the grave of Captain Mayne Reid, and on the stone are these words, from one of his own books: "This is the weed prairie. It is misnamed; it is the garden of God."

Winter storms, says the *Botanical Gazette*, often result in an enormous destruction of buds. Last winter, at Cambridge, Mass., during a wind storm of almost unprecedented severity and of five days duration, the snow was thickly covered with buds switched off the elm trees by the threshing branches. These fallen buds collected under the lee of walls and walks in piles. The number lost from each good-sized tree must have been in the thousands, yet the trees seem in nowise the worse as they unfold their leaves this spring.

Valuable to Botanists. The June number of that valuable journal, the *Botanical Gazette*, published at Crawfordsville, Ind., promises to be of unusual excellence, according to an announcement recently made. It will be entirely devoted to the subject of botanical collecting and collections. It will contain contributions from a large number of the best known specialists of the country. There will also be a description of the Gray herbarium, of Harvard University, of the National herbarium at Washington, and of the present condition of the herbaria of the early botanists of this country.

A Good Move. Three clever young women in Detroit, the Misses Farrand, Harris and Lyon, school teachers, have conceived the novel idea of accompanying a class of young ladies to the seaside at Annisquam for the months of July and August. An opportunity for studying plants and animals will be offered with no text-books, the intention being to follow Prof. Agassiz's methods of out-door study. Mr. Harlan H. Ballard, President of the St. Nicholas Agassiz Association, will also be a

member of the party. This seems to us an ideal way for young girls to pass a summer vacation, and far more beneficial to mind and body than dancing at hotel hops. The importance of studying botany and other natural sciences, is being recognized more and more widely in educational systems and is gradually taking the place of some of the dead subjects.

Growing the Cabbage from Slips. "Were it possible," says Emmett S. Goff, in the last report of the New York Experimental Station, "to readily propagate the Cabbage from sections of the leaf as florists propagate Begonia, many advantages would appear. During the past two seasons we have been experimenting in this direction. We have succeeded in growing several plants, and in one instance a fine head of Cabbage, by slipping a section of a leaf from a Cabbage head, in the propagating bed. We have thus demonstrated the possibility of this method of propagation. Thus far, however, so great a length of time has intervened between the rooting of the slip and the formation of the bud as to render the method impracticable for economic purposes. Whether we shall be able to shorten this time by selecting the plants that start soonest, through a numbers of generations, is the important question."

## ABOUT THE PLACE.

Bee-hives require summer shade.

Keep the cellar clean by all means.

Whatever you build, build substantially.

A sagging gate tells something about character.

Thirty dollars spent on underdraining an acre, has wrought an increase of fourfold in the crop.

A well for household use nearer than 100 feet from the stable or stable yard is really dangerous. Mark this fact, it is an important one!

No crop pays better for thorough weeding than the potato crop, yet there is none that is oftener sighted. Be thorough from the start.

Now, at the beginning of the season when seeds of all kinds of crops mature, decide upon one thing, and that is, to select of the very best for seed. The principle of the survival of the fittest, should find a very practical application wherever vegetables and grains are grown, and it will pay.

Manure From a Cow. Every cow well fed and fairly bedded will make a load of manure every two weeks, worth at least on the farm \$1 per load. But this manure will not be worth this unless the cow has abundance of nourishing food. On the farm at least half the expense of keeping a cow may be charged to the manure heap, and with this help it must be a poor cow that does not give a profit to her owner.—*Am. Cultivator*.

Durable Whitewash. To keep the fences and out buildings painted is quite expensive, although no one questions the desirability of its being done, both for looks and the preservation of the wood. A good whitewash is a cheap and effective substitute for paint, lasting a long time, if rightly made. Our simple recipe for making a wash that will not rub off, and which is alike suitable for inside or outside work, is to slake the lime in salt water, and then thin with skim milk until fit to apply. The addition of some cheap mineral paint may be employed to produce pleasing variations.

Swarming. For those who keep bees for honey, it is best to let them swarm naturally, leaving artificial swarming to experts. A watch must be kept on bright days for swarming, and hives be in readiness. A cloth, like a sheet or table-spread, should be at hand, on which to set the hive to be used for any new swarm. Most likely the swarm will cluster on a bush or the limb of a tree near by. If this should be of a size that can be sawed off readily without damage, it should be done, with great care, and the load be shaken off the limb gently, in front of the hive entrance, on the cloth. They will soon find the way into the hive, running in as fast as they can go. Never shake them into the top of the hive, as this is unnatural and confusing to the bees. Should the bees light on a large branch, fence post, or the like, that cannot be moved, then bring the hive near; jar or brush the bees into a basket and quickly empty in front of the hive, on the cloth. Some will get back to the place of alighting, and these must be returned as described; should any further persist in doing so, by smoking them they will soon leave and find the swarm. It is well always to smoke the swarm somewhat before hiving. Convey the new swarm to its permanent place at once when all the bees have entered the hive. Be sure to shade the hive; if not done the sun heat may drive them out. To give the new swarm some foundation or comb, is to make them better satisfied and leads to early work.



# OUR YOUNG PEOPLE

## Treeclimber's Talks.

### A VEGETABLE FLY-TRAP.

Last month I spoke of the curious Asiatic Pitcher Plant, alluding among other things to the fact that many insects lose their lives by these, through drowning in the half-filled pitchers of water. I was pleased a week or more ago, to receive a letter from Miss Eleanor Griffin, of Knox county, Ohio, referring to my talk on that plant, and asking whether the Pitcher Plant is not also known as Venus's Fly-trap, of which she has heard. Instead of answering her inquiry by letter I will do so here, to the extent of describing the plant she refers to, and which is entirely distinct, though no less curious than the Pitcher Plant described last month.

The plant alluded to by my young correspondent, and known as

### VENUS'S FLY-TRAP,

is another of the very remarkable plants of the world, for it is by nature a real fly or insect trap. It is a native of the United States, being found in the Southern States, and as far north as North Carolina. It is also called in some sections, the Carolina Catch-fly Plant. Its botanical name is *Dionaea muscipula*.

In this curious plant it is the leaves which serve so effectively as traps for insects. As may be seen by the engraving here given, of parts of two plants, the rounded leaves which appear at the end of the blade-like leaf stalks bear upon their margins a line of long, stiff bristly hairs. These serve to imprison any insect that may alight on the leaves, by immediately closing together, through the leaves folding at the middle, the hairs uniting somewhat as the fingers of the hands do when they are clasped together. When this occurs, the insect is entrapped beyond the possibility of escape and dies in the trap. To induce insects to alight upon the leaves there appears to be a juice on certain glands which proves attractive to them. Over the upper surface of the leaves are set some delicate, irritable hairs, as shown in the engraving, and it is these when touched by an insect, that serve to

### "SPRING THE TRAP,"

as we might say in speaking of an ordinary trap.

I have said that the insect once entrapped is held securely until it is dead. A peculiarity of the trap in holding its victim is, that as long as any motion is exerted by the struggling insect so long is it held with a close grip. But its struggles once over, after a little while, as if to be certain there was no "playing possum" on the part of the fly, the leaf again opens.

Why Nature should thus provide a real insect trap in a plant is not understood. As beautiful flowers are created to please the sense of sight, and sweet odors the sense of smell, so perhaps, such curious plant forms are designed to gratify our love for the curious.

For a long time it has been a question, as to whether the Fly-trap Plant receives any nourishment from the insects it destroys. Some years ago Mr. Peter Henderson, the veteran plant-grower, of New York, made a careful and apparently thorough experiment in the matter, from which he drew the conclusion

that they did not. His belief as regards this point is corroborated by that of many other careful students of Nature.

### DOES THE WEEPING WILLOW WEEP?

I am certain that it requires no great strain of the imagination to fancy that this tree really acts the part of a mourner over some loss. Perhaps as the following little story, handed to me by a friend, might indicate, some person who had never been impressed by the striking and solemn-looking characteristics of the tree, was led to believe that it only took on a mourning attitude when they themselves became mourners over the loss of some dear one, because they then first noticed it from such a standpoint: "Many years ago a little girl who lived in the state of New Hampshire planted a small willow tree, and under her pro-

tection it soon grew into quite a tree. One bright summer day the girl was suddenly taken sick and died. The tree, missing her daily visits, moaned and sighed, and gradually took on the form of the Weeping Willow, which it has since retained."

TIMOTHY TREECLIMBER.

### A Scarecrow That Didn't Scare.

We incline to think that the putting up of a scarecrow, to imitate the appearance of a dilapidated tramp, is as often done for the sport it affords to the boys, as for any faith in the efficacy of the man of straw and rags. Of course the horrid looking object can do no harm, if it does no good by frightening off the birds. Here is an account of one man's remarkable experience in this line:

A tailor named White, living near Nuneaton, in England, recently placed a scarecrow in his garden to frighten birds. The result was amusing. A robin built her nest in one of the pockets, and there reared her pretty brood. Perched upon the brim of the scarecrow's hat, Sir Redbreast sang to his mate, and the hedgelings afterward twittered from the tattered crown. While the robin's eggs were yet blue, a pair of tomits built their nest in one of the sleeves of the scarecrow's coat; so that altogether, to put it mildly, Mr. White was somewhat taken aback.

### Bees in a Bad Plight.

Bee-swarming will make exciting times during this month in many homes where POPULAR GARDENING is taken. But it is no less a time of excitement to the bees themselves, for swarming is really the act on their part of leaving the old home to seek and take a new one. The time of the first alighting is always a momentous one, but it is not often that it results so unfavorably and tragically to the bees, as the following account, taken from *Golden Days*, would indicate that it once did:

Not long ago some bees in a hive on a farm near Baltimore swarmed and followed their queen to a

### PET BIRDS, ANIMALS, ETC.

Lettuce is the best of all greens for birds.

The best perch is a branch covered with bark.

Parrots will imitate the voice of a child, where they would be slow to follow that of an adult.

Insects, Sulphur in a little bag tied to the inside of the cage, will tend to keep away these.

To gather Ants eggs for birds, remove part of a nest on to a cloth, lay a branch near by for shade, and under this you will probably soon find many eggs deposited.

England and America. An English sparrow built her nest and reared her young, this season, in the mouth of the large eagle on the roof of the courthouse at Charlotte, Michigan.

Where the Joke Came In. Major Ben; Perley Poore's latest joke was to send a number of senators to a certain cigar store, at Washington, to see a "cherry-colored cat." The animal proved to be the color of a black cherry.

Puss, the terror of bird keepers, may be trained to have due respect for the cage and its occupant. If caught slyly watching the bird, give her a disgust for this occupation by catching her and with the help of another person to steady the cage, rubber nose, not too tenderly, over the bars of the cage a few times. Repeat if necessary.

Monks as Dog Trainers. A traveler who visited some of the Monasteries of St. Bernard a few years ago found the monks teaching their dogs from the earliest stages of puppyhood to be religious, in act at least. At meal-time the dogs sit in a row, each with a tin dish before him containing his repast. Grace is said by one of the monks, the dogs sitting motionless with bowed heads. Not one of them stirs till the "Amen" is spoken. If a frisky puppy attempts to sample his meal before grace is over one of the older dogs growls and gently tugs his ear.

Nests for Canary Birds. These birds by long confinement seem largely to have lost the instinct of nest building, although quite ready to breed. They must, therefore, have help, if not to have the nest made entirely for them. A small, round nest basket, or even a small box, several inches deep, should be used for the receptacle. In this place some curled hair, and then a layer of cotton batting, or use the latter only, shaping it as near like a bird's nest as you can. For an inner lining, use cotton flannel, plush side out, fitting it neatly to the form of the nest, and overcasting the upper edge tightly around the top of the basket or box, for if you do not the bird will pull out the stitches.

Effects of Education. Every creature, whether an animal, bird or insect, seems capable of being developed to a remarkable degree by education. We all know how teachable cats, dogs and horses are in these days of improved instruction. Birds are taught some surprising things. There is a canary in Brooklyn, N. Y., that will sing "Yankee Doodle" and "Dixie" with the greatest precision, having been instructed by a patient mistress. By patience deas have been taught to go through a regimental drill with accuracy, and perform various tricks showing intelligence; pigs to read and spell by means of alphabetical blocks, and monkeys to play tunes on the violin, that could be recognized. What is needed to meet with success in these matters, is a good stock of judgment, kindness and patience.



A VEGETABLE FLY TRAP.—*Dionaea muscipula*.

### Roses.

Roses in the land again!  
Roses brighten all the lane!  
As we wander to and fro,  
Other roses sweeter grow.  
Roses in the hedge, the ground,  
Roses in your cheeks are found,  
Roses were in bloom last year  
When I plucked a rosebud here,  
For to tell my love I chose  
Thine own flower—a blushing rose.  
Roses whispered, she is true,  
When I plighted troth to you.

—London Society.

### Buttercups.

Have the sunbeams, all unknowing,  
Taken root on earth, and growing,  
Flowered in yellow Buttercups?

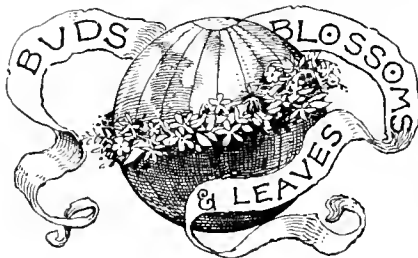
Bonny Buttercups, beguiling  
Human sorrow with the smiling;  
Offering to each new comer  
Golden salvers full of summer,  
All the sunny Maytime!

How they nod, and smile, and glisten,  
As they turn their heads to listen  
To the whispering of the breezes lingering  
above them;

Giving their long-boarded treasure  
In such free, unstinted measure.

Who could choose but love them?

—Mary Rowles, in *Golden Days*



The Queen is enthroned.

Prune to induce stockiness.

Ever see so early a season?

Asiatic Lilacs are the finest.

Fuchsias do best in partial shade.

Saving Pansy seed may commence.

Crowding plants is a common fault.

Decoration Day is May-day in America.

The Century Plant does well planted out.

Flora bestows abundant favors this month.

Everybody loves the Pansy—yes, everybody.

The Mock Orange has been cultivated 300 years.

The Sunflower is grown for fuel in some places.

Box Edging should not be allowed over three inches high.

The long rosy plumes of Tamarisk are now conspicuous.

Dangers of Spring: The leaves shoot forth everywhere.

What a void in our flowers if no Rose had been created.

"Rose! what dost thou here, bridal royal Rose?"—Mrs. Hemans.

Water the plants at the end of the day, rather than under a hot sun.

For a somewhat shady place the Musk plant is an excellent basket drooper.

Supports should be given to the young climbers early. Don't forget this.

The Night-blooming Cereus sometimes has over one hundred of its large flowers in one season.

"As for me," whispered the hungry caterpillar to the tree, "I'm going to turn over a new leaf."

"It has already been worth several times its price to us," writes Mrs. Charles Green, from Madison Co., Alabama, concerning POPULAR GARDENING.

This is a good time to start in on weeding the lawn of Plantains, Dandelions and other

perennials. They will dig easier now than later, when stronger.

There can be no doubt that insect ravages are largely due to the unhealthy, unthrifty condition of the great portion of our cultivated plants.—Prof. W. R. Lazenby

In this season of rapid growth our list of subscribers should grow immensely. There is no better way for our readers to help this paper than by raising clubs now.

**Early Potatoes.** According to the *London Practical Confectioner*, the potato introduced in England in 1600 was first eaten as a sweet-meat, stewed in sack wine and sugar.

**The Wild Plum** (*Prunus Americana*), is almost unequaled as a flowering tree. The blossoms are pure white, large, of good texture, and load the air with their fragrance for some distance.

The spring months, so far, have been very productive in subscribers to this paper. Let there be a constant increase all during the season of active gardening. Now is a capital time for getting up clubs.

**Moss on the Surface.** Sometimes moss and a kind of green lichen grow on the surface of the soil of the Camellias or other pots. This is harmful rather than otherwise and should be dug out, afterwards facing the top with fresh soil.

Moving trees or shrubs in leaf can be done, if must be, as late as this, by stripping off all the leaves before the operation; a new crop appearing later. Trees have been moved a few rods in mid-summer with perfect success.

To plant the new Clematis *Coccinea* in beds, with roses, shrubs, etc., is recommended by Mr. E. L. Beard, of Cambridge, Mass. He says that when it is allowed to climb over them as it pleases, it forms a very attractive feature on a lawn.

**The Red Rose.** According to ancient fable, the red color of the Rose may be traced to Venus, whose delicate foot, when she hastened to the relief of her husband, Adonis, was pierced by a thorn that drew blood, which, on the White Rose being shed, made it forever after red.

**Personal.** At the date of issuing this month's paper, we can happily say that Mr. Long is on the road to recovery from his protracted illness. But his many correspondents may have to exercise patience for some time yet, before he can bestow due attention to all their communications.

**Vases, hanging baskets and window boxes** may have the plants set closely together without harm, because air and light have free access to them. But when many plants are thus brought into a small space the soil needs to be decidedly rich, or soon it will become exhausted detrimentally.

**The Red Horse-chestnut.** Everybody knows the common but attractive flowers of the White Horse-chestnut, but everybody may not know that there is a variety which bears large spikes of rich crimson flowers instead of white, and also one with double blossoms. The crimson flowering one is the handsomest.

**An Art Treasure.** We are indebted to Mr. James Vick, Rochester, N. Y., for a Portfolio of Rare and Beautiful Flowers, consisting of six original water-color sketches painted from nature. The subjects are chiefly Orchids. The work is offered at \$2 per copy, which is low enough considering its high merit.

**Allamandas.** If these have long straggling shoots, which show no flower buds, they should have their points nipped out, which will cause a quantity of black eyes to break that in due time will show bloom. When flowering begins, like the Hydrangea they are benefitted by weekly supplies of diluted manure water.

**Soil for Evergreens.** While the White Pine and Red Cedar thrive in poor, sandy land, and the Black Spruce and Hemlocks in wetish places, and Nordman's Fir in heavy clay, these

in common with most all Evergreens, thrive better in fairly good, free loam; in fact common garden soil is well suited for most Evergreens.—Cor. *American Garden*.

**Michigan Agricultural College.** The bulletins which we have great satisfaction in receiving from this college from time to time, show that much careful experimental work is being done on the college farm, located at Lansing, Michigan. Those which bear upon horticultural experiments, as conducted by Professor L. H. Bailey, seem to us to possess merit in a marked degree, relating as they do to matters of practical value to all gardeners. An extract from Bulletin No 12 is given on another page.

**Notes, suggestions, inquiries and answers to inquiries, from our readers are always welcome at this office.** So, will not everybody send in some contribution, however brief, to help make this paper even more lively and newsy than it is now. Postal card contributions are always acceptable. Please don't hesitate to write because you may feel you are not a fine writer. Fine writing we don't lay much stress upon, as all our readers know by this time. Plain every day English suits our family well.

**Shape Up the Evergreens.** The Norway and other Spruces, Firs, Hemlocks and Arbor Vitae thrive under the free use of the pruning knife and shears, and their shapes may often be improved by this means. Now is a good time to prune, while the young growth may be clipped back without fear at any time during the summer. To get a dense, pyramidal form, starting at the ground, the lower branches should be kept the longest. An Evergreen pruned to have a bare trunk is a poor looking object.

**Narcissus.** To J. D. E. we would say that as your Narcissus did not bloom well, it would be better to lift them and replant in deep soil. If it is light and sandy all the better, if not, some sand may be mixed with it. They will flower better the second and third year than the first, and may remain in the same place four or five years. The best time to lift them is in July, when the leaves are quite dead. They may be transplanted at once, for unlike some other bulbs, they are not improved for being left out of the ground.

**Many persons who have gardens are just now waking up to their real needs in the line of gardening information.** Such persons, if approached by some member of the POPULAR GARDENING family and asked to subscribe for this paper, would respond at once. Will not every one of our readers see what they can do at this time in extending our circle. We are sure that each member of the family could easily add one new name to our list, in this way. It would be an act very helpful indeed, to our own endeavors in establishing this new periodical on a paying basis.

**Achimenes.** Our correspondent, W. F. Lake, of Wayne Co., N. Y., writes thus: These bulbous plants created quite a sensation here when I first began growing them. I like them for baskets, planting the small, drooping, scarlet variety around the edge, finishing with the more erect varieties in the center. The bulbs multiply very rapidly, and any one starting with a dozen bulbs will have an over-abundance in a few years. The Achimene requires a season of rest after blooming, as it does, very profusely for a dozen or more weeks. There are but few varieties generally grown.

**Lasiandra macrantha floribunda.** This plant is not as widely known and cultivated as it deserves. The name is derived from *lasios*, woolly, and *aner*, an anther. It was introduced from Rio Janeiro, in 1836. The leaves are of singular beauty, being covered with short plush-like hairs. It bears large, deep purple flowers. I have for several years cultivated this plant, and found it equally adapted for the winter window garden, or bedding out during the summer. Inclined to grow tall, I have

had to frequently cut it back to make it bushy. Easily grown from cuttings. M. D. WELLCOME.

**Grass in Walks.** A sprinkling of weak brine every time this grass appears will easily keep it down. This may be applied with a common watering-pot. When grass comes up in the crevices of flag walks, salt in the grain, may be applied to kill it. If quack grass or thistle roots have protruded under walks or pavements, one may as well treat very thoroughly with strong brine or grain salt on the surface to eradicate them. But, in all such cases, care must be taken not to have these remedies come within a foot of the grass verges, or these will be hurt and turn to an ugly brown, thus making bad matters decidedly worse so far as looks are concerned.

**Clematises in Beds.** To give an idea of the way the Clematis is appreciated as a bedding plant, we give an extract from a letter written by one of the lady patrons of Mr. Joseph Kreft, the Clematis grower of West Chester, Pa. She writes: "I just wish you could see my Clematis bed; it is something worth seeing, and is just setting the people around here wild. You could scarcely imagine anything so gorgeous, scarcely a leaf showing on the globe frame of wire, and is one perfect ball of purple. In fact, almost all who have seen it have agreed that it stands first among fine embellishments, and without exception, gives the most satisfaction for the least trouble."

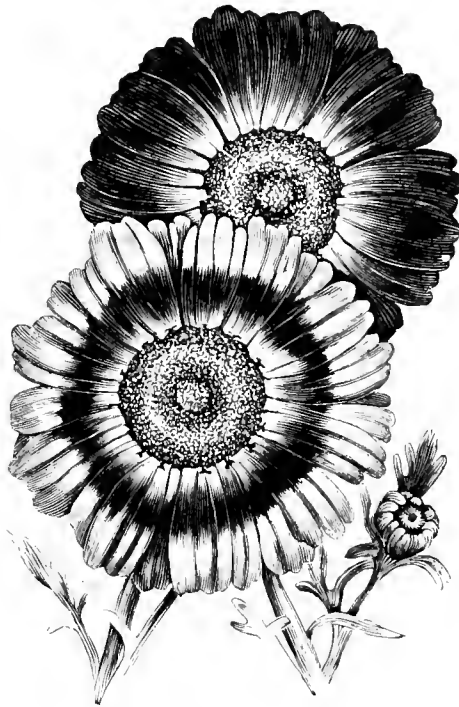
**Tritoma.** This fine old plant should be seen in every garden. The Tritoma, with good protection of straw and leaves, is able to withstand the rigors of a New York winter, if not given too damp a situation. It begins to flower in late summer or early autumn, and continues until heavy frosts. The Tritoma is especially adapted for large groups on the lawn, the bright shades of orange and scarlet racemes forming stately objects. The flower stems grow to a height of four or five feet, terminating in curious flame-colored spikes a foot long. If not convenient to give out-door protection in winter, store the plants in a cellar or pit. So writes Wilbur F. Lake, of Wayne Co., N. Y.

**Bouvardia.** In answer to several inquiries we offer the following: The cause of the foliage turning brown is in all probability due to deficient action and want of sustenance. Bouvardias require plenty of light and air all through the summer and autumn, and they never at any time like a very confined, moisture-laden atmosphere. When they are done blooming they should be pruned back rather hard and be kept dry at the roots until new shoots form. For winter blooming the plants should, from October, be kept where the temperature ranges about fifty-five degrees, and where air is admitted on fine days, or they may be kept in an ordinary greenhouse, with the result of giving less but very fine flowers.

**Michigan Horticultural Society.** To its secretary, Mr. Charles W. Garfield, Grand Rapids, Mich., we are indebted for the Fifteenth Annual Report of the society. It is a large volume of more than 500 pages, printed on good paper, illustrated to some extent, and finely bound in cloth. Besides the reports of the regular meetings of the society for 1885, it contains the reports of auxiliary meetings throughout the State, the society's fruit catalogue, and devotes nearly one hundred pages to the most valuable facts and experiences brought out at the meeting of the American Pomological Society, held at Grand Rapids, Mich., last September. Altogether the work is one of great value, and one in every way creditable to the society it reports, and to its efficient secretary.

**Roses for Amateurs.** A successful amateur residing at Huron, N. Y., offers the following good advice to beginners in Rose growing among our readers: "Select such varieties as have the reputation of being free bloomers,

fine growers, etc. Gen. Jacqueminot, Mad. Chas. Wood, Paul Neyron, Anna de Diesbach, Coquette de Blanchos, and Baroness Rothschild are good representations of the Hybrid Perpetual class; Glory of the Mosses, Countess of Murinais and Perpetual White of the Mosses; and Baltimore Belle, Prairie Queen, and Seven Sisters are the best known of Hardy Climbers. While those of large means, who employ their skilled gardeners, find great pleasure in watching their magnificent, high-priced novelties, others with less riches can enjoy the less costly varieties with quite as much satisfaction. Let all plant roses more or less, ac-



SOME FINE CINERARIAS.

ording as they can afford and have the room."

**Cinerarias.** Few, if any pot plants, present a more attractive appearance in late winter and early spring than do the Cinerarias when at the height of their beauty, bearing as they do immense clusters of bright, handsome flowers, boldly above the bright leaves. They are capital plants for a cool green-house, or with care, in a window, and are raised from seeds sown annually at any time from July to September. The seeds are fine and require careful treatment in sowing to begin with. As soon as the young seedlings can be handled they should be potted into small pots and given a place near the glass. In a low sash frame that is covered with shaded glass is a good place for them until October first. Always shift the plants into larger pots before the roots mat around the ball of earth, as their growth is liable to be checked most unfavorably if they become pot bound. The plants like a rich soil abounding in sand and vegetable fibre.

**Ants.** To several inquirers we would say, that Ants are very hard to effectually clear out of a place, and therefore it is desirable in all attempts to persist in the remedies applied. When found away from the roots and stems of the plants the best remedy is to flood them out, or scald them, with the free use of boiling water. Under less favorable circumstances for killing them, perhaps the best remedy that can be applied is to lay a quantity of fresh meat bones, that are almost clean, about where they are, and they will quickly be covered with them. As soon as this occurs throw the bones into hot water, which will put an end to one batch. Take out the bones immediately, drain them off and lay down to trap another lot. This is a cheap remedy, and if persisted in is effectual. It is said that if one part of calomel be carefully incorporated with ten of pul-

verized sugar and placed in little heaps near their runs the Ants will eat it and die.

From five to ten million catalogues of seeds and plants are published in this country every year. It is a stupendous number, and the fact indicates how prevalent has the interest in gardening matters in America become to date. It does seem from this that the 50,000 subscribers POPULAR GARDENING needs should easily come along by the end of the present year. We know that they will, if but those who have gardens, fine lawns, greenhouses and so on, can learn how much of a paper it is and its present low price. This leads us to again suggest to our readers that they can do a work for the paper which no one else can do as well. They can bring it to the attention of those who are strangers to it, but who ought to find great satisfaction in taking the paper. The price of POPULAR GARDENING is kept purposely low to aid its rapid introduction. May we not expect our readers, one and all, to take an active interest in this matter? Is not the paper deserving of some such good treatment at their hands?

**Periwinkle for Graves.** Our correspondent who, frequently, furnishes us notes from Lyndale, in a late issue spoke of a mound on his grounds covered with Periwinkle or Vinca (wrongly called Myrtle sometimes). His statement reminds us that this plant is admirably adapted for use in burying grounds, as a covering for graves. We have noticed it thus employed in the Spring Grove Cemetery, Cincinnati, Ohio, and also in the Boston, Mass., cemeteries. The dark-green, glossy leaves in a mass, have a singularly rich appearance, as contrasted with the lawn. Then when the bloom comes, be it either blue or white or both, there is a new charm added. As to color of flowers for the purpose, our choice would be to plant the white-flowering sort mainly, with an ample touch of blue, say at one end. The grave to be planted may be either rounded in the more ordinary form or be perfectly flat, the Periwinkle to be limited by well defined lines at the sides and ends. In planting, the surface must first be cleared of grass and fitted with good earth, into which the roots should be set at a distance of a few inches apart each way.

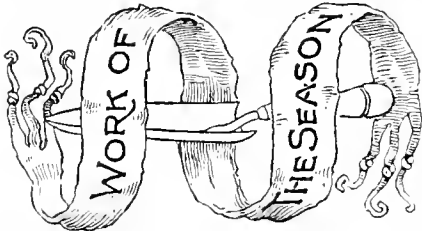
**Roses.** Following is a select list of hardy Roses, recommended sometime ago by a Committee of the Massachusetts Horticultural Society as the best for general cultivation.

Alfred Colomb,*	Marie Baumann,*
Anna de Diesbach,	Marquise de Castellane,
Annie Wood,*	Maurice Bernardin,
Baron de Bonstetten,	Mme. Gabriel Luizet,
Baroness Rothschild,	Mme. Hippolyte Jamain,
Charles Lefebvre,	Mme. Victor Verdier,
Duke of Edinburgh,	Mons. Boncenne,
Etienne Levet,	Mons. E. Y. Teas,*
Fisher Holmes,*	Paul Neyron,
Francois Michelon,*	Rev. J. B. M. Camm,*
Gen Jacqueminot,*	Thomas Mills,
John Hopper,	Louis Van Houtte,†
Jules Margottin,	Mlle. Marie Rady,†
La Rosiere,	*Pierre Notting,†

Those marked \* are also recommended as continuous bloomers. The last three marked † are somewhat tender or uncertain, but the committee added them on account of their excellence in other respects.

**Chrysanthemums South.** Our esteemed correspondent at the South, Mrs. J. S. R. Thomson, Spartansburg, S. C., has this in answer to one of our previous correspondents, who fails in growing the Chrysanthemums in the South. "It must be that she as a cultivator, and not the plant, is at fault, for with us, this is our most reliable plant. All my life, I have seen them in abundance. Four years ago, one of the severest droughts we ever had (not a drop of rain from May 25d until September 10th), was a test of their reliability if any could be. I purchased one dozen fine varieties from the North. They were planted in drouth; they suffered and were parched from the drouth.

At last the rain came, they revived quickly, and later on gave great satisfaction by free and long-continued bloom. The past season, with a large collection of over 100 named varieties, I have had the most intense delight, notwithstanding they never arrived from the North to admit of planting out before June 28th. By September they were grand plants, which soon began to flower, and not all the bloom was yet gone on Christmas day. Let me suggest that the planting be done in open air, any time after April 1st, in deep, rich earth; pinch in regularly to make bushy; stake up in August, and my word for it, no one South will fail to reap a rich harvest of enjoyment. We do not have to protect from frost as a general rule, but if you wish to have flowers in profusion for Christmas, take up as they begin to bud, to retard them, thereby bringing flowering later.



THE HOUSE PLANTS.

**Azaleas** should go into the open air for the summer, keeping them in a sheltered shady position, as under lath shutters, the lath nailed an inch apart. The pots should stand on brick or slate, to prevent worms getting in.

**Begonias.** Tuberos varieties that have sprouted can safely be moved into the summer borders, if done with care. Plant in warm, moist, half-shaded situations. Plants of the other section, for next winter's flowering, may be propagated now, if not yet done. An inverted glass tumbler placed over the cuttings aids in rooting, as it gives a desirable greenhouse-like moisture.

**Cacti,** after blooming, summer well if plunged in a warm sunny border, here to complete their growth.

**Calceolarias,** and plants of similar requirements, do better for winter-flowering if sown now than if this is put off until the hotter months of July and August. The seeds germinate more freely now, and the plants will, besides, have a longer period for growth before flowering begins. It is not the easiest feat in floriculture to raise Calceolarias and the like from seed, for these are so fine as to bear neither covering or watering from overhead, well. The plan we employ requires neither of these. We prepare pots of earth, underdraining well with potsherds, and finishing with finely sifted earth that is quite sandy, up to within an inch of the top of the pots. Then we soak the earth completely by setting the pots into water, after which we sow the seeds over the surface. The next move is to cover the pot with strong white paper, such as linen writing paper, tying the edges down over the sides. On this paper we pour a little water, the weight of which causes a depression in the paper, lowest at the center, and then we keep water constantly in the depression until the plants in the soil beneath are up and have their second leaves. The water at the top supplies all the needed moisture for growth and it does not obstruct the light. After removing the paper, water can be applied directly to the soil, but it should be done with care.



Plunging a Pot to keep out worms and keep in the roots, by the use of a small empty pot underneath.

**Callas.** During the summer bed them out in good soil. They will receive a check, losing most of their leaves soon after going out, but new and stocky ones will appear later. Early in September the plants should be lifted and potted, preparatory to their season of bloom.

**Chrysanthemums.** These, whether in pots or bedded out, should now be making good growth. The final general pinching back should be done before this month is out. They like plenty of food and moisture, and should have sunshine at least four or five hours a day.

**Cinerarias.** See directions given for Calceolarias.

**Fuchsias** succeed well as bedding plants in situations sheltered from heavy winds and bright sun-

shine. Those that have lately bloomed in the house are good for this purpose. They require a light, rich soil. The red spider, its chief enemy, should be kept down by frequent syringing or sprinkling of the foliage. To plant out by June 1st is early enough.

**Hibiscus.** Plants that flowered in the house last winter may be set out in the garden for the summer. Strike cuttings now for next year's bloom.

**Oranges and Lemons.** Treat as for Azaleas.

**Plunging.** It will save much labor in watering the house plants during summer to plunge the pots up to their rims in earth, sand or coal ashes. Two things must be guarded against in doing so, viz: preventing the roots from growing out the drainage holes, and angle worms from entering the pots through these. This is not as easily done as it might seem, but there is one sure way for doing it, as shown by our engraving. It consists of first placing an empty pot, some smaller than the one containing the plant, into the plunging material down so far that the latter will be at the right depth, when standing on the former smaller one. Of course with a vacancy beneath the larger pot (the interior of the smaller one), neither roots or worms can pass through it, while drainage will not be interfered with, but will be improved.

**Pomegranate.** As this plant's season of bloom is near at hand, better encourage strong growth by weak applications of manure and water.

**Primroses.** See directions given for Calceolarias.

**Stake Fuchsias, Cobaeas** and all other plants now making a rapid growth promptly as needed.

**Window and Veranda Boxes.** These now require much water. Enough must be given each time it is needed to soak the mass of earth to its very center. Many suffer extremely because this is not done, the attendant judging that there is enough water merely because the surface is wet.

#### LAWN AND FLOWER GARDEN.

**Adumia** should be making good growth on supports that have been provided; not on the ground.

**Antirrhinums.** If no seeds are allowed to form during the summer the plants will bloom the finer, and besides will throw up young vigorous shoots, making thrifty plants by autumn, which will safely endure the winter. We must not forget that profuse flowering exhausts the plants.

**Annuals.** Most kinds may yet be sown. Transplant and thin out the early sown ones.

**Bignonia Radicans,** or Trumpet Vine, may be trained to a weeping shrub form, by stopping first the stem at a proper height, and then the laterals.

**Bulbs** that are done flowering may be lifted as soon as the leaves begin to wither, laying them in clumps in a shady place, with some soil over their lower parts, to ensure perfect ripening.

**Calceolarias** and like plants. See "House Plants."

**Dahlias** and similar plants having heavy tops, need to be tied up betimes, or sudden storms of wind and rain will break the branches, or worse.

**Gladiolus.** See directions above for Dahlias.

**Hedges.** Shearing these, whether they be of deciduous or evergreen kinds, just as the present season's growth begins to turn hard, has the effect of checking the growth without impairing healthfulness, a thing always desirable.

**Hollyhocks** require thinning when standing close.

**Lilies** when in bloom can scarcely receive too much water. Make a basin around fine specimens and apply liberally for a few times during the flowering time. The same is true of Tritomas.

**Mulching** over the roots of Dahlias, Chrysanthemums, Carnations, Fuchsias, Rhododendrons, etc., early this month to remain for the summer, is a good course. Stir the surface a little before applying the coat.

**Pansies.** For fall flowers seed may now be sown.

**Pegging** down plants is not enough done. By this we refer to bringing some of the vigorous young branches down to the earth, fixing them there by wooden or metal hooks, or by crossing pegs over them. Many kinds will then take root where pegged, and altogether give a great increase of growth and bloom. We recommend this course for Verbenas, Petunias, Roses, Achyranthes, Alternantheras, Lantanas, Clematis, and in fact almost any kind of perennials, tender or hardy.

**Pinks.** Tie to stakes, for the good of the bloom.

**Roses.** For treating insects see article elsewhere.

**Shrubs.** The best time to prune those shrubs which flower in the spring and early summer is as soon as the bloom is past. The flowers from such annually proceed from the wood of the previous year's growth—to prune in the spring is to cut

away just so many flowers prospectively. But by pruning after the bloom there is a season of growth ahead, in which to provide flowering branches for another year, and the form may be as well improved by pruning at this time as if the cutting were done at any other time.

**Walks** should, above all else, be kept clear of weeds and litter. Keep the edges tidy. Roll after heavy rains. Sprinkling them in hot weather tends to the making of a cool garden.

**Watering** flower beds may do when, owing to drouth, it is really necessary, but not otherwise. If the plants stand closely it may be necessary, when with more space it would not be. If watering is to be done, do so very freely at the time, not calculating soon to repeat the job. It is a fact that many summer flower beds suffer from over-watering.

**Weeds and Weeding.** A good gardener suffers little from weeds; he tills the soil of the borders and beds so often and so well, that the weeds hardly exist at all. In caring for our borders, aside from using the narrow rake and hoe combined, referred to last month, we find no other tool so useful for stirring the soil around and under plants as the Excelsior Weeding Hook, figured below. By stirring the surface of the beds after each shower, taking out the few small weeds that may show up, it can hardly be called work—we look upon it as a pleasure—to care for the beds completely.

#### PLANT CULTURE UNDER GLASS

**Achimenes.** The beauty of these may be much prolonged by the help of liquid manure at times.

**Camellias.** See article on page 97, this issue.

**Climbers** that are permanent in the houses require special attention now. Let the growth be moderately free, with thinning, training and stopping as useful.

**Moving Out.** Azaleas, Oranges, and most tender shrubs are benefited by being moved out-doors for the summer into partially shaded places, as under light foliaged trees or temporary arbors made of lath or slats.

**Palms, Ficus** and other plants suitable for the sub-tropical garden may now be put out, plunging them in earth to the rim. See "Plunging," under "House Plants."

Where there are areas about the garden that could be well adorned by pot plants, by taking pains to arrange these tastefully in regular lines, circles or other ways, grading the plants according to size, the effect will be improved.

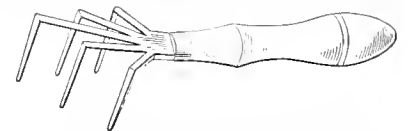
**Orchids.** See last month's notes. Before the month is out many kinds will have finished their growth and will need a lighter position than during the season of growth, in which to mature. Such kinds as are still in vigorous growth must have the necessary encouragement, in the way of heat and moisture. *Odontoglossums* and others requiring cool treatment must not be kept too hot, never above 70° as the highest figure.

**Primroses** of all kinds, but very particularly the Double White, must be provided with heavy shade overhead from now until next October.

**Propagation** is still in order for Fuchsias, Geraniums, Cupreas, Petunias, Heliotrope, Sweet Alyssum, etc., for winter flowering stock.

**Repairing and Building.** Whatever in this line needs doing should be attended to early, that all may be in shape by time of occupancy next fall.

**Seed sowing** may be begun now for stock of Cineraria, Calceolaria, Cyclamen, Gloxinia, Browalia, Mignonette, Sweet Alyssum, Pansy, etc.,



A favorite tool for use in the garden. See "Weeds and Weeding," above.

with which to adorn the houses next fall, winter and spring. See "Calceolaria," under "House Plants."

**Stove Plants.** Summer bloomers should be removed to cooler quarters while in flower.

**Summer Management.** By shading the glass all over with a wash made of naphtha mixed with white lead, to resemble thin milk, or even with lime water, keeping windows and ventilators open, dashing water about freely in walks and under the stages, the greenhouse may be an attractive and not uncomfortable place all through the summer. Pains should be taken to use specimen plants, hanging baskets, orchids and climbers to the best advantage for tasteful decoration.

Winter blooming plants in pots or that are bedded out, such as Carnations, Bouvardias, Heliotrope, Poinsettia, Stevias, Chrysanthemums, etc.

begin to spread, by nipping out the ends at the third joint they will branch further back, and by the means give an early and larger crop.

**Celery planting** may now begin, repeating it for succession two or three times, until July. In preparing for the crop bear in mind several things: Slow growth is ruin to it; moisture and an abundance of rotten dung are its great helps. The advantage of trench culture is that moisture at the roots in early growth is better secured; hence it is to be recommended for garden culture. The trench need not be more than four inches deep at the start. Work in plenty of manure, and set the plants about six inches apart; the rows may be three or four feet apart. Apply water to the trenches at times, if the season is dry.

**Corn.** Plant for late all through this month.

**Egg Plants** will now have the weather they need. Give a rich spot, setting the plants in rows two feet apart and fifteen inches in the row, and follow up with clean culture.

**Insects.** *Striped Bugs* on Cucumbers and Squashes early begin their work; meet on the young plants by dusting with wood ashes, or with fine flour of bone, every third day. In bad cases sprinkle the plants first with tobacco water of a color like tea. The *Common Squash Bug*, known at once by its offensive odor when crushed, will appear near the end of this month, and needs looking after. By carefully examining the plants while small, the bugs and their eggs may be found and destroyed, thus saving much annoyance later on, if not the crop itself. The *Potato Bug*, or *Colorado Beetle*, the great enemy of the Potato, Egg Plant, etc., must now be dealt with by dusting with Paris Green or London Purple, or else sprinkling with solutions of these. If the *Cabbage Worm* appears, remove promptly by picking.

**Lettuce** for succession or for late crops should be sown where it is to grow; transplanting does not work well for this vegetable in hot weather.

**Melons.** Treat as directed for Cucumbers.

**Peas.** Late sown ones, to succeed at all, should go into trenches as directed for Celery, but watering will not be needed unless drouth prevails.

**Peppers.** Treat as directed for Egg Plants.

**Provide** brush for Peas, poles for Beans and trellises for Tomatoes, where these yet are lacking.

**Sow** such things as Lettuce, Turnips, Parsley, Broad Beans, Radishes, Spinach and Endive.

**Squashes.** The bush sorts may be treated as directed for Cucumbers, while others will need more space, say eight feet apart each way. Give plenty of manure and fine culture; these are great helps against insects. The space between the plants can be devoted to Lettuce or other early crops.

**Thinning** of such sowed crops as Beets, Carrots, Lettuce, Onions, Parsnips, etc. should be attended to.

**Tomatoes** should now be well under way. In garden culture some kind of a trellis, if it be not more than a few sticks laid up, or a rack made by driving in some stakes slantingly, will give more satisfactory results. The fruit ripens better if exposed on all sides to sunshine and light.

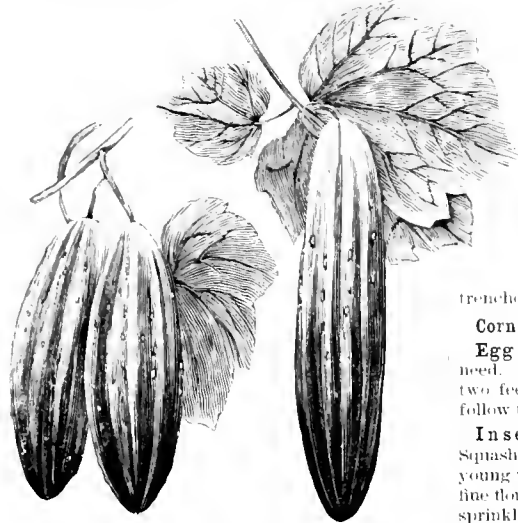
**FRUIT AND VEGETABLES UNDER GLASS.**

**Cucumbers** in frames require an abundance of water, both over the foliage and at the roots.

**Grapery.** Early vines that have ripened their fruit must be carefully brought to a resting condition by gradually withholding water, and exposing the wood to the sun, and to the air by day and night. Crops ripening need an abundance of heat. In the cold grapery while the vines are in flower, the temperature may be up to 85° or 90° at midday. Water should just now be largely withheld. When the blossoms are fully out, to give the bunches each a gentle shake will aid the distribution of pollen. When the berries reach the size of peas a liberal thinning out of them will be helpful. One bunch of fruit is enough to leave to each cane, stopping this at the third leaf beyond the bunch. Tie up the shoots as the weight of fruit increases.

**Orchard House Trees** now need but little attention, beyond the giving of an ample supply of water, and some liquid manure of moderate strength at times.

**Pineapples** require an abundance of moisture in the atmosphere, to prevent exhaustion during the hot bright weather that now prevails. Close the house early, syringe and water the floor freely several times each day.



Early Cluster Cucumber. Long Green Cucumber.

should now, in their early growth, be pinched freely, to induce shapely, well-branched forms.

**FRUIT GARDEN AND ORCHARD.**

**Blackberries.** Stop the young canes at four or five feet high. Keep them tied to stakes.

**Currants.** Directions for keeping down the Worm were given on page 95. As the new growth appears it is well to remove a portion of the shoots. If there is fruit to be marketed, try the sale of some in a green state, instead of waiting for all to ripen.

**Grafts** of recent setting will need looking after, that no superfluous young shoots be drawing nourishment that should go to the former.

**Grape Vines.** Newly-set ones should be allowed to grow but one shoot, for the future value of the plant will depend much on this. Over-bearing is a great injury to young plants first coming in; two bunches to each cane should be enough. Remove all shoots of older vines that do not show at least two good bunches. Keep carefully tied to the trellis. For mildew apply flowers of sulphur.

**Insects.** See under this head in May.

**Peach Grubs** should be sought out at this season. Gum exuding at the root, and excrement, is a sign of their presence. They may easily be dug out with the use of a knife. Heaping coal or other ashes, or even earth, around the trees a foot high will prevent further attacks.

**Raspberries.** Treat as directed for Blackberries.

**Slugs** on Cherries and Pears are liable to appear this month. They are slimy, dark-colored insects, and work on the upper surface of the leaves. Air-slaked lime, wood ashes, or even dust, strewn over the leaves will kill them. Watch for later invasions.

**Strawberries.** The satisfaction from the crop will be greater for having the plants mulched before they fruit. Straw or hay answers about the best. Cut the runners as they start if the hill system is practiced. Keep absolutely clear of weeds.

**Thinning Fruit.** We believe the average tree will yield more and better fruit if relieved of half the crop, now in its young state. Thinning not only helps for the present, but for the future as well.

**VEGETABLE GARDEN.**

**Asparagus** cutting should cease with this month, allowing the tops to grow, to aid the proper development of the plants.

**Beans.** June is a good planting month; on the farms the rule is to get the field crop of bush sorts in before the 20th. Limas and all others will now start quickly, and twiners should have their poles promptly. Some kinds may need a little help to take the pole. Do not work them when the dew is on.

**Cucumbers.** Plants that were started under glass should now go out, and seeds for the main crop be planted. Prepare the hills by mixing a forkful of old rotten manure in each. They may be about four feet apart each way. The Long Green and Early Cluster varieties shown in the engraving are favorite ones. The finer the soil the better will be the crop. As fast as the young vines grow, earth should be drawn up to the stem, to prevent bugs perforating them. When the vines

**Inquiry Column**

This being the People's Paper it is open to all their Inquiries, bearing on Gardening.

On the other hand, answers to published inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are so fine a writer; give facts and ideas and the editors will see that they appear in creditable shape.

In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper.

Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that these be fully prepaid. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.

71. **Geranium.** Where can I get a J. G. Blaine Geranium? Will exchange or pay money. Mrs. S. J. COGANS, Mt. Morris, Ogle Co., Ill.

75. **Cactus.** Will some one please tell me how often a cactus must be watered to do well?

76. **Foliage Plants.** Do Foliage Plants require much water? ROSE.

77. **Carica.** Where can I buy the seed or plants of the Melon Tree (*Carica papaya*)? A. B.

78. **Clematis.** Please give the mode of propagating the hybrid Clematis, whether by grafting, layering or from seed; also, the proper time.

79. **Dracæna.** We have a Dracæna Terminalis that does not seem to thrive. What shall we do with it to make it grow? M. C. G.

81. **Bermuda Lily.** Should the Bermuda Lily (*Harriet*) be put in the ground in the spring, after blooming in the house, or dried off and be planted in the fall? I want it to grow in the ground next year? E. M. M.

82. **Hydrangea.** Is *Hydrangea Hortense* grown from seed? F. FRENCH, Syracuse, N. Y.

83. **Hyacinth.** Will a Hyacinth which has just gone out of bloom blossom again this year? How shall I care for it until its next blooming time?

84. **Forcing Plants.** Will someone please explain about forcing plants? MILLIE PURPLE.

85. **Wind-break.** What kind of tree would be the best for a wind-break, one that grows fast and thick, and will stand the severest weather? Is the Austrian Pine the best?

86. **Hedges.** Is *Arbor Vite* the best for a hedge, and which variety? I want something that grows quickly, is easily kept, and that nothing can get through. How are Blueberries cultivated? What kind of soil and manure is best? How deep are they planted? E. SHELLEY, Quincy, Ill.

**REPLIES TO INQUIRIES.**

60. **Sweet Violets.** Plant out young plants last of May, on north side of a building, in a rich bed, using some leaf mold or muck. Grow until August; then take off the runners, lift and pot before frost and keep in a cool place, 40° to 50°.

65. **Richardia** is a summer bloomer.

67. **English Ivy.** Cut back and repeat, or plant out of doors until tall. JAMES FROST.

68. **Ants** are injurious to plants. To get rid of them take fresh lime, slack it in water enough to make a good whitewash, and let it stand until settled, so that the water is clear. Water the plants with the clear liquid and the ants will leave.

76. **Foliage Plants.** Some, such as Caladiums, Cannas, and the like, require a great deal of water. Others, like Coleus and Amaranthus, etc., only an ordinary amount.

77. **Carica.** Martin Benson, Swanwick, Ill., can perhaps supply the seed, or else tell who can.

78. **Clematis.** Layering is the method usually employed in propagating, though grafting may also be used. In this section July is the proper time for layering.

82. **Hydrangea.** Propagate by cuttings. E. E. S.

**The Convention.**

As announced in our last month's issue the Eleventh Annual Convention of the American Association of Nurserymen, Florists, Seedsmen and kindred interests, will be held in Washington, D. C., June 16-20 next. It promises to be a meeting of more than usual interest held as it will be at the National Capital, where so much is to be seen and learned of practical horticulture. Fares reduced to a rate of one and one third, for the round trip, are being offered by all leading railroads. A reduction is also being secured in hotel rates. There should be a large attendance. For full particulars, address D. Wilnot Scott, Galena, Ill.

# The Household

## Canning Fruit.

In canning fruit, that should be chosen which is fresh and well ripened. This is of special importance with Strawberries, which at best, are more difficult to keep than most others; they should also always have the best cans. It should be added, that the color of this fruit may be retained by using plenty of boiling syrup to begin the stewing.

Acid fruits of all kinds, aside from considerations of taste, should be well sweetened to improve the keeping. With others this is also desirable, but of less importance. Sweet Cherries keep well with but little sugar. Sour Cherries are improved in canning by heating slowly, and then draining the first strong juice from them and adding water and sugar instead, in which to can the fruit.

In the operation of filling, set the cans on a folded towel, wet with cold water, and none will ever break as the hot fruit is poured in.

An abundance of juice is always important, even if increased by the addition of sugar and water syrup. There must be enough in every can to cover the fruit, and allow besides for the settling. As every can is filled, work a spoon-handle several times through the fruit to cause the air bubbles to rise, after which more fruit may usually be added. Fasten the cover tight, testing the work by inverting the can. Then, after standing an hour they will bear tightening once more. After the work is done, store the cans in a dark place.

Some kinds of fruit are, for variety, very fine for being mixed, as sweet with sour Cherries; Red Raspberries with Red Currants; Quinces with Pears or sweet Apples. The flavor of Peaches and most stone fruits is improved by adding the meats of a few stones, or even by leaving them wholly or in part unstoned.

Grapes are about the easiest of all fruits to can, and may sometimes be put in cans not trusted for other kinds.

As regards the utensils for canning, a granite-ware or porcelain lined kettle should be chosen as being the best; those of tin or brass answer well, but with this caution; that the fruit never be allowed to cool in them.

Glass jars seem preferable to all others; but let it be seen to, that the glass tops are free from anything like nicks or cracks.

Many fail in canning, through so small a matter as the rubber rings, which are used on all cans in these days. Let us say that all such are useless after losing their elasticity. Should any that are otherwise good prove to be too thin, use more than one. These rings are inexpensive, so no risks should be taken in this.

## Brieflets.

**How to live cheap:** Visit.

**Have** the screens in place before fly time.

**Chlorine Water**, it is said, will remove scorching marks.

**Flannel** or bunting, but not black, for camping-out suits.

**Warranted** to remove grease spots from clothes cut them out.

**Oranges** may be served nicely at table, by cutting into eighths, and not peeling.

**Instead** of blacking the cook stove so often, try rubbing with paper; it will save your hands as well.

**Poached or Dropped Eggs.** Salt the water in which they are cooked. It must not boil after the eggs are in.

**Flat Irons** that have been over-heated sometimes stick; to prevent which iron over a slightly waxed paper a few times.

**Does** a glass stopper fail to loosen? Then expand the bottle's neck by burning a match under it, when it will soon start with ease.

**Stove Pipes.** Rust in summer is the great enemy of these. Now, before taking down your coal stove make a wood fire in it, to fill all the pipes with wood smoke. You will find that this will aid in their preservation by preventing rust.

**Pineapples.** No fruit is more delicious when canned. In getting around a supply don't wait until they are scarce and dear. Sometimes one can buy a lot cheap, which a dealer finds will not keep for the next day's sales. Should such contain a few specks, indicating decay, by carefully cutting them out to the core, the rest will not be affected. The hard, tough core is useless.

**Ecreu colored** curtains can be washed without fading by doing so in bran water. For each large curtain use two quarts of bran, boiling it half an hour in water to cover, afterwards straining through a coarse towel. To use, enough water can be added to give it a slightly starchy feeling. By washing in this about three times, they will also be properly stiffened. It always surprises us to see how readily the dirt comes out without the aid of soap. To dry, stretch and pin carefully upon sheets that have been fastened to the carpet.

**Carpets.** Who of our readers, but have to move sometimes, calling for the refitting of carpets. If the carpets are made rug-fashioned to fit almost any room by the addition of a material called filling, a gain will be made at moving time. Filling may also extend far enough from the edge of the room to be fitted around mantles, registers, etc., which, in the old style of fitting, spoil carpets so badly. Regular border material may of course be used in the same way; we would advise buying an extra yard or two for piecing out with.

# Poultry.

## The Future of the Poultry Business.

BY H. S. BABCOCK, PROVIDENCE, R. I.

The interest in poultry has been years growing to its present dimensions. Its growth has been a healthy one, resting upon a solid basis. Eggs and flesh are demanded and will continue to be in demand so long as human appetites need to be satisfied.

As great as our present production, it is less than the present demand. For years we have been importing eggs in ever increasing quantities, and while we have been increasing our production the demand has constantly outrun the supply.

We imported in

1876,	4,903,771	dozens, valued at	\$ 630,393
1880,	7,773,492	“ “ “	901,932
1885,	16,098,450	“ “ “	2,476,672

And this is the way that the poor, over-worked American hen has to compete with the pauper hens of other lands where the glorious doctrine of protection has never been preached!

It is to be noticed that in the last ten years our importations of eggs have increased from 4,903,771 dozens to 16,098,450 dozens, and their value from \$630,393 to \$2,476,672, or in round numbers, our egg imports have nearly quadrupled. Our population has increased in five years, in round numbers, from 49,000,000 to 55,000,000, or about 12 1-4 per cent. The increase for ten years at the same rate would be about 24 1-2 per cent.

While our population has increased about 24 1-2 per cent, our importation of eggs have increased nearly 400 per cent. But, as we have already said, our production has greatly increased within the same period, so that the consumption must have increased more than twenty-five times as fast as the population. Should this state of things continue, we should never be able to supply our own markets, and high prices would continue indefinitely.

We scarcely expect this to be the result. A steady and growing demand will tend to largely increase the supply. At last, as has been the case in all other branches of business, the cost of production will regulate the price of the products.

## CONDENSED POULTRY NOTES.

**Oats** are excellent for egg production.

**For rapid growth** feed the chicks often.

**Fowls** are better off if kept in on rainy days.

**Late hatching** for ducks will hardly answer.

**Throw fresh sods** to confined hens sometimes.

**If eggs seem** to run scarce, perhaps a thief is the cause.

**Have you whitewashed** the poultry house? It's getting late, but not too late.

**If hens in confined places** cannot have the best of care, then better not keep any.

**Above all else**, see that chickens have a good place to roost and in which to lay, the year around. Such a place needs to be wind-proof, water-proof and well ventilated.

**One of our poultry-growing friends** is enthusiastic over his cross between Black Spanish and Brahmas for laying purposes. He brags on them, and perhaps justly enough.

**The color of eggs** for sale in the markets of the country, being darker now than twenty years ago, simply proves that the Asiatic blood has been largely introduced throughout the country, leaving its mark on the color of the eggs.

**Chicken-coops** frequently prove to be a nuisance. A yard of some size, which confines the hen and lets the chickens run, is much better—enough so, in fact, as to make it an object to substitute for coops. Coops are too often filthy and unhealthy.

**Profitable Poultry.** If your desire to know whether your poultry is profitable, keep an account of the expense and income, the latter of course to include all the products consumed at home, a big item usually. By such a course a good many people would be surprised at the results—some pleasantly, some otherwise; but a good deal would be learned by this means.

**Aim to Prevent Disease.** Fowls may be kept free from all diseases by attending well to their common needs. They should above all things have clean apartments, and such as will thoroughly shelter them from wet and wind. The food should embrace grain, green stuff, and meat or scraps from the table, and be fed in only such quantity as will be eaten up clean each time. Clean water, and no other, should always be within their reach.

**Movable Poultry Quarters.** With the use of such some poultry can be kept in confinement in small grounds to as good advantage almost as when they have a free run on a farm. For a dozen hens, make a structure ten feet long and six feet wide. Four feet of one end should be boarded up, roofed and fitted with floor, feeding and other conveniences; the remainder should be only two feet high, and made of lath or narrow boards, for a yard, but without a floor. This structure may be easily carried by two men, or it might be fitted to move on rollers. It should be located on a grassy patch, and moved its length every day or two.

**Fowls Eating Their Feathers.** These fowls are suffering from a depraved appetite, which is usually brought on by the bird's digestive organs being upset. A general change of food, with such vegetables as can be found—swedes or mangels, for instance—would be beneficial. I should imagine the grit is not of the right kind. Give some broken oyster shells, old crocks and broken bones, while if the birds could have a fresh run it would be a very good thing. Such fowls as eat feathers should be separated from the rest, or what is better, killed off, for they are not often cured. The water should be wholesome, and a rusty nail might occasionally be kept in it. I have never had a feather eater in my farm yards, but they are not uncommon when enclosed within limited space. No man knows the variety of food a fowl takes when at liberty. They love to frequent a newly-mown field, as they find an old pasture does not supply all their wants. It is a good plan to kill or sell all birds after their second season. J. W. R.

**Keeping Eggs from "Cheap to Dear."** The writer has practiced it successfully for years. I use the racks of the Batchelder egg cases, each rack holding six dozen; these I fill in summer or early fall, placing them in a cellar, cool and quite dark. A spare rack is kept and once each week all eggs are turned by placing the spare rack over a full one, and carefully turning the lower rack on top, as one does with incubator trays. All are soon turned over. The one strong point is to take absolute new fresh eggs; then they will keep for four, six or eight months. One of the heaviest egg dealers in our state, when told of the above method, said: "You have my method almost; for years my wife has sewed a strong loop on each end of fifteen or twenty of my small salt sacks, and we put a couple dozen fresh eggs in each one early in the fall, close up the opening, hanging the bag on hooks in my cellar at home, and by turning the sacks once a week, hanging them up by loop on the other end, we have all the fresh eggs needed for use till spring." —*Cor. Farm, Field and Stockman.*

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON

Vol. 1.

JULY, 1886.

No. 10.

## A Summer Picture.

A cloudless sky, and a stretch of meadow  
Dotted with daisy and clover blooms;  
A farm-house old, in the white trees nestled,  
And hum of bees in the lilac plumes;  
Tassels of alder so slenderly swaying,  
And flower-bells swanging in every breeze;  
A song of bird from the woodland shadow,  
And carol of joy in the budding trees;  
A lake's dark calm in the distance lying,  
With cliff's gray turrets reflected deep,  
And flag-fringed shores where the trees are  
bending  
O'er stilly shades where the lilies sleep.

—*Youths' Companion.*

## Lifting Plants in July.

For various purposes there is a gain to be found in lifting pot plants in July instead of September. Take for example such free growing kinds as Geraniums, Coleus, Heliotrope, Abutilens, Salvias and the like, that may be wanted for fall decoration or for fall flower shows, and they can be gotten up in much better shape for the purpose if potted now than if done two or three months later. Indeed, we are disposed to think that if all plants designed for fall and winter use in the house, were lifted earlier than the customary time of September, gains would be made.

The reason for these advantages in early lifting are obvious. Plants set into the flower beds in May will have become well established and be pushing vigorously root and top by July. But at this date the roots, active as they are, will not have spread so far but that by lifting the plants carefully, nearly every one of the former may be retained. As root growth, especially in early stages is generally in advance of top growth, we may therefore have, by lifting now, the favorable condition of roots in quantity to correspond fully with the top.

With later liftings it is different. From now on, the roots of most plants extend to such lengths, that it is impossible to retain them all if lifting be deferred several months. But the top will all be there, giving us the condition in September lifted plants of more top than roots. Plants under such circumstances, even with pruning, cannot possibly recuperate to as good advantage, as where root and top are in good balance.

To those, especially of our readers, who may have the opportunity of helping to get up autumn flower shows, we would say, begin the lifting soon. By putting the plants now into six or seven inch pots, using rich soil and giving them all the water needed, you may easily outdistance, in beauty of exhibits, those growers who for the same purpose defer the lifting of stock until September.

## About Gloxinias.

Early started bulbs of this elegant plant should be in bloom during the present month. Formerly it was quite rare to find the Gloxinia outside of a green-house, but as people begin to learn how easily a plant can

be grown, the distribution becomes wider.

The Gloxinias can be flowered as easily as a Geranium, only requiring a little knowledge of its likes and dislikes. A good collection may be secured from one package of seeds; in purchasing, get the finest strain.

By starting Gloxinias tubers at intervals, a succession of these splendid flowers may be had nearly the whole year. In potting, do not entirely cover the bulb, as its shoots are unable to push up through the soil like a Calla, and the soil should be put in loosely, settling after the bulb is planted, by giving the pot a sudden jar. After potting, water thoroughly, place in a warm, rather shaded situation, and they will need no more attention, excepting a moderate supply of water, till new growth is noticed, when the supply of water should be gradually increased.

In mixing up some soil add a small quantity of decomposed cow manure from the "sod heap" when potting or re-potting. By the way, if that "sod heap" has not been made, let it be attended to right away, and this is as good a mixture as can be had for a general collection of plants: Two parts sandy sods, laid grassy sides together, and one part cow or horse manure, or better still, rotted refuse hops from the breweries. This should be repeatedly turned, until it becomes friable.

When Gloxinias are through blooming, many recommend drying them off. I do not favor this. Of course the supply of water must be diminished, or the tubers will decay, but it is not necessary to stop watering altogether—indeed, I think the plants are improved by keeping the soil moist enough for them to start again, which they will do soon.

But few named varieties of Gloxinias are offered in this country, and I find some of the imported named kinds I have grown quite inferior to my unnamed seedlings. I have one extra strong plant (in bud now) given me by a friend, which showed twenty-four flowers in perfection at one time last season, which, alone, rivalled all of my imported named varieties in both foliage and richness of bloom.

Gloxinias require a larger pot than most plants as dwarf as they.

—WILBUR F. LAKE.

## Who Will Join the Audubon Society?

The birds of America should find their warmest friends among the gardeners of America. The killing of birds means the increase of insects that spoil and consume our crops. The small toll they take from the crops is a very light compensation, on the whole, for the good done.

Considering the heartless slaughter of millions of useful birds in the past, at the demand of dame fashion and by sportsmen, and even by the boys, it is time that those who are their friends should stand by them,

It is said on good authority, that in one month last year, one million Rails and Bobolinks were destroyed about Philadelphia for the millinery market. We are indeed glad to see that an awakening is taking place as to the worth and rights of birds, both in this country and in England, and which promises to break up the ruthless killing of them that has so long gone on unchecked.

The Audubon Society, referred to in our heading, is an association recently founded in New York City, for the protection of birds. It desires the co-operation of all lovers of the feathered songsters, and asks such to become members of the association. This may be done by any person without cost, who will write out and sign the following pledges, mailing them to The Audubon Society, No. 40 Park Row, New York. When the pledges are received, a certificate of membership in it is returned to the sender.

*Pledge 1.* I pledge myself not to kill, wound or capture any wild bird not used for food, as long as I remain a member of the Audubon Society; and I promise to discourage and prevent the killing, wounding or capture of birds by others.

*Pledge 2.* I pledge myself not to rob, destroy or in any way disturb or injure the nest or eggs of any wild bird so long as I remain a member of the Audubon Society; and I promise to discourage and prevent, so far as I can, such injury by others.

*Pledge 3.* I pledge myself not to make use of the feathers of any wild bird as ornaments of dress or household furniture, and by every means in my power to discourage the use of feathers for decorative purposes.

Is there in our family of readers one person who will not gladly sign these pledges, and be enrolled among the members of the Audubon Society? We are free to say that inasmuch as the women of our land—too often in thoughtlessness—have been arraigned among the bird-destroyers, so now the women of our land should be among the first to work out an effective, time-enduring remedy for an obvious evil. We are sure that they will quickly respond. Every mother should take it upon her to inspire her children with due regard for the rights of these feathered friends of man. When a proper public sentiment is created with regard to the value of these for their living beauty, utility and song, then may they rejoice that they had a hand in the gracious work. In that day every true woman would be ashamed to wear feathered adornments purchased at the cost of blood. And in that day the lament that destructive insects are "worse than in former years," will less rarely be heard by cultivators of flowers, fruit and vegetables.

## Summer Pruning of Grape Vines.

—BY E. WILLIAMS.

Do I believe in it? I do most assuredly, and practice it, too. Its object and advant-

ages are in directing the growth of the wood where it will serve the very best purpose for the production of fruit.

As the vines awaken from their winter sleep in the spring, and the buds begin to

strong, vigorous leaf of this kind is most capable of resisting the attack of mildew. The larger the leaf area next to the fruit the larger and finer the fruit will be.

This pinching process also results in full,

and charming flowers the family is a notable one, and the best types among them may be easily grown under the most ordinary circumstances of window gardening. No plants are more free from insects of all kinds than

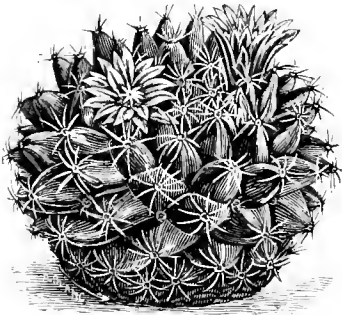


Fig. 1. A Nipple Cactus—*Mamillaria meiacantha*.

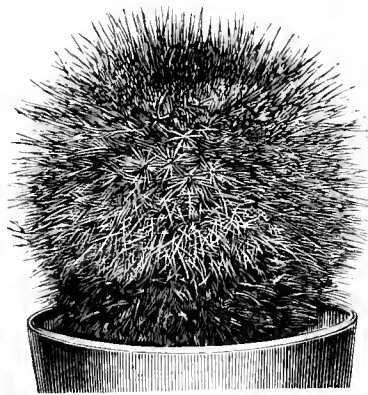


Fig. 2. The Brush Cactus—*Mamillaria spinosissima*.

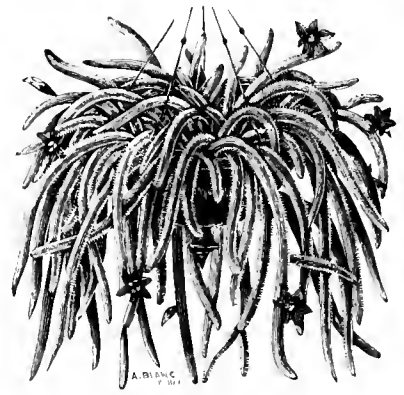


Fig. 3. The Whip-cord Cactus—*Cereus flagelliformis*.

swell, it will be observed that two buds often appear from what seemed but one in dormant state. The first, simplest and most important operation in summer pruning is to rub off one of these and all superfluous ones wherever and whenever they appear. A simple touch of the finger will do it. The weakest and generally the lowest one has to go.

If the buds from any cause start feebly, the sooner this is done the better for those that remain. In cases where they start strong and vigorously, however, it is well to defer their removal until the embryo clusters have appeared. If these shoots have grown a foot or a foot and a half, no matter. The check to the vine will be the greater and their removal none the less demanded. The remaining shoots are pinched off at one or two leaves beyond the last cluster of fruit, and the laterals are stopped, in the same way as recommended for the young vine, to one leaf.

Those bearing canes and laterals, after recovering from the check thus given, will soon make a fresh start in wood-making, and the pinching process is to be repeated as

plump and well-developed buds on the canes to be left for the next year's fruiting. Vines which are allowed to grow at random and take care of themselves seldom fruit, purely from lack of development. The sap, being allowed to pursue its natural course unmolested, has no time to stop and pay proper attention to these buds. The short-spur system depends absolutely for success on this summer pruning.

I know of a very successful amateur who has vines ten years old treated on this system some of the spurs on which are not over 1½ inches long, so short in some cases that the base bud seems to start almost out of the old wood, and yet this bud will give as good fruit and as large clusters as any, and does so year after year. It is simply due to this full development resulting from summer pruning.—*Extract from a paper read before the American Horticultural Society.*

**Something about Cactuses.**

The Cactuses at last seem to be in the way of receiving the attention due them from Americans. We say Americans, because it is a fact, and not greatly to our credit, that these plants, which are strictly American as to nativity, have all along been more prized by Europeans than by ourselves. The present growing interest in them here at home is therefore altogether timely. It must be added that to Mr. A. Blanc, of Philadelphia, largely belongs the credit for the recent impetus given to Cactus culture in this country.

One of the chief reasons why the culture of Cactuses should be much made of is because of their intrinsic merits. They are the ideal plant for that large class of amateurs who desire some attractive house plants, but who do not feel well versed in plant culture. A person decidedly ignorant as to the care of plants might start in with fifty different sorts, including a Cactus, and the chances would be that if, after one or two years of poor treatment, three plants of the collection remained, one of these, and that the thrickest, would be the Cactus.

But while it is certainly a good point in favor of any plant, that it can stand much ill-usage, the Cacti can lay claim to a number of other excellent qualities besides. They respond quickly to good culture,—and good culture in their case is of a very simple kind. For grotesque beauty

the members of this family, a point that cannot fail of being well appreciated.

In the limits of a single article it would be impossible to go deeply into the matter of kinds and varieties of these plants. As to their extent, it is only necessary to state that in a catalogue of Cacti recently published by Mr. Blanc, of Philadelphia, 400 distinct sorts are offered for sale. We do not know of a more extensive catalogue of these plants issued by any grower in the world than this one. To this same gentleman we are indebted for the use of the handsome cuts of different Cactuses given herewith.

Of the near upon a dozen genera of Cacti in cultivation, those of the Mamillarias (see fig. 1 and 2) are among the most desirable. Search the vegetable kingdom through and it would be hard to find more beautiful examples of symmetry than is shown in the arrangements of the protuberances or "nipples," as well as spines of many of these. But aside from this the flowers, produced in neat rosettes, are very handsome, and being freely brought forth add another marked charm.

The Cereus, represented in the engravings by figures 3 and 5, and a sub-genus called Echino-cereus, by figure 4, is perhaps the most important of all the genera, to cultivators. Certain it is that its pleasing generic name, Cereus, is more widely familiar to the ears of people than that of any other botanical name among Cactuses, owing to the fame of that noble representative, the Grand Flowered Night-blooming Cereus.

This remarkable plant, it is a pleasure to say, is now getting comparatively common, but not yet as much so as it should be. It is one of the easiest of Cactuses to grow. We have known them to produce from three to forty of their magnificent flowers per plant, one year after the other in succession, for many years. The appearance of the flower could not be better shown in the black and white of an engraving than has been done in the figure on next page. As to color the interior is of the most delicate creamy white, and this is beautifully offset by a reddish brown on the outside. Flowers from nine to twelve inches across are not rare. They emit a sweet delicate odor when open.

If there is one objection to be found to this plant for window culture it is its free growth, although large size can be prevented by making new propagations every few years. The same objection could not be raised to

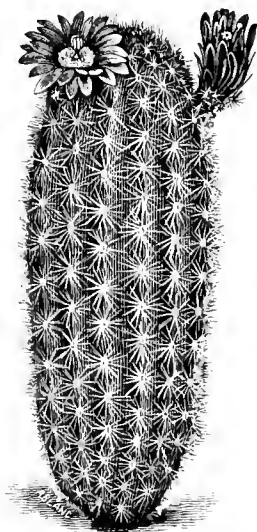


Fig. 4. A Torch Cactus—*Echinocereus viridiflorus*.

before, leaving an additional leaf each time. The effect of this treatment is to retard the sap and retain it where it is needed for the full development of buds, leaves and fruit. The leaves remaining increase in size much beyond their normal proportions, and a



the other pretty *Cereus* in Fig. 3, namely: the Whip-cord or Rat's-tail Cactus. This is an exquisite grower, its slender branches often extending downward from four to six feet, if allowed to drop, as it always should be. We have seen it trained to trellise, but it deserves better treatment. The flowers are bright rosy-colored and open in the daytime.

Figure 4 is a fine engraving of *Echinocereus viridiflorus*. Yet it can after all but give an idea of the shape of the plant, leaving out the beautiful appearance of the spines. These when they first come out are purple and white of remarkable brightness and beauty, looking very much indeed like flowers. The real flowers, which are also shown in the engraving, come out during the months of May and June.

Mr. S. H. French, of Montgomery Co., N. Y., sends some notes to this paper concerning the article on "Rose Culture in America" that appeared last month. He is of the opinion, and with which we quite agree, that the best service that Rose growers could give to Rose culture would be to publish lists of the hardiest varieties in each class. By doing this they would "fill a long-felt want." We are aware that a few nurserymen are now doing this very thing; there is room for an extension of the plan. That such aid could well be supplemented by amateurs giving the names of the sorts they have been most successful with, he also calls attention to, in these words, and adding a list of kinds: "But the combined experience of many individuals will furnish the same information, and to that end I append the names of a few kinds of monthly-blooming Roses that have with me survived at least two winters and are now in good condition. I hope some of your other subscribers will add to the list: Duchess de Brabant, Malmaison, Reine Maria Henrietta, Washington, Hermosa, Queen of Bedders, Madam Joseph Schwart."

#### Notes from Lyndale.

BY A. H. E.

It is frequently stated that the Tree, or Standard Roses as they are called in Europe, do not succeed in our country. That they do not do as well here ordinarily as in the Old World is true, owing to the greater heat and dryness of our summers, but that they cannot be made to thrive is an error. A group here, standing in a place well sheltered from the wind, is now showy with buds and flowers. The trees were set out a year ago last April. All the time since their trunks have been kept protected from sun and wind by a single thickness of coarse canvas, wound around them. They will be kept thus protected until a good top of foliage has developed when the cover can be dispensed with. I recall another instance elsewhere of these Roses growing with

success seemingly, in a yard partly shaded with buildings on the south side and with trees.

\* \* \*

The longer I cultivate the soil, the more am I convinced that much labor is often needlessly spent in summer watering. The use of the hoe should oftener take the place of the hose and watering-pot, and when done it will save work. There is this to be said against the free watering of bedded plants: they make roots near the surface, and suffer sooner from dryness. The hoe well used, serves to drive roots to a depth where they will rarely suffer.

\* \* \*

Is there another flower either cultivated or wild that just now can excel in loveliness

beautiful full-blown flower, and a bud above the water. The flower was perhaps not quite as large as are many of ours from the lake, but it was no less delicately moulded or finely colored. But their production was a triumph which the owners enjoyed as much as they could have enjoyed a hundred flowers grown in a natural lake or creek.

\* \* \*

The flowering of the Lindens, of which Lyndale boasts of some grand specimens, is an event I always look ahead for, and when it comes I never tire of drinking in the delicate beauty and sweetness of the flowers. What a paradise the trees now afford to the bees! Their rapidly increasing stores of the most beautiful

honey at this season also contributes one reason why I welcome the Linden blooms every year. To me the fragrance of the blooms, so pure and delicate, is without equal among flowers, while their quiet beauty is very pleasing to turn to from the many flashing colors that now abound in our gardens and lawns.

\* \* \*

A lull appears in the floral brilliancy of the shrubbery border during July. For weeks there have been clouds of bright Deutzias, Mock Oranges, Bush Honeysuckles, Weigelas, Rhododendrons, and further back, Japan Quince, early Spireas, Golden Bell, and others; but now the beauty has changed to quiet forms. The double Deutzias, still show some flowers, while the summer Spireas, such as *Callosa*, *Billard's* and *Exima* also show free bloom.

\* \* \*

Four years' experience with a border set out chiefly to trees, shrubs and plants with showy and striking foliage convinces me that there is no need of relying solely, or even to any considerable extent, on the tender Palms and other tropical plants for producing picturesque effects in our gardens. In the attempt here made in this direction the results have been even better than was anticipated.

A rich border was given up to the free-growing and feathery-leaved *Ailanthus glandulosa*, the large-leaved Japanese *Aralia*, the cut-leaved *Sumach*, the handsome *Besson's Locust*, all of which have finely-divided foliage. Then, by way of affording a wide contrast in the leaves, there were introduced two large-leaved *Umbrella Trees*, *Magnolia tripetala*, one *Panlownia imperialis*, several large-leaved *Hydrangeas* and the *Golden Catalpa*. All of these have large, entire leaves.

One end of the arrangement tapers down to clumps of grasses and herbaceous plants of striking appearance, including such things as Reeds, both of the variegated and the green-leaved sorts; Ribbon Grass, Heart-leaved *Baccharis*, Plantain Lilies, Zebra *Eubolia*, Iris, *Spirea Aruncus*, Lyme Grass, *Delphiniums*, *Yuccas*, and some others.

Then there are added some *Ricinus*, *Prince's Plume* and other *Amaranthuses*, from seed,



FIG. 5. A TWO YEAR OLD PLANT OF THE GRAND FLOWERED NIGHT-BLOOMING CEREUS—*Cereus grandiflorus*.

the White Water Lily, *Nymphaea odorata*? Patches of these near the east shore of the lake show many charming floral cups daily, and afford great delight to the children who venture out for them. On our table, too, no flower of the year is more admired. If only this common native was not so common; if the tubers had to be brought from India or Africa and would cost five dollars apiece, how we would prize them and rejoice if we would succeed in raising some of the flowers.

\* \* \*

That the Water Nymphae may be grown, and quite easily too, by those who have no water naturally suited to them, was shown to me again the other day. A neighbor whose success at gardening in a small front and side lot I often stop to admire from the street, asked me in to see her "Water Lily lake." Sure enough some tubers that I had given to William, the husband of the gardener, more than a year ago, and which had been planted in some creek mud in a sunken half-cask, were showing one

Cannas, Caladiums, Richardias and Gladiolus from among summer bulbs, all of which together make such a lot of plant and leaf forms as serves to create a very striking display all through the growing season.

\* \* \*

The fact that the plants and shrubs referred to are all hardy and easily raised, renders it an easy matter for any one who has a garden, to get up beds of these picturesque plants. I speak of the Ailanthus, Paulownia and other trees as shrubs, for they must be treated as such, to be of use in an arrangement like this. Each spring they need to be cut way back, nearly to the ground. There will then come forth, if the growth be free, numerous strong shoots bearing massive leaves, perfect in beauty and grandeur.

### An Orchid for Window Culture—*Cattleya Mossiæ*.

BY WILBUR F. LAKE, WAYNE COUNTY, N. Y.

This is the very best Orchid I have ever grown outside of a green-house. Very often you hear ladies wishing they could have Orchids that would flourish in their bay-windows, and to all such I recommend *Cattleya Mossiæ*. Placed in a basket made of Locust or Red Cedar, and hung from the ceiling, it may be grown finely.

In starting Epiphytal Orchids—*Cattleya Mossiæ* is one—it should be observed to raise them well above the level of the basket, so no water can settle around the neck. Peaty turf, Sphagnum, broken pots and lumps of charcoal is a good mixture for filling the baskets. Fresh, green Sphagnum placed over the whole after potting, adds a fresh appearance to the plant.

As to temperature, if it be 60° to 80° in summer, and 55° to 65° or 70° in winter, it will be about right for South American species. A variation of a few degrees either way will do no injury if the right moisture is maintained.

*Cattleya Mossiæ* is a fall bloomer, and should be rested soon after blooming, by gradually decreasing the supply of water and lowering the temperature where they are grown.

### Insect Enemies.

Much attention is paid in some European countries, to educating the masses to an acquaintance with insects both injurious and useful, with a view to the extermination of the former. As one means to this end, exhibitions of insects are made at the agricultural fairs and similar shows, being stimulated by premiums. Here is a practicable and valuable hint for adoption in this country. Many a moth or butterfly that is now admired and allowed to escape, would be destroyed, if its true nature, as the parent of numerous destructive worms or caterpillars, were known. Such shows would excite interest, and be the means of disseminating a great amount of needed information.

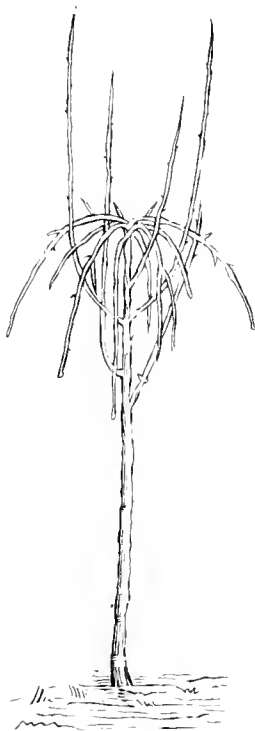
### Look Out for the Wild Sprouts.

In cases without end, people set out trees or shrubs of real excellence, and in a few years have for the things planted only some wild, weedy growths instead. Among our readers, no doubt, there are many who on reading this statement will say: "That corresponds precisely with some of my past experience." The thing we refer to is found in those common cases of trees or shrubs, which as they come from the nursery consist of a root of some free-growing sort, and bearing a choice grafted part that is to make the future tree or shrub. The kinds that come to the planter in this shape include about all improved fruit trees, many, but not all, ornamental trees, some shrubs, roses, etc.

In many cases the only way of perpetuating improved sorts, is by this course of grafting such on some wild or free-growing stock, so nothing is to be said against the principle of the thing. It is the ignorance that would allow the wild stock to start up a separate strong growth,

at once impairing and in time crowding out the grafted part, against which we are aiming.

A common example of this kind is to be met in the beautiful Kilmarnock Weeping Willow.



A Kilmarnock Willow suffering from the growth of Wild Sprouts.

It may be said that but for this process of grafting on a stronger upright growing stock, the raising of this fine ornamental tree would be an impossibility. The same thing is also true of other weeping trees. Usually the improved weeping parts of such are by nature prostrate growers, never getting above the ground. To make weeping trees of them the prostrate species is grafted four or more feet high on an erect growing trunk, and when the graft is established, no growth is to be allowed to start from any part but the graft. But here is where the trouble comes in. A Kilmarnock for example is planted. For a while the desirable growth, all of which should be in a downward direction, as shown in the upper part of the accompanying engraving, is not very strong. By and by perhaps one or more shoots start vigorously, some way down the trunk, growing uprightly (also shown in the engraving).

The latter are enemies. Being of a wild, free growth they soon make quite a show, much to the delight of the owner, if he be ignorant of their true nature. In time, if not destroyed, these upright shoots increase rapidly in number and size. Allowed to grow on, as they often are, they soon crowd out the grafted trailing part, and a coarse, upright growing Willow results in time.

Of course the right thing to do in this and all similar cases, is to nip every wild sprout in the bud. In the Willow referred to this is easily done, for the direction of growth reveals its true character. If it be upright, it is wild; remove it at once. If downward, it is all right.

As for other trees and shrubs, such as fruit trees, Flowering Plums, Thorns, Roses, etc., we can only lay down the general caution here, that our readers beware of all strong growing shoots that start from the root or near to it. If any such appear examine the tree or bush closely to find the point of union between the graft and the stock (usually easily detected). If the shoots start from below this point, as they most likely have done if they show great thrift, remove; if above, allow them to remain.

It should, during the growing season, be the tree owner's business to keep a constant lookout

for such wild shoots on all kinds of trees. Some will be certain to appear; the earlier they are removed the better for the tree.

### In Union There is Strength—Village Improvement Associations.

In the course of recent years many of the old New England hamlets have been regenerated by the aid of association work in town gardening. The system by which this has been done has had for its basis what is known as the Village Improvement Association. It is a system so practical and so effective for increased beauty and healthfulness of the places where applied that it should be very widely adopted throughout our land.

The plan upon which these associations are established is a simple one. To begin with, there is a meeting called of persons who are interested in public as well as private improvements in the line of gardening. A simple constitution is adopted to aid in more perfectly establishing and conducting the work of the association. That our readers may see the form of one of these, we are able, through the kindness of the Hon. B. F. Northrop, of Clinton, Conn., who has been prominent in establishing these associations, to present the one that was adopted by the village in which he lives:

CLINTON RURAL IMPROVEMENT ASSOCIATION.

1. This Association shall be called "The Rural Improvement Association of Clinton."

2. The object of this Association shall be to cultivate public spirit, quicken the social and intellectual life of the people, promote good fellowship, and secure public health by better hygienic conditions in our homes and surroundings, improve our streets, roads, public grounds, sidewalks, and in general to build up and beautify the whole town, and thus enhance the value of its real estate and render Clinton a still more inviting place of residence.

3. The officers of this Association shall consist of a President, a Vice-President, a Treasurer, a Secretary, and an Executive Committee of fifteen, six of whom shall be ladies.

4. It shall be the duty of the Executive Committee to make all contracts, employ all laborers, expend all moneys, and superintend all improvements made by the Association. They shall hold meetings monthly from April to October in each year, and as much oftener as they may deem expedient.

5. Every person, who shall plant three trees by the road side, under the direction of the Executive Committee, or pay three dollars in one year, or one dollar annually, and obligate himself or herself to pay the same annually for three years, shall be a member of this Association.

6. The payment of ten dollars annually for three years, or of twenty-five dollars in one sum, shall constitute one a life-member of this Association.

7. Five members of the Executive Committee present at any meeting shall constitute a quorum.

8. No debt shall be contracted by the Executive Committee beyond the amount of available means within their control, and no member of the Association shall be liable for any debt of the Association, beyond the amount of his or her subscription.

9. The Executive Committee shall call an annual meeting giving due notice of the same, for the election of officers of this Association, and at said meeting, shall make a detailed report of all moneys received and expended during the year, the number of trees planted under their direction, and the number planted by individuals, length of sidewalks made or repaired, and the doings of the Committee in general.

10. This constitution may be amended at any annual meeting by a two-thirds vote of the members present and voting.

There are hundreds of villages and towns throughout the Union that would be immeasurably benefited by adopting this method of improvement. The end in view being plain and simple, there is little difficulty in reaching it by the exercise of a determined, progressive spirit. The main point is to make a beginning, and the pleasing result of the first efforts is usually such as to insure a continuance.

### Raising Improved Petunias.

The flowers of Double Petunias, as it may be well known, bear no seed. This is be-

cause they are imperfect as to their reproductive organs, stamens and pistils. Of these only the former which bear pollen are present.

Now, to raise seeds that will yield double flowers, one must call in the help of the single varieties, which have perfect flowers, to bear the seed. To do this, as the flowers of the latter come into bloom, their stamens should be removed by the help of scissors before they have become charged with pollen from single flowers. It may be necessary to reach the stamens by making a small opening through the tube of the flower, a thing easily done with the assistance of a sharp knife.

Then some of the finest double flowers should be chosen, and from their stamens, with the aid of a rather stubby camel's hair paint brush, pollen should be gathered and be conveyed to the pistils of the single flowers referred to. This process should be repeated day after day on the same or new flowers. To insure the best results the flowers operated upon should be protected from the interference of insects by a cover of fly-screening. The seed being borne by the single flowers explains why "Double Petunia" seed always produces a certain percentage of single flowers; it could not be otherwise.

This process of artificial fertilization is not only a very interesting one to follow, but it is not at all difficult. Even a child of suitable inclination may succeed at it. By this same process of artificial fertilizing, single Petunias of superior quality can be raised, employing select varieties to work with. To our readers we say try it this summer; you may be astonished at the results springing from seed thus raised.

#### The Duchess of Oldenburgh Apple.

Were we writing for the orchardist, as distinct from the people, there would be little need of referring to this excellent Apple here, as its merits are widely known to the regular fruit growers. But a kind that is so universally esteemed by orchardists everywhere, and especially in the North and West, should be better known by the average amateur.

A leading merit of this fine Apple is its great hardiness—sufficiently accounted for by the fact that it is a Russian variety. Added to this, the tree is a strong grower, forming a roundish spreading head, and it is an excellent bearer. What would strike most people as a good characteristic of the tree, is, that it requires but little pruning at any time—much less than the average of orchard trees.

The fruit is from medium to large size, of a handsome, regular form, and, as shown by our engraving, is streaked, the ground color being yellow, with red streaks. The flesh, while not of the highest quality, is sufficiently pleasing to the taste to insure a ready sale for the fruit in market. It is a fine cooking apple. The flesh is a handsome yellowish white, juicy, slightly sub-acid. There is a faint blue bloom diffused over the fruit.

The subject of our article is an early autumn fruit, being at its best in September. Possessing, as it does, such a number of good points, it should find a place in the lists of all who set out Apples in the northern belts of this fruit. In moderate proportion, it would rarely if ever disappoint the grower.

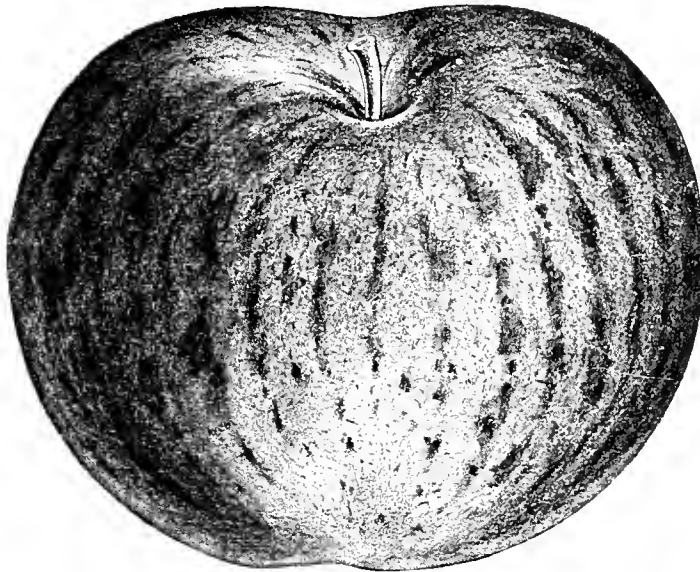
#### Nothing to Sell Here.

Following on every issue of POPULAR GARDENING, from the very first number, there have been received at this office from one to

six letters, of which the accompanying (name and address omitted) is a fair specimen:

"DEAR SIR:—I am a reader of POPULAR GARDENING and find many valuable suggestions in it. I notice what you say in the last number of Montfortia Flowers. Will you please send me one bulb of the kind (*M. Poltsch*). I will remit the price first, if you will let me know what it is."

These have been written and received, although in every paper, opposite the first page of reading matter, it has been stated clearly that POPULAR GARDENING is run independently of any nursery or seed establishment. The same thing has been repeatedly declared in the reading columns. Perhaps the fact that there are several papers in this line published, which are advertising auxiliaries to some other business, has to do with the matter. Then



THE DUCHESS OF OLDENBURGH APPLE.

maybe these writers are our newer subscribers, who have not yet learned to discriminate between this independent paper and others. Let it suffice, for us to repeat that we have not a thing in the seed, plant, bulb or tree line for sale, nor do we expect to have, so long as we succeed in serving our readers as publishers. We are constant buyers of stock for our own private garden, the same as our readers are. When we speak of a plant in these columns it is for the sake of imparting unbiased information to the public, and not because we have some stock of the same to "talk off" upon unwary readers. Our readers, as subscribers, pay us for this information, and we mean that it shall be impartial. If then they desire some of the plants, etc., treated upon, let them apply, as we ourselves must do when we want some, to the parties who have them for sale. In most cases they are found among the enterprising advertisers whose announcements appear in our columns.

**Celery for Seven Months.** C. H. Dann, a correspondent of the *New York Tribune*, relates how he managed this crop to give a constant supply for seven months: The ground was ploughed the latter part of April, and planted to Peas, in rows four feet apart. When fairly up they were cultivated, and early Potatoes planted in rows between the the Peas, except that two spaces were set with Celery for summer use, 100 plants. The last week in July alternate rows of Potatoes were dug, and rows of Celery set eight feet apart, 300 plants, for fall use. About August 10th 300 plants for winter use were put out. The plants were set eight inches apart in the row, the ground being rich. As to banking, the ground was first loosened with a hoe, then each plant taken separately in left hand and dirt enough drawn close around it with right hand to hold the leaves together and upright. Afterward, more earth was brought up to the plants, from time to time, with hoe or spade. The plants for winter were dug in November, packed close in a trench one foot wide

and as deep as the plants were high. The soil was filled in close to the plants at the sides, and the plants covered with leaves six inches deep. In December as many more leaves were put over. With this protection the Celery kept well.

**Drying Fruits.** Fruit that is of second quality for marketing, or such as happens to get too ripe, should be dried. In this shape it can always meet a market at fair paying prices, adding with good management materially to the income from fruit sales. Fruit driers or evaporators by the score are in market at prices ranging from ten dollars each upwards. Most of these are good implements and will soon pay for their cost where there is fruit. As some prejudice, if wrongly, is known to exist against evaporated fruits, that which is sun dried and of good quality, finds ready sale. Wherever there are hot bed sash, a sun drier may be made almost without cost that will answer for preparing a large quantity of first-class dried fruit. The sash should

be elevated on a frame 4 feet from the ground at the front and a foot higher behind. A rack with supports for drying trays at 4 or 5 inches apart should be constructed under the sash, to be reached from behind. The place of approach for sliding in or taking out the trays may be covered with fly screening, the other sides with boards. The sash will both increase the heat and keep off the dews and rains, thus allowing the drying to proceed from beginning to end speedily and with the smallest possible amount of bother.

#### Our Friend, Robin Red-breast.

It may not be pleasant to see him take some choice fruit, but before hurrying destruction at him let us reflect on his usefulness. The quantity of insect food devoured by this bird is enormous. White grubs, spring beetles, wire worms, cut worms, angle worms, slugs, caterpillars, cabbage and other butterflies, moths, maggots of house flies, stable flies and plant flies, and many other insects that cause heavy damages every year, are sought for and consumed in countless numbers. The young are voracious eaters of this kind of food, and perhaps no other. A single robin five weeks old in confinement has, by actual test, been known to devour an average of 100 earth worms, averaging two inches in length, per day. Think of the worth of such services and cherish the bird as a valuable friend, to whom a very little fruit which you prize is all the recompense you can bestow.

**Quack Grass.** It is singular that the nearest relative to our most useful grain, wheat, is the Quack or Couch Grass, one of our very worst weeds. Many a gardener sees this pest gaining on him, with sorrow, for if acquainted with its habits rightly, he well knows that no weed entails harder work without reward than this. How to get rid of it when once it has a hold is a standing question. The true fighting line is, not to let a green blade show its tip above ground. In small patches it has sometimes been wholly smothered out, by covering the soil with straw for one season, to the loss of one useful crop.

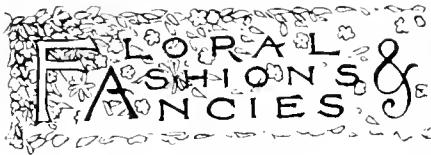
**Standard Currants.** I have succeeded in growing some standard Currants, red and white, and find that they fruit well. My plan is to put clean cuttings in, and encourage the leader up to 6 feet from the ground. Then I let the spurs grow all down the stem to within 2 feet of it, aiming at getting a kind of pyramidal bush on a low standard. The quantity of fruit seems to be much greater in proportion to the size of the tree than on the bushes; the space occupied is small. *Gardening Illustrated.*

**Cabbage worms** are a dread, but they may be effectually disposed of. An early matter is to hand pick the first brood before they pass into their perfect state. Later on dust the center of the leaves thoroughly with a mixture made of one part of pyrethrum powder to five parts of plaster of dry earth. This will kill every worm.

**For Mulching** Gooseberries and Currants, no material is better than the short clippings from the lawn. It lays closely, keeps down weeds, and promotes needed coolness to the soil.

**As for Cucumbers and Squashes**, they make less wood and more fruit from seed several years old than from last year's seed.

**Wood Ashes** are an excellent manure for berries. **Wheel hoes** are labor savers.



### Daisy Nurses.

The daisies white are nursery maids,  
With frills upon their caps;  
And daisy buds are little babes  
They tend upon their laps.  
Sing "Hoigh-ho!" while the wind sweeps low,  
Both nurses and babies are nodding—just so.

The daisies love the golden sun  
Up in the clear blue sky;  
He gazes kindly down at them,  
And winks his jolly eye,  
While soft and slow, all in a row,  
Both nurses and babies are nodding—just so.

—*Treasure Trove.*

The sentiment of the Poppy is consolation.

A corsage bunch, half and half of Marechal Niel Roses and Double White Water Lilies, is charming for this season.

For a pretty effect combine the Candidum Lilies with the rose-colored Spireas, and some Funkia leaves in a loose arrangement.

Branchlets of Mock Orange, intermixed with Penstemon or Hardy Gladiolus of pink to soft vermilion colors, produce a tasteful effect.

In fine Hot-house Roses the Marechal Niel is about the only one to be relied upon at this season. It is at its best in June, July and August.

Let the city damsel, on her first summer visit to the country, get sight of Ox-eye Daisy or early Golden Rod patches and a desire to glean the crop at once fires her soul. The farmer wishes she would take back a cart load of the pesky things, instead of a double armful.

A most pleasing ornament for the table or window at this season is a well developed plant of the wild Maiden Hair Fern, lifted with its roots and set into a wide-mouthed ornamental jar. The soil in the jar should be kept moist constantly. By placing the plants where the sun cannot strike the leaves to burn them, it will keep very nice for weeks.

Rose-colored Water Lilies, of the same form and size as the white kind, are a fashionable mid-summer flower. These are grown in Massachusetts by specialists and are shipped to florists in all but the more distant parts of the country in the bud state. A bouquet, made one part of the rose-colored species and two parts of the common double white, is very handsome.

Field Daisies. A very effective arrangement of these simple little flowers, Field Daisies, was recently made at a dinner party. A long garland was placed on a bed of ferns down the center of the table and about each plate was a horse-shoe of them, with a few scarlet Roses at the corner. Bridesmaids' bouquets, half Daisies and half crimson or pink Roses, are in favor and look tasteful with white gowns.

Sweet Peas are as durable for wear and bouquets as they are lovely and sweet. The favorite colors are white, delicate pink and pale blue. Simply arranged in almost any shape they are effective. On an outgoing steamer for Europe last week a young lady traveler received a little barrel of wicker work filled in the top with Sweet Peas in three colors, and a band of deep pink ribbon about it. The bottom of the barrel was filled with bon-bons.

If a table is to be decorated, where Sweet Williams of good quality are plentiful, the task is an easy one. Take half a dozen or more small fish globes or other glass vessels of a uniform size, into which place masses of the scarlet and crimson sorts, using the same number of each color. These should be set in a ring around the lamp, one of a glowing mass of color being the best. If in the daytime, instead of a lamp in the center, use a tall vase containing flowers of different colors from those below.

Those persons who have for the first time tried to make tasteful-looking bouquets or designs know that this is not so easily done as might seem. Now that flowers are plentiful, and cheap if they must be bought, it is a good time to acquire skill at this delightful business. One great trouble with beginners is, they usually lose sight of the principle of simplicity in their compositions. They jumble together many colors in little bits of each, where if less colors, and these arranged more in masses, were used, the improvement would be great. The bouquets, too, as they leave their hands are apt to

have the flowers so crowded that anything like individuality of kinds is lost. Both of these faults new beginners usually fall into. It should be the constant aim to avoid all such errors from the start.

Although flowers of all kinds are plentiful, there is in house decoration a rage for artistic effects in foliage. Panels, arches, canopies, cornices, and screens are made in wire and mossed frames for the ornamentation of walls, doors, mirrors, and windows. In these designs the most delightful shadings in green are brought out and the charming tracery to be made with foliage are shown. A canopy made of ivy leaves, for instance, has a cluster of *Cibodium* fronds in relief. Cornices of dark foliage are embroidered with the new asparagus, *A tenuissimus*. At the base of mirrors is made a banking of *Lycopodium*, upon which the gorgeous *Begonia*, Louise Chreitern, is planted here and there. Mantels are also arranged in this way. Small fronds of *Cornus Weddelliana*, called here the "Japanese Palm," are very fashionable for table and dress garniture.

## Botanical Budget

Do not collect specimens in the rain or dew.

Several correspondents of the *Botanical Gazette* state that fleshy plants, such as *Sedum*, dry readily after being dipped in boiling water.

In a recent *Journal of the Linnean Society* there were figured the pollen grains and an anther of *Papaver Rhoeas* taken from funeral garlands found in Egypt, and which were nearly 3,000 years old.

The beautiful Purple Flowering Raspberry is to be met in flower in all parts of the Northern United States about this time. It is a fine shrub, growing four or more feet high, and is worthy of a place in every wild garden.

Cultivation has so affected the evolution of the Tomato that the seeds are fast disappearing and bid fair to pass out of existence entirely, as in the case of the Banana, leaving their propagation dependent on cuttings. This from the *Am. Cultivator*.

The Grape was found very abundant on the coast of what is now Massachusetts in the year 1001, when the coast was discovered by Erickson and his thirty-six companions from Norway; and it was on account of the abundance of grapes there that what is now America was named by them Vineland. They also noted the existence there of the Reed or Wild Rice, *Zizania aquatica*.—*Gardener's Monthly*.

The Mulleins (*Verbascum*) lift up their spikes of flowers prominently during this month. Weeds that they are in our pastures and neglected grounds, every lover of the beautiful must stand before them in admiration of the delicate beauty of the flowers and the stateliness of the habit, which in the common one, *Verbascum thapsus*, may be said to approach grandeur. This last named species is indeed grown for ornament in some places, and all the members of the family are desirable in the wild garden.

The Butterfly Weed, *Asclepius tuberosa*, formerly known as the Pleurisy Root is one of our fine native plants that is more esteemed abroad than at home. An English authority speaks of it as "the finest of all American herbaceous perennials." This month finds it very commonly in bloom, about dry hills and fields in many parts of our country. The flowers appear in terminal corymbs and are of a bright orange-red color. It receives its name from the fact that its sweetness is attractive to butterflies and other insects. The plant is mostly obtained by division of the roots. It is a shy seeder, but when seeds are to be had, good plants can be grown from these in about two years. Clumps of this plant should often be found in our gardens.

The Natural order of Labiate, to which such common plants as *Salvia*, Rosemary, Monarda, Coleus, Sage, Thyme, and so on, belong, enjoys the distinction of being one of the most natural groups of plants. By this is meant, that the character of its several thousand members, is more distinct and uniform than is generally the case in a natural order. In fact the variation from one type throughout the family is no greater than that often found in a single genus in other orders. The chief characteristics of the order are, stem herbaceous, or woody, usually square; leaves opposite or whorled, exstipulate and usually aromatic; flowers labiate, mostly irregular. While it requires but a slight familiarity with botany to determine the order of any new labiate met, the discrimination of the genera is often difficult.

The Buffalo Meeting. The next meeting of the American Association of Natural Sciences will be held in this city August 18 to 24. Botanists who

have once attended the meetings of this society since the Botanical Club was organized need no urging to come again. The coming meeting in this city bids fair to be one of the best yet held. A local club has been formed, to more effectually devise and carry out plans for the entertainment of the visitors. They propose to do all that time and opportunity will permit. Among the most prominent means of entertainment will be a special excursion, during some afternoon not yet decided upon, to as good collecting ground as can be found within convenient distance of the city. This will doubtless be to Niagara Falls to one of the several swamps, which afford a rich flora, or to the lake shore.

### ABOUT THE PLACE.

Destroy the road weeds.

Bad fences cause jumping animals.

Summer is the time to replace old wooden cellar floors with the better and healthier ones of cement.

Asparagus. It is an injury to the bed to cut out many stalks at this season, for fly roosts or merely for adorning the rooms, as one often sees done.

Milk-weeds or *Asclepias* yield much honey, but bees are often injured or killed through coming in contact with the cohering masses of pollen peculiar to their flowers.

While we endorse the great service of toads as garden helpers every time, yet we don't want them near the bee hives. They will as readily snap up heavily laden bees as they do the most offensive bugs and worms.

Watering Troughs. As you yourself like clean water to drink, so keep the animal troughs clean. The difference between these being kept scoured out of all filth and rot makes all the difference between having the water clean and wholesome or otherwise for the live stock.

Starting Wild Flowers. To Miss H. D.: The simplest way is to notice at what time the seeds of wild flowers are ripe. Collect them, and sow where wanted. You can procure some sorts from seedmen. Remove patches of grass, so as to sow the seeds. You can also collect plants with a ball of earth, but this would entail heavy labor.

Earth in the Stable. Nothing will purify and keep a stable so free from odors as the free use of dry earth, and every one keeping horses or cattle will find it pays to keep a heap of it at hand, to be used daily. A few shovelfuls of earth scattered over the floor after cleaning will render the air of the apartments pure and wholesome. The value of the season's manure pile must be largely increased by the free use of such absorbents. The strength of the gases and liquids is retained, and is the very essence of good manure.—*Scientific American*.

Bees Clustering. The cause of clustering is an overfull hive. While bees are clustered, work is in a measure suspended. As this is very liable to take place in the midst of a valuable gathering spell, and may last a number of days or even weeks,—the only natural remedy being swarming,—a large loss may be entailed unless steps are taken to prevent it. Artificial swarming is much thought of by some as a remedy, and in the hands of a skillful apiarian is a good one. Those who are not capable of going through with this operation may reach the same end by merely managing to add more honey boxes to the hive. This may be done by boring holes in the tops of the present ones to agree with those of the new boxes, and then place them on top of the present ones, hole to hole. Such a course will dissipate the clusters by leading the bees to go to work.

This will Apply some Places. Mr. Topnoody delivers himself with enthusiasm to Mrs. Topnoody concerning the appropriation of a large sum of money for the cleaning up of the streets of their town, closing with the remark that "I'm glad to see the prospect of an era of reform and cleanliness, because we need it, not only in the streets, but everywhere else."

"And are you ready to do your share in cleaning the city, Topnoody?"

"Aye, that I am, ready and willing; more, I am eager to do my humble portion," and he swelled all up with municipal patriotism.

"Very well, then, Topnoody," returned his wife who could not let the opportunity pass, "go out there in the back-yard and begin. It's too dirty to think of, and I want you to help make your own surroundings respectable. I like to see you men blow about cleaning the streets, when you leave your wives to paddle around in ferry-boats in their own back-yards. Bah! at your street cleaning and your million-dollar appropriations. I don't want to hear from you, Topnoody, until you've disinfected that back-yard!"

Topnoody is at the present time a silent partner in the yard cleaning enterprise.—*Chicago Drummer*.



### The Plants Have A Party.

BY ANNA C. STARBUCK.



garden called Gold-finches.

Little Dandelion awoke one fine morning and said to herself:

"It's my birthday to-day. How pleasant it is! I think I'll have a party."

So she wrote her notes of invitation on the neatest and greenest clover leaves she could find, and sent them to all the other Dandelions and to the little white-haired Chick-weeds, and to the little birds of the

garden called Gold-finches. She didn't have to wait many minutes before her guests were all before her. They were dressed in their very best and laughing and chatting. More members of the Dandelion family were present than she could count. They were all dressed in yellow, and with very round faces. The little Chick-weed sisters wore white dresses, but they were so small and said so little that hardly any but the brightest eyes would have seen them at all.

But the happiest, and prettiest, and best of all the company at the party were the five birds that belonged to the Gold-finch family. They wore long yellow vests of exactly the same color as the Dandelions, and on their heads little black caps to match their wings. They did look lovely, and their little black eyes snapped with joy to think they were invited to the party.

While they were getting acquainted, they suddenly looked up and saw two little friends, hand in hand, coming to the party, that Dandelion hadn't invited to come. They generally stayed in another part of the garden by themselves, and so Dandelion hadn't thought to invite them. But here they were, asking modestly if they might come to the party. The Yellow Birds whispered to Dandelion and asked who the two were. Dandelion said that they were two little people from the city, and their names were "Heart's-ease" and little cousin, "Johnny Jump-up." They had on little purple hoods, and looked very modest and sweet.

"But," said the Yellow Birds, "do they know how to sing?"

The Finches were very fond of music, and didn't want anybody at the party that couldn't sing.

"No," replied Dandelion, "they can't sing; but neither can any of the Dandelions, nor the Chick-weeds; so you needn't be so awfully particular."

"Well," said the birds, "if they'll promise not to make fun of us when we sing, let them come into the party."

So "Heart's-ease" and "Johnny Jump-up," still taking hold of hands in timid fashion, joined the party. They behaved so well that the birds said they were "agreeably surprised."

After this Dandelion said: "Well now take some refreshments."

They all looked pleased, and said: "Thank you; we do feel a bit hungry."

Dandelion asked the brightest and liveliest Yellow Bird to pass around the refreshments; and what do you think they were? They were large, white fluffy balls, full of little black seeds, that Dandelion had made herself, on purpose to please the delicate appetites of the birds. To quench the thirst of both the birds and the

flowers, Dandelion obtained some sparkling dew drops, that were as clear and sweet as honey.

Once a noisy boy came along throwing stones, and the birds were, of course, frightened, and had to get "excused." Then a dog came along and barked; and this time they had the "tid-gets" dreadfully, and went without even asking to be "excused."

Soon they all came back. They thought it was time to have a little singing. But one bird said he had such a bad cold he would have to be excused.

"Oh, what a poor excuse," said all. "You must get a better one than that."

Then he said he hadn't recovered from his last fright, when the dog barked. Really he did seem rather pale, poor fellow, and so they excused him. But the other Finches ranged themselves in a quartette, and, without any book, they sang a beautiful hymn, called "The Good God Made Us All."

There were no words to the hymn, but you could tell by the tune that they were happy because God had made such a beautiful world and such beautiful things to be in His world.

Then they began to discuss the hymns that they liked the best. Then little "Johnny Jump-up" spoke for the first time and said he liked best to hear "Old Oaken Bucket," with variations.

And then they all laughed and said that wasn't a hymn; it was a song. He felt a little spunky because they laughed at the only thing he had dared to say at the party, and so he spoke up quickly:

"I didn't say it was a hymn, did I?"

Then they laughed at him more for showing his temper. Finally, when the party had lasted a long time, the Yellow Birds noticed that the Dandelions were all beginning to get nervous and shrug their shoulders, and pull their yellow capes up closer and closer about them. One little Dandelion, especially, was very anxious.

The birds asked them what the matter was, and the Dandelions said they felt as though they ought to be going home, for they thought it was going to rain. All at once, plump came down a large rain drop, soon another and another, and the flowers all covered their heads with tiny green hoods, and said good-by to the birds, and disappeared.

After the flowers had gone, it was raining so hard that the birds thought they might as well go, too: for, if they couldn't have any more fun at the party, they surely didn't want to get wet. So they flew away to the thick branches of the trees, where the rain couldn't reach them, and there they talked over, in their bird language, what a fine time they had had, and wondered when they would be invited to another party.—*The Cosmopolitan.*

### Birds Robbed of House and Home by Mice.

M. E. Thomson, in *Science Gossip*, reports a case of this kind which has recently fallen under his observation, as follows:

I have to-day found two nests deserted and mice in possession. The one was that of a long-tailed tit, who had been sitting for some time, and whose nest was in a hedge in a field; the other, that of a robin on a bank in a wood.

On going to visit my little friend, the tit, I expected to find her very busy, happy, little mother with a large family to provide for, instead of which I found a very different state of affairs. No little "mother bird" was to be seen. There was a look of desertion about the home, as of burglars having been at work.

I carefully put in two fingers to feel if the eggs were there all right. Out ran a small mouse, through a hole which he had made in the nest. My fingers came out somewhat hastily, not having expected to find the thief at work! All the eggs were gone, not even the remains of the shells being left!

When I first saw the robin's nest, I took out one egg—leaving two or three. The one which I took had been pushed almost into the side of the nest, and I had a little difficulty in getting it out.

The bird returned to the nest, for on going to-day to see how the little birds were getting on, I found two more eggs in the nest, but all quite cold and deserted. Noticed that another egg was in the same curious position, so I examined it more

carefully and found that it had been drawn half-way through a small round hole.

Suspecting, from the neat way in which the hole was made, that a mouse had done it, I removed the nest and found that it was a mouse's hole, into which he had evidently been removing the eggs. The robin, no doubt, too indignant at such treatment to remain at his post, had deserted it. To show my deep sympathy for Poor Robin, I deprived Mr. Mouse of his expected feast!

### A Plant at Sleep Out of Natural Hours.

That plants pass through a state which may be called sleep is well known. Thus the Sensitive Plant, so remarkable because the leaves close and hang down when touched, goes through the same movements at the approach of darkness. The return of light revives them again.

A French chemist subjected a Sensitive Plant to an exceedingly trying course of discipline, by completely changing its hours—exposing it to a bright light at night, so as to prevent sleep, and putting it in a dark room during the day. The plant appeared to be much puzzled at first. It opened and closed its leaves irregularly, sometimes nodding in spite of the artificial sun that shed its beams at midnight, and sometimes waking up, from the force of habit, to find the chamber dark in spite of the time of day. Such are the trammels of use and wont. But, after a useless struggle, the plant submitted to the change, and turned day into night without any apparent ill effects.

### PET BIRDS, ANIMALS, ETC.

**Ants' eggs** are a treat for all birds.

**Feed** the birds plenty of green food.

**Care** will kill a cat, says an old proverb.

**Humming Birds**, says a scientific journal, are birds when at rest, insects when in motion.

**Elsie.**—No, dear, you cannot raise a crop of canaries by planting bird seed.—*New Haven News.*

**New York** has boarding houses for birds whose owners have left the city during the summer months.

**Cats for Service.** We have learned that the U. S. Post Office Department has on its rolls nearly 1000 cats, who are on the lookout for rats and mice in the mail matter, and who are most faithfully cared for in the way of "board and lodging." Nothing like a cat for some purposes.

**Putting the Cat to Use in Fruit Time.** Our feathered pets of the tree tops, much as we value them for the grubs and bugs they kill, do sometimes annoy us when they take of the nicest berries and other fruits. But there is Tabby, well cared for, and fed with milk, the year through, she can do something for us in return, in keeping off the birds, even if it be not so pleasant for her. Do you ask how? Stretch a wire upon which a loose ring has been slid across the strawberry or other fruit patch. Put a collar on the cat, and from the collar run a short cord or wire to the ring on the stretched wire. Tabby may not fancy this restraint during the berry season, but her movements back and forth along the wire will prove a terror to over-bold birds and save our fruit.

**About Pigeons.** Common pigeons are not of any distinct breed. There are very few common pigeons now in which some traces of the higher classes cannot be detected. They originally came from the Blue Rocks. Next to a common pigeon, perhaps, the best known, at least by name, is the carrier pigeon, known to make long flights. The fan-tails are special favorites. The white ones are the most common and easiest to breed, but some are also to be had in black, brown, blue, red and yellow. The two latter are rare, and easily bring from \$10 to \$20 a pair. No breed of pigeons has so many varieties and sub-varieties as the tumbler pigeons. Many who own them expect them to perform, whether the birds are given a chance or not. Usually they are kept with a lot of other birds and are flown with them. There are also many tumblers who do not tumble at all. All of the short-faced varieties are not supposed to be performers. Pouters are the first selection of many prominent pigeon fanciers, and rarely is this bird entirely abandoned for other varieties. They are somewhat difficult to breed, and good ones always command high prices. Fifty dollars for a pair of first-class birds would not be extravagant. Mr. Schell, of Brooklyn, had one he refused \$250 for. They can be had in pure white, black, red, yellow and Isabella.—*New York Mail and Express.*



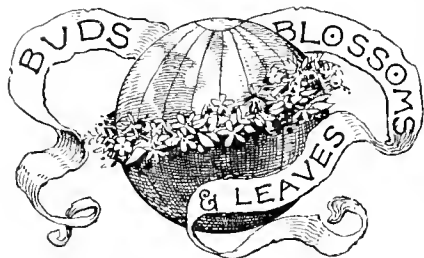
## Wild Roses.

Sweet wayside Roses! Hms of journeying bees  
That grew away in their journeyings,  
Or butterflies with gold-dust on their wings,  
That rest from voyaging on the idle breeze;  
For where his nest is hidden in the trees,  
Thy praise all day the laureate robin sings.  
More sweet than ever in the ears of kings  
Piped royal minstrels emulous to please;  
And whether Gypsy Junc tents in her fields,  
Or with abashed men comes down these streets,  
Still as I see how fair in sun or rain  
Your bloom in well known spots its treasure yields,  
Day after day, a voice in me entreats  
That through green fields I come to you again.  
—G. M. Street.

In the May the pink peach blossoms,  
Seen against a pale blue sky,  
Form'd a picturesque completeness  
On the branches bare and dry.

But the warm breath of the summer  
Thrilled with life the leafless tree,  
Till, 'neath leaves in July weather,  
Blushing rosy fruit we see.

—L. E. Williams.



Lantanas like poor soil.

Double Callas are not rare.

Sweet Williams date from 1573.

Now, if ever, the Smoke Tree smokes.

The Tomato is a native of South America.

Gardeners! Write something for your paper.

German seed catalogues are the most extensive.

The Lantana came from the West Indies in 1692.

One bird in the bush is worth a dozen on the head.

Napoleon had a passion for landscape gardening.

Wanted, at this office, many July subscribers.

The Golden-leaved Elders look brilliant in sunny July.

Many trees in cities are killed by leaking gas pipes in the streets.

Buttercups are common from the Arctic Ocean to the Tropics.

Squirrels have been known to devour young Horse Chestnut shoots.

Be free to send in your queries about flowers, shrubs and trees to the editors.

The Sweet Pea, we find, succeeds not at all badly, as a window-box climber.

Single Hollyhocks, like Single Tuberoses, come in ahead of the double ones.

Where flies trouble, hang up some bunches of the fragrant Melilot and they will trouble less.

"I have written many verses, but my best poems are the trees I have planted."—O. W. Holmes.

Farmers will never strike for eight hours. How the weevils would laugh if they did!—Hartford Times.

An attractive flower, growing equally well in a wet or a dry place, is the large-flowered Prunella or Self-heal.

Gardening was the one occupation fit for Paradise. To the extent that we garden successfully we may have Paradise restored.

Fancy vs. Plain Pots. Sister Gracious is just right when she says that "these very fancy flower pots, painted and gilded, are an abomination."

"Oh, mamma!" see the popcorns for the birdies," exclaimed a two-year-old Waterbury miss, who this year saw cherry blossoms for the first time, since she could speak.

**Strelitzia Regina** is a valuable conservatory plant for amateurs. It is a subject of easy culture, while the handsome bird-like flowers of gorgeous color give the plant distinction.

A rocky mound on a neighbor's lawn covered with nothing but Moneyvine (*Lysimachia nummularia*) is attractive at all times, but especially so when the crop of bloom is out.

**Sweet Alyssum.** "Lida" asks the practical question whether the sisters know how easily this plant is raised from slips. She finds it much easier to so raise them than from seed. It is the only way with the double sort.

If you now do no gardening, either useful or ornamental, don't hesitate to engage in the work on the score of inexperience, when you can procure such a plain and reliable guide as POPULAR GARDENING for 60 cents a year.

No need to grow! about the weather; if the season is cool, Pansies and Roses are the finer; if very hot and dry, Portulacas, Tuberoses and flowers of a similar heat-loving class will be the better for it. Look on the bright side.

It is to be Bound. Mrs. F. E. W. closes a business letter by saying: "I am delighted with POPULAR GARDENING, and shall recommend it to all my friends who have flowers, and shall have mine bound at the end of the year."

A correspondent states that her Daffodils flowered twice, first producing double yellow flowers, and some weeks later white ones. That sounds strange, but we can solve the mystery on the ground that the clump contained from the first bulbs of both the early and later flowering sorts.

**Progress in Reform.** We are glad to see the Massachusetts Society for Prevention of Cruelty to Animals step forward and promptly offer two \$10 prizes and twenty of \$5 each for convincing evidence of the killing of any insectivorous birds in that State, or taking an egg from the nest.

**Popular Gardening** wants to know, why more people do not plant ornamental trees on the strength of the increased value they give to a place, through increased attractiveness, when one comes to sell. From this standpoint, let alone all others, such planting without fail proves very profitable.

"If these workers," says the *Boston Transcript*, referring to Chinch Bugs, Grasshoppers, etc., in the West, "could only be induced to join the Knights of Labor, and agree to confine their operations to eight hours a day, the cause of labor would get the biggest boom it has ever yet received, even in this year of labor booms."

**Hard to Comply With.** "I find," writes M., "in the various seed catalogues the 'Normandie,' 'Trinardeau,' 'German Imperial' and 'English Pansy.' Are they distinct varieties? If so, please define the difference." As for this matter, we are unprepared to give an answer—not having tested the sorts named—beyond saying, that they are probably distinct.

**Phlox Drummondii Wild.** An item in a recent number of POPULAR GARDENING on the Phlox Drummondii in Florida, brought out the following from a correspondent in that State: "Phlox Drummondii of exquisite beauty grows wild here in many places, increasing by self-sowing. I call to mind one ten-acre orange grove where this plant literally covers the ground."

**A Century Plant** (*Agave Americana*) is in bloom in the garden of Mr. George Casey, Auburn, N. Y. It is believed to be about 60 years old. The flower stalk, when at its most rapid stage of growth, grew at the rate of three inches a day, and has pushed way beyond the roof of the green-house. The flowers are of greenish yellow, produced at the points of branches, and arranged in a perfect pyramid.

**Black Ants.** It is easy to get rid of them. Open the hills with a hoe, scatter on a handful of salt and sprinkle on a quart of water and the ants will leave immediately. Yesterday my house was overrun with these insects. I found eleven anthills within two rods of the building and to-day there is not an ant to be found anywhere on or about the premises.—G. Wilson, in *New York Tribune*.

**Twelve Amaryllises to one Pot.** "I wish every member could have seen my blooming Amaryllis Johnsonii some time ago," writes "Lida," but neglecting to give her postoffice and State. "Two bulbs were set into a six-inch pot; the one sent up one, the other two blooming stalks, and together they bore twelve magnificent blooms. The flowers were out for two months. I manage the bulbs by planting in the ground in partial shade, when frosts are over, potting again in September.

**Yellow Roses** are reported deficient of color this year, and correspondents ask the reason why. We confess to feeling nonplussed at the question, and inclined to imitate the philosopher who replied to gay Charles's proposition on the globe of gold fishes. "How is it," asked the King, "that a globe filled with water does not increase in weight when a number of fishes are added?" And the philosopher replied, "I doubt the fact," to which the merry monarch responded, "So do I."—*Gardeners' Magazine*.

**A new Balsam**, by name Impatiens Marianne, is announced from Chicago. Unlike the old annual favorites, the recent *L. sultana* and numerous other members of this interesting genus, this new one's chief claim to attractiveness is found in its clear, silver-marked foliage. It is said to be a good grower, and increases easily by slip propagation. It is now being tested as a summer bedding plant, and it is hoped that it may prove of value as a plant for lines and masses. Mr. George Wittbold, of Chicago, is its introducer, having received it from Germany last fall.

**Thanks to American enterprise** for giving the cheap lawn mower, where formerly the lawn scythe was in use, or oftener still, lawns were totally neglected. Now everybody may have a neatly kept grass plat. By its use the work of mowing the average yard is really little more than recreation; the trouble of keeping the machine in order, is as nothing compared with that of keeping a scythe in shape for good work. POPULAR GARDENING gladly recognizes the great help of the American lawn mower, in giving our people an increased appreciation of lawn and garden beauty.

**Brill's Treatise on Cauliflower.** In the writer's gardening experience he has realized larger profits per acre for the outlay, in growing Cauliflower for market, than from that of any other crop. A reason for this was found in the fact, that but few gardeners seemed to be successful with this crop, and he happened among such lucky ones. It is a crop that requires some particular conditions in cultivation, and in the new work referred to in the head-line called "Cauliflowers, and How to Grow Them," Mr. Francis Brill, a Long Island gardener, has succeeded in setting these forth very clearly. The pamphlet sells for only 20 cents and may be ordered through this office.

**New Jersey Heard From.** From Sussex county, of that State, Mrs. S. E. Cole offers the following about some favorites: "The *Tritelia uniflora*, spoken of in the May number, is pretty, with its star-like flowers, but not as handsome as *Allium neapolitanum*, bearing as it does large clusters of pure white flowers, lasting two and three weeks. Neither is it so fine as the Freesia, another excellent winter-bloomer of delightful fragrance. Of the latter, some are white and some are pale yellow. I had these all last winter for the first time, and was much pleased with them. Another nice winter plant is Yellow Oxalis, as it blooms all winter with me. Thanks for the aid I derived some time ago from the "Exchange Column" of your exceedingly valuable paper.

The presence of plants in rooms, as ought to be well known, serves to render the atmosphere beneficially humid to human lungs, thus answering a valuable end aside from the beauty and cheerfulness imparted. How this peculiar effect of the presence of plants on the atmosphere, comes in to a good purpose, in a large manufactory, is told as follows: The Willimantic (Conn.) Thread Company formerly employed a spraying machine and two men to secure the needful humidity of the atmosphere of their shops. For the purpose of increasing the comfort and pleasure of the operatives, the

I think nothing can be more beautiful than these, with their varied and fanciful markings. On a bed only two feet square I recently counted 150 perfect flowers." We would like to add to this note, that in a long experience in raising Pansies, we have relied mainly upon a very liberal allowance of old rotten manure, in the soil, together with an occasional dose of liquid manure over the bed before flowering time. By this course we have raised some Pansies marvelous for size and beauty.

**A New way of His Own.** If Mr. Samuel Streepey, of Slatford, Pa., had been a reader of

POPULAR GARDENING, and had used the effective remedies lately printed in its columns to kill

Current worms, instead of his own rash experiment, he might still be the possessor of the eye and part of a hand which he lost in the fight. The account puts it that he

had once treated his bushes to some kind of worthless insect poison, under which the worms seemed to thrive. Then he made up his mind for a new experiment that

should not fail. This consisted of sprinkling the bush with sulphur, over which he poured some powder from a flask. A touch of a match enveloped the bush with sulphurous flame in an instant. At the same time the flask which Streepey held in his hand went off like a cannon. With it went the most of Streepey's hand. The sight of one eye was also destroyed. The bush was shriveled up as if blighted. But the worms on that particular bush were exterminated.

**Buffalo Parks.** So well satisfied is our city with her expenditure of upwards of a million dollars, on securing and maintaining a park system, embracing some 600 acres of land, that an enlargement of the system is again being considered. This time it is in the direction of acquiring lands on the shore of Lake Erie, to the southeast of the city, and converting them into recreation grounds. The step is a very popular one. If carried out, the new park will be connected with the present ones by an extension of the boulevard system. Recently legal enactments were secured for placing all of the small parks of the city under the management of the Park Board, of which Mr. William McMillen is the very efficient superintendent of works. Included among contemplated improvements, is the converting of the so-called Terrace "parks" into beauty spots by the help of grass, trees and flowers. Next we hope to announce the project under way for connecting our beautiful Buffalo Parks by a broad boulevard with the new State Park at Niagara Falls, twenty-two miles away. It will come in time.

**The Oleander.** In its native state this is a riverside plant, and as such likes good living, being born to mud, water and warmth. As the shoots made in one season flower the next, if well ripened, it is always desirable to get a strong growth on the plants as early in the season as is practicable. Therefore, they should from the early spring be given a warm, light place in which to grow, and receive liberal supplies of weak liquid manure. An excellent way to summer small-sized plants, is to set them in a rich flower-bed or border until about October 1st, when they must be potted again. After the blooming season of plants in pots or boxes is over, some of the old soil should be removed from the roots and they be reset into a receptacle a little larger than the old one, using a rich loam to fill in around the roots. It should be well known that this handsome shrub possesses some poisonous principles,

for if the hand is cut while pruning it, a dangerous wound may result. Pruning as a rule is not necessary to the plant, but it may be well once in some years apart to cut it back with a view to improving its general shape.

### The Nurserymen's Convention at Washington.

The meeting took place, according to programme, on June 16th and two days following. It was well attended, members to the number of nearly 400 being present from all parts of the Union. The Province of Canada was also represented. We never saw so large an attendance of ladies at any of our conventions as was here present. The nurserymen, appreciating the valuable service done to the cause of tree planting by the women of our land, gladly encourage their presence at these meetings. All such are by the by-laws of the association honorary members.

That less actual business was done at this convention than some of its predecessors, will not be laid up against it seriously. Washington is not a place conducive to much solid work of deliberate bodies, in a few days' time. How little Congress, even in its longest sessions, often manages to do. With the most delightful of the beautiful capitol city before them, the hard-worked nurserymen could for once well afford to dip deep into recreation. The social features of these conventions, arising from personal intercourse between members is of the greatest value; no one can complain that this had not its full sway at the Washington meeting.

Of work done and papers read, the quality generally was that of marked excellence. Take for instance the opening address, on Wednesday, of the president of the association, Commissioner of Agriculture Coleman. It was an able paper, received with great enthusiasm by its hearers. We here give some of the leading thoughts it contained:

The last census places gardeners, nurserymen and vine-dressers together, as of the same class, and gives their number as 51,482.

The nurseryman is engaged in the primitive calling of man. In the account of creation given us in the Bible trees are the first thing spoken of after the earth took its present shape. They preceded man, as the necessary means of preparing the earth to be inhabited by him. They were necessary in order to make its atmosphere respirable by absorbing its superabundance of carbonic acid. Destroy the trees and you make the world desolate.

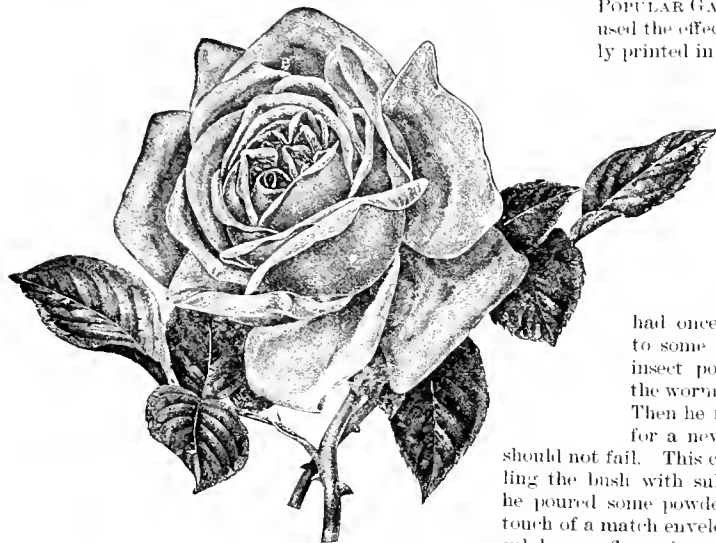
The work of the development of trees, is still to go on. No one is competent to set a limit to it. No one is competent to say what fruits may be gathered from our trees in years and centuries to come. We may go as far beyond the present as the present is in advance of Eden. There is every encouragement to the nurseryman in this direction.

When we look at it aright, the calling of the nurseryman should be regarded as that of a high and honorable trusteeship. He stands between his fellow-men and the great tree-world, of which they are ignorant and of which he has a knowledge, by showing them how to attain the utmost comfort and pleasure from the growths of field and forest.

The rapid extension of this nursery production in the United States indicates a development of taste, increase of wealth and a better knowledge of sanitary laws. It attests the demand for landscape adornment, for woodcraft supplies, for local climatic modifications in aid of fruit culture and for enlargement of fruit production generally. It illustrates the growth of esthetic culture among the people, the disposition to expend money in the gratification of tastes so pure and wholesome.

Regarding ornamental planting, no country in the world is better supplied in this respect than ours. We have 800 species at least of woody plants. Three hundred of these attain a height of thirty feet. Two hundred and fifty of these are tolerably abundant in one portion of the country or another.

We have this large number from which to make our selection, while Germany has but about sixty native species of trees, and France and England only about half that number. That eminent authority, Lindley, declares that "by far the finest ornamental trees and shrubs of England are those which have come from North America."



THE LA FRANCE ROSE.

proprietor commenced the cultivation of plants around the factory and placed many beautiful flowers in the rooms. This so changed the atmosphere that the spraying machine was no longer needed.

**The LaFrance Rose,** of which an engraving is herewith given, enjoys the distinction of being very valuable, both to those who are in the trade as florists and to amateurs. As a forcing Rose for cut flowers, it occupies a place second to no other one of its color, being always in large demand at a high price. It can never be classed among common kinds. Its sweetness is unequalled, while no Rose can surpass the exquisiteness of its coloring, which is that of a peach blossom, shaded pink and silvery rose. The flowers are large and full, and appear with great freedom on the plants. As a garden Rose it is hardier than the average monthly, living over in mild winters with slight protection. It is a freegrower and constant bloomer. This Rose is of French origin, dating from 1867.

**A Large Rhubarb Bed.** Such a one, containing about 20 acres, is reported by the *Pacific Farmer* as being at "Rhubarville," out from Chicago. The bed was planted three years ago; the soil, which is a rich sandy loam, being first put in good working condition by the plow and harrow. It was then marked off each way in rows four and one-half feet apart, and a man went along with a spade and made a hole at each of the intersecting points by thrusting it down and pressing each way a moment. A boy followed with the plants, dropping them in the holes and pressing the earth over them with his feet. This completed the simple operation of planting. The field was frequently cultivated through the season and kept free from weeds. The next spring after planting, the first crop was gathered.

**About Pansies.** Mrs. J. L. White, of Knox county Illinois, writes that formerly she had no success in raising Pansies, although trying hard for years to raise fine ones. She offers to the family the information as to what led her from failure to success with these plants, as follows: "I use all the completely rotten wood that I can get, working it into the soil and around the plants. Since I have commenced this my Pansies are very fine, indeed

We may make our country, from its native resources, the glory of all lands for the beauty and value of its trees. It is your privilege, while engaged in a business which will give you reasonable pecuniary returns, to be also public benefactors. It is your privilege to do as much as any other class of men in determining what shall be the future condition of the country as to its industries and the comfort and happiness of its people.

On Thursday the following officers for the coming year were elected:

President, C. L. Watrous, Iowa; first vice-president, M. A. Hunt, Illinois; secretary, D. W. Scott, Illinois; treasurer, A. R. Whitney. Executive committee, S. D. Willard, New York, N. B. Pearsall, Kansas, and George Weltz, Ohio. The report was adopted and the officers nominated were elected.

The vice-presidents also reported in favor of Chicago as the place for the next meeting, and the report was adopted.

A resolution was adopted by a large vote asking Congress to pass a law taxing oleomargarine. Much time was also consumed in bearing reports concerning trade matters.

One of the ablest papers of the meeting was that by Dr. Ferno, on the Influences Affecting the Quality of Tree Seed, and in which he urged the merits of seed testing establishments.

The chief feature of Friday's meeting was an excursion to Mount Vernon, by steamer down the Potomac river. It was participated in by nearly the entire convention.

#### Convention Notes.

An ideal city, so far as shade trees go.

The Botanical Garden had many visitors.

The nurserymen feel good over spring sales.

Presidents come and go, but Secretary Scott remains.

The Lucretia Dewberry was on exhibition by Mr. Albough.

Most of the members found the weather cooler than they had left behind them.

Friend Angur gave everybody a taste of the Jewell Strawberry. They were Jewels.

President Coleman reports 80,000 shade trees in Washington. They were a delight to the visitors.

The convention was photographed in a body on Thursday, in front of the Agricultural Building, Nice picture.

The hearty invitation to have the next meeting at Dallas, Texas, seemed at one time as likely to be accepted. The Texas members gave some interesting talk about their great State.

We found our old neighbor, President Cleveland, looking well, although less ruddy of cheek than when he lived in Buffalo. He showed his appreciation of horticulture by granting a special reception on Thursday afternoon to the nurserymen, ladies included. Shaking some 300 hands didn't seem to tire him much.

At an adjunct meeting of the Nurserymen's Protective Association the following officers were elected: C. L. Watrous, president; G. C. Atwood, New York, vice-president; D. Willmot Scott, secretary; A. R. Whitney, treasurer, and Messrs. Abner Hoopes, Pennsylvania; S. D. Bear, Ohio; C. L. Watrous, Iowa, the executive board.

The Convention enjoyed a good laugh at the close of Congressman Wellborn's eloquent speech on the present and future of Texas as a fruit growing country. He had finished his warm peroration of brilliant hues, and was walking down the aisle with Mr. Dewey's hat in his hand, when Commissioner Coleman called out "please don't carry away our members' hats." This brought down the house. And when Mr. Wellborn explained that such a little thing as appropriating another man's property were peculiarities of his own, not belonging to Texas people at large, the house came down again.

#### The Fruit and Vegetable Growers' Association of the United States.

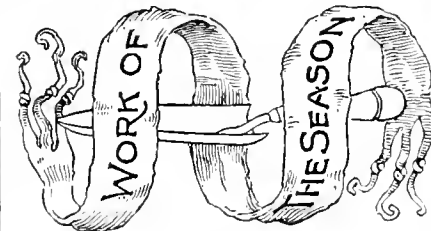
The June meeting of this society was held on the 17th of last month, at Columbus, Ohio. It was an interesting meeting and succeeded in accomplishing much good. The leading discussions centered on the best methods of preparing fruit for market, and preserving it for family use. The evaporation of fruit received its full share of attention.

A happy sequel to this discussion was the generous offer of Mr. Ezra Arnold, an Illinois fruit grower, to give to the society the plans and details of his improved yet inexpensive home made fruit evaporator. He does not make these for sale, but freely consigns to the association and to all interested persons the full right to make and use them, on the one condition, that the association will give his offer publicity. This it resolved to do, and to prepare the necessary engravings and descriptions to enable any person to make and set up the device. Full particulars with plans may be had of the secretary, W. Orlande Smith, Alliance, O., by enclosing stamps for return postage.

The next meeting of the association will take place at St. Louis, Mo., Dec. 9th next.

#### Second Annual Meeting of the Society of American Florists.

This meeting will be held in Philadelphia Aug. 18th to 20th next. It promises to be a great success, in that respect even an improvement on the excellent first meeting of last year. It will be a gathering of the live florists of our land; all such are expected to be there. Reduced rates on all the leading railroads may be secured. Secretary E. G. Hill, Richmond, Ind., will take pleasure in furnishing full particulars to mail applicants.



#### THE HOUSE PLANTS.

**Abutilons** or Flowering Maples should now be encouraged by repotting as they will bear, to make a strong growth for sustaining winter flowering. Prune freely to promote shapeliness.

**Agapanthus Plants** need plenty of water while flowering, being by nature sub-aquatic.

**Bouvardias.** Cut back closely for the present.

**Cactuses** during their flowering and growing period are not apt to be given too much water.

**Cyclamens** for flowering next year and later should be sown during the present month.

**Geraniums.** Where plenty of winter flowers are wanted, the plants should be grown in pots during the summer; also, keep all flower buds nipped out as they appear. The Rose and most other kinds can be brought along finely for house-decoration later, by lifting some from the border some time this month and potting them. Pinch back the main shoots a little at the same time.

**Hydrangeas** in bloom are benefited by an occasional dose of manure water. Young plants in their first year like partial shade in the summer.

**Insects.** As to these, one should put prevention before cure. Aid plant health by proper watering, cleansing the foliage, removing dead leaves and matured flowers, and repotting as needed, and insects will not trouble much. If any stragglers appear, apply the thumb nail.

**Lantanas** embody a number of good qualities as pot plants. They may easily be grown as standards, with a trunk three or more feet high, by keeping all side shoots down during the season of growth, and until a desirable height is reached.

**Mignonette Seed,** if not yet started for winter plants, must now go in. See under "Conservatory."

**Oxalis Rosea** and other varieties should receive less water than when they were flowering freely.

**Primroses, Double Chinese.** The treatment now needed is merely that they be kept in a cool shady place, and water as required, that is, sparingly.

**Vallotas** now begin to bloom. While this is going on they should be kept constantly well watered.

**Watering** cannot now be neglected once without serious results. The best time of the day to water in the summer is towards night. Then the plants have moisture and coolness until morning. But if plants happen to be dry in the morning, don't wait for evening but water immediately.

**Winter-flowering plants,** such as Begonias, Chrysanthemums, Carnations, Poinsettias, Helio-

tropes, Roses and Myosotis, ought now to be growing rapidly, and will require pinching back every few weeks to promote stocky forms. Such as are in pots should be shifted into pots one size larger as soon as the roots mat about the ball of earth.

#### LAWN AND FLOWER GARDEN.

**Annual Flowers** now come in. It is a mistake to allow the plants to become crowded. Thinned out properly, and many kinds that often appear no better than weeds develop into handsome plants.

**Asters** are gross feeders. If this fact was not duly appreciated when the beds were prepared, matters may still be helped by liquid manuring or a manure mulch.

**Balsams** should be pruned of many of the young shoots that now appear: train to one, three or more main shoots and their appearance will be improved.

**Candytuft,** if sown during this month in frames, will produce heavy crops of blooms just after the open air yield is cut off by frosts.

**Carpet Beds** are now in full dress, and to keep them so through the hot weather they need a thorough watering once a week, and all useless flowers, as well as unhealthy leaves and weeds, should be removed as often. Some of the plants will need trimming also, to regulate shape.

**Caterpillars** may be kept from ascending trees by encircling these with bands of cotton.

**Climbers** now push ahead rapidly, and should be amply furnished with supports for the young shoots, and have the growth regulated.

**Dahlias** that produce many side shoots are benefited by having some of these cut out.

**Layering** is a means of propagation that every amateur ought to be familiar with. By it about all fine shrubs and plants can easily be increased, while many cannot be propagated in any other way. As shown by the cut, a depression is made in the earth at one side of the plant in which to bend a vigorous shoot. This shoot should have a notch cut in from the top, one-third of the way through at the lowest point of the bend. Bend it down and cover firmly with mellow earth. In about two months there ought to be good roots.

**Pansies.** Sow now for early spring or forcing.

**Perennials, Hardy.** If it is desirable to increase such kinds as ripen their seeds this month the seed may be sown as soon as ripe. Those that are through flowering should have their flower stalks cut away soon after for the sake of neatness.

**Rhododendrons.** Remove seed pods and sprouts.

**Staking and Tying up** are important operations to keeping a handsome garden. Strong-growing, top-heavy plants like Dahlias, Gladiolus and Salvia absolutely demand it for the best results. Large single specimen plants, such as Hydrangeas, Geraniums, etc., may be staked so neatly by lowering the top of the stake down into the plant, that these will not show and yet obviate all danger from breaking off or bending over by storms.

**Sweet Williams** and other biennials should be sown for next year's blooming.

**Trees** that were planted in the spring often suffer from drought in the summer. A mulch of hay, litter or stones over the roots is good treatment to prevent this, and better than excessive watering.

**Variiegated Trees or Shrubs,** or those with cut or other "fancy" forms of leaves which may show signs of a common type of foliage should have the shoots on which these appear cut out, or the future value will be in danger.

**Watering.** Applying a little water and often to anything growing in the soil is a bad principle, and should be set aside for the correct one of watering seldom but then very thoroughly. Vases and hanging baskets have many plants growing in a small bulk of earth; water thoroughly every day. The best time for watering trees is during a showery spell. Remember here that ordinary showers do trees but little good.

#### PLANT CULTURE UNDER GLASS.

**Camellias.** Now the buds of next winter's flowers are formed, and any bad treatment to the plants may cause these to drop before opening, as explained last month.

Keep the Camellia apartment cool by shading, sprinkling and free-airing. Water regularly and



Propagation by Layering. See "Layering," above.



syringe the plants at least three times a week. Some growers put the red-flowering kind out doors in a shady place, and then spread the whites over all the space under glass.

**Chrysanthemums** in pots may have their final shift. Sprinkle often from overhead.

**Cinerarias and Calceolarias.** Prick out the seedlings, as soon as they can be handled, into pots or pans, placing these in frames, under shaded sash. Admit air and water as required.

**Cyclamens.** See brief note under House-Plants.

**Euphorbias,** should be shifted into larger pots whenever the roots in the present ones begin to mat around the ball of earth.

**Ferns.** It must be seen to that large growing kinds in the Fern-house do not too much crowd or overshadow the smaller kinds.

Tree Ferns, if much encouraged through giving them ample root-space, often soon get so large as to be useless. It is better to keep the pots or boxes of these rather small, and give some liquid manure.

**Mignonette** for winter blooming is usually not sown early enough. The seeds should go in during June or early July, sowing directly into small pots, three or four seeds in each, the seedlings then later to be thinned down to one. The young plants should from the first be protected from the cabbage worm butterfly, with mosquito netting.

**Orchids** should now be provided with a free circulation of air to ripen the spring growth. Use as little shading as possible, and keep the air moist by watering the paths and stages in the afternoon, after which shut up for the night.

**Potted plants** of Poinsettia, Heliotrope and like kinds, designed for winter flowers, should be shifted promptly on, as required.

**Roses** for winter flowers, that are hedged out under glass should now be at rest, receiving only enough water to not allow entire dryness of the soil.

## FRUIT GARDEN AND ORCHARD.

**Aphis or Lice** yield to soapsuds, if applied with force, repeating the operation as needed.

**Currants.** Where there are but few bushes the birds are sometimes troublesome. Mischief by them is easily prevented by throwing netting over the plants. An old article past use at the windows will answer here.

**Layering** of Currants, Gooseberries, Grapes, etc., may now be done. See article on layering under "Lawn and Flower Garden."

**Liquid Manuring.** If the soil about them is somewhat poor, applications of liquid manure to trees and plants will help the crop greatly.

**Mildew on Grapes** is easily eradicated by the use of powdered sulphur, applied with a bellows, or even thrown in fine clouds with the hand, when the leaves are wet. This needs prompt attention; mildewed vines do not ripen their fruit well.

**Mulching.** Many have yet to learn the great value of summer mulching in certain cases. There are instances where it will induce a stronger growth than a coat of manure would. It is especially beneficial to newly-set trees, the stone fruits, and to Currants and Gooseberries.

**Poisoning Caterpillars** is practicable in the orchard if done while the fruit is small. One pound of Paris Green to forty gallons of water, applied over the foliage with a force pump and broadcast spray, will do the work.

**Pruning.** The best pruning is that which rarely, if ever, calls for the removal of a large branch. As shoots start up, pinch them away where no branches are wanted, and leave others where some would be desirable. The latter will grow the faster for the absence of the former.

**Slugs** on Cherry and Pear trees may be easily destroyed by dusting with dry ashes, lime, or earth.

**Strawberries.** Where new plantations are to be made a great gain comes from layering the young plants, which form at this season, into pots, or on pieces of inverted turf four inches square, set into the ground. The plants, by either course, may then be set out in August, and will be in shape for a heavy crop next year.

**Thinning.** It does pay to thin fruit. The work is something, but that is about saved in the later operations of picking and sorting, while thinned fruit always commands high prices. In Peaches the rule is to leave one Peach on a shoot six inches long, and two on a limb a foot long. Pears and Apples usually are allowed one apple to nine spurs. In no tree should fruit clusters be allowed to remain unthinned. Leave the spaces throughout the tree as evenly divided as possible. Grapes are also benefited by thinning. Even thinning on the bunch,

of such compact-growing kinds as the Delaware and Diana, is a good plan, removing about one-fourth the berries.

**Wasps** often injure fine specimens of fruit. This may be prevented by inclosing in gauze bags.

## VEGETABLE GARDEN.

**Bush Beans** for a late crop may be sown, as they grow quickly, now; a rich, deep soil for tender pods.

**Celery.** Crispness is promoted by the use of good manure. The soil can hardly be too rich, and free-watering is also very beneficial. Planting for the main crop should now be done.

**Cucumbers** for pickles planted early this month usually do well, but it must be early or not at all.

**Herbs.** A little before these come into full bloom cut, tie into small bunches and dry in shade.

**Lima Beans** now push ahead rapidly; let them be tied to the poles as they need. Bearing commences in good earnest only when the tops of the poles are reached, hence these must not be too high; eight feet is enough.

**Melons** making a strong growth should be stopped at one joint past the last fruit about the end of the month, to favor maturing of all the fruit set.

**Radishes** for use during winter may be sown.

**Rhubarb** should rest during fruit time.

**Seed saving** is an important matter. Let the earliest and best specimens be spared for this purpose, marking them to insure their preservation.

**Seed sowing** of such things as Sweet Corn, Kohl-rabi, Lettuce and Turnips, besides the kinds named under the special heads, is yet in order.

**Slugs** sometimes prove quite injurious to late-planted cabbage; they can be kept off by putting a handful or two of coal ashes around the stem.

**Tomatoes** do better staked or trained to a trellis than when spreading over the earth, the fruit being more abundant, finer looking and of better flavor. A single stake will answer, but any simple trellis that will admit of spreading the vines is better.

**Turnips** should be sown during the month.

**Weeds.** There is no time like a dry spell for killing weeds. Brought up now and they will dry and die, which cannot be said of most of them when wetness prevails.

## FRUIT AND VEGETABLES UNDER GLASS.

**Grapery.** Give an abundance of air to all vines upon which the grapes begin to color. The vines should be looked over and have all laterals stopped; late ones may be fertilized with manure water. Those late kinds, that it is intended shall hang on the vines until Christmas, will be improved for having the scissors passed over them to remove all imperfectly fertilized berries.

Vines in early and mid-season houses, need thorough cleansing as they are cleared of fruit, as the perfect development of next year's fruiting buds depends upon having clean, healthy foliage.

**Peaches,** after fruiting, the trees being in pots, should be moved into the open air and in some sunny position, plunging the pots to their rims. In young plants started one year from the bud, the tree should have been headed back two feet in the spring. As the new shoots reach one foot in length pinch out the points, and after this any laterals at the fourth leaf, up to autumn.

**Strawberries.** Young plants must now be started in pots for next winter's crop. Fill as many three-inch pots as it is desired to have plants for forcing and sink them to the rim along the rows of stock plants. The earlier this is done after the layers start the better, for the stronger the forcing plants are by winter the better.

The layers will need directing to the pots, and can be kept in place by a layer hook, stone or clod of earth. By keeping the pots well watered they will be rooted in about three weeks.

After this place in the shade until the pots are full of roots, when they should be shifted into six-inch pots. Pot rather firmly into good fibrous earth afterwards, standing the pots in an open airy place and giving them all the water they need.

**Tomatoes** are not difficult to force for winter fruit in a temperature of 60°. Seed sown early in this month can be had to fruit in November.

The plants should be brought along in pots, starting the seeds in the three-inch size and bringing them up to the 10-inch or 12-inch size for fruiting.

A light, fibrous soil should be used, and if a six-inch potful of bone-meal be mixed into every bushel of soil the plants will be delighted. They cannot bear a sour, stiff soil.

# INQUIRY COLUMN

This being the People's Paper it is open to all their Inquiries, bearing on Gardening.

On the other hand, answers to published inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and localities being so different, they prefer to receive answers, even several of them to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer; give facts and ideas and the editors will see that they appear in creditable shape.

In writing, give the number of the question you are answering; your locality and name, the latter not for publication unless you desire.

Answers will be gladly named provided first, that no more than three be sent at one time. Second, that these be fully prepaid. Third, that several specimens of each such as in good shape. We cannot undertake to name florists' varieties.

87. **Plant for Name.** Would you kindly name the enclosed flower, the plant of which I bought at the market but could not learn its name. S. B., Philadelphia, Pa.

88. **Dahlia, etc., Devoured.** Some of my Dahlias and Balsam Pears grow a few inches above ground, and then some insect or bird eats off the hearts or leafbloms, as well as any new ones that start later. Some of the leaves are eaten off partially also. Can you tell me the cause and a remedy?

89. **Lemon from Seed.** I have also a very handsome Lemon Plant from seed. It is almost two feet high, and being about two years old. Query: May I expect such a one to bear fruit in time? What treatment should it receive? C. W. MEIGLER, Jersey City, N. J.

90. **Ornamental Grasses.** Some mention was made of these recently in POPULAR GARDENING. Can you inform us where a good selection of such may be bought? ROSE MARY.

91. **Daffodils.** Will the better kinds of Daffodils do in an ordinary grass plat, where the old yellow doubles flourish? My only fear is that the cultivated bulbs should not have strength to push through the matted roots of the old turf? I thought of planting Barrii, Obvallaris, Juncifolius, Fulboodium, etc. SYLVANUS.

## REPLIES TO INQUIRIES.

53. **Callas.** I grow my young plants in light soil that is made very rich with fine rotten manure, in some shady spot, until September, when I pot them. The fact that your plants are drawn, while this is not to their advantage, yet they may make good plants by this treatment. The old plant I would also plant out; the chances are that the soil is sour, causing the leaves to curl downwards. A. H. E.

70. **Bouvardia Humboldtii.** Cut back in the spring nearly to the root and plant out. Keep pinched until the last of August; lift and pot in September. Shade for about a week, and by keeping the atmosphere quite moist you will get flowers. Perhaps "Anxious" got his or her stock from Philadelphia, or if it even came from there it had better be thrown away, as there was a lot sold as strong, growing plants that would never bloom, though I think it is all gone now. JAMES FROST.

68. **Ants.** Mix arsenic and sugar, and sprinkle around the ant holes. Cover with a box or pail and put a stone on top to keep in place. N. M. P.

**Slugs on Roses.** An even teaspoonful of Paris green in twelve quarts of water, and kept stirred up. Sprinkle the bushes just enough to wet them, after the slugs come. Needs to be done but once in a season. One teaspoonful of Paris Green is enough for sixty rose bushes. N. M. P.

**Shading Plants.** The best way to shade transplanted plants is to stick leafy branches on the south and west. N. M. P.

87. **Plant for Name.** It is Veronica amethystina. EDS. P. G.

90. **Ornamental Grasses.** The regular nurserymen who grow ornamental stock and hardy plants should keep these. EDS. P. G.

75. **Cactus, How Often to Water.** Under ordinary culture the plants should have a rest during November, December and January. When very little if any water will be needed. At other times they may be watered twice a week, giving more water when growth is rapid than at other times. Two rules should be laid down to guide in this matter, namely: The soil must *never* be allowed to get stagnant from over watering, and plants should never become so dry that the flesh becomes shriveled and the skin dull and lax from lack of water. A. H. E.

79. **Dracæna.** These plants often suffer from lack of drainage, causing the soil to become sour. Repot into fresh soil, providing ample drainage. A. H. E.

80. **Bermuda Lily.** Plant out after flowering in pots. It is no help to Lilies to dry them off. Mrs. G. C. LARD, Bacon Co., Mich.

81. **Wind-break.** We would class White Pine, Austrian Pine and Norway Spruce among the best of trees for this purpose. EDS. P. G.

86. **Hedges.** For making a quick growth and as being easily cared for, we think no evergreen hedge plant superior to the Norway Spruce. EDS. P. G.

# The Household

## Visitors and Visiting.

It is one of the real accomplishments to know how to visit, and how to entertain visitors with genuine delight all around. During the summer, many city people are so glad to get away from the dust and heat of their surroundings, that their friends in the country are sure to not want for a chance to entertain them. A few words on both sides of these subjects may be in order here.

Sensible visitors will endeavor, above all else, to adapt themselves harmoniously to the customs of their entertainers; to make their kind friends feel uncomfortable by seeming to expect that of which their circumstances do not readily allow, is a poor way of making a visit generally pleasant. A striving to have the household machinery of the home visited go on as usual, and no one specially inconvenienced by the presence of the visitor, is one of the first secrets of agreeable visiting.

Considerate visitors will also be careful how they impose any extra work that they could do themselves upon the hostess, perhaps already overworked.

This would especially apply to things in the line of adding to the laundry work; rather than do this, in case there is much fine washing and ironing, the visitor had better hire a laundress.

Likewise, it must be remembered that the children of visitors, even if well-bred, require more watchful, anxious care when in the country, than when at home.

The sensible hostess will be conscious of the fact that the pleasure of a visit to others depends more upon the spirit which is pervading in the home, than upon its location and surroundings. Instead of making a forced effort to elaborate entertainment, the country housewife should bear in mind that her friends are with her largely to secure rest, quiet, and pure air. The table can hardly fail to please, if plenty of fresh vegetables, ripe fruit, milk, cream, fresh eggs, and good bread and butter are upon it. These articles in their excellence are none too well known in city homes, and often make up for many other shortcomings.

The English mode of entertaining visitors might oftener be advantageously adopted by us. Their guests are usually invited for a specified time, and rarely for more than a week. They are welcomed to all the facilities for comfort and diversion the house affords, but the hostess is not expected to devote any of the morning, and only what she can spare of the afternoon to their entertainment. This course provides for both parties a kind of freedom that is very acceptable; while the private apartments of the hostess are considered sacred to her use, and affords a retreat safe from all intrusion, at any time.

We are pleased to note that in many places Americans are profiting by England's example in these matters.

## Brieflets.

**Never** slam the doors.

**Roll-call** the baker's cry.

**Slightly rancid** lard may be freshened by boiling a raw apple or potato in it.

**Flavoring extracts** are volatile; the bottles should be kept well corked.

**Oh, yes!** Thirteen persons is really an unlucky number at the table when the dinner is short.

The girls can now add a vase of flowers to the dinner table to make the meal more delightful.

**How a few drops** of oil sometimes applied does help in running the carpet sweeper and clothes wringer.

**Have you tried** the agreeable change to lemonade as a dinner or supper drink? It is wholesome and not costly.

**The brass and copper kettles** need to be bright before using for fruit. They are easily cleaned with salt and vinegar.

**By setting** layer cakes in their pans on a wet cloth for a few minutes, when taken from the oven, they will readily turn out of the tins.

**Who has not been annoyed** by an ironing blanket shoving about? It can be prevented by sprinkling the table with water before spreading it on.

**White Willow** furniture, so cool and comfortable, is not pleasant to see when once soiled. Paint is the best remedy, but a wash of salt and water may help some.

**A correspondent** furnishes her mother's well-tried receipt for a baked custard, as follows: To each pint of milk, take 3 eggs and 2 tablespoonfuls of sugar; bake slowly; it will be improved by first boiling the milk.

**Colanders** find a wider use in some households than in others. They are convenient for draining the dishes, as hot rinsing water can be poured over them without being handled; while those who try them for washing dried or fresh fruit, are apt to like them as well as we do. So writes "Reader."

**Napkins.** We agree with *Household Words*, that the proper way for a guest to dispose of the napkin after dinner, is to fold it, not too carefully, and lay it at the side of the plate without comment. At public houses we, ourselves, feel disposed to rumple them up just enough to unfit them for being used again.

**Care in washing** promotes the wear of garments. Dark or bright colors can often be set by using salt or alum in the water; put plenty of bluing in the starch and have it well strained for the former, drying in the shade; avoid changing flannels from cold to hot water, and add borax for white flannels or blankets, also in washing red bordered linen. Boiling water will remove fresh fruit stains. Oxalic acid should be rubbed on rust spots while washing, then thoroughly rinsed out. Ammonia or salsoda is useful to remove blood stains.

# Poultry.

## Eggs by Weight—A Much Needed Reform.

It is not creditable to the vast egg producing and consuming interests of our country, that eggs are still sold by count. Why a dozen eggs that turn the balance at two pounds and over, as those of Brahams usually do, should command no higher price than others (they are plenty enough in the markets) which weigh no more than a pound and a half per dozen is not easily seen. To sell the former amounts to giving customers one-half pound or more of rich food outrightly; to raise the latter is to take advantage of a premium offered for inferior products.

The selling of eggs by weight, is as practicable as the selling of any other commodity in the same way. It is done at the present time in many parts of Europe and in California in this country. It would only require that producers would insist upon the system being adopted. It is a matter for our poultry associations to take a hold of in seeing introduced. Once the plan of weighing of eggs inaugurated and it would rapidly be adopted. Soon we would no more think of returning to the count plan of making sales than we now would think of buying nails by count, as was formerly done. The system belongs to a barbaric age, and must go.

A writer in *Our Country Home* calls attention to the fact that Bantam eggs weigh fifteen to the pound. They are over one hun-

dred per cent larger, according to the weight of the producer, than the average.

Brahams of 7½ pounds (average weight) produce two pounds two ounces per dozen; common fowls of 4½ pounds (average weight) produce one pound two ounces per dozen; Bantams of 22 ounces (average weight) produce twelve ounces per dozen.

Were eggs sold by the pound, it would be an easy question to settle that Brahmas and Bantams would become the most profitable of all fowls as egg producers. Brahmas produce their eggs in winter in greater proportion, which would more than balance the greater number from Leghorns in the summer.

## CONDENSED POULTRY NOTES.

**Place** the poles all on the same level.

**Milk** belongs to the class of best feeds.

**Egg flavor** depends much on the food.

**Nests** should be in a darkened part of the house.

**Because** meat fed moderately is good for layers, do not make the mistake that a good deal is better.

**To invest** in fine breeds is a course to be commended, but to dabble in too many varieties, is quite another thing. Don't do the latter.

**Kerosene** is a useful insecticide, but it must be rightly used. If applied to the roosts, the parasites will die, but if to the head or body of the bird, the latter will be killed.

**Always feed** growing fowls on good grain and meal; it is the cheapest in the end, and the low-priced grains and poultry mixtures advertised, often are dear at any price, where plump, well-grown birds are desired at an early age.

**If fowls must** be prevented from flying, instead of shortening the feathers close to the wing, open one of the latter and pull out the first or flight feathers, usually ten in number, and the matter is accomplished with no detriment to appearances.

**If you want** to stop your light Brahmas from laying, feed them all they want. We have found that the egg production of this breed, more than of any other, is lessened by over-feeding. Feed twice a day, giving no more than they will eat up clean before resting.

**Check the Guineas.** A Virginia correspondent who always raises some Guineas, says they must be eaten as soon as grown to be at their best. Besides, when they are older they chase and pick any timid hens they may be confined with, and at a year old will kill little chickens.

**Gardening Illustrated** talks sensibly when it says that much may be done by gradually building up a laying strain in any breed of fowls. This, by breeding only from hens which have proved themselves to be capital layers. It is astonishing what can be done by following this plan for some seasons.

**What causes** eggs to have blood spots sometimes, may be difficult to answer, but we are of the opinion that it comes from being fed on too stimulating food, as an abundance of animal food. Of course in some cases it would have to be laid to some disorder of the egg organ, but we think not always.

**Young Turkeys** are very destructive to insects if allowed to run in the garden. They will run among the plants and snap up every bug or worm with great rapidity. Even insects that are on the under side of the leaves, will not escape them, for they turn their heads to inspect the lower sides of leaves. Young chicks will not begin to compare with young turkeys for this business.

**Don't try** to break up an untimely setting hen by the cruel, yet ineffectual, plan of half drowning her. Take, instead, a headless cask, invert it over her, allowing it to rest on three bricks, and bore a hole in the top for ventilation. Water and scanty food should be provided just outside the rim. A week or two of such treatment will usually convert biddy into a more sensible hen.

**Some fowls** that will resort to eating the feathers of others are found in all collections, at some time or other. The cause of this habit is not satisfactorily understood, and the safest way to deal with it is to kill the offenders. The habit is catching, and one feather-eater tolerated may make many others. If the addicted fowl is too valuable to kill for any cause, we would attempt a cure by complete isolation, change of food, and induce employment by providing a rubbish heap or newly turned up soil for scratching.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU BUT THINE." MILTON

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## Summer Hymn.

O Spring, Spring, Spring, how fair art thou—  
An April time of smiles and tears  
Till summer with the sunny brow,  
Thrice-welcome guest, at length appears.  
When wood and field are crowned by June,  
Rich garlanded with leaf and flower,  
Then hearts of men are all in tune  
With summer's plenitude of power  
The fairest scenes crowd into view  
The deep-blue sky, the purple hills,  
The meadow flowers of varied hue,  
The placid lakes, the sunlit rills.  
Then joyfully, in grateful mood,  
Our hearts and voices join to praise  
The great Creator of all good,  
The giver of glad summer days.

—The Quiver.

## The Pansy—Now is the Time to Sow.



During this month and next the well-informed plant grower who desires to have Pansies in flower next spring sows the seed. It is such an easy feat to raise these lovely favorites that no amateur should feel contented with his or her garden-

ing accomplishments who does not feel well able to grow them. Elsewhere in this issue are given full directions as to the matter of raising fine Pansies.

The universal esteem in which the Pansy is held has more than once been referred to in these columns. Were some tangible proofs desired as to this we think none better could be offered than the fact of its bearing so many common names, a most obvious sign of popularity. It may be interesting to here enumerate those which have come under our observation:

Pansy,	Pansy Violet,
Hearts-ease,	Johannie Jump-up,
Pink of My John,	Love in Folliness,
Call Me to You,	Three Faces under a Hood,
Jump up and Kiss Me,	Kiss me at the Gate,
Flower of Love,	Herb Trinity.

The kinds of Pansies are now so numerous and varied, and withal so distinct from the really wild species of violets in cultivation, that it is difficult if not impossible to trace their precise origin. It would seem from the brilliancy of the color and the amplitude of the blossom that the parents of the race must have been mountaineers, for this much is certain, that in other families we find similar strong qualities only in species that are peculiar to high elevations.

The cultivation of the improved Pansies dates only from the early part of the present century, but even then it was many years before anything like the present attainments in size and beauty were reached. Formerly the English, French and German gardeners were looked to for supplies of the finest seeds, but of late years Americans have

given Pansy culture so much attention that now we need not depend on foreign supplies.

## Keep a Lookout for the Pear Blight.

This appalling disease, the sign of which is the blackening of the branches and foliage and the emitting of a peculiar putrefactive odor, is now so widely spread that everyone having Pear or other trees in charge, should be on their guard against its presence and increase. It is also popularly known as Fire Blight and Twig Blight.

Of the many theories that have been advanced to account for Pear Blight we shall have nothing to say here, beyond this, that the very careful experiments conducted in recent years at the New York Agricultural Experimental Station at Geneva would strongly indicate that it owes its existence and spread to the influence of those minute organisms known as bacteria. One thing has been clearly shown, and that is that it may be transmitted from tree to tree by inoculation. It is conjectured that its ordinary means of transmission is through the bacteria escaping from the tissues of the diseased parts in slimy drops, during damp weather especially, and after being freed by rains, and upon becoming dry, are taken up and carried by the wind to new trees.

What our readers will be most interested in is to know the best means of controlling the disease. There can be nothing suggested that promises so well as the prompt removal with the knife of every trace of the ailment. As the blackened leaves (usually the first sign of its presence to ordinary observation) do not develop until the disease has been in progress for two, three or more weeks, one should observe the caution not to cut so scantily. Any part that is affected should be removed some inches below the lowest part of leaf or bark discoloration, and it may be unnecessary to add, such parts should be promptly burned.

In cutting out Pear Blight care should be taken never to allow the knife to enter any diseased part, as this would open the way to spreading the disease to any new place where the knife was later used. An orchard where the disease has appeared should be regularly gone over about once every two weeks, removing every diseased portion. In this way it may, under ordinary conditions, be kept in check so well that no serious loss should ever follow, unless, as it might happen, that the disease had found access to the trunk of the tree.

## The Panicle-Flowered Hydrangea.

Throughout September and even later this fine shrub of comparatively recent introduction will be in its attractive season.

Still the beauty of the shrub will depend much upon the weather, or in absence of

favorable weather, the attention it may receive; not that it is to be classed among shrubs that are difficult to grow, for none is easier, but we desire to say to the many who may be growing it as a new shrub, that a little treatment may often help it very much during the blooming period.

To have the flowers at their best there should be plenty of moisture at the root during bloom, and the soil in which it is growing must not be poor. If the floriferous habit of this plant be properly sustained in these simple respects the blooms will be very large and handsome, but otherwise they will look flabby.

In case the soil is lacking in fertility this may now be supplied by free applications of weak manure water, or a mulch of well decayed manure over the roots, with liberal watering at intervals to carry down its strength, would help to the same end.

As to the supply of moisture, ordinarily it will not be enough to depend on an occasional shower—the hose nozzle should be sometimes turned upon it, unless the season happens to be positively wet.

When well grown it is no strange thing to see on the shrubs of the Panicle-flowered Hydrangea, which have reached a height of six or eight feet, several hundred of the immense rose and white panicles at one time. These properly sustained, and for a long time they present a fine appearance, hard to be equaled among shrubs.

The fact that this Hydrangea is in bloom at a time when nearly all other shrubs have passed out of bloom renders it all the more important to now bestow upon it a little attention, with a view to increasing its attractiveness when the blooming time arrives.

## A Garden of Hardy Plants and Bulbs.

Mrs. M. A. Bucknell, of Madison Co., Illinois, can well afford to talk with enthusiasm of her garden, for no doubt it is a fine one. One peculiarity about it, which we heartily commend, is that it is largely made up of handsome plants which are gathered in wild places and elsewhere, many of which take care of themselves year after year. Here is her interesting letter about them:

I am much surprised to see so many home grounds in summer and fall a blaze of glory with annuals, but which in the spring are nearly or quite bare of bloom. Rightly managed and one should be able to gather from the garden a bouquet, small it may be at first, all through the season from April until November.

In some years the first day of March has found Snowdrops out in my garden. In a few days later the Crocus came along, lifting up their happy faces—yellow, purple, white and striped. Then soon after appear the Violets of different colors—blue, white and yellow, the latter brought from the woods, the "Dutchman's Breeches," a miniature

Bleeding Heart, with finely cut leaves and small, pale pink flowers, Blue Bells, Adder's Tongue, the bright blue Spiderwort, the white flowers of the Blood Root or Sanguinaria, Wild Phlox and Candytuft—the latter being the perennial sort.

As for beautiful wild plants, I cannot now recall all of my wood beauties. I generally go fishing every spring, but really fish for flowers more than for fish, and usually have a good showing for my day's work. There are so many wild flowers everywhere that if one only keeps his eyes open for them they may find many handsome kinds to beautify the garden.

To return to the blooming plants. There is the bed of the Ever-blooming Roses, which, in good soil come through the winter all right if protected in the fall, and before we think of it almost, yield many lovely buds and roses,—and all summer long.

Summer Pansies: who cannot find a corner where the sun will rest lightly for a spell in the morning? In such a one plant these lovely flowers, and you will have pleasant returns, if they will equal some I have had.

Then there is a long list of bulbs, roots, and plants which increase of their own accord to make the garden beautiful without having to buy new stock every year. Fearing to be tedious, I will close by giving my favorite list of kinds, and which yield an abundant supply of flowers the whole season through: Snowdrops, Crocus, Anemones, Hyacinths, Tulips, Iris, Narcissus, Jonquils, Dicentra, Peonies, Perennial Phlox, Columbines, Larkspur, Feverfew, Dianthus, Snapdragon, Foxglove, Petunias, Poppies, Roses, Phlox Drummondii, and there are even others.

#### How to Raise Fine Pansies.

The requirements in Pansy culture are few, simple and easily bestowed. Indeed so true is this that we are led to look upon the favorite Heart's-ease as almost an ideal flower for the amateur, so far as ease of culture, beauty and productiveness are concerned. While it is possible to propagate the plants from cuttings, this is not a light task, neither is it often a desirable one, in view of the readiness with which they may be raised from seed.

**KINDS TO GROW.** By ordering a choice strain of mixed Pansy seed from any reliable dealer or grower there would no doubt be realized the greatest degree of satisfaction in the culture for the least outlay. But for our own part, we take so much satisfaction in growing the finer varieties separately, even at an added cost, that we freely recommend such a course. The distinct varieties are now very numerous, including many Self-color Pansies from snow white to jet black, Shaded Pansies, Olier or Five-spotted Pansies, Face or Three-spotted Pansies, Bordered Pansies,

Fancy Marbled and Striped Pansies, with distinct colors under each of these classes. Kinds that it may be said have given special satisfaction to us are the Emperor William among Three-spotted ones, the Bordered, Striped and Mahogany colored varieties, and some of the Self-colors, although there are many other quite as fine ones besides.

**TIME TO SOW.** Spring and early Summer being considered the most desirable season in which to have the plants in bloom, for making that time the seeds should be sown during this month or next. A favorite date of ours for sowing has been about August 20th, although we have often started them both



*Pansy, Emperor William. Dark blue*



*Bordered Pansy, Purple with white edge.*

earlier and later (especially later) by some weeks, with complete success.

**THE SEED BED.** The seeds should not be sown where they are wanted to flower, but in a prepared bed. This may be in the shape of a low frame, or merely a box or pot. Use light sandy soil that is moderately rich and fine in which to sow. Cover the seeds one-eighth of an inch deep, afterwards pressing the soil over them gently. Keep the bed moderately wet and shaded with whitened glass or cloth until the plants are well up, when the shading should be removed.

**THE PLANTING BED.** This should be made up to be pretty rich, and if possible of soil that is light enough not to bake. The Pansy is not very particular as to place, or even as to soil, provided it is not low, wet or heavy. For spring flowering we prefer a sunny exposure to a shady one, although they will succeed in the latter also. As to richness, if the soil consists of two parts loam to one part of old finely divided manure it will be about right. The addition of some wood's earth, and if not naturally light some sand, will also improve it. To provide dryness we have the plant bed raised somewhat, say four inches above the common surface after settling has taken place. If the bed be surrounded by a six-inch board frame, it will aid in protecting it until flowering time, when this can come away.

**TRANSPLANTING** the seedlings into the plant bed from where they were sown should be done as soon as they can easily be handled, setting them firmly into the soil and about four inches apart. This done, the soil should be kept stirred slightly between the plants, keeping down all weeds, and if it becomes dry, water. Here they should grow rapidly enough to make plants several inches across in size before winter.

**CARE FOR THE WINTER.** Young Pansy plants winter about as readily as young Winter Wheat plants do, both being sown about the same time. We do not care to cover them, except lightly. This is done late in autumn, after the ground is frozen, by scattering an inch of Timothy or other springy hay over the surface of the bed. A few brush or sticks to keep down the cover are also good things to apply. On the whole we think the use of glass is to be avoided, as being liable to make drawn plants.

**THE FLOWERING TIME.** As soon in the spring as the frost has left the ground the beds should have their winter cover removed; now the season of bloom is near at hand. The plants may be allowed to flower in the bed in which they have been grown or as the first flowers appear they may be transferred to other beds or the border, or be planted into pots or vases for flowering. In any case, as much earth as will adhere to the roots should be moved with the plants. The Pansy being a plant that de-

lights in moisture and good living, it is well to water the plants occasionally if the season is inclined to dryness, and also to give them a supply of liquid manure twice a week during flowering. This last act will tell wonderfully on the size of the flowers. Pansies may usually be counted upon to flower to perfection until some time in June, when free seeding takes place. Should the plants be kept cultivated and the seed pods be removed early they will, especially if the season is damp, give a good deal of bloom yet during the summer months, and with an increase towards fall. Still the height of the season is fitly enough in the spring-time; many growers prefer replacing the Pansies with summer flowers towards July.

#### On Sowing Perennials—A Timely Task for August.

BY W. F. LAKE, WAYNE CO., N. Y.

Those who desire to establish a border of hardy plants, or to improve one now possessed, should at this season give attention to sowing seed for the purpose. In this class of plants are included those known in the catalogues as biennials and perennials. The seed can hardly be ordered to soon after August 1st to get a timely start in the matter. For a seed bed for this class, instead of selecting the warmest and sunniest place, as was done in sowing the annuals, a cool, partly shaded, moist situation is better. The surface should not be raised above the level of the ground more than an inch, as the hot and dry weather of August would be apt soon to dry them up and destroy the smaller sorts if the beds were raised.

In the preparation of the soil of this bed care should be taken to pulverize it, especially at the surface, very finely. Should the

soil show an inclination to bake or crust over it may, in a measure, be prevented by a covering of old fine top or leaf mould which also contains the moisture. In any case this covering is valuable provided it is not too coarse, a matter which may be controlled by the help of a garden sieve. Attention in regard to supplying sufficient water to the bed is necessary until the seedlings are well through, as the top soil is liable soon to dry out.

Many kinds of perennial seeds are slow to germinate, and the plan of soaking them in luke-warm water for 24 hours may be adopted with advantage in most cases.

This class of plants is not as a rule suited for lawn decoration in the tidy bedding system, as they do not keep in bloom sufficiently long, yet to many they are the most interesting class of flowers grown. Many of our native plants may occupy a prominent position with this class, besides every desirable variety the seedsman has to offer.

In planning the hardy border some taste in arranging should be exercised. A nice arrangement is to plant each kind in a group, mixing the colors and placing some small growing ones between groups of taller plants. Hollyhocks and other similar tall plants should be used as screens, or else planted at the back of the bed, gradually coming down to the small edging plants in front. Some prefer mixing them up, all sizes and kinds together, giving them more of a natural style.

#### Those Designing (?) Florists.

Our Sunflower Reporter on his vacation gets alarmed and writes an earnest letter on his own account, which we print as received: *Home Office "Popular Gardening."*

Information reaches me that a large body of Professional Florists will soon move towards Philadelphia ostensibly to hold a convention. It is said that they will number into the hundreds, and many will reach the city under cover of night. I do not like the looks of things and desire that the people of the land be informed about these men, their ways and intentions.

First it should be known that a more designing class of men than these florists nowhere exists. I doubt if even the planners of Chicago dynamite bombs can compare with them. They plan, they scheme, they work, and far into the night often, that they may relieve the purses of the people in the day. They love darkness rather than the light for carrying out their deepest laid, as well as their worst designs (had Carnations run in), that such work shall not be so manifest.

But a chief trait is that to a man they seek to impose their night-wrought floriferous designs, upon the estimable ladies of the land. The wives and daughters of America are their most-prized victims; they even delight to entice innocent children, by offering "Jack" buds "at half-price—seventy-five cents each."

What I think is most to be feared from their visit to the city of Independence Hall, is some special designs on that lady dear to every patriotic heart, Miss G. O. Liberty. To the unsuspecting perhaps this will seem a far-fetched fear, but I know whereof I write in saying that they would enjoy nothing better than this. Let one but learn how these same men have imposed to distraction upon our good old Mother Nature, to show whether or not such fears are ungrounded.

By their arts and devices they have so worked upon this estimable dame that she now is in the wretched condition of believing that black is white, winter is summer and summer is winter. The good lady started out managing her affairs, as the writer grows his favorite

Sunflower, namely, that in winter plants should rest and in summer they should flower and seed. But these designers met her in her garden and asked to manage things for a while in their way. When she, not thinking of their designs, consented, they took of her plants, and actually forced them before her eyes to reverse their habits, causing them to rest all through the growing summer and then to bear their largest crops in the cold, cold midwinter. Why the precious dame became just that muddled as to yield to their every beck, and now a long-suffering public must take of their forced products, at a hundred times the price of fine Sunflowers, or else have none.

All this being history, is not the alarm of knowing ones warranted? To be sure, we know not the fullness of their designs (probably containing more paper than Sphagnum) at the coming meeting, but it bodes no good to our American goddess. Think of the consequences should they succeed in imposing on this worthy lady, as they before this have done on Dame Nature and others.

What shall be done? Let all patriotic citizens at once arise in their might, and in the intervening short time before the meeting, let them raze from the earth (about two feet high I would suggest, so that the free air can circulate beneath) every glittering hot-house of this crowd. Thus may they become, in a measure rescuers to dear Mother Nature, and at the same time inflict such a severe reproof against further similar machinations as to avert disaster at Philadelphia. But no time must be lost, for even now these fellows are plotting to insure their glass houses against all damages from (hail) stones and the like. This brought about and Mr. Professional Florist would forever be secure against the attack suggested. For, dwelling as he does in a glass house, he could then boldly enlarge on his high insolence, and even enlarge on some of his present big flat designs, and in defence throw stones as he chose, for outsiders could not with any decent effect throw them back—his houses being safely insured against such loss.

My humble suggestion is that in the next issue of P. G. our free citizens should be urged to quickly come to the rescue, as suggested. I mention in passing that I saw on the way here two fine specimens, one eleven feet two inches to the top flower, and the other lacking an inch of eleven feet. I engaged some of the seed.

SUNFLOWER REPORTER.

*Gravel Plain, Mass., July 20, 1886.*

#### Notes from Lyndale.

BY A. H. E.

Much as I admire the beauty and sparkle of the carpet flower beds and the massed beds here, still when I seek the highest enjoyment for the longest period in my garden I am drawn to the more naturally arranged mixed borders. The former are bright and rich in appearance—both desirable qualities,—but there is in them from day to day but little changing interest. Once seen they are, for me, about as well as seen for always. These beds, however, excite the greatest enthusiasm in the minds of my visitors.

\* \* \*

Still I never can go as far as some strong advocates of hardy plant culture do, and say that the masses of Geraniums, Coleus and the like, or the skillfully wrought carpet beds, have no place in the true garden. All of the floral creation is man's and the fullness thereof, and I have little patience with any system of gardening that would crowd out one class of plants to the advantage of others. The trouble is that in some places there has been a tendency to overdo the fancy bedding, and in coming to a halt in one extreme course there has been, human nature like, quite as strong an inclination to go off into another extreme. Let us keep to the middle of the garden walk, taking in the beauties and the gains of both lines of adornment at the

sides, instead of taking to the one side or the other and making faces across the way.

\* \* \*

With my borders of hardy and other plants, shrubs, etc., the first sight may be comparatively disappointing, but there is something varied and always changing about them to fascinate the lover of plant life. From March until November every day reveals some new flowers or other forms of beauty. Drawn to these beds daily by the expectation of meeting something not seen before I am never disappointed. Growing flowers as I do for the pleasure they afford, my mixed borders, even though in a measure they may be untidy, as compared with the formal geometric beds, give me the largest measure of satisfaction. In them Nature has her own way largely, and Nature seldom fails to satisfy the mind.

\* \* \*

One thing that, to my mind, has had its weight in giving a distaste for carpet bedding and massing has been the bad work that has been too much done in this line. Seemingly a great deal of that kind of reasoning on the part of planters has prevailed that would say, "a Geranium of good leaf and rich flowers is a thing of perfect beauty, therefore a thousand Geraniums should be just a thousand times more beautiful," and out into the beds have gone the Geraniums by the hundred and the thousand. And these great masses of a single kind, while imparting a certain measure of a certain color, really prove to be little more than a great senseless, garish mass of color, affording very poor service in the line of true adornment. This is a mistake, and one bad enough that if adhered to would kill any system of adornment in time.

\* \* \*

In this kind of work to have it in good taste I endeavor in my gardening, first of all, to observe this rule governing the bringing in of color: All high colors, such as scarlet, crimson and yellow, are to be used much more sparingly than colors of a quiet or neutral character. The reason for this is that the former outweigh the others as it were, thus destroying what may be termed a good balance, a thing I always aim to secure in my garden.

I incline strongly to the idea that in geometrical beds there should be such a distribution of kinds and colors as will not give one a marked predominance over others. This principle then calls for a larger surface of the duller tints than of the bright colors. One of my latest conclusions in this matter is that if any tint is too predominate those of a light gray, whitish green or dull chocolate are the ones. These are colors of which, like that of grass, one never tires; the same cannot be said of strong crimson, scarlet or maroon.

\* \* \*

But shall there be no solid masses of Geraniums and the like? so one may ask me. My answer is my own practice—I always have of such. But my beds of these are so moderate in size and so seated, either on ample lawns or in the vicinity of striking objects, as trees or buildings, that they amount to but a little more than mere touches of their color on the scene, being subordinate to some other features of adornment of tamer effect.

From my window where I write I see across the lawn an oval eight feet in length, the outside a double row of Alternanthera, next to this one line of dwarf Ageratum, and the remainder Scarlet Geraniums, with a backing somewhat beyond of shrubs and behind these trees. The effect is very fine, and to my notion much better than if twice or ten times the number of Geraniums were used. My rule in such work is moderation, and then the results are seldom in danger of offending the eye.

\* \* \*

Reference was made in a recent number of your paper to the Red-flowering Horse-chestnut. The remarks were altogether too mild

in my estimation, for I prize this tree greatly. The largest specimen of its kind with which I am acquainted is here. It is nearly thirty-five feet high, being as tall but less dense of head than some other kinds of Horse-chestnuts planted at the same time. While the Double-flowering one, also referred to, makes a fine tree, the color of the bloom is similar to that of the white, hence barely more ornamental. But the rich crimson spikes of the red are most striking in any collection of trees, and so handsome that on this account the tree should be much planted. It may be added that being difficult to propagate it is always disposed to be scarce, even at the nurseries, but it can be procured.

#### Small Greenhouses for Amateurs

It is just one hundred years ago almost to a day since Cowper wrote the familiar line:

"Who loves a garden, loves a greenhouse too."

That which was true in his day is quite as true now. Still we may meet a hundred gardens whose every plant, shrub and tree tells of the owner's intense love of these things before we meet one amateur's greenhouse.

Now the state of things last referred to is not without cause. In the first place, everyone knows that the erecting of a complete greenhouse, however small, calls for something of an outlay. There must be a substantial structure, equipped with heating apparatus that is safe and efficient for withstanding the severest cold and storms, and ventilating apparatus to supply fresh air when needed, the latter snugly enough fitting to keep out cold air when not needed. These things require good calculation and careful workmanship from the outset, both of which are not the easiest or cheapest things to be secured in this world.

Then, while many who love a greenhouse might not mind the expense of erecting a suitable structure for growing plants, they would perhaps lack confidence in their ability to manage one, even if small. To employ a skillful florist and gardener, would be to go to a considerable and continued expense. Without a florist, to fail in one's own management from inexperience, would be a sore aggravation after the outlay for building had been incurred.

But while it is proper to keep in view the darker side even this may be made to assume quite a bright appearance. In the first place, it is a pleasure to note the fact that, through recognizing this wide love of greenhouses, a good deal of attention is in this day being given by horticultural builders, to the matter of conservatories for amateurs that shall embody a maximum of advantages at minimum cost. We are enabled herewith to present, by the courtesy of Mr. Josephus Plenty, the greenhouse builder of New York, several figures of one such a conservatory that he is now manufacturing and selling, all equipped for plant growing, at the very moderate figure of \$150. This is for a house eight by twelve feet in size, heated by a kerosene oil furnace and hot water pipes, and complete in every detail except the brick work.

This house is designed to be attached to the dwelling, just as everyone would want such a structure situated. It has a capacity of over 700 4-inch pots, a sufficient quantity to suit the average amateur. The buildings are first put

up with screws and bolts at the factory, and then when ordered are taken down, the parts numbered and securely packed, and forwarded with directions for setting up again. A catalogue giving further particulars may, on application, be obtained from Mr. Plenty.

Mr. Plenty's cheap conservatory may not be the only one of a similar kind made. We know that small conservatories are often built by others than regular greenhouse builders. Still it seems to us there must be real advantages both to Mr. Plenty and to the public by their dealing together. For one thing is certain, a builder can construct fifty such houses all alike at a much lower price for each than he could if building only one. On the other hand, one of the fifty no doubt would better answer the purposes of the plant grower than the one of special make, costing a great deal more money very likely.

As for managing a small well-equipped

white, yellow, rose, vermilion and maroon. Even purple and blue tints are to be had at last, in the exquisite new introductions. The genus is truly wonderful in its large blooms, richness of coloring and fine habit.

To produce the best results in *Amaryllis* culture the bulbs should be grown in rich fibrous loam, with one-fourth leaf mould, and plenty of well decomposed cow manure. The bulbs should be started in heat, and be given careful attention as to their ripening. When through flowering, diminish the supply of water gradually and avoid shrivelling the leaves. A moderate collection of the bulbs will give a succession of flowers the whole year round. When resting they require but little space, and should be kept in a dry, cool place. *Amaryllis* flourish in a fernery and here give splendid effect.

Some Dutch nurserymen offer a hundred or more varieties and species of *Amaryllis*, some of which are very costly. The amateur will derive a large amount of pleasure in growing *Amaryllis* from seed. A cross, using *A. Johnsonii grandiflora* or Prince of Orange for the seed plant, with some white variety, will give splendid seedlings as good as can be bought at prices anywhere from \$5 to \$50 per bulb.

W. F. L.

#### About Ripening Pears.

There is this peculiarity about pears, that if picked before full maturity and ripened in the house the flavor will be much finer and the appearance better. Gathering the fruit, of summer kinds especially, when it is hard, and ripening it away from the tree, tends also to prevent rotting at the core, a trouble that is not uncommon. On this subject we find the following good hints in the *N. E. Farmer*:

To have pears in perfection they should be picked when the early specimens begin to drop from the tree rather freely, or some ten days before the main crop would fall. They should be free from rain or dew, and be handled very carefully. A bruised spot soon rots. Place in shallow boxes; bureau drawers are excellent, with woolen cloth on the bottom and more cloth on top. Large quantities may be ripened between woolen blankets spread upon the floor of closed rooms and the Pears spread thinly out.

If it is desirable to have the ripening process retarded the coldest room should be selected, if wanted for early the room should be warmer.

Pears treated in this way will ripen up in perfection. The juices will be retained and a rich, buttery, melting morsel be the result. Some kinds that are coarse, puckering or mealy, when left to ripen on the trees, are quite eatable if allowed to ripen in a closed box or drawer. The Bartlett will ripen if picked before it is fully grown.

A villager having Pear trees with fruit upon them fully grown, has poor ground for complaint if he leaves it hanging upon the boughs a constant source of temptation to street boys, for it will be all the better if gathered early.

#### Bees Injuring Fruit.

A writer to the *Bees-Keepers' Magazine* reports on a test he made as to this matter last year. He built an enclosure of wire cloth and screen doors, into which he removed three colonies of bees, first transferring them into empty hives. Then he placed all ordinary

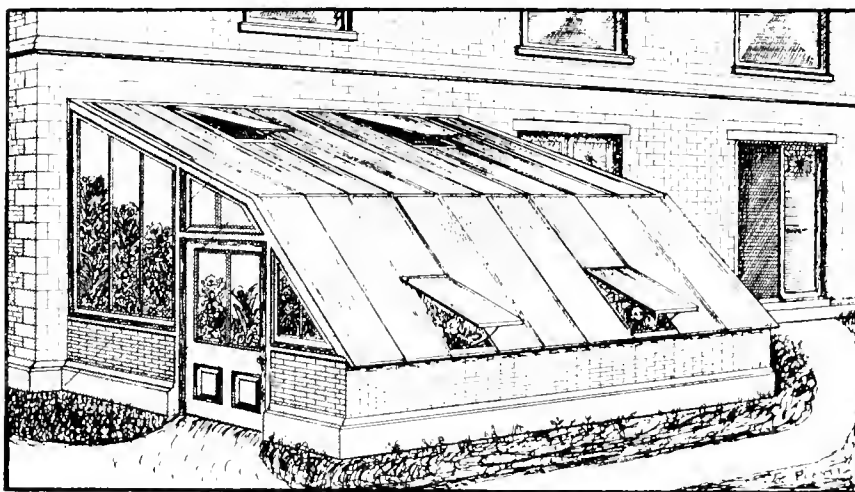


FIG. 1.—A \$150 GREENHOUSE FOR AMATEURS, AS SEEN FROM THE GARDEN.

greenhouse, this is not so hard a matter as many suppose. There are no mysteries connected with the task. Any ardent lover who can manage a collection of house plants well should succeed better still with a small conservatory, for in the latter case the difficulties are decidedly less and the advantages many more. The selection of plants would be enlarged upon, but reading and practice will teach for this. The fact that *POPULAR GARDENING* gives some practical notes each month on "Plant Culture Under Glass" may also be considered.

And then think of the charm of many healthy plants, beautiful in leaf and flower, that the attached conservatory may place within eye-reach of the sitting room or parlor the year round. The wind may blow cold and bleak outside—a step from your room brings the delight of fresh, clean, vigorous plants and flowers, restful to the eye, refreshing to the nose, and in such condition as never can be fully found outside of the greenhouse.

We look upon the builders of cheap and efficient conservatories for amateurs as real public benefactors. We hope they will not lack of the good patronage which they deserve.

#### The Amaryllis.

To name a finer genus of bulbous flowering plants than the *Amaryllis* is not easy. They throw up spikes from one to four feet high, surmounted mostly by trumpet-shaped blooms of largely varying sizes, some being nearly a foot wide when fully expanded.

The *Amaryllis* are very desirable plants for pot culture. The colors of the flowers are diverse and striking—rich yellows, flaked and spotted, pure whites lined and flushed with yellow, light rose, dark red and purple. Beside there are the fine *Sells*, nearly pure, of

kinds of fruit, and from green to ripe, sound to unsound, on shelves in the house, giving the

greatest charm of any grass plot. The weeds, too, would gain by the season of freedom.

We would not wonder either if in some such cases the owners might later turn upon their seedsman with the charge of selling only coarse grasses in their "fine mixtures," and with some show of wisdom, too, as they would point to the lawn before them as proof.

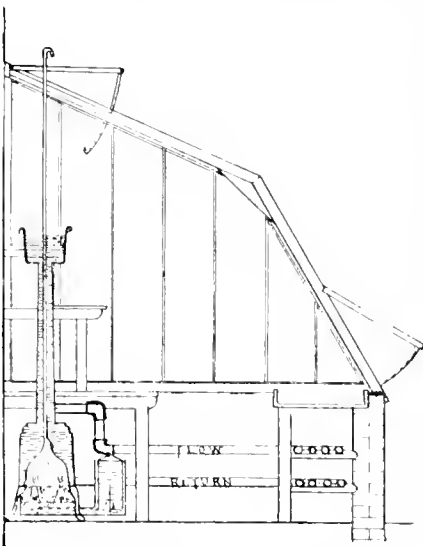


Fig. 2.—Section of the same showing heating apparatus and the ventilators open.

hungry bees every opportunity to attack the fruit. His report as to results is as follows:

"They took advantage of every opening at the stem or crack in the epidermis or puncture made by insects which deposit their eggs in the skin of grapes. They regarded the skin of other fruits as subjects for inquiry and investigation, and not objects for attack. If broken or removed they will, in case of need, lap and suck the juices exposed. The same was also true of grapes that had bursted on account of over-ripeness; the bees lapped the juices from the exposed parts and stored it in the cells. They made no attempt to grasp the cuticle of sound grapes. I removed the outer skin from many, taking care not to rupture the film surrounding the pulp. When these were exposed to the bees, they continued to lap and suck the juices from the outer film until it was as dry and smooth as was the film between broken and unbroken segments. They showed no disposition to use their jaws or claws, and the outer film, as well as that between broken parts remained whole until the pulp decayed and dried up."

**Lawns Running to Ruin.**

Many persons do not seem to know that to allow a well established lawn to be neglected in the matter of proper mowing is a ruinous practice. Not only is the appearance spoiled by allowing the grass for once or oftener to grow large, but vital injury is inflicted to the very foundation of a good lawn.

Let us look at this matter closely. A piece of sward, to answer the best purposes of a smooth velvety grass plot, should be made up of many grass plants crowded closely together. In this respect a lawn is very much like a closely planted hedge of woody growth. Standing closely, the plants in either case, must be managed on the principle of being kept to a miniature size in all respects to match, a thing perfectly done, in the case of a lawn by frequent mowing, of a hedge by systematic clipping.

Now to allow the crowd of plants to depart from the reduced scale, by growing unchecked as best they can, the growth of the individual plants will proceed somewhat on the principle of the survival—not of the fittest plants always—but rather of the strongest. The effect of this will be the enfeebling or crowding out of existence of some of the finer grasses, while coarseness will characterize such as get a start of their neighbors.

In the future such a lawn, if brought down to the close-mowing plan again, can never be had to look as well as it did before allowed to go on a rampage. It will be coarser and lack that fineness of textural appearance which is the

**Too Many Varieties.** The experienced orchardist seldom orders more than two or three sorts. The novice feels as though he must plant almost everything he ever heard of. This course is disastrous to the best financial results. Take, for instance, a list of twenty or thirty Pears and you will find few of them desirable for market. Many are too small, though of fine quality. Others are large and desirable for family but not for market. Others are feeble growers, requiring the highest cultivation and soil peculiarly adapted to them. It is usually the same with apples, grapes and other fruits. My advice is for the uninformed not to plant until he can find some person in whom he has confidence and who can advise wisely. Experimental orchards and vineyards are often conducted at considerable expense instead of profit, and yet the novice would make his commercial orchard an experimental orchard, embracing many varieties that the experienced would not think of planting.—*Charles J. Green, in New York Tribune.*

**An Eye to Weeds Yet.** Where the weeds have been closely kept down throughout the season until now, little trouble will come from them after this. But a few weeds no doubt were missed, and these, receiving the benefit of clean culture, are soon of large size and ready to perfect a vast quantity of plump seeds. Just to prevent this we must not give up the battle yet, for a few such plants would make endless work next year, while now it is a small task to level them.

**Shading Melons.** There may be something in the statement that in some parts of Asia where this fruit is much grown, they resort to ripening it in the dark, by drawing soil over the melons as they approach maturity. It is well known that some fruits grown in hot-houses are much improved in quality by shading the glass during ripening. The idea from Asia is so easily tried that we should not remain long in the dark concerning it.

**Clear Up as You Go.** Whenever any garden crop is past use for the kitchen it should be cleared from the ground. Such a course will keep the garden looking well and prevent the needless going to seed of plants. It should be remembered that the seeding of vegetables exhausts the soil more than two crops taken off in a succulent condition.

**That Strawberry Bed,** talked about so much before now, did you get it planted last spring? If not, just hold up talking of it for the future, and during this month (with pot-layered plants) or next get around the plants and set out over a good-sized patch. This talking about a thing and not doing the thing is delusive.

**Peach Trees between Apple.** It is a good economical rule to plant the former between those of the latter in the orchard or garden. The Peach grows and bears quickly, and will yield largely before the apple trees need the space.

A reliable writer speaks of an Apple tree he met with having 200 varieties grafted on it, four fifths of which were in fruit.

The refuse vegetables of the garden are not fit to save another year's seed from; save from the very best or from none.

Life is too short for us to depend wholly on our own experiments, therefore we must learn of and act upon those of others.

Before condemning new varieties, remember that failure in one place is not a sign of failure everywhere.

The more trees to the acre the more fruit some would say. It's a mistake; overcrowded trees are much more productive than crowded ones.

A foot-deep mulch of wheat straw is recommended by A. M. Purdy, in his *Recorder*, for Black berries.

Cover the young Cauliflower heads with tissue paper to keep off the worms, the rain and the sun.

We would like to see ten times more fruit consumed generally than now is done.

Keep the poor crops out of the market. Grow none.

Unthrifty plants suffer first from insects

**CONDENSED GLEANINGS.**

**GOOSEBERRIES WITHOUT MILDEW.**—Robert Hunter, of Mahoning County, O., says the *Country Gentleman*, has succeeded in growing excellent crops of the English varieties. He plants on a clayey, cool soil, and keeps them open in the center by pruning. In the spring he disbuds the branches somewhat, to keep the growth from becoming too dense. He mulches heavily in summer. The varieties he has found most successful are Whitesmith, Red Warrington, Early Sulphur and Iron-monger.

**FLAT STONES AS A MULCH.** I find them superior to any other mulching for newly planted trees and shrubs. Three years' use of them has proved to me their superiority. I use small pieces for small trees, larger ones for larger trees. I do not put them so close together as to exclude air. Stones also steady the young tree while forming new roots.—*Canadian Horticulturist.*

**RASPBERRY CANES.** After the fruit these canes are of no further use, and in due time will die. Cultivators differ as to the time for removing these old canes. Some cut them away as soon as the fruit is off, while others leave them until late in the fall, thinking that the old canes may contribute something to the growth of the new ones that are to bear fruit next year. The best cultivators cut away the canes soon after fruiting, as they are out of the way, and do not interfere with the new canes.—*American Agriculturist.*

**ABOUT PLANTING STRAWBERRIES.**—We do not advise anyone to set strawberries—ordered from a distance, before August; nor to set large plantations, at the North, in the summer or fall—but at the South we advise setting in the fall. For setting a small family bed in August or September it is well to shade plants with pieces of paper or large green leaves for three or four days after setting. Again we say don't be fooled into buying "potted plants" from a distance at any price; the expressage will cost you more than the berries will come to next year at 15 or 20 cents per quart.—*Fruit Recorder.*

**CLUBFOOT AND CABBAGE FLIES.** So far as I can determine clubfoot is the result of a defective growth in the seed-bed. On the thirteen kinds of cabbage and cauliflower on trial this year I have not found a single clubfoot; this is quite unusual, but the weather has been unusually favorable. It may appear in the late kinds, the seeds of which are yet to be planted in open ground. Some years I plant in drills and some in beds; this year in drills. The cabbage fly can be kept off by working, hoeing, weeding, watering, dusting—anything that will disturb the flies and keep them in motion. I have a notion they could be driven from the bed by walking through it in the same direction many times.—*New York Tribune.*

**PROTECTION AGAINST THE BORER.** The borer is fatal to all Peach trees not fully protected against its ravages. This can be successfully done by the application of the follow-

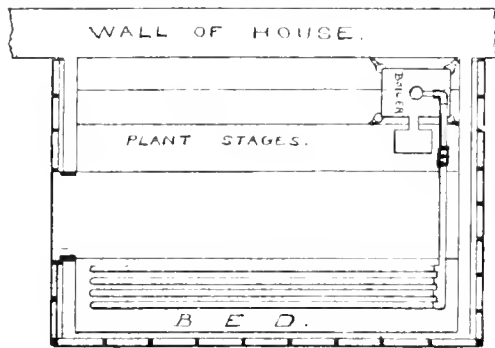


Fig. 3. Ground Plan of the \$150 Greenhouse, shown on opposite page; Scale, 3/16 inch to foot.

ing wash; 4 gallons whitewash, 2 quarts clay, 2 quarts fresh cow droppings, 1 quart lye that bears an egg. Mix these ingredients to a proper consistency with water. Remove the ground from the top of the roots close to the tree, and apply the wash to the exposed roots and to the whole trunk of the tree, including the hollow between the lowest branches. Cover the roots again with earth. The wash can be applied very expeditiously by means of a corn broom. The wash should be applied twice every season, namely, about the end of May and the end of August. I have found this an infallible protection against the borer. For apple trees one application of the wash every season is sufficient.—*From Chas. Shearer's essay before Pennsylvania State Horticultural Society.*



### Dead Roses.

He placed a Rose in my nut-brown hair—  
A deep-red Rose with a fragrant heart—  
And said: "We'll set this day apart,  
So sunny, so wondrous fair!"

His face was full of a happy light,  
His voice was tender and low and sweet,  
The Daisies and Violets grow at our feet—  
Alas, for the coming of night!

The Rose is black and withered and dead!  
'Tis hid in a tiny box away:  
The nut-brown hair is turning to gray,  
And the light of the day is fled.

The light of the beautiful day is fled,  
Hush'd is the voice so sweet and low—  
And I—ah, me! I loved him so—  
And the daisies grow over his head!

—Rebecca Ruter Springer.

Roses wear diamond dew-drops.

Calla, not "Calla Lily," is correct

Nettles are the appropriate emblem of cruelty.

Stiff, compact floral arrangements can never satisfy good taste.

At a recent wedding the floral decorations consisted entirely of great masses of double Poppies, scarlet, white and crimson.

Violets to a New Use. The late King of Bavaria's favorite beverage was wine, with a layer of fresh, strong scented violets on top.

A pretty cornucopia filled with Olea fragrans—the dainty flowering Olive—is a quaint gift of congratulation to a happy mother.

Efforts are being made to restore the handsome but soulless Camellia to its former favor. It has never gone entirely out of style abroad.

Bridesmaids' satchels filled with white and faint pink Sweet Peas have a quaint, old-world aspect in harmony with picturesque bridal gowns.

Sweet Peas form fashionable decorations for ladies' luncheons. The table is adorned with them, massed in varying tints: the favors consist of bouquets of a single hue.

A "Honey-suckle ball" is, or was, to be given by London belles, after the fashion of the great "Rose ball" given last year, the very elaborate decorations consisting entirely of these flowers.

The Glowing Poppies are so handsome and effective, yet they are not advisable as a table decoration. Their strong characteristic odor is quite offensive to some, producing it may be disagreeable nausea and oppression, especially in the case of a person of delicate organization.

Autumn Leaves. Why should we not employ for autumn weddings some charming effects in autumn leaves. A wedding lower or canopy of Liquidambar and Maple, draped with Virginia Creeper, for example, would be most effective. Some attempt at this was made last fall, but it will bear enlarging upon.

Fashion decrees that any departure on a voyage should now be the signal for floral gifts, and the florists display much ingenuity in supplying the demand for novelties. Sometimes such are shipped from long distances inland. Baskets are in some instances filled with fruit and flowers together, thus giving the recipient a double feast.

Effective decorations for a midsummer gathering are Poppies, Wheat and Corn flowers. Miniature sheaves in the center, draped with Poppies, stand on a mat of Corn flowers fringed with wheat; the favors show a similar combination. Notwithstanding their beauty the Poppies should be sparingly used in this case, on account of the odor before mentioned.

By Degrees. George—Cholly, me boy, what are you wearing that deuced little flower in your buttonhole for? Charles—Why, danteherknow, the doctor said I was exerting myself too much, and ordered me to stop wearing a boutonniere, or he wouldn't answer for the consequences. The change would be too sudden, danteherknow, to leave it off all at once, so I'm leaving it off by degrees. If it's a warm day to-morrow, and I feel strong enough, I may be able to discard it altogether. —Boston Transcript.

For a ladies' luncheon an undine-like suggestion may be given by the use of Pond Lilies and

aquatic plants. The center piece is a series of low, pale-green glass dishes resting on a mat of Rushes and Ferns. The dishes are filled with Pond Lilies, Arrow Head and Apogoneton, mingled with Marsh Grasses. The effect is dainty in the extreme, with a fairy-like grace all its own. The favors are pockets of Rushes filled with Lilies. The florists are taxing their ingenuity for new effects suitable to the outdoor fetes and bazaars now in vogue. For a Dutch booth gilt sabots are filled with flowers and also with growing plants, making a pretty thing to hang on a piazza, especially when filled with Ferns.

## Botanical Budget

Elms have reached the age of over 300 years.

Empress Josephine found great delight in botany.

The root but not the fruit of the Wild Mandrake is poisonous.

The bark of the Tulip tree is regarded as an excellent substitute for quinine.

The National Herbarium at Washington has over 60,000 mounted specimens.

Outdoor-grown Roses cannot compare in sweetness and durability with those raised under glass.

Goldenrod. More than forty species of Goldenrod or Solidago are indigenous to the Northern States.

Wouldst comprehend the whole? Then learn the parts; each part is parcel of the plan.—Goethe.

The tops and roots of trees grow much alike in some respects; if the former are long and slender, then the latter are also; if short and spreading so too are the roots.

The singular fact is pointed out by a member of the Royal Horticultural Society of London that Dahlias collect much dew on their leaves, the Peach, Rose and Evening Primrose very little, while the Quince and Mulberry are only very slightly wet.

The Shine of the Buttercup. The peculiar varnish-like lustre of the petals is attributed by Dr. Mobbins, who has recently been investigating it, to a highly refractive yellow oil existing in the epidermal cells increased by the fact that the layer of cells of the mesophyll is densely filled with starch grains.

Flora of Niagara. It will be of special interest to botanists who attend the next meeting of the American Association of Natural Sciences, to be held in this city August 18 to 24, to know that so eminent an authority as Dr. Joseph Hooker of London states that the flora of Goat Island at Niagara Falls is more extensive than that of any other spot of equal size in the same latitude on the globe. He says that even in the regions of the most abundant tropical vegetation it is not easy to find similar sized areas that excel the island referred to in this respect.

Those who are engaged in sedentary pursuits, such as teaching, clerking, book-keeping, etc., should not overlook the great value to their health, as well as of entertainment that may be found, in the study of botany. This is the simplest and easiest of the natural sciences. Its materials are costless and are scattered everywhere, as if for the student's accommodation. Even in cities it is remarkable how the numbers of weeds and cultivated plants, all of botanical interest, will run up. To seek these out in one's daily walks, and then to devote each half-holiday to botanizing will impart health and vigor, a good appetite and stronger lungs, as well as better sleep for the exercise.

The "Poison Ivy," a name very commonly applied to several species of Rhus, is a great dread to many botanists and others, while singularly enough some persons—the writer for one—are never affected by coming in contact with it. Dr. S. A. Brown, United States Navy, states in the *Medical Record* that he has found a specific to the troublesome eruption produced by these growths so common in our woods and along old fences. This specific he finds in bromine, which he has used with unvarying success in at least forty cases. He uses the drug dissolved in olive oil, cosmoine or glycerine, in the strength of from ten to twenty drops of bromine to the ounce of oil, and rubs the mixture gently on the affected parts three or four times a day. The bromine is so volatile that the solution should be renewed every twenty-four hours. The eruption never extends after the first thorough application, and it promptly disappears within twenty-four hours if the application is persisted in.

Orchids of the North. A few in our own woods rival for beauty most of those that the tropics can send us, although the Pogonias know how to be grotesque and freakish after their own fashion. But for fragrance and charm combined there is the

purple Arethusa, lovely as the nymph for whom it is named, and there is the white-fringed Orchids—both of which if to be found only in Australasian jungles would be worth fortunes to the finder—and, crowning all, there is the Moccasin flower, growing out of its cluster of great lily-like leaves in humid shady woods, and making him who excitedly plucks it feel rich, as if he had orchid-houses at command. Botanically the Orchid may be known by the fact that the pistil and stamen, or perhaps rather the stamen and style, are united in a column; and in this column and in its protean shapes much of the curiosity of the plant lies. The sepals of the flower are often like a flower themselves, and the petals again assume every conceivable shape, while the base of the lip is frequently prolonged into a deep tube holding the honey. The object of this tube appears to be to force the insects searching for honey to carry away with them the pollen, as Orchids can only be reproduced through the agency of insects. It is perhaps owing to this necessity of their continued existence that many of the flowers are made so strongly to resemble insects, in order that the real insect may be attracted to them.—*Writer in Harper's Bazar.*

### ABOUT THE PLACE.

Much corn makes a bad feed for young pigs.

Surplus green fodder should be cut and cured.

Injudicious watering in hot weather kills more horses than work does.

A person is judged by how things are kept up about the place he calls home. Aim to be well thought of for this.

One cannot be too careful with the dumb animals about the bee stand. Every year reports abound of animals stung to death.

Is there a good rising grade up to the well for keeping all surface water out of it? There must be if you value your health.

The kind of bee-hive used is important, no doubt, but less so than is generally supposed. The veteran Root of Ohio puts it that bees store honey in anything given them, very much as a cow gives milk into any kind of pail the milkman sees fit to use.

The Catnip plant is one of the most valuable plants for bees. The flowers are rich in sweetness, and, commencing with June, are available to the bees for from one to three months at all hours and in every kind of weather. A patch may easily be started by sowing the seed.

O, ho! Mr. Balking Horse. The *Fitchburg Sentinel* tells how a farmer near by cured his horse of a balky freak, and by gentle means, too. We heartily commend the course. He drove him, attached to a rack wagon, to the wood lot for a small load of wood. The animal would not pull a pound. He did not beat him, but tied him to a tree and "let him stand." He went to the lot at sunset and asked him to draw, but he would not straighten a tug. "I made up my mind," said the farmer, "when that horse went to the barn he would take that load of wood. I went to the barn, got blankets and covered the horse warm, and he stood until morning. Then he refused to draw. At noon I went down, and he was probably hungry and lonesome. He drew that load of wood the first time I asked him. I returned got another load before I fed him. I then rewarded him with a good dinner, which he eagerly devoured. I have drawn several loads since. Once he refused to draw; but as soon as he saw me start for the house, he started after me with the load."

Lightning Rods. In a recent number of the *Practical Farmer* we find pointed out some of the essential needs concerning safe rods by the learned editor, Orange Judd: The "grounding" is very important. Let every one understand that the chief purpose of a lightning rod is to form a good metallic conducting roadway between the cloud charged with electricity and the moist earth. Have the base of the rod sunk deep enough to always be in wet earth or in water. Expand the metal surface in this by welding on a plate two thick to rust out. As to sky points one point or better two or three are important. They must be kept sharp to draw off electricity from the clouds in a minute, invisible and harmless current. Iron points drawn out sharp will answer, but if not gilded or silvered to prevent rust and dullness they must be filed sharp once or twice a year. For fasteners to the building glass insulators do no harm, but are of no special use. Metal, brass or even wood holders are as good as any, for the current will not lead into the non-conducting material of the building, while there is a good rod to follow. Sharp angles or bends are not desirable. Usually the shortest course to the ground, whether over the end or the side of the building is the best. Put not your trust in traveling lightning-rod men of great pretensions.



# OUR YOUNG PEOPLE

## Treeclimber's Talks.

### THE LADY-BIRD (OR BUG) AS A GARDEN HELPER.

I can hardly think that among all my young readers—certainly not of those who live in the country—there should be one who is not familiar with the pretty little beetle called the Lady-bird or Lady-bug. It is very common in gardens and about plants everywhere, and that it usually finds friends in children because of its neat innocent appearance I know. I very well recall the little verse that in my childhood was associated with this insect and which no doubt is familiar to children everywhere. It runs with a pretty jingle as follows:

Lady-bird, Lady-bird, fly away home,  
Your house is on fire, your children will burn.

Quite likely, however, some of my many young friends who have admired the little bug may not happen to know it by this name, so I have made a drawing of one of the species, to introduce it in this way, and this the publishers have had engraved, as seen herewith. In the engraving the Lady-bird is seen on the upper leaf of the twig.

My particular object in treating on this little beetle here is that I want all gardeners, and the children especially, to know that besides being quite pretty it is also a very useful insect, and on this account is entitled to the respect and protection of all plant lovers. It is what is called an insectivorous beetle, that is

#### IT FEEDS UPON INSECTS,

and hence is the natural destroyer of at least one of the most common enemies that consumes our plants. This is the Aphis or Plant Louse, which in one form or another may be met on almost every plant and tree in cultivation. All you who have pot plants are familiar enough with these plant lice, I have no doubt.

But while our engraving will at once call to mind the Lady-bird as found in one of its most common forms, my readers should know that there are many different kinds of these bugs, as shown mostly by a difference in their colors. Those of a red color with black spots are met perhaps as often as any, but there are others that are yellow with black spots, and

#### STILL OTHERS THAT ARE BLACK

with white, red or yellow spots. These different kinds together are very plentiful around plants, and are all great consumers of plant lice, hence I speak of them here so that you may keep a lookout for and cherish them, in whatever colored coat they may be met.

Now while it may be easy enough to excite a favorable interest in the Lady-bird, being it is such a pretty looking insect, I must go further and introduce it in one of its other forms, namely,

#### IN ITS GRUB OR LARVA STATE.

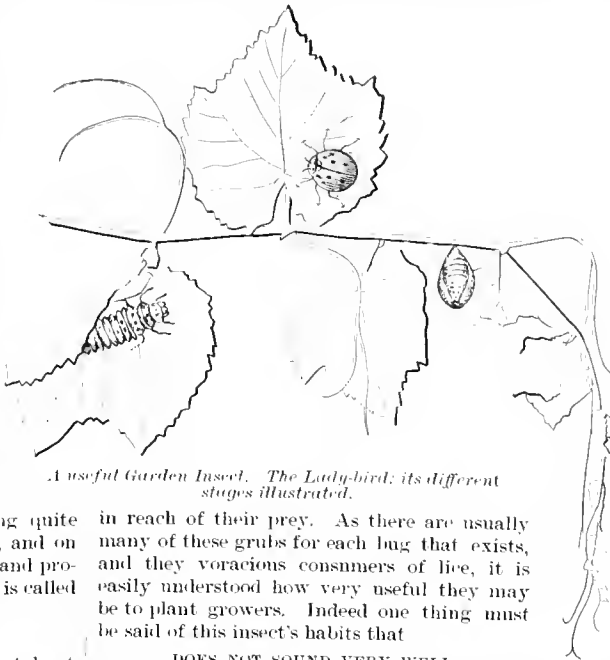
and then see how well its friends will be ready to stand by it. To dwell upon that wonderful change which takes place at different stages in an insect's life is not my object now, further than to say that beginning first with the egg state there is next the grub or larva state, then the chrysalis or pupa state and at last the perfect or beetle state. Of the Lady-bird as a beetle I have already spoken and now for the grub or larva state. And here I must say at the start that it is not a very pleasing object to look at, but let us remember that

#### HANDSOME IS THAT HANDSOME DOES.

For if as a bug our subject is destructive to

plant lice, as a grub it is even more so. The appearance of the latter is well shown by the long dark object on the lower leaf to the left in the engraving. As to color it is bluish or black and usually bears some red or yellow spots. The form is nearly hemispherical, that is, half round, the under surface being very flat, a fact that may help my readers to better distinguish these useful grubs at sight.

These grubs are hatched from little yellow eggs laid by the Lady-birds. As a goose or duck lays and hatches her eggs near the water, to accommodate the young when they appear, so the Lady-bird by instinct lays her eggs in clusters in places where plant lice are present, so that the grubs find themselves at once with-



A useful Garden Insect. The Lady-bird: its different stages illustrated.

in reach of their prey. As there are usually many of these grubs for each bug that exists, and they voracious consumers of lice, it is easily understood how very useful they may be to plant growers. Indeed one thing must be said of this insect's habits that

#### DOES NOT SOUND VERY WELL,

namely, that whenever other food fails, they are sometimes driven to consume the helpless pupa of their own kind.

I think I have now treated on the Lady-bird, or the *Coccinella*, as scientists would say, at sufficient length to draw the attention of those who should be its friends to it in its different forms. Some of my readers will no doubt wonder what the suspended object to the right in the engraving is. This is our insect in its pupa or chrysalis state, that which precedes the perfect insect.

TIMOTHY TREECLIMBER.

### The Poetical and the Practical.

It often is the case that poetical people are not disposed to be really practical in their ideas, and *vice versa*. If this were not so generally true there would be many more successful amateur gardeners than are now to be found, for we frequently meet persons who manifest the most intense passion for flowers and fine plants, who know nothing about how to raise them. Happy are the persons who combine both the poetical and the practical in their temperaments, for the latter may very advantageously offset and aid the other.

"Oh, those mountains!" cried a sentimental, gushing traveler to the Rocky Mountains, as she clasped her hands and rolled up her eyes in ecstasy. "Beautiful, grand, majestic!"

"Yes, they're right purty," said the matter-of-fact mistress of the house; "an' there's real good ros'berries grows on 'em, too."

"How illimitable, how vast!"

"Yes'm; they're big as all out-doors, that's so."

"What lights and shadows! what lofty summits!"

"Yes, they're lofty enough; that's a fact."

"They seem to lift me up to their own heavenly heights."

"Well, I guess if they'd let you drape, like they did an old cow of our'n you wouldn't want to be lifted up agin'."

"It seems to me I'd like to dwell always in the shadow of those mighty walls."

"Well, you'd find it mighty poky, now I tell you. Lights an' shadders is mighty pore company."

"Oh, but I would commune with myself! I should always have great thoughts amid such grandeur."

"You would? What do you reckon you'd eat? Thoughts, now, ain't very fillin' an' the land 'round here won't even raise turnips, an' I reckon you'd git sick enough of it if you had to cook three meals a day on little or nothin'."

"Oh, see that beautiful little stream! How it breaks around and over that gray rock, and then rambles on, singing as it goes!"

"Yes, an' there ain't even a catfish in it, an' I never know what mite a cloud-burst or somethin' an' goin' to send it out of its banks clean into my kitchen. I've mopped up after that treach'rous little creek half-a-dozen times now."

"I fear you don't quite appreciate the beautiful in nature's works."

"Mebbe not. But I know that them that want to live here an' raise a family on moonshine an' lights an' shadders an' foamy waves kin do it. We're goin' back to ole Missouri this fall, if we have to walk ev'ry step of the way."

### PET BIRDS, ANIMALS, ETC.

Keep the cages very clean.

Parrots are naturally greedy eaters.

Celery is a treat for birds now and then.

Hempseed freely fed tends to impair digestion.

Ring doves are quarrelsome only when more than one single pair are kept together.

As for feathered pets, scarcely anything could please the youngsters more than some Golden Seabright Bantams.

A cat at New Berlin, Conn., weighs thirty-two pounds, and is believed to be the biggest tame cat in the country. Who says "No" to this?

It is a mistake to suppose that because certain grains are natural to parrots or other birds in a wild state that these are also the best in captivity. Caging alters the constitution and digestive organs of birds, just as long confinement at an office desk would work a change in the eating powers of some sturdy wood-chopper.

The mastiff is essentially a watchdog, and needs weight and strength rather than speed; light bones and a small head are therefore fatal objections.

While easily made fierce by chaining, they are famous for their good nature with children and unwavering fidelity. Their unflinching dignity and aversion to the human species of tramps have made them favorites in all country houses.

In confinement the wings of birds are used less, the feet more than in nature. This is why the feet of cage birds are liable to ailments. If they are wary and seem to be sore, bathe them by holding in luke-warm water for three or four minutes, and then grease them with vaseline or with sweet cream. Sometimes dirt accumulates on the feet or legs, to get rid of which, immerse these members in luke-warm water for five minutes daily, until the dirt loosens and parts from the feet.

An Oversight. "When I bought this parrot you told me that he would repeat every word he heard," said a bird dealer's customer indignantly. "Well, I say so yet. He will repeat every word he hears," replied the dealer calmly. "But he does not repeat a single word," returned the customer. "That's because he can't hear a single word. He is as deaf as a post. You forgot to ask if he could hear, and I forgot to mention it. My motto is 'Honesty is the best policy.' Mornin', ma'am." *Times Siftings*

A Simple Aquarium. Speaking on this subject the *New York Tribune* says that anybody can have one. A two-quart glass jar will answer for a beginning. Go to the nearest pond that has fish in it, and with a scoop-net get fishes, newts and insects. Also get some aquatic plant. Put into the glass jar a small plant, two or three small fishes and half a dozen insects. Fill with rain-water. Put the rest into some larger reservoir. Should there be too much animal life in your jar enough of it will die to make the balance of vegetable and animal life even. Set the jar in the light, but not in the hot sun. You will see bubbles of oxygen all over the plant, caused by the action of the sunlight on it. This the fishes breathe. Their excretions feed the plant. With this little aquarium you can make a beginning and learn to manage a larger one. Every day feed the fishes with fresh meat. Take a tiny bit of the tenderest part of the meat for breakfast and cut it into the finest of fine bits with small scissors, and give it an atom at a time to the fish. They will soon come and cut it from your finger. Or hang a bit of meat tightly tied to a stick in the jar and they will bite little pieces from it.

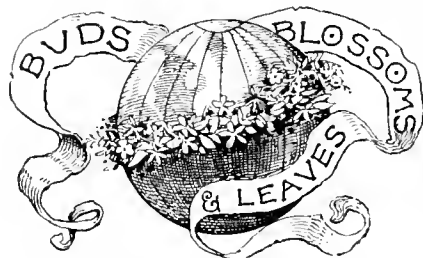
**Cat-tails.**

Clear, dark and cool a shallow pool  
Lies underneath the summer sky,  
Low rippling in the sedge grass  
As wayward winds go tripping by,  
White-bladed Flags bend low to greet  
The blue-veined Lilies resting there,  
And high above their drooping heads  
The Cat-tails drink the summer air.  
Across the pool, with filmy wings,  
The "devil's darning needles" fly;  
And deep among the shady Flags  
The croaking frogs securely lie;  
A red-winged black-bird's liquid notes  
Sound clear and sweet, "co-chee! co-chee!"  
And in the breezes cradling arms  
The Cat-tails rock in airy glee.

*Boston Cultivator.*

**How the First Pansy was Made.**

An angel's thought flew down to earth,  
Borne on a golden beam of light;  
And pausing rested in the heart  
Of a sweet, blue-eyed Violet bright.  
And finding there a flower-soul  
Free from all taint of earthly pride,  
The angel's thought would fain remain,  
And in the Pansy still doth hide.  
And so these gold and purple flowers,  
The soft-eyed Pansies which we love,  
Sprang from the Violet which received  
An angel's thought from Heaven above.  
—*Lydin Hoyt Former.*



Repair the glass houses.

The Tiger Lily is Chinese.

Keep the Gladiolus tied up.

Seedling Verbenas are the sweetest.

Ladyslippers are too fragile for wear.

Swan-river Daisies resemble Cinerarias.

The bride's favorite flower—Marrygold.

This is the time to divide and reset Daisies.

Date the packets into which the seeds are put.

Cutting the flowers as they mature strengthens the plant.

Thunbergias bloom in the open air the year round in Florida.

There is a knack in using garden tools skillfully. Get the knack.

What can be finer than an arbor consisting of a Weeping Ash or Elm.

August planting of evergreens is recommended by Josiah Hoopes.

The man who sells "blue" Roses at \$3 a root is now taking his vacation.

The Mistletoe is patterned after by enough people—it lives upon others.

We have a few special words, "To you, Reader," a little further on. Do not skip them.

Pillows made from the branches of Fir are being offered in Michigan for their curative properties.

Gardening is the purest of human pleasures and the greatest refreshment to the spirit of man.—*Bacon.*

An Oleander with a trunk 18 inches in circumference is reported by one of our Southern correspondents.

A Monstrous Cactus over twelve feet high and a foot and a half through is being exhibited in the leading towns.

For a magnificent display of bloom over a long time those Clematises, of which Jackmani is the type, are really wonderful.

Ten-week Stocks are among the flowers that succeed well in the window. For bloom during the winter the seed should now be sown.

Starting Taberose bulbs as late as August is sometimes done for raising winter flowers, but at best such late management is up-hill work.

"Give me a Garden" is the universal aspiration of the English people. The same desire, it is a pleasure to record, is a rapidly growing one throughout America.

A young tree set out on the site of an old one that has died seldom thrives. Soil exhaustion as to tree food is the cause. A remedy: replace the old soil with new.

Extend the Example. Boston gives an object lesson in tree knowledge to inquiring minds, by affixing to every tree in the public parks its name on a label in plain letters.

Rotation of crops is as essential in gardening as on the farm. In resetting harly or any other kinds of plants always move them to a new stand, even if it be but a few feet away.

It is a fact not to be denied that many persons of both sexes find the greatest pleasures of their lives coming from the raising of flowers and other gardening. Let an occupation like this be widely advanced.

"One single item of 10 lines in the March number," writes W. A. T. Stratton, concerning POPULAR GARDENING, "aroused a train of thought that promises hundreds of dollars in value to me in a short time."

The quantity of small fruits taken from the country to the cities as everybody knows is immense. The quantity each season bought in the cities and carried to the country for consumption is larger than might be supposed.

Seeding versus Sodding. We can point to a score of lawns that were started by sowing the seed during the past spring that are now complete and more promising than the average of sodded lawns of the same age that we recall.

Great Brains. A Chicago editor is struggling with the question: "What are insects made for?" They are made for insects, to be sure. Does the man think nature may possibly have intended them for birds?—*Binghamton Republican.*

A Year's subscription to POPULAR GARDENING makes the nicest kind of a present to a friend, coming as it does by monthly visits. If you choose to try this matter we will be glad to notify the recipient as to who is the sender, should you so desire.

Large Latanias or Fan Palms. Speaking of these, Mr. David Scott, of this city, informs us by a note, that some in the Kew Gardens, London, are considerably more than 12 feet high, but adds that they are not handsome specimens, for, like many other Palms, extra size detracts from rather than adds to their beauty.

A subscriber gained for POPULAR GARDENING in hot weather is just as much appreciated at this office as one secured at any other time. We received a good many during the last month. We wish our friends would help us to many more during August. Keep the ball rolling the year round. Subscriptions may begin with any month.

Goats and Gardens. So destructive have goats become to the gardens in some parts of Europe, by browsing shrubs and trees, that the authorities are taking steps to reduce their numbers. We can easily imagine that a superfluity of goats would be vastly more intolerable to a community than even the pestiferous European sparrows, bad as they are.

A Queer Freak of nature is reported by one of our subscribers, "Evangeline," of Harrison Co., Texas. Two large trees, White Oaks, the correspondent thinks they are, and standing about twenty-five feet apart, approach and overlap each other some distance up. At this point they have united and with all the parts healed over so thoroughly that no scar is visible.

The trembling of the leaves of the Aspen is thus referred to in a welcome little note to POPULAR GARDENING from Mrs. H. E. Briggs of Clark Co., Washington Territory: "Those who admire the Trembling Aspen will be inter-

ested in examining the leaves for the cause of their tremulous motion. Close to the leaf the stem is flattened to be no thicker than the leaf itself, and responds to the lightest zephyr."

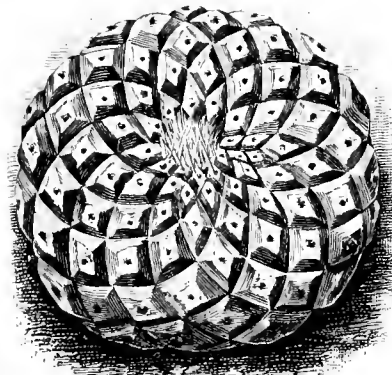
On a street which the writer passes along often, there is one flower-grower who has more than ordinary success with bedding plants. In passing his grounds at planting time we saw he was laying rich old manure two inches deep over the entire surface before digging. He informed us that this was his practice every year. It is a chief secret of his success. To which we add that now is a good time to start a manure heap for next year's use.

Mulch for Roses. I find in this country where droughts are common a mulch is very helpful. I use for this, scrapings from the cow-yard, mulching the bed thoroughly and afterwards watering frequently. The ground should be in such order from culture that it will readily absorb water. After the first blooming I cut back my Roses well, using the scissors, and new growth soon starts, bearing a multitude of blossoms later. Don't neglect the mulching.—M. R. W., *Scott Co., Iowa.*

Good Books. A library of standard works on gardening should be owned by every gardener. From it he will glean an amount of pleasure in the nature of extended information only second to that found in the garden itself. It will introduce the owner to new plants and new methods, as well as to a better acquaintance with older desirable ones. On another page we present a select list of such books, which at the prices quoted, will be furnished to our readers, post-paid, from this office.

All lovers of good gardening must be glad to see that the old practice of laying out numerous gravel or other walks through private grounds is being discontinued largely. A most sensible innovation. No walk can be more comfortable to the feet when one is taking in the delights of a garden than a smooth well-trimmed lawn. No garden scene but it is more charming by having the most extended stretches of grass attainable in the space, than if it be frittered up with a lot of really needless paths.

Mr. A. Blanc, the Cactus specialist of Philadelphia, has sent us an engraving of the remarkably attractive Cactus printed herewith and



THE SPIN-WHEEL CACTUS.—*Echinocactus turbiniformis*

called *Echinocactus turbiniformis*, together with this note concerning it: "*Echinocactus turbiniformis* is a queer little flat plant, seldom growing larger than four inches across and one inch high, with flesh colored flowers. It looks exactly like a spin-wheel set in motion. The cut is a faithful representation." This Cactus should be known as the Spin-wheel Cactus, so far as a common name is concerned.

What are the Circumstances? POPULAR GARDENING maintains that White Clover should not be mixed with lawn grasses where summer watering is practised. Here it soon crowds out the delicate grasses and gives a weedy look to the lawn. But where watering the lawn freely is not practical there one may always use, at the rate of five pounds of seed to the acre. In such places the growth is less

rank and of a good color in dry times. To garden well one must discriminate in these little matters.

**Transplant the White Lilies Now.** We refer here to the common Madonna Lily, *L. candidum*, which is seen in so many gardens. This species is peculiar in the respect that it is at rest during this month, calling to be handled now if at all. We may as well add that it is one of the kinds that dislikes being often meddled with; it thrives best when left undisturbed for years. It is so far a flower when once established in good soil that there is scarcely a place which a well grown group would not adorn. Placed in bold masses and then left to take care of itself, and few plants can compare with this one when in bloom. See engraving.

**Street trees** often receive shocking injury from horses tied to them by a set of vandals. The law in such cases is practically of little help, for once let a good sized tree be damaged and no law or money can restore it. At any rate, no better thing can be done than to assist the tree as early as possible to recover itself. A good coat of paint applied to the wound will keep the wood from decaying until the new wood and bark at the sides grow over the place. Sometimes a plaster of earth and cow dung is applied to such wounds. This would be well enough were it not that the rains and wind are apt to wear it out before the spot can get along without a cover.

**To you, Reader!** We are trying very hard to give our readers an excellent paper, and letters received every day at this office go to show that in a measure, at least, we are succeeding. Now, admitting that our labors tell for the good of the paper, may we not suggest to you, reader, how you can in these fair summer days help push our paper on to the circulation it needs to make it a complete success? This may be done by working to extend our circulation among your friends near and far away. Should each one of our present subscribers send in, on an average, but one subscription within the next two weeks it would be a great encouragement to us in our work. We are not sure but it would help us to make even a much better paper yet. At any rate, why not try this, and with the determination to succeed? Let us all work together for making this the greatest paper of its kind a going. Work will do it.

**California Fruits.** Are not California fruits much inferior in flavor to Eastern fruits? asks an Ohio friend. Generally, yes. But that is not a universal rule. We have occasionally seen and tasted California fruits which were simply perfection. But usually the fruits of the Pacific Coast are insipid and comparatively tasteless. What they lack in flavor, however, they make up in appearance, and in supplying the market we should never forget that the eye as well as the palate must be pleased. Now California fruit sells well because it is beautiful. Against our better judgment we ourselves purchased a basket of California peaches last fall for seventy-five cents when we could have got a better peach, but one that did not look as well, for less than half the money. Our eye was captured by the beautiful appearance. But Oh! what a peach we got. It had no more of a peach taste than a walnut and was as tough as a piece of shoe leather.—*Western Rural.*

**The Birds have Friends.** We have received at this office "Bulletin No. 1 of the Committee on Protection of Birds," issued by the American Ornithologists' Union of New York City. It is a pamphlet of 16 pages filled with most valuable articles bearing on the subject of bird preservation. Indeed it has never before been our pleasure to meet with such an array of stated facts and figures issued in the interests of our feathered friends. Here are the subjects of the papers given: "The Present Wholesale Destruction of Bird Life in the United States," "Destruction of Birds for Millinery Purposes," "Destruction of Bird Life About New York," "Destruction of the Eggs of Birds for Food," "The Relation of

Birds to Agriculture," "Bird Laws," "An Appeal to Women" and "Birds and Bonnets." The entire report formerly appeared as a supplement to *Science*. We find no printed price given for the pamphlet, but should think that a remittance of 10 cents to the above Union would secure a copy. Whoever orders it will find some very interesting reading on an important subject, enough to last for one day at least.



The White or Madonna Lily.

sick in hospitals and elsewhere is most commendable and should be widely adopted. The *New York Tribune* in speaking of this work in New York says: So many sad hearts are cheered, so many poor and sick are made glad by it. The offerings are carried by the express companies free of charge. If it is desired that the package be returned paint the name and address of sender on the side of the basket, with the words "Return to." In sending flowers it is best to pack them in a pasteboard box. Put a layer of moist paper in the bottom, then a layer of green leaves, then a layer of flowers; lay over these a thin paper and put on more flowers and so on till the box is full. Sprinkle the top layer, cover tightly. Thus put up flowers will keep twelve hours quite fresh. Clover Blossoms, Daisies, Wild Flowers, Roses—all are welcomed by the pale faces that are shut within narrow city walls. Fruits and jellies may be sent and they also will be distributed by this beneficent "mission" to the needy.

**What Chrysanthemums** like and what they dislike under cultivation is pointedly set forth as follows by Mr. John Thorpe, a man who knows all about the matter:

#### THEY LIKE

To be planted firmly, in rich soil;  
Plenty to eat and plenty to drink;  
To have four or five hours of sunshine a day;  
A manure or grass mulch after July 1st;  
To be well soaked with water or weak manure water often from August to October;  
To be divided every year;  
To be tied up so as not to be hurt by wind;  
To be protected from freezing when in flower.

#### THEY DON'T LIKE

To be planted loosely, in poor soil;  
To be planted beneath the shade of trees, where there is no nourishment;  
To be starved;  
To be dry;  
To be smothered all summer by vines, etc.;  
To be left for years without dividing;  
To be placed where the sun never shines;  
To be severely frozen when coming in flower;  
To be in hot, dry and gasy rooms.

**Now let it be carried out.** The last Legislature of New York passed a very important amendment to the Highway Act. The law

now requires the overseer of every road district and of every street commissioner of every city or village to give written notice to any occupant of premises to cut all weeds, briars and brush growing within the bounds of the highway. If they shall neglect so to do, and if, after receiving such notice, the occupant of the premises shall fail to do so within ten days, it shall be the duty of the overseer or street commissioner to employ some one to do so, and when he returns his warrant he shall make return, under oath, of the amount so expended by him and the ownership or occupancy of the several parcels of land against which such labor was performed. The commissioner or commissioners of highways shall certify these statements to the supervisor of the town, and the supervisor shall lay the same before the board at their next meeting, and they shall include the amounts in the taxes assessed upon the lands where the labor was performed, the same to be collected and paid over, upon the order of the supervisor, to the parties entitled thereto.

**Those Agents.** Last season neighbor A and neighbor B both concluded to plant some of the new Japanese Creeper, *Ampelopsis Veitchii*. Neighbor A gave her order to a traveling agent, paying \$1 each for the plants, and at that they were of feeble character. Neighbor B, who left off dealing with strange agents years ago, ordered her plants from a florist near her home. The cost in this case was at the rate of four fine plants for \$1. In one shape or another such incidents, with just such contrasts, are repeated ten thousand times over, perhaps, in our land every year. It leads us to say emphatically, no matter how far you may be from good nurseries or seedsmen, buy nothing from unknown agents, neither put your trust in the seeds of the commission boxes left at corner grocery stores. Responsible dealers by the hundred issue catalogues expressly to aid those who may be distant from them in buying. Many of these have lately advertised in our columns. Dealing with such parties you will not only save money, but you may have the satisfaction of knowing that the seller will treat you in a manner to secure your continued good will. Trust not the smooth-tongued agents who are strangers to you.

**What One Girl Did.** Mrs. Ella Grant Campbell, of Cleveland, Ohio, a subscriber to *POPULAR GARDENING*, has shown what a capable, energetic young woman can accomplish in building up a thriving business from a small beginning. More than a dozen years ago she was a quiet young girl with a busy brain, revolving in her mind the problem of self-support. She loved flowers, and like all flower lovers was easily successful in raising them. So she turned to these sweet little friends and said, "Come help me." They responded, and although her first serious efforts at selling flowers lead through the humble path of offering some pretty bouquets in a public place she at once found customers, and from this start soon realized quite a substantial patronage. Her best stroke of enterprise in her early experience was the securing of the award from the city of Cleveland for the floral decorations used at the burial of President Garfield. Her artistic productions on that occasion were brought into national prominence. To-day she is well up among the successful florists of the country, being the proprietor of the Jennings-avenue Greenhouses at Cleveland. Her business career, engaged in under many disadvantages, is a living sermon to other young women.

**Annual Flowers** are not appreciated as they deserve by the great mass of flower lovers. There are scores of beautiful and easily grown things in this class besides the Asters, Balsams, Candytuft, Marigolds and others that are much grown. From our window we can see a patch of the richly colored blue *Eutocia* that has been full of beauty for a month past and shows no signs of falling off in the flowers as yet. Near by stands a clump of the bell-shaped *Whitlavia* crowded with spikes of deep violet flowers that

are fine enough to work handsomely into any bouquet. The scarlet large-flowered Flax is just coming in flower from seeds sown the middle of May, but there will be no absence of the richly colored flowers for a long time yet to come. The yellow Bartoma has long been in flower from seeds sown two months ago, and a bushy clump of the plants attracts many eyes by its large, bright-yellow single flowers. The mellow yellow and white Escholtzia, or Californian Poppy, is now gay with bloom, affording a most delightful bit of coloring in our medley of flowers. In the same garden may be found flowers of the Mallows, which many look upon as being more attractive than their near relatives, the Hollyhocks, of Calliopsis, Calendulas, Lupines, Collinsias, Godetias, Centaureas, Crepis, and other annuals, all of which have sprung from seed sown since May 1st. Every one of these is attractive here and would prove to be so in any garden. One peculiarity of the class is their cheapness: two or three dollars' worth would stock a large garden.

#### The American Seed Trade Association's Convention.

The Fourth Annual Convention of this Association will be held at Niagara Falls, N. Y., beginning with Tuesday, August 3, at 10 A. M. and continuing for three days. The place of meeting will be at the Cataract House. It is to be hoped that every member of the Association realizes the importance of being present at this convention; indeed, it should be considered the duty of every seedsman to be there. Aside from business considerations, all members should feel an interest in visiting and enjoying the scenery of the Falls vicinity, now that it has so largely passed under State control and is already showing many marked improvements. James V. Murkland, 54 and 56 Dey street, New York, is the present Secretary and Treasurer of the Association.

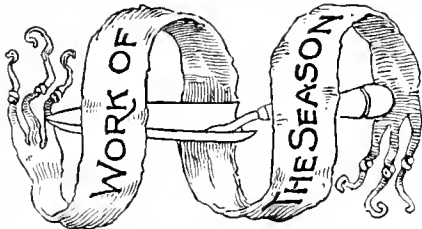
#### The Florists' Coming Meeting at Philadelphia.

The programme and prospectus of this meeting, which is to occur at Philadelphia on the 18th, 19th and 20th of the present month, has been out now for some weeks. A copy should at once be called for by every florist in the United States and Canada. Address Secretary E. G. Hill, Richmond, Indiana.

In this programme will be found not only a schedule of the numerous valuable essays by competent men, to be read and discussed at the meeting, but it also sets forth about all the information any one might wish for, concerning how to get to Philadelphia, where to stop while there, and so on. For instance, the names of fifty railroads are given that will carry for one fare and one-third the round trip all persons attending who have properly signed certificates of attendance. These are procurable from the Secretary free of charge. A list of hotels that offer to accommodate the florists in attendance at reduced rates is also given.

It is especially desirable that the attendance at this the second meeting of the Society be a very large one. The management hope to see there a good attendance of the women, who now are so generally engaged in the trade. All such will be very welcome. The wives and sisters of members are also cordially invited to be present at this meeting.

So excellent are all the arrangements of the 1886 meeting that whoever will miss the good things it will have in store can have only themselves to blame. One thing is certain and that is that the large brotherhood of Philadelphia florists will extend an open and most hearty welcome to all who may come. Be prompt in addressing Secretary Hill at Richmond, Ind., for full particulars, including the certificate of attendance, which must be signed by the ticket agent at the office where the ticket is bought. All aboard for Philadelphia!



#### THE HOUSE PLANTS.

**Ageratums** should be held in check as to flowering if desired for winter blooming.

**Anthericum.** The variegated one is an excellent house plant. It requires a good deal of root room, but in potting or shifting it may have the soil all washed from the roots and, using some fresh soil, be replaced in smaller sized pots than without this.

**Aspidistras**, the beauty of which is in the leaves, are benefited by applications of a liquid or other fertilizer while their leaves are in their best growth.

**Balsams** lift easily from the beds now to set into large pots for adorning the window after frosts.

**Begonias** of winter blooming varieties showing buds on leading branches should be well pinched back, to induce stockiness and more bloom later.

**Browallias** give fair satisfaction as pot plants. The seed should be sown now if not yet in.

**Callas.** For early flowers start into free growth by giving rich soil and plenty of water at this time.

**Chrysanthemums.** See what Mr. Thorpe says about these elsewhere. If the black aphid or thrip appear sprinkle the affected parts with tobacco dust when the plants are wet.

**Coleus** cuttings for winter plants may be struck.

**Echeverias** when grown in pots should be watered moderately and have soil not rich but sandy.

**Evergreen plants** and shrubs, like Daphne, Olea fragrans, etc., if they need shifting at all before winter should receive it before this month is out.

**Freerias.** These delightful new bulbs if planted a dozen or more in a large pot or box make choice ornaments for the window garden, and the fragrance is delightful. They may be started earlier than the mixed collection of winter flowering bulbs.

**Fuchsias.** Old plants of winter blooming sorts, now at rest, may be taken from the pots, cut back within three or four inches of the roots, and if troubled with red spider remove every leaf as well; wash off the soil and repot in fresh, rich loam, using water sparingly till new growth is well started.

**Petunias.** To cut in the straggling branches that come from rapid growth now will lead to nice plants for the window garden by October.

**Propagation** of such tropical plants as Clerodendron, Ficus, Cissus, Rex Begonias, etc., can be done by the amateur without the aid of a propagating house, more successfully now than at any other time. Place the green cuttings in sand and cover with any glass vessel, watering lightly as needed.

**Roses** suitably prepared for winter blooming are at the present anxious to grow and show their early bloom. They must not be over-potted, a great fault with amateurs. Angle worms often trouble; destroy by watering with lime water.

**Tuberose bulbs** showing buds at the end of the month may be lifted carefully and made to flower in the house later on.

**Veronica.** As this plant's blooming season is near, encourage the setting flower spikes with weak applications of liquid manure.

**Vinca.** Divide the roots of this vine, potting what is needed for the house. Doing this thus early the part remaining in the ground has time to recover and become established for the winter.

#### LAWN AND FLOWER GARDEN.

**Borers** are liable to appear in Acacias, Mountain Ash and the ornamental flowering fruit trees. They make their attacks in the trunk near the ground chiefly; if the presence of their borings is not dug them out with a knife or stiff pointed wire.

**Cyclamens** in beds should now be lifted.

**Edges** next to flower beds and walks should be neatly trimmed, once a month at least, by cutting with a sharp spade or better still an edging iron.

**Gladiolus.** If the spikes from strong bulbs are cut early (they will flower completely out if set in water) it usually follows that some new spikes will later come out.

**Hollyhocks** and similar tall plants should be kept tied to stakes to prevent the risk of their being snapped off by violent summer gales.

**Layering** of Roses, shrubs, etc., may still go on.

**Lifting.** As stated last month we favor the early lifting of most plants that are wanted for fall decoration. Aim to secure all the roots possible, pot firmly, shade closely for a week and sprinkle the tops several times daily for a spell.

**Plants** in tubs or pots set on the lawn, as well as those in vases, need to be watered often and thoroughly. Do not imagine because the top of the soil of these may be wet that all is soaked through.

**Roots** absorb moisture only when it is in the form of vapor, hence the importance to roots, of a well drained soil penetrable by the air.

**Rock gardens** often suffer in summer from drought, and this should be prevented. Remove the tops of plants that have passed into a ripened state.

**Seed sowing** of Perennials and Biennials is timely now. See longer articles on pages 122 and 123.

**Transplanting** of White and the few other Lilies that are now at rest should be done at this time.

**Hardy bulbs** may be moved, but next month will answer quite as well for this.

Such a high authority as Josiah Hoopes strongly advocates August over spring planting of Evergreens. Done at this season and new roots soon form, to the advantage of the wintering. The only drawback now is a high temperature, tending to free evaporation, to overcome which transplant on a damp, cloudy day, and afterward the trees should be sprinkled over their tops every evening for several weeks.

**Trimming** up the flower beds at this season by clipping the plants of formal beds, removing faded flowers, and stalks of border perennials, and throwing out early annuals that are past, will all help much for the good appearance of the garden.

**Verbenas** usually show exhaustion now. Cut back the extremities, giving repeated doses of liquid manure, or else strew some fertilizer over the plants, and they will come around with a fine crop of bloom, and of cuttings for propagation later on.

**Watering** lawns is much practised wherever there are good systems of water works. In most cases far more water is applied than is necessary, causing a soaked and unhealthy condition of soil. Mounds and slopes require some extra attention.

To water trees in lawns freely, is one great secret of having them make a rapid growth. Here there is little danger of watering too much. Water thoroughly while at it, making apertures with the spading fork over the area of the roots, to readily take in the water.

**Why should people** of intelligence in other matters be so generally ignorant of the names of trees, shrubs and plants, wild and cultivated, in their vicinity? It would be a good thing to improve in such respects; the field for improvement is ample.

#### PLANT CULTURE UNDER GLASS.

**Bedding Plants** of such kinds as are scarce, or that it may be desirable to get up a large stock of for next year, may have the first cuttings for fall propagation put in during this month.

**Camellias** will continue to need looking after against dryness at the root. When a plant is found badly wanting water, plunge the pot in a tub for half an hour. While we urge full necessary watering, still the mistake of over-watering must be prevented.

**Carnations** to begin bloom about the holidays should be cut back for last time.

**Chrysanthemums** in pots now need some special attention. Pompones to be stopped for the last time; large flowering kinds not to be stopped again. Stake and tie as needed. Plants intended for show should have some of the surface soil removed, to be replaced by some rich half-rotten dung.

**Geraniums** for winter bloom should be stopped all over now. Propagation may be begun for plants with which to decorate the house early next spring.

**Greenhouses** will never be nearer empty than now. So now let them be put into thorough shape for re-stocking with plants later. Clear out, cleanse, repair, paint and fix up generally. All wood and brick work should be cleanly scrubbed.

**Hard-wooded plants**, such as Aucuba, Laurestinus, Laurels, Arbor-vites, etc., that have made their growth for the season in the ground can be lifted now to better advantage than later.

**Orchids** now require to be gone over with a view to separating plants that are going to rest from those that are still actively growing. As the growth of any Orchid appears to be completed gradually withhold water and remove to a cooler part. Young plants lately potted to have their growth encouraged

**Pelargoniums** should be cut back at once, if not yet done, using the ends of shoots for propagation.

**Pots.** New ones needed, to be bought before the season of lifting and propagating, now near, opens; all old ones to be soaked and washed very clean.

**Roses** for winter flowers to be syringed daily, closing the house after the last syringing. If bedded give the border a liberal manure mulch now. Do not cut back the old wood of Tea Roses, for it will not break strong below the cut. A better way to get rid of old canes is to curve them to the ground pegging them down, when new and strong shoots will break from near the base of the old canes.

**Smilax** seed should be sown for next year's plants and old roots that have been at rest be started up.

**Stocks** of the Ten-week and Intermediate tribes for winter bloom may now be sown. Of the former the Wall flower-leaved ones, are favorites with us for this purpose. To provide a succession they should be sown at intervals of six weeks.

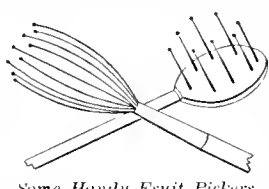
**FRUIT GARDEN AND ORCHARD.**

**Blackberries.** Nip the new canes at four feet high. Cut out all unnecessary shoots, that the strength may go to the main plant. Keep the ground well cultivated and hoed for best results.

**Budding** of most kinds of fruit trees may go on. Cherry, Pear and Plum should be about done with; Apple to come after these, and Peaches and Quinces to follow about the end of the month. The ties to be water-bed, cutting them before they cut the bark.

**Currants.** After the leaves have dropped trim the plants, thinning fully half of the new growth. If one cares to propagate, cuttings can be made of these trimmings. Cut to about 6 inches long, bed them firmly in good mellow soil to within one eye of the top and in an upright position.

**Early fruit** should be used promptly when ripe; kept beyond a fair eating state and the quality very soon fails.



Some Handy Fruit Pickers.

**Enemies.** *Plant Lice* are bad this year. Destroy by dipping the affected parts (usually the ends) into a bucket of strong tobacco water prepared from cigar-makers' waste, or else syringe with this.

Cut out *Black-knot* from Plums and *Fire-blight* from Pears as soon as they are seen.

Large and voracious *Green Worms* often trouble Grape-vines at this season, and should be destroyed.

*Borers* deposit their eggs in the lower part of the trunks of Apples, Peaches, etc., during summer. A band of tarred paper around the tree at the base, the lower edge covered with soil, will prevent much mischief. Probe for old-timers. The nests of late *Web Worms*, should be destroyed promptly.

**Gathering Fruit.** We show engravings of several effective and not costly fruit gatherers that would prove a great convenience on any place where fruit is grown. The one to the right might be homemade. By the help of such early maturing, or any specimen, can easily be brought to the ground. See article on ripening Pears elsewhere.

**Gooseberries.** See for Currants. They can be easily propagated by "stooling," that is, banking the earth around them and into the plants.

**Grapes** in strong growth may have a fourth or a third of the leaves nipped out, with gains to the fruit and less damage of mildew. Layer as shown on page 118 of the issue for July.

**Marketing.** Sort carefully, pack with pains-taking, and in general strive to have a good reputation as a grower, with buyers. Then you can sell in seasons of great plenty when others can not.

**Mulch** any trees that may be suffering from drouth.

**Raspberries.** Clear out the old canes after fruiting and treat each plant to a shovel full of rich compost. When the tips of the Black-cap class take on a purplish-white color propagate, if this is desirable, by bending these to the earth and covering each tip lightly; a stone may keep it in place. It will soon root. Observe directions for Blackberries.

**Strawberry** beds that have fruited should now be kept well tilled. A stimulant should also be applied to the plants; nothing is better than hen manure and ashes mixed with wood's earth. Some of the same spaded into the soil will prove a treat.

**Watering** fruit trees in dry seasons is of much help to the crop. This done after the development is so far along that seeds and stones begin to harden is especially useful. To water trees draw enough

soil from the stem to form a saucer like edge; into this depression place a mulch over which to run the water. The mulch will extend the benefits a long time. Some liquid manure is also a great help.

**VEGETABLE GARDEN.**

**Asparagus** beds kept clean of weeds and grass always prove much more productive for this.

**Celery.** Set out the late crop. The successive plantings are to be earthed up gradually, as sufficient growth of stem to handle appears. This is best done after a heavy rain or watering. Take care that no soil finds its way into the hearts.

**Cleanliness** about the premises is always of moment, but doubly so in hot weather, for then impurities in the air arising from filth and decaying matter readily become poison.

**Cucumbers.** Gather daily for pickles. By taking them at two inches long (the favorite size) the total number produced will be much increased.

**Egg Plants** to be encouraged with liquid manure; mulch to keep the fruit clear from the ground.

**Liquid Manure** applied once or twice a week now to growing crops of Lettuce, Cabbage, Cauliflower, etc., will help them much.

**Onions.** Gather when most of the tops have fallen. Pull and dry for several days before storing. Seed may be sown for early Spring pulling. Just before winter cover the seedlings lightly.

**Potatoes** will be dug from day to day; those for seed to be left until the tops are well ripened. If there be any rot, burn the tops instead of leaving them on the ground or collecting for the manure pile, thus preventing the spread of the germs.

**Seed saving** is one of the important garden jobs; only the best, and as a rule the earliest stocks, should be used for seed. In gathering seeds let them be well dried and put up carefully, marking the packages with name and date.

**Sow early Turnips, Lettuce, Endive, Spinach, early and winter Radishes and Cucumbers and bush Beans for pickling.** These may occupy the space where early crops were taken off.

**Spinach.** Round-seeded sown at once will yield a supply to vary the produce of the season later.

**Squashes.** Keep the cultivator going until the tops prevent. The same advice applies to Melons.

**Sweet Potatoes** should now be growing rapidly; the branches to be raised occasionally to prevent their rooting. Keep perfectly clean of weeds.

**Tillage.** A lively hoe is a good substitute for rain in supplying moisture to growing crops. Continue to work between the rows of all growing crops until the tops interfere.

**Tomatoes.** If any fruits are shaded by an excessive growth of leaves, as a result of the wet weather in some places, remove enough leaves to admit the sun to them. Gather and destroy the large Green Worms. If you do not trellise your plants then mulch, to keep the fruit from the ground.

**FRUIT AND VEGETABLES UNDER GLASS.**

**Grapery.** Fruit in a ripening state should have a free supply of air, but chilly winds, if there be such, should be guarded against. Free ventilation will help both the flavor and the color of the fruit. If the shoots are crowded remove a portion of them with a view to securing a perfect ripening of the wood for next year. In cold-houses the forming bunches should be thinned of all defective berries.

**Mushrooms** can easily be raised by anyone, in old frames, under greenhouse stages or even in a cellar or shed. Collect a good heap of horse manure; shaking out the straw. Spread it out as it accumulates, to prevent heating, and turn at intervals of a week for several weeks. Then add loam—if it be turfy all the better—in the proportion of one-third or one-fourth of the whole, and make up a bed 18 inches deep, beating it down well as the work proceeds. Let it remain until a brisk heat arises, when spawn (to be had at the seed stores) should be inserted in pieces the size of an egg about four inches apart. Cover the bed with two inches of fine loam and then wait for results.

**Pine Apples** swelling their fruit to have frequent supplies of liquid manure and an abundance of atmospheric moisture. Young plants to stand the winter for fruiting early next year, had best be moved from those that are swelling fruits, so as to keep them dryer and more freely ventilated.

**Strawberries.** See under this head last month. It may be added that the compost used for pot plants ought to be strong loam and rotted manure, and the plants be potted quite firmly.

**Inquiry Column**

*This being the People's Paper it is open to all their Inquiries, bearing on Gardening.*

*On the other hand, answers to published inquiries are carefully requested from readers. The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however varied that is, and conditions and facilities being so different, they prefer to receive answers, even several of them, to the same question, from readers everywhere. Don't hesitate to write because you may feel you are no fine writer—give facts and ideas and the editors will see that they appear in creditable shape.*

*In writing, give the number of the question you are answering, your locality and name, the latter not for publication unless you desire. Write only on one side of the paper. Flowers will be gladly named provided first, that no more than three be sent at one time. Second, that these be fully prepaid. Third, that several specimens of each reach us in good shape. We cannot undertake to name florists' varieties.*

92. **Cut Worms.** I would be very grateful for a remedy for cut worms. They commence their work about last of April, and feed on our plants until I have almost lost courage in attempting to cultivate flowers, strawberries or vegetables. Would "Hammond's Slug Shot" do any good? Mrs. W. R. COLE

93. **Tulip Seed** When should it be sown? F. O. H.

94. **Hydrangea Hortensis.** How shall I treat a plant of this kind which dropped its leaves after being planted in a box 8 by 10 inches and 6 inches deep, set in wood's earth mixed with sand? The stem is green except the tip, which has turned dark. After planting I kept in house in the shade a few days, then let it have the morning sun. Would it be best to reset it in 6 in. pot?

95. **Wax Plant** Mine seems almost to stand still. Is this to be taken as a bad sign or should it not grow fast? MISS CATARIE LYLE.

96. **Ivy Geraniums.** Will you please tell me the best treatment for this plant. MISS E. A. PORTER.

97. **Night-blooming Cereus.** I have had a plant nearly 8 years that has never blossomed. It has had several buds of late, but they remain about the same size for 3 or 4 weeks, then blast. Can you tell the cause or how it should be treated? It stands in a south window and has a strong hot sun upon it. Should it be placed upon the piazza or out of doors, where it will have night dew? E. B. KINSEY

98. **Palms for House.** I am desirous of trying these plants, of which I have heard so much, provided you will name some of the best ones for the purpose. MRS. L. W. GRANTON

99. **Tiles for Celery.** Some persons have strongly advocated the use of tiles for blanching Celery. We have never tried them and desire to know your opinion as to their value. TWO SCRAMBLERS.

100. **Tea Leaves in the Soil.** A friend says she has heard that to mix tea leaves with the soil is a great help to plants. Is anything known on this subject by large-plant growers?

101. **Mossy Lawns.** My lawn is mossy and seems to grow worse. How must I treat it? Mrs. G. R. G.

**REPLIES TO INQUIRIES.**

91. **Daffodils.** All the Daffodils will do, except *Juncifolius* and *Bulbocodium*. Plant them carefully; do not merely dibble them in, but prepare the place for them by turning over the soil and breaking up the soil. They will take care of themselves afterwards. ENS. P. G.

98. **Palms for House.** The best and prettiest Palms for indoor or window decoration are *Latania borbonica*, *Scarfthalia elegans*, *Phoenix reclinata*, *Arecas* and *Kentias*. They require to be kept in as regular a heat as possible during the winter months, and to be syringed frequently during the summer. Soil: Peat or leaf mould, loam and silver sand—most part loam. W. MARTIN

99. **Tiles for Celery** We have found that there is not enough gained in using tiles for blanching Celery to warrant any investment in them whatever. Unless they happen to be just the right length and fit the blanching will not prove satisfactory. We prefer the good old way. ENS. P. G.

89. **Lemon from Seed.** I have never seen a Lemon plant however large from seed bear fruit in cultivation. It should be bedded. A. B. E.

97. **Night-blooming Cereus.** We incline to the opinion that your plant has defective drainage, possibly a water-logged soil. It so it should be shifted into a pot having ample drainage, say several inches of broken pots in the bottom, and this covered with moss to prevent the soil from clogging up the cracks below. Let the soil used be light and open and but moderately rich. ENS. P. G.

83. **Hyacinths** never bloom a second time in the same year. WM. BLAKE.

92. **Cut Worms.** One of the latest methods recorded for killing them is to make holes with a sharp smoothly whittled stick six or eight inches deep near the plants. The worms will fall into these holes and cannot get out, die. ENS. P. G.

# The Household

## Living to get the Most Good.

No one can enjoy a happy, cheerful life who habitually overworks; sooner or later such a course must lead to a broken-down condition and to distress. And yet we believe that as a rule American women in moderate circumstances try to do too much. The worst feature of the case is that much of overwork comes from a disregard of good judgment in laying out and performing the work of housekeeping.

If to live well signifies neither luxuriant nor expensive living, in what then lies the secret, and how may it be taken advantage of? We believe the answer to this question may in good part be put in the shape of a few short rules:—

1. Buy with judgment, selecting those things which will be available for use with the least work, other things being about equal.

2. Use common sense. If you do your own work do not think there must be as many ruffles and pleats in your childrens' or your own clothing as there are in those of your wealthy neighbor who puts out her sewing. Plain clothes lead to even a greater saving of work in the washing and ironing than in the making.

3. Ask yourself often, "Will it pay to do it?" In making fancy work aim rather to the adorning of the useful than to the making of the useless. We have been in houses where the rooms were filled with many strange specimens of fancy work that were without real utility or beauty, while they caused much labor to keep them clean of dust and otherwise.

4. In the cooking department buy the best, for the best is always the cheapest. Let your economy regulate the quantity not the quality.

5. Study simplicity in the number of the dishes served at each meal and then variety in character of the meals. Even when visitors are present avoid a multitude of dishes. Save us, too, from the woman who puts labor on making a dozen pies once and sometimes twice a week for a moderate sized family.

6. Let the woman of the house be indeed the head of her own household and of her kitchen. Let her by teaching and practice see that no waste be allowed in any department of the house-keeping.

By observing these and other rules and following them out to their details there may be such a saving of time and strength as should yield to those who otherwise are unduly busy and over-worked more leisure for the good things of recreation, health or social life.

## Brieflets.

**Essence of Quassia** will drive away flies.

**Cucumber peel** is detested by cock roaches.

**In cleaning brass** use some vinegar and salt.

**Close stove cracks** with a cement of wood ashes and salt.

**Exposure to the sun**, it is said, will remove light soot marks.

**A bit of charcoal** in the vegetable kettle will diminish the odor.

**Fruit or rust stains** yield quickly to a weak solution of oxalic acid.

**In boiling eggs** the larger ones should go in first and come out last.

**For burns** no remedy is more potent or easily applied than flour wet with cold water.

**Better save your hands** from odor when peeling onions by holding the latter with a fork.

**There is no use** being troubled with red ants in a closet or drawer when a little bag of sulphur kept in it will disperse them.

**A grease spot** on wall-paper looks very bad; it may be absorbed by a hot iron with several thicknesses of blotting paper between paper and iron.

**The person** who cannot afford to cross the ocean this summer can always get up a kind of sea-sick feeling by having the painters in his house. *Morning Journal.*

**Soft-boiled Eggs.** "I place them in boiling water, enough in quantity to amply cover, standing the vessel on the back of the stove for five minutes or a trifle more, and the eggs turn out in a well-done jelly-like consistency."—*SUN.*

**Potato balls** made from remnants as follows are relished at our table: Chop some cold meat, potatoes and a little bread, then warm and thoroughly mix, adding an egg for six persons and seasoning; mould into balls and fry lightly in a warm pan.

**Berry Custard.** From Harrison Co., Texas, an esteemed contributor, who signs herself "Evangeline," sends the following to our columns: To one quart of canned Black or Dewberries add the well beaten yolks of three eggs, three tablespoonfuls of sugar and half a pint of sweet milk. Stir these ingredients well and pour on pastry the same as for other custard. Put in a hot oven until well set, and take the whites of the eggs, to which add three tablespoonfuls of sugar and beat to a stiff froth, which spread on top of the custard and bake until brown. Or, if preferable, put the whites and sugar in the custard.

**Care of the Teeth.** Brush twice a day. The proper time is on rising in the morning and on retiring at night. In the morning a wash may be used. Brush gently over the crevices of the teeth. This removes any mucus that has collected during the night, and leaves the mouth in a refreshed condition. Just before retiring a tooth powder should be employed, and particles of food that have lodged between the teeth removed, which, when left for several hours, result in the fermentation of an acid, which causes softening of the tooth-structure, and thus promotes decay. After eating a quill tooth-pick and floss-silk should be used for removing the debris. *Dr. Gilbert.*

**Boys Doing Housework.** A writer in the *Farm and Home* has well said that there is nothing degrading for a man or boy to don a big apron and assist the tired wife or mother in the heavier work of the household. "My mother's girls 'were all boys,' and I, the youngest, was often called to help her with the housework. I have lived to bless her for the instruction she gave me in that line, and I know my wife is of the same mind. I remember one day when I was helping at the wash-tub our pastor called and took occasion to ridicule me for the work I was doing. I was a boy, but my estimation of him fell several degrees at that time. I know a man who, when his wife was sick, and no help could be had for love or money, took the whole care of the household as nurse, cook, washerwoman and maid of all work for several weeks, unaided, except for the daily visits of the physician, caring for his wife as she went almost to the gates of death, until at last a good nurse was obtained and the tired husband was permitted to rest. So, boys, don't be ashamed to help your mother and sisters in the house if your help is needed. The knowledge you will get may serve you a good turn some day, and you can feel that you have done what you could to lighten the cares of a self-denying mother."

# Poultry.

## The Chicken Yard Now.

The spring broods should be so far advanced by this month as to allow the good to be distinguished from the bad, and all that have not the appearance of turning out well should be weeded out.

There is always danger to be feared from that lane to successful chicken rearing, overcrowding. By closely culling out the inferior birds the good effect to the remaining ones in better size and stamina is often soon apparent.

A common error is the allowing of too many cockerels to remain in the run. They are unwise tormentors, depriving the promising pullets of their proper rest, as well as of food and accommodation. Kill or sell these off as quickly as possible. Old hens also want looking over. It should be remembered that after two years of age they will not pay as layers.

Where it is possible at this season to give them the range of stubble fields do so by all means. By seeing that fowls have plenty of food, green and other, and exercise, the molting season may be shortened, to their advantage. Make liberal provisions for a dust-bath

in their inclosures if it has not been done. Fit up the houses before the winter to be proof against drafts, wetness and bad ventilation.

## Poultry in Large Flocks.

A correspondent who characterizes the poultry department of *POPULAR GARDENING* as "a store of condensed wisdom" wants to know whether we could advise the keeping of a flock of five hundred or more fowls on a six-acre lot of dry stony ground not worth planting. We find in a recent issue of the *Poultry Yard* an article on this subject that in a few words so well covers the matter that we print it:

A large number, say up in the hundreds, of domestic fowls in one flock cannot be kept to advantage at all upon any one place, be it large or small. And this is why:

It is unnatural and ungenial to the race thus to be herded in hundreds. They poison each other by contact; they will give you no eggs; they are liable to sickness continually from this over-crowding.

Five hundred or five thousand fowls can be kept upon one estate or farm if it be large enough to accommodate them. But they must invariably be colonized in small groups of not over forty or fifty under one roof or in one spot. Each colony is then to be kept separate from the other, to be tended and cared for precisely as so many fifties may be in a village with different owners located in different domiciles. Thus one may succeed; but in the other way only failures will result, as scores of men have found to their loss, and as other scores will doubtless yet learn from hard experience.

## CONDENSED POULTRY NOTES.

**Confined geese** do not pay.

**Fowls** are the best gleaners.

**Meal** should be mixed dry and crumbly.

**Poultry** now without shade cannot do its best.

**Eggs**, like meat, from a grain diet are better flavored.

**Confined fowls** can hardly get along well during hot weather, unless given fresh water three or four times daily.

"**Are your hens** good hens, Mrs. Featherly?" inquired neighbor Fowlspur of that lady. "Oh yes," she answered with delight, "they have never laid a bad egg yet."

**When applying** insect powder to fowls do so over a spread newspaper, as then much of the powder may be used over again. The effect of the powder will also be shown by the vermin gathered.

**Sulphur** is a chief constituent of feather-making food. It also acts when taken into the system, against insects on fowls. So don't hesitate to dust a little of it over the food twice a week. It will tell favorably on the fowls in their molting season.

**Barley** is perhaps the best staple grain for hens, especially if mixed alternately with wheat, buck-wheat or corn. Corn, while it is excellent as a change, is not a good regular diet. Rice, well boiled and mixed with barley or corn-meal, will be useful as a change once in a while. Brewers' grains, if fresh, are greatly relished, and the same is true of malt sprouts or dust, if there is a malting establishment near from which these can be obtained.

**To convert** your early pullets into early layers feed them liberally and with a variety of nourishing feed. Sometimes it is forgotten that young growing creatures need food both for sustenance and for growth, where old ones need it mainly for the former. To give old and young but an equal chance to the feed is to do the pullets an injustice. They should have one good extra feeding daily, even if they have a fine run in grain stubble besides.

**A foolish prejudice** is what the *Mirror and Farmer* calls the claim that incubator hatched chicks are inferior to those hatched and raised in the natural manner, and that they are not suitable for breeding purposes. Such supposition arises from ignorance. There cannot possibly be any difference. If a chick is hatched it comes into the world fully endowed by nature to maintain its existence, no matter what the method of hatching may be. But after it is hatched everything depends upon the care. We have seen incubator chicks superior to those hatched under hens, as also the reverse. They are, when matured, equal as breeders in every important respect.

# POPULAR GARDENING

FOR TOWN AND COUNTRY.

"ACCUSE NOT NATURE, SHE HATH DONE HER PART; DO THOU' BUT THINE" MICHOS

Vol. 1.

SEPTEMBER, 1886.

No. 12.

## September.

September waves his Golden rod  
Along the lanes and hollows,  
And saunters round the sunny fields,  
A playing with the swallows.  
The Corn has listened for his step;  
The Maples blush to meet him,  
And gay, coquetting Sumach dons  
Her velvet cloak to meet him.  
Come to the hearth, O merry prince!  
With flaming knot and ember;  
For all your tricks of frosty eyes,  
We love your ways, September.

—Ellen M. Hutchinson.

## Making Garden in the Fall.

It seems to be a hard matter for the average amateur to set himself about garden making at any other time than in the spring. As a result many flowers, and some vegetables and fruits, that succeed best for autumn planting are either not raised at all or else it is done to poor advantage.

The hardy Dutch bulbs, Hyacinths, Tulips, etc., are one class that are much slighted in this respect. To us it is clear that fine collections of these flowers would be much more common could they be planted in the spring along with most everything else instead of in the fall. From September until cold weather is the time to plant these.

Certain kinds of annuals are better for fall than for spring sowing. In nature we may observe that summer and autumn sowing is the invariable rule; seeds drop to earth as they ripen, and spring forth in the same fall or early the next spring. All florists, we believe, now sow Candytuft and some other kinds in the fall for their first crop of outdoor spring bloom from these.

For a list of annuals suitable for fall sowing we would name the following:

*Alyssum maritimum*, *Bartonia aurea*, *Calandrinias*, *Candytufts*, *Clarkias*, *Collinsias*, *Erysimum*, *Forget-me-nots*, *Gillias*, *Godetias*, *Nemophilas*, *Saponarias*, *Silenes*, *Virginia Stocks*, *Pansies* and *Sweet Peas*.

Of these all but the Sweet Peas should be sown between the middle of August and the middle of September. The Peas ought not to go in before November, the idea being to not have them germinate until early the next spring. Still we cannot recommend the sowing of annuals in every kind of soil in the fall; the soil for them must be light and well drained. The chief advantage of fall sowing is that the plants grow stronger, root deeper and flower earlier and longer than those from spring-sown seed.

In the line of vegetables, Spinach and Borecole or Kale for an early spring crop are the better for being sown early in this month. To sow these now in good soil is to secure fine early spring greens that should prove most acceptable on any table. Cabbage, Cauliflower and Lettuce may also be sown for plants to be kept through the winter in cold frames for an early crop next year.

Take one season with another and there is no better time for starting a Strawberry

bed than now. By setting out good young plants this month, strong, bearing stools will already be present for next season's fruitage, a thing impossible to be secured if the planting be deferred until spring.

## Dr. Nichols's Fruit Cellar.

Dr. Nichols of the *Journal of Chemistry* has been conducting some careful experiments in preserving fresh fruits over winter in cellars of different construction. It is so clear to anyone that fruit stored through the winter, to come out fresh and sound in the spring, will command a price several fold greater than the same would bring in the fall that the matter becomes a very important one to the fruit grower. Following is a condensed statement for making the cellar which has given the doctor the most perfect results. An engraving of the same is also shown. It should be added that the objects had in view were to keep the fruit dry and cool, yet free from frost.

Two rooms, each large enough to contain all the fruits of the farm, are needed—an outer and an inner. A cellar should be dug in the south side of a hill large enough for the inner room. The outer room should be exposed to the air wholly in front, and on the sides far enough to accommodate two windows, as shown in the engraving.

Build of brick or stone, carrying the walls to the height of eight feet. If stone is used,—it may be rough and be put up by any farmer,—it must be pointed with mortar. A thick wall, with a door, should separate the two rooms. In the engraving the walls are shown by dotted lines.

The roof should come near the ground in the rear; be carefully constructed and supported by timbers; be lined with tarred paper, strongly secured and painted with tar or pitch. There should be a ceiling—rough boards will do—and a space one and a half or two feet deep between it and the roof, to be filled with dry straw, hay or sawdust.

The fruit should be kept in the outer room until freezing weather, and then be removed to the well protected inner one. The barrels should be piled up horizontally.

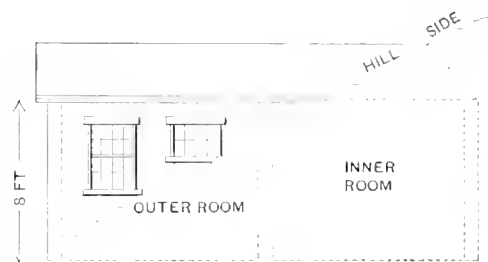
The outer room should be ventilated through its windows; the inner, by opening both doors—but *only in dry, cold weather*, as warm air introduced would condense and give out moisture. There must be special care about admitting warm air in the spring.

## Healthfulness of Trees.

Aside from fruitfulness and beauty every vigorous tree may be looked upon as a fountain of health and comfort. And this not in a figurative sense either, for it is a fact that growing trees act as pumps, in raising water from the earth and dispensing it from the leaves, chiefly in the form of vapor.

The refreshment enjoyed from the shade of trees in summer is greater than that from the shade of buildings on this account, for in addition to the sun's rays being intercepted there is also a modifying of the heat by the exhalation of cool, refreshing moisture.

But such effects extend much further than merely close to the trees. The increased balminess of the breezes that pass over partly wooded sections of country, as compared



DR. NICHOLS'S HILL-SIDE FRUIT CELLAR.

with the winds of a treeless region, are familiar to every one. In cities, too, the salubrious effects of many trees in the streets, public parks and on lawns is now being widely recognized.

It has been noticed that in treeless streets and avenues in midsummer the temperature often runs from 110° to 120° Fahrenheit, when under the branches of a tree-shaded avenue it would not exceed 70° or 80°. It is a fact that there is less suffering from intense heat and death from sunstroke in the tree-planted Southern cities than in those of the North that are treeless. Dr. Richard Smith, of New York, is of the opinion that to plant the verdure-bare streets of the metropolis with trees the appalling number of 3,000 to 5,000 victims to sunstroke annually would be largely reduced.

But there is still another important consideration in this matter. All plants, but trees more than the smaller growths, imbibe from the air carbonic acid and other poisonous gaseous and volatile products exhaled by animal beings or developed by the natural phenomenon of decomposition. These are absorbed by the leaves and in their stead pure oxygen, essential to the life of animals, in almost equal quantity, is poured into the atmosphere. Thus by planting trees, not only is the air rendered cooler and in cities the pavements and surrounding walls prevented from absorbing the heat of the sun, to yield it up again at night, but deleterious gases are taken up and this pure element restored to the air again.

Nor must we forget the healthful protection afforded by trees in the colder portions of the year. Whatever tends to promote the comfort and warmth of man and beast in cold and chilly weather, by reducing the sweeping blasts without cutting off the supply of pure air, has a most salutary effect on health. Trees—and especially Evergreens—better than anything else effect such ends.

### The Christmas Rose or Hellebore.

To rely on the common names of plants exclusive of the botanical ones is to invite confused ideas of kinds, as is often seen. Take the interesting, if in America not well known, old winter blooming plant named at the head of the present article as an illustration. The common name would place the plant among the Roses, when in fact it is not even a near relative, but belongs with the distant Crowfoots, and first cousin to the Clematis, Peony and Larkspur. Pleasant as is the term Christmas Rose, it leads to a wrong idea as to identity.

But if burdened by a misleading common name, our fine genus suffers vastly more from the common-name business in another direction. We refer to its strictly correct name, Hellebore, being dragged down, as it were, by ill-application as the common name of a well known vegetable poison that has to do with killing plant lice and caterpillars, and as a specific for unpleasant human ailments like itch, ring worm, etc. This is the White Hellebore, which, as to the plant yielding it, is as far from the true Hellebores as the Christmas Rose is from the true Roses. The acrid and virulent poison referred to is a *Veratrum* (*Veratrum album*); much better would it be for the ornamental Hellebores had the latter name prevailed as the common one of this poison.

The unfortunate name feature aside, and the Hellebores are in their finer varieties a really valuable class of hardy perennials. They are literally winter bloomers, flowering in their different varieties from November until April. The fact of their coming at such a time gives them special worth.

But the question will arise, can any plant bloom out-of-doors at this inclement time of the year? True enough, the weather is then often unfavorable to the perfection of bloom. But so far north as Buffalo these plants bloom out-of-doors in the shelter of buildings or fences year after year in the milder weather of November and December, and again in early spring, in a manner quite satisfactory. Let us add, however, that it is better to protect them from rain, snow and wind by the simple cover of a sash.

The culture is simple—a light soil well drained and a place shaded from the sun most of the day, and sheltered from winds, suit them well. In the flowering season a mulch over the roots should be provided.

As to varieties of the Christmas Rose, the one sold in the hardy plant nurseries as *Helleborus niger*, with white or rosy-blush flowers, would be one of the best for the amateur to begin with. There are other good ones, with red and purplish flowers. A

great advance has recently been made in Europe in the raising of fine hybrids. The beautiful one herewith illustrated is of these, it being a perfectly white variety, spotted with purple. It is known as a Spotted Christmas Rose, *Helleborus Commercianrath*, and has not yet been offered in this country. Our engraving gives a fair idea of the form and size of the flowers throughout this interesting class of ornamental garden plants.

### Garden Notes from Lyndale.

BY A. H. E.

In a visit to town I noticed many shade and fruit trees with ugly-looking bands of cotton



A SPOTTED CHRISTMAS ROSE OR HELLEBORE.—(Pure white, with purple spots.)

around the trunk 5 to 6 feet up, put there for keeping off the Caterpillars. I question the wisdom of such a course. Admitting that some Caterpillars are turned back (all certainly are not), it does not kill them; they travel to trees that have no protectors. These bands remind me of the man who, starting with axe in hand to cut down some superfluous Wild Cherry-trees, he was met by a neighbor who remonstrated with him, asking him to let them live as "pasture" for the Web Caterpillars instead of their living on common Cherries. Insects, like weeds, should be dealt with for wiping them completely out; poison I have found will in one way or another do it well and with proper care safely enough.

\* \* \*

Certain kinds of seed I save from my own garden, and on such I can depend with great confidence. Onion is one of the kinds. As the bulbs mature I choose some of the earliest and best formed ones and keep them over for spring planting, in the carriage house loft. Early in the spring I plant out in one of the best spots I can find, setting at 5 inches each way, with the result almost invariable of securing a good crop of seed.

Of Beet, Carrot and Turnip seeds, I prefer raising what I need. I make my selection of stock in the fall, taking the finest specimens at the time of harvesting. These are not topped as closely as the main lot, for the crown must remain. I store over winter in barrels or bins of sand in the cellar. In the spring I plant in good soil, keeping the different varieties as far separate in my garden as possible.

Seeds of Parsnip and Salsify are raised the easiest of all kinds, for they may be left either where they grow, or else be removed to a more convenient spot at once in the fall. In saving Parsnip seed I usually allow only the earliest formed to mature, cutting the later bunches of bloom away. Salsify I take as soon as the seeds are plump and full, though green, drying the stem and all by hanging up in the airy carriage house loft. Birds are too fond of the crop to trust it on the plants until dead ripe.

\* \* \*

Speaking of home-saved seed, when I sowed my Pansies the other week I was struck with the difference in the appearance of my own seed and some imported from Germany. The former was uniformly dark-looking and fully

twice as heavy as the other, bulk for bulk. Would you know why? I went over my seed-bed every other day, taking only the ripest vessels. These imported ones were gathered less often, perhaps once a week and there was little pains taken to leave back the green seeds,—they weigh, too.

The difference is now easily seen in the coming up of the plants. While every seed of our own seems to make a plant, I think not more than one-third of the imported ones are doing as well.

\* \* \*

I have a Morning Glory tree, a thing of rare beauty. It is nothing more nor less than a Plum tree which met with an accident that killed it, and over which have run a great

profusion of these charming morning blossoms. In the spring I saw that life was almost extinct in the tree, so the soil near its base was worked over, bringing some old hot-bed earth to it, and in this I planted several packets of Henderson's best Morning Glories. The rest is easily imagined. This Morning Glory tree is my most attractive novelty of the year.

\* \* \*

A florist from a neighboring town, whom I invited to visit Lyndale recently, was so pleased with the Hollyhocks here that he said he wished he could buy of the flowers for a large order he had the next day. He knows that I grow no flowers for sale, but still I half suspected from the way he spoke of scarcity of flowers that his large order had something to do with his coming at this time. At any rate I spared some flowers from my abundance, without price, for the poor fellow no doubt was in a straight and he had done me many a favor in the past, which I was glad to repay in this or any other way.

But I was unaccustomed to look upon my stately, handsome Hollyhocks as bouquet flowers. The improved varieties are certainly very double, of good form and texture and not lacking in sweetness, so why should they not be much used thus. Individually they have no stems to speak of, but my friend explained how he supplies this deficiency with light wire and a bit of match stick. This flower, always a favorite with me, I shall now look upon as being even more useful than I had ever before thought of. It seems that it is thus employed extensively by the city florists.



## AS TO THE FUTURE.

## "Popular Gardening" to be Increased in size and to be a Dollar Paper Hereafter.

To those who have watched this paper from its beginning, eleven months ago, it must be apparent that it is a very lively and promising youth, allowing such an expression. In that time it has not only absorbed two sterling contemporaries, but by its general excellence it has easily reached the very front rank of independent American horticultural journals.

That POPULAR GARDENING is supplying an obvious want in American horticultural literature is at this date a matter of no doubt. It started out to disseminate current gardening intelligence of public interest, and to do so in a sparkling, concise and sensible style that should find many readers. In this it has not been disappointed. From the very first issue its subscription list has grown constantly and rapidly, while the expressions of hearty appreciation from subscribers have reached us without number from the beginning.

But while in general the career of POPULAR GARDENING has been singularly bright, there have been thus far two apparent lacks in its being, and they not distantly related. We refer to its low price considering the costly character of its make-up, and its present size, as shown by a very marked demand for an enlarged paper from our subscribers.

So far as the last matter is concerned, while an enlargement has often been urged by subscribers, we were not fully satisfied how widespread this feeling was until—as many readers found out—a direct inquiry was made into the matter some time ago. This we did by communicating direct with each one of a large share of our older subscribers, scattered throughout the entire country, putting to them the following inquiry:

"Would an enlargement at end of year, with price \$1.00 instead of 60c., strike you favorably?"

The answers were very numerous, and to our surprise (and joy—for it amounted to a hearty endorsement of our work) FULLY 80 PER CENT ASKED FOR AN INCREASED PRICE AND SIZE! To show how hearty and emphatic was the sentiment in favor of enlargement, we print a few extracts from the many answers received, as follows:

"Yes, indeed; give us a larger paper and charge the \$1.00."

"I vote enlargement emphatically."

"It is worth \$1.00 now, and we would give it, so of course yes."

"Emphatically YES."

"Enlarge by all means." [The answer of many.]

"Yes sir." [A common answer.]

"The paper is worth \$1.00 as it is. The low price caused me to hesitate at first to subscribe."

"It would most assuredly."

With an actual majority of *four to one* on the part of subscribers in favor of an increase, it was decided to comply with this general desire, beginning with the second volume (October), and so it shall be.

But this was not all. In justice to ourselves as publishers we have to say that it never has been clear to us that 60 cents a year was a consistent figure for covering the quality of contents, careful editorial work, costly engravings, paper and printing employed in POPULAR GARDENING; hence, we have in the past been pleased to speak of that figure as the "INTRODUCTORY PRICE" of this paper. Now after nearly one year's experience we know that it is an inconsistent figure. But on the other hand we have learned also that while 60 cents a year and the present paper are not in true accord, the price of \$1.00 a year *and an*

*enlarged paper*, even of the present high quality may be so. [If such a statement may puzzle average readers, it is only because they are not publishers, for then they would know that some of the heaviest items of publishing, such as management, rents, clerk hire, book-keeping, editing and many others, are not one cent less on a 60-cent paper than on one high priced.]

Such being the case, as every expert in these matters knows, we have now arranged to meet the desire of our subscribers and do justice to ourselves, by placing our price on a better basis and with it to enlarge the size. With the broader \$1.00 basis we shall give a paper so much improved that it will still be the very cheapest paper of its class, quality considered, in the land.

## MR. A. M. PURDY'S TESTIMONY.

Some time before buying the *Fruit Recorder* Mr. Purdy in our hearing stated that he had made a mistake in dropping the price of that paper to 50 cents from the former (and for 16 years) price of \$1.00 a year. Nothing further was then said of the matter, but desiring since to learn his views more carefully, we have written for such, which he gave to us as follows:

HIGH POINT, N. C., Aug. 9, 1886.

Gentlemen:

Yours at hand. I was glad to see that the price of POPULAR GARDENING and *Fruit Recorder* was to be increased, for I am satisfied from a long experience in publishing that no person can print a really live, practical horticultural paper in first class style for less than \$1.00 a year.

Had we kept on with the *Recorder* we should have returned to the old form and price, knowing that we could have done better justice all around.

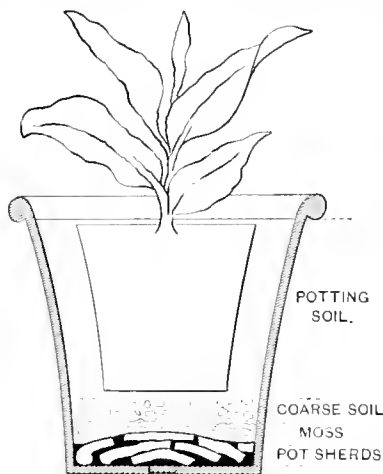
Papers that print all kinds of advertisements, and are half filled with such, may answer at the half-price rate, but a good dollar paper largely filled with clean, sound reading matter is worth half a dozen such. You cannot put it too strong showing the necessity of changing the price and size.

Truly yours, A. M. PURDY.

Beginning with the October issue, therefore, the price of POPULAR GARDENING will be \$1.00 a year, but as in the past so in the future we mean that, to the extent that money and labor can make it so, it shall be the brightest, handsomest and best paper of its class published, and in every way worthy, and very cheap for the price.

## How to Pot a Plant.

Who does not know how? may be asked. We venture to say that a matter weighing as lightly



POTTING.—THE PLACING OF THE MATERIALS.

as this often does with growers is very often the one fine point between future success and failure in plant culture. The assertion, of course, applies with more force to plants of comparatively delicate natures than to the easiest growers, but POPULAR GARDENING aims to lead its readers to success in managing all classes of subjects in gardening.

The engraving almost shows how without further explanation. A chief point is drain-

age. This so far as underdrainage is concerned is clearly set forth in the cut. There is first something like an inch of broken pot-sherds, carefully laid, for shodding water. Then—and a very important part—comes a strata of Moss or Sphagnum to keep the earth above from settling into the drainage below. A clogged drain is of no use. Above this comes the soil,



POTTING STICK

seeing that coarse parts, such as roll down the sides of the heap, go to the bottom as shown in the cut.

Besides such underdrainage, there is a clear gain in a similar direction, by having the sides of the pots clean and porous, the dealers in painted pots to the contrary notwithstanding. For plants to do their best there needs to be not only porosity, for the escape of water, but for the admission of air to the roots. A painted or dirty pot or a wooden box or cask in a large measure obstructs the admission of air from the sides.

The larger the pot the more needful is underdrainage, and the less needful is side porosity. Hence pots smaller than 3 inches across scarcely need the former, while receptacles larger than 1 foot across can pretty well dispense with side porosity. Tight boxes, therefore, answer better for large plants than for small ones.

The POTTING STICK, illustrated, is of use in doing a good job of potting, for firming the soil about the roots. It may be whittled from a lath, and should be about 6 inches long.

## Fall Sowing of Lawns.

We believe in it. An extended experience in lawn making convinces us that there is no better time than this. The Grasses that are suitable for lawns are not unlike Wheat and Rye that are sown in the fall, in the respect that they are perfectly hardy and thrive under the coolness and moisture of autumn and spring weather in a young state better than they do in hot weather. With sowing lawns in September the young grass has the benefit of twice the length of cool, moist weather that spring sowings can receive. Under ordinary success there may be a well established lawn by next July from seed now put in. To prepare for seeding is no difficult matter, provided the general grade and the nature of the soil are about right. Spade up deeply, going down two lengths with the spade, mix fine manure with the overturned soil somewhat freely; see that all sods are well inverted, finish the surface evenly and finely with a rake; a rain, to settle it before sowing, is of advantage. Sow evenly, in calm weather if possible, just before a rain, raking lightly after the sowing. For seed trust to a reliable dealer who handles the best Grasses, either separate or in mixture, for the purpose. Even to procure from a distance is no great disadvantage, for grass seed is light, with transportation charges to correspond.

## Remedy for Grape-vine Mildew.

The usual sulphur dusting remedy sometimes fails, and Prof. C. V. Riley, Entomologist of the Department of Agriculture, who has investigated this disease carefully, recommends the following: Dissolve eighteen pounds of ordinary sulphate of copper in about twenty-two gallons of water; in a separate vessel mix 6-1/2 gallons of water and thirty-four pounds of coarse lime, so as to make a milk of lime. Then mix with this the solution of sulphate of copper, to form a bluish paste. Pour a portion of the mixture in a bucket or other vessel, thoroughly shaking it, and brush the leaves with a small broom, taking care not to touch the grapes. This remedy is successfully employed by the French, and a single application is said to be as effective as repeated ones. The time of applying the remedy in the French vineyards is about the middle of July. Care should be used to touch all the leaves if possible.

### About the Bell-flowers or Campanulas.

Scattered over a large area of the earth's surface, but chiefly throughout Europe and Asia, are to be found the great number of some 280 distinct species of the Bell-flowers. These vary in size from the small and delicate American and Alpine kinds not over five inches high to the tall-growing three to six-footers, that include at least one of our own species and a number of foreigners. Among the latter is the fine subject of our engraving, known as the Climbing Bell-flower, *Campanula rapunculoides*.

Included in the many known Bell-worts are enough species possessing real merit as ornamental flowering plants to render the family a very important one to the gardener. For variety of forms and fine shades of color, especially blues, it would be hard to find their equal in any other genus. As a class they are in the main so hardy and easily grown as to permit of their culture by almost every one, even by those amateurs who claim to have "not much luck at fine gardening." Take the well-known Canterbury-bell, *C. media*, and the Peach-leaved Harebell, *C. persicifolia*, they are so easily raised, hence so common that the person must be ignorant indeed of garden plants who is not familiar with them.

The Canterbury-bell referred to is one of the few species to be met that is biennial in nature—not enduring beyond the second year. The plants when in bloom are very ornamental. They are raised by sowing the seed in the spring or in midsummer. Plants from the early sowings usually bloom the same year; the others not until the second year. Sometimes these plants increase by self-sowing, being quite free-seeders.

There are also some annual Campanulas, described in the seed catalogues, but the great bulk as to numbers of this family have the good quality of being hardy perennials. It is on this account in part that we take particular pleasure in referring to the family here, for we know that with being permanent and beautiful plants, when once set out, they are in every case and under merely common culture quite certain of giving satisfaction.

Some of the best Campanulas of the perennial class, and of which plants can be obtained from American nurserymen, are the following: Peach-leaved Campanula, *C. persicifolia*, in several varieties, including blue and white flowers, both single and double; Nettle-leaved Campanula, *C. trachelidifolia*, a handsome mid-summer bloomer in two colors of flowers, blue and white; Carpathian Harebell, *C. Carpathica*, of dwarf growth, in several colors; Common Harebell, *C. rotundifolia*, a native species with deep blue flowers in summer [The botanical name would indicate that the leaves are round—such is rarely if ever the case]; Bearded Harebell, *C. barbata*, lovely sky-blue flowers, fine for rock-work; *C. grandis*, a distinct and beautiful sort with blue salver-shaped flowers; Broad-leaved Bell-flower, *C. latifolia*, purplish blue, large leaves; Large Bell-flower, *C. macrantha*, Noble Bell-flower, *C. nobilis*, with very large flowers in two colors, creamy-white and purple; Steeple Bell-flower, *C. pyramidalis*; Climbing Bell-flower (See engraving), *C. rapunculoides*; Turban Bell-flower, *C. turbinata*, and yet quite a number of others.

Of the last named, the Turban Bell-flower, one of the latest with which we have gained an acquaintance, is a compact growing species, having most lovely flowers fully 1-2 inches across, of a magnificent shade of blue. This species propagates quite readily from seed, and the same may also be said of many other kinds.

To those of our readers who may desire to buy established plants the catalogues of the B. A. Elliott Co., of Pittsburgh, Pa.; Woolson & Co., Passaic, N. J.; Ellwanger & Barry, of Rochester, N. Y., and some others, would afford good selections. The prices are moderate. Plants might be set out early in October.

### A Pacific Coast Letter.

From way-off Washington Territory (Clarke Co.) our subscriber, Mrs. Fannie E. Briggs, sends to this paper the following welcome note:

Our climate, much like that of England, is moist, and temperate both in heat and cold. Some winters the mercury falls to zero, but last winter the coldest was 16° above. The highest I have noted in summer is 105°, and that very rare.

Daisies bloom here nearly all the year. Plants set three inches apart in spring by fall form a solid mat. Lilies do exceptionally well. A

mainly, although it also comes from seed; the latter from seed, and in rare cases by division. The shrubby class are the most robust, hence the most useful for those persons who do not have a greenhouse; but where one of these is possessed, the herbaceous class would be found the most desirable.

It is about a shrubby *Calceolaria* that Mrs. W. Tuttle, of Carroll Co., N. H., a subscriber to the *Fruit Recorder*, wrote to Mr. Purdy. Her letter having been turned over to us, we print it with the greatest of pleasure, as we always shall be glad to do all such communications from our newly acquired readers:

"I have had good success with this flower. The blooms are maroon and yellow in color and as large as a nickel. My plant is 32 inches high, it being from a slip taken last September. It had eleven large bunches of bloom on it at one time, and altogether a season of ten weeks up to time of writing, and has two pretty bunches now.

"The dirt used was garden loam and fine barn-yard manure, sifted through a coal sieve, with a little leaf mold and sand mixed with it. The plant does not require much sun, and wants to be kept cool. Good drainage is essential to beautiful plants.

"As I have saved some seeds, will some one that has raised them let me know if they will come true?" [Raised from a single plant with no chance for cross fertilization they should come true. We would not sow before about February next.—EDS. POPULAR GARDENING.]

### High Quality Costs Something.

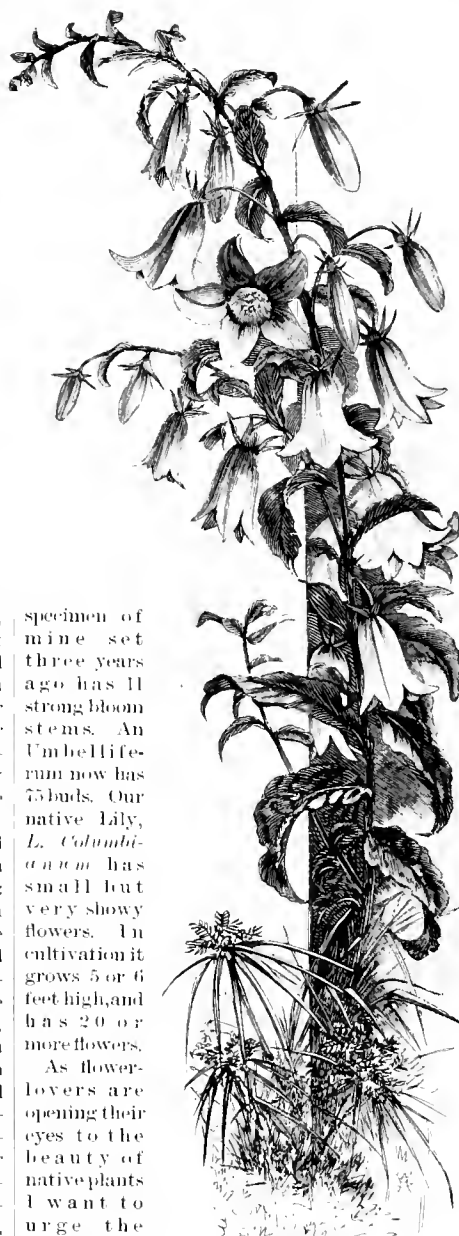
If people who raise fruits, vegetables, or even flowers, could only secure good crops of the finest and comparatively delicate kinds under the neglect that poor weedy sorts can stand, and even bear crops of their kind under, matters might be different. But such things do not happen as a rule. To have of the best kinds and qualities implies the bestowing of the best culture and the best methods of treatment to the choice trees or plants that bear such. Mr. Josiah Hoopes, a very careful cultivator and observer, makes in the *New York Tribune* some practical points in this respect concerning certain favorite Pears, which we are glad to present here:

The finest Pear known, whether for extreme richness, delicious flavor, buttery texture, or an abundance of juice, is undoubtedly the old White Doyenne, or Butter Pear. But we too rarely find a good specimen of this grand old fruit in the present day. We can hazard a pretty sure guess as to the cause, namely, Fungi, and although few cultivators have overcome the malady, one enthusiastic Pear-grower, by digging in a heavy coat of unleached wood ashes, completely renovated an old tree of this variety, and swept the prizes wherever he exhibited his fruit taken from the subject.

Specimens of the old White Doyenne yet grown in such localities exhibit the same wax-like skin of a bright golden hue, with the brilliant carmine cheek, so familiar of old. This fine Pear has not "run out;" no variety of fruit will.

The Pear disease known as "cracking" in the fruit, although beyond a doubt attributable to the same common enemy as the "spot" on the skin of certain pears, is of a more serious character. In regard to this spotting it is on the increase in some sections, destroying the usefulness of many of our best varieties. For instance, *Beurre Clairgeau* is now discarded in some places on this account alone.

It is unquestionable, however, that unleached wood ashes have a remarkably beneficial effect on the complaint referred to. The health and consequent growth of the tree is greatly benefited by the application, and it must exert a partial influence on the fruit.



CLIMBING BELL-FLOWER—*Campanula rapunculoides*.

specimen of mine set three years ago has 11 strong bloom stems. An Umbelliferum now has 75 buds. Our native Lily, *L. Columbianum* has small but very showy flowers. In cultivation it grows 5 or 6 feet high, and has 20 or more flowers.

As flower-lovers are opening their eyes to the beauty of native plants I want to urge the claims of the Clustered Solomon's Seal, *Convolvularia racemosa*. Of fine habit, and with feathery racemes of creamy white, it unites beauty, delicacy and fragrance.

By the way, it is generally known that the name "Solomon's Seal" refers to the scars or seals left upon the creeping roots of that plant by successive years' growth. One of these plants which I have protected from passing feet had ten strong stems of bloom.

### The Moccasin or Carpet-bag Flowers.

These are also widely known by the botanical name *Calceolaria*. There are two species in ordinary cultivation, the shrubby and the herbaceous. The former is propagated by slips

Those careful growers who systematically scrub the bodies and larger limbs of pear trees with thick soap-suds and sulphur speak highly of the results to the ensuing crop of fruit, as well as to the health and vigor of the tree. Syringing with alkalies in solution has been of good service in exterminating insects, promoting growth, and checking the progress of such diseases of a fungal character.

This is the direction that careful experiments should take if we desire to improve the standard of qualities and to eradicate from orchards the worst pests we now have to contend with.

**Summer Waste of Manure.** For a property-holder to touch a match to fence, out-building or lumber pile and then stand and watch it go up in smoke, the act would be taken as proof of a madman. What of the tiller of the earth who deliberately lets the precious value of his manure pile go off into the air in the shape of pungent ammonia of high fertilizing quality. This happens very commonly, about as often we think as the talk of "no profit in gardening." At this season the sun hastens fermentation; so now look out to prevent this escape of volatile matter and "fire fang." The simplest way to avoid this waste is to pump liquid manure or even to run water over the heap—not too much to wash it, but just sufficiently to arrest active fermentation. Consolidation of the manure heap is a good thing. To mix different kinds of manure together is another help—cow dung, for example, requires something to help it to ferment. Dry earth, muck or gypsum may also be suggested for preventing the escape of ammonia, by mixing it freely with the manure. By one means or another let every such wholesale waste be promptly stopped.

**The Days of the Cabbage Worm** are numbered it would seem. They have, according to Prof. Forbes of the Illinois Department of Agriculture, been clearly less abundant in many sections during the past season than previously. This difference is due apparently to a destructive disease of the worm, which was first reported on in 1882. Hopes are entertained by some of our wide-awake entomologists that the disease may be propagated and extended artificially, and efforts are being directed towards such a desirable end. It is, to say the least, encouraging to the gardener sometimes to find disease and blight that work in his favor.

**Is the Watermelon King?** Comes not far from it in certain places, it would seem. For instance, steamers from some of the Southern ports have been bringing 60,000 to 70,000 big Watermelons to New York per trip. The freightage is 5 cents a melon. Last season one company received \$28,000 for Watermelon freight, and alone carried nearly 600,000 of these juicy and "luscious univalves."

**The Jamestown Weed, *Datura stramonium*,** is a near relative of the Tobacco. Thomas Meehan says it is as good an insecticide as the latter. At least lovers of the weed lose one good excuse for their vile habits smoking bags off the plants if this be so.

**Fruit Bores,** such as "visit" your home only in fruit time, bestowing attentions, more marked than market, need treatment. Be courteous of course, but don't forget to charge full retail price for the fine fruit consumed, wasted and carried away.

**Planting After Fifty.** Henry Ward Beecher says that he never planted at Peekskill any Pears till after he was fifty, and he has picked good crops of Pears for the last twelve years. Such experiences are not rare.

**The Cherry-tree** stands being planted along lanes and roadsides, where there is a passing of vehicles and tramping of stock, better than most other kinds of fruit trees.

**The Smoke** theory keeping away frosts by making smudges in the field seems like many another theory to have gone up in smoke.

**Whoever plants the James Vick Strawberry** must understand that, like all similarly prolific sorts, it must have high feeding.

**Even Potatoes** have rights. It is injustice to their quality to leave them long undug after they are ripe.

**Fruit for jelly** is better for being picked before it is dead ripe.

**Let Us Add This:** Have regard to the morals of the bird help.

**Radishes** for winter may yet be sown.

**In Gathering** Grapes try scissors.

**Reset Rhubarb** in early autumn.

**A Good time** for draining.

**Hand-pick** Pears always.

**Dry** the surplus Limas.

## FLORAL FASHIONS & FANCIES

### Thistle Down.

Now lightly floats yon Thistle Down,  
By wandering breezes blown,  
Gay, careless rovers of the air,  
With source and goal unknown,  
But in their silvery filaments  
Deep moral we may read;  
Upon each airy, reckless flight,  
Is borne a living seed.

Emma Carlton.

**Tea Roses** are improving.

**A fancy affair** the floral fan.

**There is** a cream-colored Golden-red.

**China Pinks** make bright table bouquets.

**Now the outdoor** flower supply begins to shorten.

**As a funeral design,** the wreath plain and simple, but made up loosely, is gaining favor.

**Half the charm** of cut flowers is lost if these be crowded into bouquets. To prevent crowding we know of nothing better than the free use of long-stem Mignonette for the foundation, between and back of the other flowers.

**Ivy** has been very much used in decoration during the past season. The variegated forms are especially lovely, either for draping tables and mirrors, or as a background. Smilax has been so lavishly used in the past that now it is rather out of date in the larger cities.

**Rush ornaments** for holding flowers are being made in the form of hats inverted, and fixed on a tripod; they are filled with a mass of Poppies or Sweet Peas, and have a large bow of harmonizing ribbon tied on the tripod. Rush wheel barrows are filled with similar flowers.

**The boutonniere** for the coat lappel has always been much worn in England. This may account for their increased wear here—it's English, you know. However that may be, it is no strange sight to see all the way from two to half a dozen flaming Carnations now projecting from the button-hole of a fashionable man's coat.

**The wearing of flowers** in the hair is coming much in vogue. Flower aigrettes are the prevailing mode. A tuft of Osprey is introduced among the natural blooms, and diamonds are displayed as dewdrops sparkling on freshly gathered Roses. On the corsage large sprays of flowers and foliage are displayed, and long trails decorate the skirt.

**The Floral Muffs** carried by English bridesmaids in the late spring do not seem to have come very much in vogue here yet. A New York wedding guest, wearing a golden-brown gown slightly relieved with mauve, carried a muff of Catheya Mosses, tied with a bow matching the dress exactly. Another gown of moss-green was worn with a muff of bright pink Geraniums tied with green ribbon.

**Flowers for the Sick.** In our quiet little town a "flower mission" has been started to send flowers to our own weary sick ones, and once a month to send flowers to the hospitals in Boston. I know how these beauties cheer when the body is full of pain, and I hope I shall be successful in having a garden prolific in blooms, that I may help gladden other hearts as mine has so often been by floral gifts.—"Woodbine," in *Parks' Magazine*.

**Instead of bouquets,** brides now carry loose posies, exquisitely informal in arrangement. One beautiful "posy" was of Marechal Neil Roses, tied with loops of salmon-pink ribbon; another of Blush Roses, tied with crimson velvet. These bunches share with floral fans the public favor. Of the latter, a pretty specimen had a foundation of Bramble, partially covered with pale Blush Roses; a white satin bow nestled among the blossoms and a tiny Brazilian beetle rested on one petal, as if it had just alighted there.

**Table Spreads and Flowers.** Table cloths which were most discouraging to the florist, are now stigmatized as bad taste; pure white linen is once more visible, but as society must have novelty, table decorations are very elaborate. One table described, is covered with finest damask. Half a yard around the edge is left clear; then comes a border of russet brown leaves enclosing a plane of glowing crimson foliage. On this flame-colored ground, with the stands hidden, are small vases of white china, filled with light sprays of yellow flowers, any fine kinds that are seasonable, with their own leaves.

## Botanical Budget

Cultivate the habit of seeing correctly.

As roots become hard the root hairs die.

Color and fragrance are the flowers' advertisements to insects. *Budley*

The American White Pine is said to have the highest gravity of all coniferous woods.

The revolving of the shoots of twiners is caused by the plant cells on one side assuming a greater length than on the other.

Flora of Greenland. A French botanist, M. Ruysmann, has enumerated 378 species of plants growing in Greenland, and he finds that they resemble those of Lapland more than those of Northern America.

Once a familiarity with the common parts of plants and their botanical names, such as petal, sepal, stamen, calyx and so on is acquired, and it is not difficult for intelligent beginners, or even children, to begin to analyze and classify the more simple plants.

The botanists in attendance at the meeting of the American Association of Natural Sciences, in this city recently, numbered considerably upwards of one hundred, which fact testifies to the growing interest in this branch of biology. Daily meetings of the section were held, all of which were largely attended, and much enthusiasm prevailed. At these meetings essays on botanical matters were read and discussed. The club enjoyed excursions to the shore of Lake Erie, Canada side, Niagara Falls and to Chautauque Lake. Mention must also be made of the botanical reception at the house of our able local botanist, the Hon. David F. Day, of this city.

The weeds we have with us always. This statement is indeed near the truth, there being some marked exceptions in the cases of a very few very clean cultivators of the land. Professor Lazenby, of the Ohio Experiment Station, Columbus, Ohio, has gone to great pains to show why weeds are so persistent in their presence; this by counting and closely estimating on the seeds of some of the more common ones. As to results he found on one plant of the everywhere abundant Shepherd's Purse (*Capsella Bursa-pastoris*) 77,500 seeds; on a rank Burdock (*Lappa major*) 400,328 seeds; on a large Wild Parsnip 19,000, and many other kinds were nearly as numerous as those of the ones named.

**Educational Collections.** No one can take exception to that kind of inoffensive advertising enterprise which in itself proves a direct public benefit. Of this character is a step lately taken by the seed house of Messrs. Sutton & Co., Reading, England. They have fitted up many handsome cases containing samples of the dried plants and seeds of the grasses of England. These cases have been presented by Messrs. Sutton to a large number of nurseries and agricultural institutes at home and abroad. The especial convenience of students in botany has been aimed at by enclosing the dried specimens in cylinders of clear glass, each one of which is accurately labeled. The seeds are somewhat similarly placed in smaller cylinders or bottles. Here is an idea for some of our American seed houses to adopt, whereby they could do themselves much good at the same time that they would become public teachers. Some such a collection would be of vast benefit in every public school. A demand once started for cases of specimens like these, and it would be strange if many could not also be sold outrightly.

**The Tendrils of Cucurbitaceous Plants.** Mr. Duchartre has made the following curious observations on the tendrils of cucurbitaceous plants. Out of 22 species examined by him it was found that 14 had tendrils that were quite straight in the very young state, and remained so during their development; and in eight species only were the tendrils spirally rolled from their first appearance and before they had come into contact with any foreign body. Among these latter are included the Pumpkin (*Cucurbita pepo*) and the Bryony (*Bryonia dioica*). It is remarkable that, while the ordinary forms of the Melon (*Cucumis Melo*) have their tendrils spirally developed from their very first appearance, this is not the case with the variety *Erythraeus* of the same species, in which the tendrils are straight from their earliest stage. Mr. Duchartre remarks that the side of the tendril that grows most rapidly, and thus causes it to assume the spiral form, consists of much larger parenchymatous cells than does the opposite side of the tendril. Among the species that have straight tendrils from the first are the Dishcloth Gourd (*Luffa acutangulata*), the Balsam Apple (*Momordica Balsamifera*) and *Cyclanthus v. ephodens*.



A. M. PURDY'S DEPARTMENT.

Postoffice address, Palmyra, N. Y.

## WELCOME,

### Subscribers of the "Fruit Recorder."

To the many subscribers of the "Fruit Recorder and Cottage Gardener" our warmest greeting. We bid you welcome into the ranks of the POPULAR GARDENING family. You shall not be made to feel as strangers with us, for your good and trusty friend, Purdy, is on hand before you and joins us in extending to you a glad welcome here. He advanced early and with great caution to spy out the land, and finding it fruitful and promising now bids all of his old readers "Come with us here." His editorial work in your behalf, as well as of all the family, will be kept up much as it has been in the past, but with this advantage: He will be spared the multitudinous cares of a publishing business, and on that account will be able to do even better work in writing about fruit and fruit culture. And if with such relief the too visible signs of past overwork upon his brow may be smoothed away, no one can, along with us, be better gratified than you, his old subscribers.

A word about POPULAR GARDENING: The paper speaks for itself. But we desire to say that with making room for Mr. Purdy's department in the present issue (old size) some of the regular departments have been badly curtailed or else crowded out. Next month with the enlarged paper all will appear again, some to be larger than ever before. POPULAR GARDENING will be sent to each *Recorder* subscriber for his or her full unexpired time.

POPULAR GARDENING PUB. CO.

### Mr. Purdy in His New, Yet Old Role.

We did think when the sale of the *Recorder* was contemplated to perhaps throw aside the editorial harness entirely. But really our love for writing and our desire to impart to others the results of an extensive practice in fruit growing compels us to keep on in the new and enlarged enterprise which presented itself in POPULAR GARDENING. Unembarrassed as I now am with the many small perplexities of publishing I shall, in connection with caring for over two hundred acres, mostly devoted to fruit growing, here and at the South, do my full part towards making the joint paper such a complete success that not only will all of the old *Recorder* subscribers renew to this paper at the expiration of their time, but also a large number of new ones be added to the list. Success to the new enterprise. A. M. PURDY.

### Hold on to the Evaporated Fruit This Year.

Be in no hurry to sell. The Apple crop is exceedingly light in most sections, and especially so in the great fruit region of Western New York. As to Peaches, the crop is a very short one north of Delaware, and evaporators are scarce south of that point, so it may be put down as a certainty that but few evaporated Peaches will find their way to market.

It is really amusing to see how the circulars of certain commission men report "an excessive large harvest of Raspberries in Western New York," when the truth is over one-half the crop has not been gathered because of con-

tinual midsummer rains, forcing rapid ripening; and then a scarcity of pickers and lack of facilities for handling. Whole plantations in Wayne County—the largest producing county in New York—have gone without picking for the above reasons.

Some of these men, with their sharp pencils, will work hard to get a "corner" on the evaporated Raspberry stock by buying them up for 13 to 15 cents a pound. Let growers hold on to their stock; they will see a big bound upwards in price within the next three months. We ourselves have 10,000 to 12,000 pounds and we expect to obtain not a cent less than 25 to 28 cents per pound for them before next spring.

No person, either, can afford to grow and evaporate the Black Raspberry for less than 18 to 20 cents and the Reds for 25 cents, for look at the matter: It takes 3 to 3 1-4 quarts of the first and four quarts of the last to make respectively a pound of the dried article.

### Shall we Plant Small Fruits for Market.

The question whether or not it will pay to grow small fruits for market is a frequent one. In a general way we can sum up our answer, based on a long experience at a point some distance from the large markets, as follows:

1st. If you can be sure of getting at least 5 to 6 cts per quart for Strawberries, 5 cts for Black and 6 cts for Red Raspberries, and the last figure for Blackberries, you can make it pay, providing you are in sections where these stand the winter. All that can be realized over these prices you can count on as clear profit.

Black Raspberries will succeed on any soil suited to Corn and Potatoes; over-richness is not desirable. The same may be said of such Red Raspberries as Turner, Hansell, Crimson Beauty, Herstine, Brandywine and Cuthbert. The Crimson Beauty and Hansell are the earliest of all, and the Cuthbert the latest. The last is a marvel for large crops and hardness.

In sections where the Peach will not stand it is not safe to plant Blackberries like the Kittatiny, Lawton, Early Wilson and Dorchester, but only such sorts as Snyder, Taylor's Prolific, Stone's Hardy, Wachusett, Western Triomphe and Wallace. The Gregg Raspberry is a little tender in such localities, while the Tyler and Ohio are perfectly hardy.

2d. One important item towards success is to *be sure* you can get plenty of pickers. Another: Plant hardy, well tried sorts, like those named.

3d. Don't go in too heavy at first.

As to time of setting, if the ground is high and dry we prefer fall, as we then have more time to do it well—covering each hill with a forkful of coarse litter, to remain on through the winter. That to fall setting for all kinds of small fruit but Strawberries, which we always advise to set in the spring, unless a few for family use. Of course, if they cannot be set in the fall, then set in the spring—as soon as frost is out and the ground well settled.

4th. Our plan of setting Raspberries and Blackberries is to prepare ground well, then take a corn-marker and mark out one way 3 or 3 1-2 feet apart, and with a one-horse plow make furrows 6 or 7 feet apart the other way and set plants in these furrows wherever they cross the corn-marker's marks. By this plan we can cultivate them both ways the first year and thus save a great amount of hard back-aching work in hoeing.

We propose in future numbers to give instructions needed for their care and trimming.

### Questions Asked and Answered.

What shall I do with my Raspberries and Blackberries? Why, the new growth is growing out of all bounds!

My friend, you made a mistake in not nipping that new growth off at tip ends weeks ago, when not over 2 to 3 feet high, owing to age and stockiness of bush, but as that has not been done go through them *at once*, or cut them

back one-third to one-half, and as side branches grow long and spindling cut these off also.

We here wish to say that if you are growing for fruit the more branches and tips you can make, the larger your crop of fruit.

Another asks. Will I get as much fruit next year if I layer my plants now for new plants?

No; for the reason that you should stop nipping by August 1st, to allow tips to get long enough to reach the ground. While if not to be layered, the tip ends of branches can be repeatedly nipped till in October, thus adding to the number of tips and wood to produce fruit next year.

Another says: My Raspberries are growing every way; what shall I do? We answer, cut back and nip off as we direct and soon go through with stout string and tie around the three or four stalks part way up, thus making them support each other.

Another says. My Red Raspberries are grown to eight feet high; what course shall I take with them?

Take a corn knife and go through the rows now and cut them back to the height of your head if you are, say, about 5 to 6 feet high, and next winter or now, as you may have the time, clean out the old wood and with stout string tie the tops of three to four stalks together. Then they are made self supporting.

Another asks. Is it well to take old wood out now or leave it in?

We have generally advocated taking it out as soon as through bearing, but we find when that is done the new growth, which is very tender at this season of the year, is twisted and broken off; but by leaving old wood in a few weeks, or even till winter sets in, and then cleaning it out, the new growth having ripened and become hardened, stands better and besides all have more time to do it then.

Would you advise manuring Raspberries?

Yes; we have done so for years, throwing a small forkful around in each bush after fruit.

The sooner Red and Black Raspberries, Blackberries, Currants and Gooseberries are set the better. Early planting induces strong rooting before the winter sets in, with large growth next season.

When Cultivating Strawberries, where strong new fruiting plants are wanted along the row, run the same way every time, otherwise you are likely to tear out young plants that are rooting. The same may be said of Black Raspberries where you are layering the tip. To run both ways is to twist off the young plants.

Strawberries should be well worked and manured now, for the larger the fall growth the more fruit next year. Night slops and wash water are excellent for this fruit; the former especially must be well reduced, as too strong does harm. If an old bed of plants are matted over the ground spade or plow under the older plants, leaving rows of new plants half-way between.

Fruit in Western New York. The Apple and Peach crop is very light, not enough for home consumption in the fresh state. We passed through one large Apple orchard the past week of over 300 trees that will not give to exceed 25 bushels of Apples. The same may be said all through this great Apple section, and as for Peaches, there are none. In our young orchard of 4,000 trees we will not get one-half bushel. Pears and Plums are a good crop with us.

It Worked Well. We refer to the plan of ours in transforming an old Black Raspberry plantation into a new Blackberry field. It was a year ago last spring that we had a plantation of Kentucky Raspberries (black) that was running out. Knowing we could expect a fair crop or two yet, but not more than that, we entered upon the plan of setting the Snyder Blackberry half way between the former in each row, and when they got to bearing well to cut out the Raspberries. So far the outcome has been good, thus getting a good crop of

both from the same land. In the fall the Raspberries must come out, leaving the ground to be occupied by the Blackberries.

### Walks and Jottings.

*Layering Raspberry tips pretty early this year, aren't you?*

Well, that depends. We usually nip them about this time in August to cause a break-out of new and more tips. But then these are Davison's Thornless, being very slender growers, and we have found that if nipped late such sorts make weakly plants. Stronger growing kinds may be nipped and layered later than this.

*How do you keep the bark so well from "settling" on your budding Pear seedlings, to work in dry weather?*

By running through the rows often with the cultivator, etc., to help the roots to grow thrifty and long, I have little trouble in this respect.

*Your Plums and Pears are hardly affected of all by worms, I see; how can it be accounted for?*

We sprinkled the trees last spring twice after the blossoms had fallen with poisoned water made by putting a teaspoonful of London Purple into a quart of milk, and this then into a pail of water. With Page's force pump we did the spraying of the trees. On that one Cherry tree there, with part of its leaves dead, we overdid the matter. It was found that a slight spraying is all that is needed. We had a splendid Cherry crop this year, the fruit being free from worms, by using as stated.

*What do you advise doing with an old weedy Strawberry bed that I must rely on next season for fruit?*

Scatter sufficient straw over the bed to just hide the ground and burn it. Such a course will destroy weeds, worms, seed and most every other obnoxious thing without doing harm to Strawberries, but be of great benefit.

*I see those heaps of swamp muck. Do you find this article of any value on your place?*

Yes; when it is properly composted, drawn out and mixed in layers with one-fourth part of barn-yard manure I consider it makes a most valuable fertilizer for all fruit crops.

*What is the man at among the Peach trees?*

Around every tree he is applying a spoonful of salt close to the head. This is done both to keep the grubs away and also as a fertilizer. We find the best plan is to mix salt and unleached wood ashes together, say a quart of salt to a peck of ashes, and put a pint of the mixture around each tree. We also whitewash the tree as you see with lime whitewash made thin, putting a spoonful of carbolic acid and a handful of salt into each pailful. This keeps grubs and vermin away and gives us healthy trunks and trees.

*How about Evergreens, is it safe to transplant and trim them at this season?*

Yes; August to September are good months for both, only be careful to mulch heavily with coarse litter and water well in dry weather. In trimming we cut back the top and never the bottom, and when we get a good bottom for the tree we then let it grow, occasionally cutting back the top or side branches if growing too spindling.

### A Promising Gooseberry—The Industry.

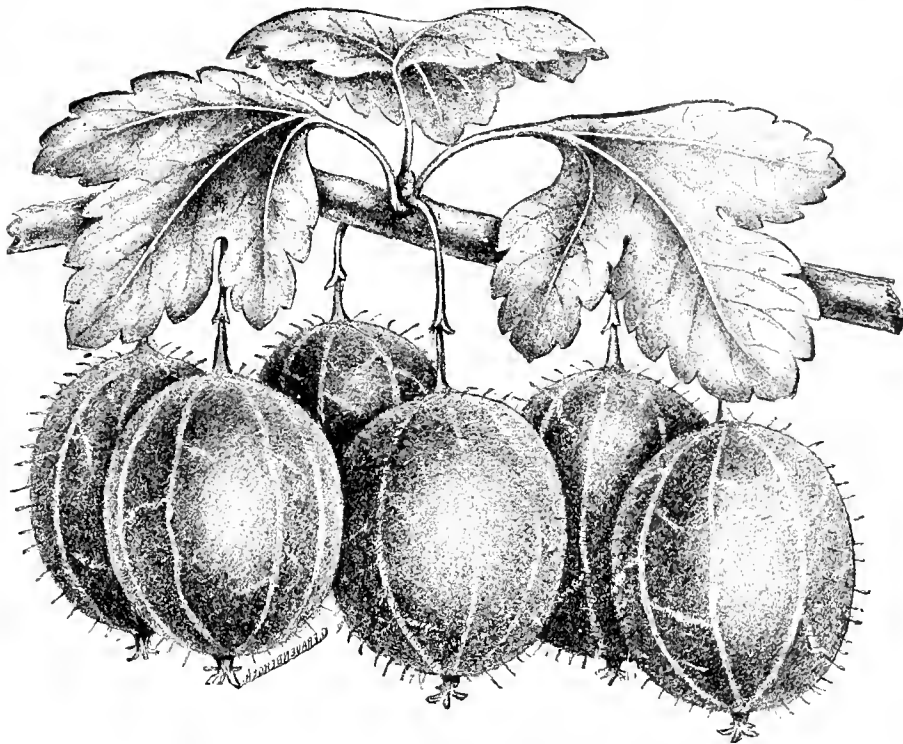
We met this Gooseberry for the first time in fruit on a recent visit to the grounds of Ellwanger & Barry, Rochester, N. Y. For a foreign variety it certainly was a revelation to our eyes, and at once led to the question, whether we have not at last found the sort that would

give Americans a chance to grow this fruit well and in abundance.

In a good sized patch of the Industry in this nursery we saw only vigorous, clean handsome plants, heavily loaded with fruit. The accompanying cut is a good representation of the fruit, save in color, which is that of a dark cherry-color. The crop was very fine for young plants and the fruit uniformly large. It is a variety that we shall watch with much interest. We expect to be able to report from a trial plantation of our own by next year.

### Good Things Gathered Up.

I have learned that it is not safe to recommend any fruit on short trial.—E. Satterwaite.



A PROMISING GOOSEBERRY.—THE INDUSTRY.

**Wise Generation!** To buy foreign manures by thousands of tons, and permit your home resources to go to waste in river and sea.—*Our Country Home.*

**To prevent the splitting or bursting of Cabbages,** go frequently over the ground and start every Cabbage that appears to be about to mature, by pushing them over sideways. Heads thus started are said to grow to double the size they had attained when about to burst.—*J. J. H. Gregory.*

**Sulphide of Potassium.** This remedy for mildew has now been extensively used by our leading gardeners. As it is a remedy at once cheap and effectual, I am anxious to make its merits as widely known as possible among my fellow amateurs and gardeners generally. As mildew is common this year (in England), I hope every one who is troubled with this pest will test the sulphide and report whether it proves successful or not.—*Gardening World.*

**Raspberry Clearing.** I have discovered an easy way of clearing a field of old Raspberry bushes. First reap them with self raking reaper, one row at a time, depositing the cut bushes in piles with the self rake. After a few days pitch three rows of gavels into one and burn the brush. Then spread the ashes and plough deeply under the soil the stubs and all with three horses, making very narrow lands. Then harrow and cross-harrow several times until the roots and stubs of the Raspberries are mostly drawn and deposited by the harrows in the dead-furrows between the lands. Then hitch four horses to the forty-tooth harrow and run it lengthwise of the furrows, one man riding the harrow. This drags the stubs and roots into piles. Two men lift the drag over these and so on until all the roots and stubs are thus piled. When they have become well dried these are burned in the field and the land is ready for another crop.—*New York Tribune.*

**Keeping Sweet Potatoes** If dug, dried and handled without bruising, and kept dry, with some ventilation, so that they will not sweat, and at a

temperature that will not vary much from 50°, they will keep perfectly sound. In the Gulf States they are kept by placing them in oblong or small conical piles, on a bottom of corn stalks covered with long straw, piling thereon sufficient earth to keep out water, giving ventilation by means of a straw chimney. In a small way they must be kept in barrels, with dry leaves between the layers of potatoes in a room where the temperature will be as stated. If large quantities are to be kept, a frost-proof building should be erected, with proper ventilation. Bins are built regularly in the building, and the Potatoes placed therein mixed with air dried sand, the temperature and ventilation regulated by fire or steam heat. The Potatoes should not be placed in the bins until first seasoned, by which the superabundant moisture of the Potatoes is carried off, but this must not take place in the sun. At 60 the Potatoes will sprout, while 40 will certainly chill and rot them.—*Farm, Field and Stockman.*

**Poultry Manure.** If the droppings of the fowls were saved though sands of dollars' worth of the very richest manure might be returned to the soil. It is essential in saving them up that they be kept dry. To stand exposed to rains and the sun they lose their valuable elements. Whether one cleans the dropping board once each day or once each week, it is much better and pleasanter to have it sprinkled every morning with a few handfuls of dry earth

a loam of sand and clay mixed is best. This absorbs the volatile qualities of the manure and holds them until ready to be applied to the soil. We have found poultry manure, if properly cared for under cover, worth as much as Pacific guano, which is usually worth \$35 to \$45 per ton; mix it with about the same

quantity of soil in boxes, barrels or bins; keep it dry till you need. For vegetables it is especially good, except Sweet or Irish Potatoes. It grows them too much to vine. For Melons it has no superior; for fruit trees it is invaluable. Poultry manure is far more valuable than stable manure, and it is less trouble to save; if kept dry one hundred fowls will give you from twelve to fifteen pounds daily.—*National Stockman.*

**Planting New Orchards.** Of late years in the older States the tendency has been to decrease the amount of orcharding rather than to increase it. That this policy is generally unwise is tolerably certain. To those well located and on not too expensive land the result of such planting will prove profitable. It needs good land for orchards. While the trees are growing rich soil insures thrift and rapid growth. While trees that are stunted by poverty will bear earlier, it is at the cost of vigor and usefulness later on. Those planting now will not make the mistake so common formerly of planting a great variety only moderately productive and therefore not profitable. The mistake now will be the other way, in restricting varieties to one or two. It is often said that there is no Apple so profitable as the Baldwin. This is true of many but not all localities, but it will soon cease to be true anywhere if all new plantings are of the Baldwin variety. It is not likely that the world will be always or long satisfied with only one kind of apples, and that not the best. As far as possible the same varieties of apples should be planted in solid blocks. It often happens that apple trees have less than a full barrel in a season, and in full crops there are parts of barrels left over from single trees. Having varieties by themselves enables the Apple pickers to finish one variety before beginning another. The summer and early fall Apples, as well as varieties kept mainly for home use, should be near the house and like the winter varieties in all cases as much in a bunch as possible.—*American Cultivator.*

**Marigolds.**

When the Poppies blaze with scarlet  
In the fields of tasseled Maize,  
And the Cornflower shows its turquoise  
All along the woodland ways—  
When the Clematis its tangle  
Weaves above the filmy Ferns,  
And the Cardinal's bright namesake  
In the rich green meadow burns  
Then you come, O radiant flower,  
Then your glowing heart unfolds:  
Summer dons your rich tiara,  
Gorgeous, yellow Marigolds.

—Helen Chase.

**The Reason.**

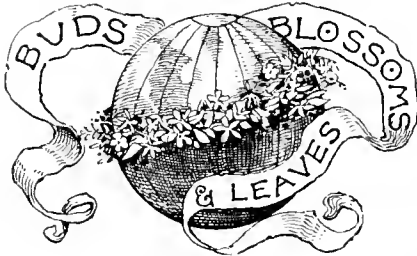
You darling, dear little Four O'Clock,  
All the summer I've guessed and guessed  
And wondered why you never awake  
With the Lilies and Roses and all the rest.

You never open your pretty eyes,  
Wet with the drops of shining dew,  
Nor mind at all when the warm bright sun  
Keeps whispering soft and coaxing you.

But I have watched you, dear little flowers,  
Till now I know why you never put on  
Your beautiful gold and crimson crowns  
Till the summer sunshine is almost gone.

The children are gone till four o'clock!  
You listen and listen to hear them come  
Laughing and glad. Then you peep out  
To give them a smile when they get home.

—Sidney Dwyer, in *Youth's Companion*.



Leaf-raking begins.

Plan well in gardening.

Weed the garden paths.

The last issue of Volume 1.

A great jump in circulation.

Cobæas are now in their prime.

What business has the Coleus to flower?

What a large family we are getting to be.

Is it cruel to raise plants and then pinch them?

Help make horticultural hall at the fair a success.

The leaves begin to turn, but they will return in the spring.

Welcome! friend Purdy, to the ranks of our editorial staff.

In lifting plants we begin on *Bouvardia* early in this month.

A Thought for Now. One year's seedling makes seven years' weeding.

A good tree or plant needs no more room than a poor one. Have the good one.

Wouldst thou bestow blessings on generations to come? Then plant trees.

A Concord Grape-vine two years old can be bought for ten cents, and yet how many homes there are without a vine.

The Onion crop in New Jersey is being eaten by insects. Their offense, like that of Hamlet's stepfather, "is rank; it smells to heaven."

Are Your Plants Yellow? Here is an idea then: Excess, as well as a deficiency of water, causes Geraniums and the like to turn yellow.

Previous to the latter end of the fifteenth century the English—now the foremost gardeners of the world—were ignorant of the art of cultivated gardens.

A Large Pansy Bed. Miss Johnston, a grower of Pansies in this city, sowed two pounds of the seed last month, expecting to raise 200,000 plants for sale next spring.

The Hairy Caterpillars are voracious consumers of foliage. But this in our favor: They are ramblers and easily seen, hence easy to kill. Kill every one that is met.

Not in Bloom. HE (at the horticultural show).—"This is a Tobacco plant, my dear." SHE.—"Indeed! how very interesting! But I don't see any cigars on it."—*Harper's Bazaar*.

How would a fine mass of the Parrot Tulips on your lawn next spring strike you? It is not too early to plan for such things during this month, for next month is the best time to plant these and all hardy bulbs.

Castor Oil Plants are now in their glory. But all of their beauty may be laid low by a heavy gust of wind snapping them off at the root. A stake two feet long to support each one may prevent this. This need not show.

The Japan or Plicate Viburnum. This Japanese Snowball, with its very handsome and showy globular heads of flowers, is in every way so worthy of more extended culture, that we advise our readers to plant it. There is a refined beauty about the plant that is both uncommon and captivating.

Too Mean. It is reported on good authority that some vandals have already stolen the Ivy planted by the Yale class of '86. It was the gift of Mrs. Cushing, who got it herself from Mt. Helicon, in Greece, from the face of a cliff where the marble was quarried for the buildings on the Acropolis at Athens.

Oberlin College, in Ohio, has always done what it could to instill a love for tree planting in the minds of the young. The good pastor, Oberlin, after whom the college was named, required each boy and girl, before he would administer the ordinance of confirmation, to bring proof that he or she had planted two trees.

A Fine Wax Plant. It is only four years old, but has a number of branches, the largest of which have nearly reached around a small south room. It flowered well this season. The plant referred to is owned by E. B. Kinney, a subscriber, of Windham Co., Vermont, who has kindly furnished the above report to our paper.

Asiatic Pitcher Plants. To Mrs. E. P. R., St. Joe, Missouri, we would say, in answer to her request, that these plants (*Nepenthes*) can be had of the larger growers, of exotics and stove plants. We happen as we are writing to pick up the catalogue of R. J. Halliday, of Baltimore, Md., in which for one they are offered.

Learn Where You Can. It may be noticed that those amateurs whose attention largely centers on growing one plant, be it an Ivy, Geranium, Rose, Cactus or even a Cigar Plant, usually have remarkable success, even when the situation seems to be against plant culture. After all it is care more than completeness of facilities that is at the bottom of success in gardening.

A Tea Remedy. L. J. Hiatt, a subscriber living in Montgomery Co., Ind., reports employing such a one with success in destroying the Black Flea on *Chrysanthemums*. The directions are to sprinkle the plants and rub the stems where the insects are bad with cold Tea. Three or four applications to plants that were badly infested cleaned them so they have been perfectly free from the insect ever since.

"Popular Gardening" with the next volume takes front rank with papers of its class. Indeed we are willing to leave it to our readers to say whether for practical worth, beauty and circulation it is not now, let alone coming improvements, at the very head of American gardening papers. But the matter of circulation rests largely with them. If each reader now could send in one new subscriber to begin with October, what a bound that would be for us.

Begin at Home. No one can possibly guess how many new plants and flowers will be named after the young mistress of the White House at Washington within the next few years, but it will no doubt be very large. The wheel was set a-rolling right at home by Mr. Pfitzer, the gardener at the White House, in

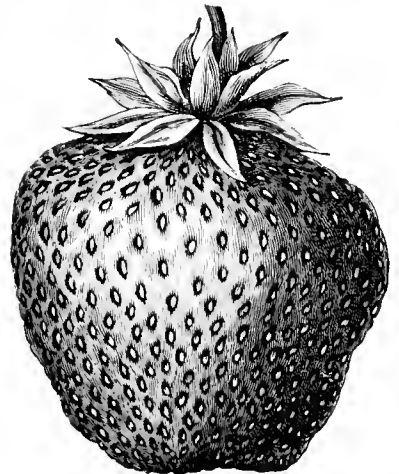
calling his new *Gloxinia* "The Mrs. Cleveland." It is a pleasant way of recognizing the esteem in which the wife of the President is held.

Poets and Gardening. The poets have never been able to reconcile themselves to the stiff and unnatural style of gardening which so much prevailed in Europe a century or more ago. It is said, for instance, that the ridicule of Addison, the imaginings of Milton, the natural description of scenery by Thompson and Shenstone, and the refined criticisms of Pope, Gray, Whately and Walpole, practically applied, had a wonderful effect on improving English gardens and parks.

Vegetable Pillows. A new and harmless mania is the Pine-needle craze. Ladies who take vacations among the pine woods in the Eastern States make a point of bringing home enough Pine Needles for a pillow, having faith in the healthful and healing properties of the balsam which they contain. One pillow will last from vacation to vacation. There are many sweet herbs that would make more wholesome pillows than musty feathers.—*California Patron*.

This is the last issue of POPULAR GARDENING paid for by many subscribers. But judging by the way renewals for Volume 2 are coming in thus early, a hearty and prompt response in this direction may be expected from every one of such subscribers. This is desirable. Done at once and your name need not be disturbed on our books, a gain both to yourself and to us. POPULAR GARDENING needs you as a patron; you need POPULAR GARDENING, hence our relations should continue without break. Let the dollars come.

Well Begun is Half Done. Years of experience leads us to begin the battle against insects on house and conservatory plants early in the fall. Green Flies, or Aphis, are sure to be lurking about the garden plants at this season, and every one killed now is equivalent to a large number to be killed later, as they increase with exceeding rapidity. Where there are but few the thumb-nail will answer to destroy them; if



THE JEWELL STRAWBERRY.—See opp. page.

many, a wash of tobacco water, colored to look like strong tea, and heated to about 130°, or else a dusting with tobacco powder, will serve well as a remedy.

Stones for Layering, Etc. A writer in the *Garden* finds that layered shoots and branches of all shrubs, vines and trees root much more quickly if placed in the soil and covered with a good-sized stone than if pegged down in the usual way. Even for many hardy plants we find this plan of stone layering very successful. A few good boulders, half sunk in the turf, make fine positions for clumps of Yucca, or of *Acanthus*. If carefully grouped and fringed with any small-leaved creeping forms of Ivy stones make very beautiful groups and add variety to flat surfaces.

Hollyhocks. "Sister Gracious" writes, under date of July 21, that people do not enough ap-

preciate Hollyhocks. A lady speaking to her declares she will not have such common looking things in her garden. Now what is the trouble in the case? It is that they are too often planted singly, or in a stiff row by the fence. Try grouping them instead. With taste in the selection of colors, one may have a very satisfactory return for very small labor. By exchanging seed every conceivable shade, from almost black to white, may be secured. Could not one have a rainbow bed of Hollyhocks?

It has come to our knowledge that in some instances both subscribers and advertisers have been frightened away from POPULAR GARDENING by its low price of 60 cents a year. They reasoned that such a price had a suspicious look—either the paper was run to advertise some one's business, in which case they didn't want it, or else it couldn't last long, in which case they wouldn't get it. Well then to all such: Here it is at a dollar a year, to be both enlarged and improved. We think such a figure does have a more stable appearance to say the least. Now for the subscribers and other patronage.

Not quantity but quality should be the first aim in window gardening. There will now be the temptation to lift more plants than can be well cared for, because we love them so. But it is better to bring one's mind, to control as to numbers just so closely, that all plants retained can be well accommodated, than to practice undue crowding. It certainly is more satisfactory to grow three or six plants to become the finest possible specimens than to have three times this number huddled together in a manner that forbids both healthfulness and beauty. Now is the time to choose between the better and the worse plan so far as affects the window display of the next eight months.

To drown out a fruit thief in a tree by turning the garden hose on him would seem not so bad a plan, but we should be sure the thief does not clear out while the preparation for the work is going on. The *Boston Transcript* relates that this very thing happened in one case in the suburbs of that city a short time ago. A woman returning home after dark heard a rustle in her Cherry tree and realized that somebody was stealing fruit. As she entered the house a man dropped from the tree and disappeared. A moment later the woman appeared with a line of garden hose and proceeded to drench the tree. For ten minutes she directed a shower upon it, probably congratulating herself all the while on her shrewdness in punishing the intruder. It was too dark to see that he had gone.

Something new in the line of vegetables is being brought forward by the well-known French seedsmen, Vilmorin, Audrieux & Co., of Paris, which is exciting some interest. It is called *Choro-gi* and is a native of Northern Africa. It belongs to the Mint family (botanical name *Stachys affinis*). Its fleshy roots or tubers only are eaten, dressed like string beans or fried like fritters, and are said also to make an excellent pickle. Whether it will ever advance to a place among really useful vegetables remains to be determined by trial. Speaking of new vegetables coming into use, it is a singular fact that the Tomato, such a great favorite in our day, was grown only as an ornamental fruit for ages, before its real value seems to have been discovered.

From Iowa's Buffalo. It is not claimed that Buffalo, N. Y., is the only place of the name, from which emanates horticultural wisdom. For instance, here is a welcome little note signed "Mrs. M. R. W." that contains some excellent information, not to say pleasant words: "I find mulching Gladiolus heavily with old leaves a most excellent plan. If the weather is dry, water copiously in addition. But the mulching must be preceded by a thorough cultivation with the hoe. The most interesting work I've been at lately is the cultivation of seedling Gladiolus and the tiny bulb-lets. Let us hear from some of the Gladiolus

cultivators. Many beautiful spikes of flowers are now out from bulbs set in April. Long live POPULAR GARDENING! It is splendid."

The Title Page and Index to the Annual Volume, which we furnish as a gratuity with each copy of this month's paper, should serve a good purpose: To those who have Volume I in full, for completing the volume for bind-



(Glory of the Snow. (Sky Blue and White.)

ing; to the former subscribers of the *Fruit Recorder*, in giving them an idea of what a sterling paper this POPULAR GARDENING to which they come as readers, is and has been. We trust that the careful work and no small expense incurred in getting out this extra may therefore be appreciated. But this we will say additional: Whoever lives to see the index of the coming year's enlarged volume will see a great increase in contents and size over the present one. The annual index would be an excellent aid to our friends in their work of securing subscribers for our next volume.

**Glory of the Snow.** This flower, known botanically as *Chionodoxa Lucella*, and shown in the engraving is one of the loveliest of hardy flowers. But it is not yet well known, having only been introduced to cultivation in 1877, less than ten years ago. It deserves to be rapidly disseminated. Its time of bloom is among the very earliest—keeping company with the first Crocuses. The color is a beautiful clear blue tint on the outside, gradually merging into pure white in the center much as in *Neophila insignis*, but even brighter. The blossoms, from five to ten in number on each stem, are poised on gracefully arching stalks (not sufficiently shown in the engraving) from four to eight inches high. The blooms are star-shaped and nearly an inch across. The plants succeed well in any ordinary border that is undrained, and of which the soil is not too heavy. On the rockery or any kind of elevation it is perfectly at home, being a mountain plant. It is sold at the hardy plant nurseries.

**Honeysuckles.** Why will people, in the country especially, tolerate bare walls when there are so many beautiful plants that may be grown with little trouble to clothe them with a wealth of foliage and blossom? One of the most beautiful sights we have seen for some time was the south side of a cottage covered with a profusion of bloom of the Yellow Halls' Japan Honeysuckle. Planted in ordinary garden soil, which was slightly enriched each year with stable manure, it grew luxuriantly, and for some time now it has been one mass of bright flowers. The growth had not been tied in carefully; and though this—the want of trimness—may, in the opinion of some, be a fault, it was impossible not to admire the brilliant festoons of bloom which drooped over the doorway and windows. We noticed while in attendance on the Nurserymen's Convention at Wash-

ington, in June, a simple but fine way of using the Honeysuckles in the grounds of the Agricultural Department. This consisted of planting a mass of different varieties in a clump, the plants at say three feet apart, and then allowing them to grow in a tangle as they would.

**The Jewell Strawberry.** This new variety is one of so much promise that the eyes of all progressive cultivators are turned towards it. The size of the fruit is very large (see opposite page), its color a bright red, inclining towards crimson when fully ripe, and the quality excellent. The plants possess great vigor and are enormous bearers, provided the one great essential always to large crops, generous feeding, is duly furnished. As to productiveness the originators of this berry, Messrs. P. M. Angur & Sons, Middlefield, Conn. (and to whose kindness we are indebted for the use of the engraving opposite), make the following comparative report on pickings at two different dates the past season, of the varieties named below, the rows in the testing grounds being in each instance 14 rods long:

	June 30th, picking	July 9th, picking
Jewell,	42 to 50 quarts.	27 quarts.
Sharpless,	12 to 13 "	3 to 4 "
Jersey Queen,	11 to 12 "	"

But it must be added that in this, like in many others of our greatest bearers, the flowers are imperfect, being devoid of stamens; hence it becomes necessary to plant some other variety (the Wilson for example) having perfect flowers near by, say in the proportion of 1 to 5, that the flowers may be properly fertilized. To the careful and enthusiastic cultivator there is little objection to this, in view of the superior product. It implies the mere application of intelligence and art in the way of improved culture, to which no amateur should feel averse.

#### The Philadelphia Meeting of Florists, August 18th to 21st.

It was a large and enthusiastic meeting, with fully 700 participants. Florists from all sections of the country were there, the younger men of the craft having been in marked prominence, while the women florists, as we note with real pleasure, turned out in remarkably good numbers. From first to last everything connected with the convention moved off with vigor and harmony, showing that the management was in the best of hands. One has but to recall that this important convention was but the second one in the life of the Society of American Florists ever held, for arriving at a fair estimate of what a live, influential and progressive class of people the florists of America are. In very many ways it was an occasion of which to be very proud.

President John Thorpe, than whom no man has contributed more to the success of the young society, opened the meeting proper on Wednesday the 18th with the annual address. It was an able effort, kindling a flame of enthusiasm, which grew and extended all through the meeting. We offer a few salient parts

#### FROM PRESIDENT THORPE'S ADDRESS:

The two-year-old seedling is developing finely, and already is bearing good fruit. I can see in the near future the Society of American Florists taking a position equal to any organization in the country.

When the society gets more deeply rooted I hope to see one of its branches shaped into an experimental garden; there should be also a good library.

Another branch should be the establishment of local exhibitions controlled by committees appointed by the society, thus giving encouragement to members debarred from taking part in competitions where distance is too far from the large cities.

I hope to see established a mutual benevolent association, which shall be so trained as to afford shelter for any members overtaken by misfortune.

Mr. Thorpe called attention to the fact that exhibitions of flowers are a chief cause of developing the florist business.

Don't be afraid to exhibit. Make exhibitions, join your local societies and bring something. Never mind if you do not happen to secure the first prize.

While you are aiming to get first prizes you are doing good to your business and floriculture generally.

Exhibitions made our great Roses realize the prices that they have. Exhibitions made the sale of Chrysanthemums for the past two years foot up to a million of plants. So don't go away with the impression that if you do not happen to have a roll of bills to take home with you from each one that you are the loser. You are sowing the seed, the crop from which will be harvested as it ripens.

The raising of new varieties from seed is receiving more attention than formerly; but yet this is not carried out to the extent that it ought to be. I know it is frequently remarked that we have already too many varieties of plants and flowers, and that the old varieties are good enough. If this doctrine had always been believed, none of the fine varieties of flowers grown to-day would have ever been known. The very best old varieties were once new.

In connection with this I wish to say to the young members of our society, select some popular plant for improvement. Begin raising seedlings by judicious cross fertilization and careful selection; then, by patience and perseverance, the results will be more than satisfactory; furthermore, I can, after long years of experience, promise you one of the most delightful pursuits there is in the world.

The veteran Peter Henderson read an interesting paper on "The Progress of Floriculture," which we regret not having the space in this issue to print.

Among other valuable essays read and discussed during the three days meeting were the following: Antoine Wintzer, on "Treatment of Tea Roses during the Summer," with a list of best varieties; John Henderson, of Flushing, Long Island, on "Hybrid Perpetual Roses for Outdoor Summer Bloom," with list of varieties; Robert Craig, on "Pot-grown Roses for Market Purposes: their Care and Treatment;" John N. May, on "Model Greenhouses and How to Build Them;" James Taplin, "Pot-grown Decorative Foliage Plants for General Purposes;" Joseph Tailly, on "Carnations and their Treatment;" J. D. Carmody, on "The Advantages of Hot Water over Steam for Heating Purposes;" J. D. Taylor, "The Advantages of Steam over Hot Water for Heating Purposes;" A. Le Mout, on "The Making Up of Floral Designs," illustrating his methods with actual work on the stage. In future issues of POPULAR GARDENING some of these papers will be printed.

The election of officers for the ensuing year on Friday resulted as follows: President, Robert Craig, Philadelphia; vice-president, J. C. Vaughn, Chicago; secretary, Edward Lonsdale, Philadelphia; treasurer, Myron A. Hunt, Chicago. Chicago is to have the next meeting.

#### Some Notes in Brief.

**Thorpe** was busy as ever.

**The florists** were cuned, as they deserve.

**Philadelphia weather** is a fine article if the same was a fair one.

**In Hot-water Yet:** The question of Steam vs. Hot Water for heating.

**The greatest horticultural convention** ever held in America, says POPULAR GARDENING.

**Gloxinia** culture should receive an impetus from so many florists seeing Dreer's fine exhibit of these.

**Sturtevant's Victoria Regias**, with floating leaves over five feet across, were eye-openers to most of the visitors.

"**Popular Gardening**" came in for a bountiful share of subscriptions, renewals and hearty, good words. Thank you all.

**It is generally** said that Pausies are not mid-summer flowers. What can be offered against such a display as Kreinberg made.

**One result** of these five conventions is seen in the increased number of new florists' appliances that are exhibited. The florists are awake.

**To hear Le Mout** of New York with the practical illustrations offered, and to see his unique exhibits, was alone worth a trip as far as from the Rockies.

**The hospitality** of Mr. George W. Childs at "Wootton" must ever linger as a sweet memory with the fortunate visitors. Then there is the handsome photograph in Rile & Kern's best Philadelphia style also.

**It was Right Royal.** The complete manner in which the Philadelphia florists entertained their visitors was a theme of constant comment. We have

no difficulty in naming one of the places where the society will meet within the next six years. Such treatment maketh its deep impressions.

**Hail Insurance** don't drop out so easily, for the florists perceive just where the shoe pinches. Because everything did not point to a clear solution of the problem it would have been anything but creditable to the intelligence of the florists to have passed the matter by unfavorably. Now let the committee appointed show that the project is an entirely feasible one. We believe it to be such.

**Women Florists of America**, that is right, come up to the front whenever the matters of flowers, flower growing or flower selling is up. Your rights in this domain are both recognized and gracefully respected, as was here perceived. If any one could have for a moment harbored the thought that "somebody's out of place," it must have received for one thing a practical re-proof in the dexterity shown by Le Mout's female helpers on the stage in making up. Those skillful movements showed who it is that is in place when floral matters are involved.

#### The Niagara Falls Meeting of Seedsmen.

The Fourth Annual Meeting of the American Seed Trade Association was held at Niagara Falls, August 4th-7th, as per announcement. There was a satisfactory if not large gathering of members. The annual election of officers resulted as follows: John Fottler, Jr., president; F. E. McAllister, first vice-president; W. Atlee Burpee, second vice-president; Albert McCullough, secretary and treasurer; C. L. Allen, assistant secretary and treasurer; Executive Committee, Wm. Meggatt, Jno. H. Allan, Jas. Vick, Jas. Reid, J. C. Vaughan; Committee on Membership, E. B. Clark, B. M. Knickerbocker, R. A. Robbins.

The next meeting is to be held in Philadelphia, beginning the 2d Tuesday in June, 1887.

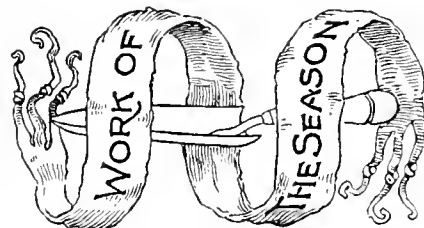
More than the above meagre report we cannot give. This is not because POPULAR GARDENING was unrepresented, but because of our respecting the rules of the society, against admitting the press to the meetings. The meetings of the association always have been very exclusive—too much so perhaps—in character. Then unlike some publishers of gardening papers, we do not happen to be in the seed trade. A synopsis of matters of public interest promised POPULAR GARDENING by the Secretary, had not reached us at time of going to press. This statement seems due to the many seedsmen who are among our regular readers.

#### The Coming Meeting of the American Horticultural Society.

On September 7th the annual meeting of this society will convene in the city of Cleveland, Ohio, to be in session for three or four days. The programme embraces some of the leading names known to American Horticulture, and also some from abroad. The meeting promises to be one of the most important, not to say interesting, ones ever held by this enterprising and growing association. We trust there may be a large attendance, indeed we feel to urge all lovers of the "art which does mend nature" to be present. For programme and full particulars, address, Secretary W. H. Ragan, Greenland, Indiana, up to the opening of the convention.

#### Some Coming State Fairs.

Connecticut State, Meriden, Sept. 14-17.  
Delaware, Dover, Sept. 28-Oct. 1.  
Georgia, Macon, Oct. 25-Nov. 9.  
Indiana, Indianapolis, Sept. 27-Oct. 2.  
Iowa, Des Moines, Sept. 3-10.  
Kansas, Topeka, Sept. 20-25.  
Maine State and Pomological, Lewiston, Sept. 14-17.  
Maryland, Baltimore, Sept. 13-18.  
Massachusetts, Boston, Oct. 5-8.  
Michigan, Jackson, Sept. 13-17.  
Missouri, St. Louis, Oct. 1-9.  
Nebraska, Lincoln, Sept. 10-17.  
New Hampshire, Manchester, Sept. 14-16.  
New Jersey, Waverly, Sept. 14-17.  
New York, Utica, Sept. 28-29.  
North Carolina, Raleigh, Oct. 25-30.  
Pennsylvania, Philadelphia, Sept. 6-18.  
Rhode Island, Providence, Sept. 20-24.  
Vermont, Burlington, Sept. 13-17.  
Virginia, Richmond, Oct. 20-22.  
West Virginia, Wheeling, Sept. 6-11.  
Wisconsin, Madison, Sept. 20-24.



#### THE HOUSE PLANTS.

**Agapanthus.** The flowers over, cut down the stem half way, to prevent seeding. Keep growing for a month longer, then dry partly off, keeping in any place free of frost and not dark, until spring.

**Annuals**, like Asters, Balsams, Chinese Pinks, etc., in a good state, may be lifted (as directed under "Lifting") for enlivening the window during the season of floral dearth, near at hand.

**Azaleas** and other hardwooded plants to be sheltered in an out-house or veranda from chills for a month longer before bringing into the house.

**Begonias.** Dig (tuberous ones at time of frosts, dry the bulbs thoroughly and winter in dry sand.

**Caectuses** summered in the border to be lifted before fall rains set in and moved into the dry.

**Carnations** to be taken up towards the end of the month, treating as directed under "Lifting."

**Chrysanthemums.** See "Plants Under Glass."

**Cytisus.** Lift bedded plants; bring on carefully in pots, for promoting heavy spring bloom.

**Jerusalem Cherry**, of which a cut is shown, to be taken up and potted as directed under "Lifting." The plants make a good show for a long period.

**Lifting** from the beds for fall and winter use or stock plants calls for activity; kinds in bloom all summer to be severely cut back, others not. Work with much care to retain all the roots, lifting a large ball of earth with the spade, and reducing it for the pot by the use of a pointed stick. Have pots from 4 to 8 inches across on hand, using them as small as can be fairly employed. Work good soil firmly between the ball of earth and the pots. After potting, water well, set closely together in the shade for a week, sprinkling the foliage lightly half a dozen times daily; afterwards increase on space and light, but not full sunlight yet for two weeks.



POTTED PLANT OF JERUSALEM CHERRY.

**Primroses.** See under "Plants under Glass."

**Roses** for winter, to be repotted, if this has not already been done and border plants be lifted. The best soil: Old fibrous sods, finely divided but not sifted, with a third part well-decayed manure.

**Verbenas.** If to be kept over, use young plants propagated from tender shoots after the 15th.

#### LAWN AND FLOWER GARDEN.

**Everlastings.** Gather before open; dry in shade. Pick Ornamental Grasses when coming into bloom.

**Forget-me-nots.** By dividing early in the month they become so well established before winter as to stand a good deal of freezing and thawing.

**Frosts** now threaten. Anticipate on cool nights by covering tender things to preserve their beauty for the days of fine weather to follow.

**Gladiolus.** To remove the flowering stalks before seed ripening is of advantage to development.

**Hardy Bulbs.** Planting of Hyacinths, Tulips, Crocuses and the like may begin. Tulips for fine



effect to be set at 5 inches apart, Hyacinths 7, and smaller sized bulbs, like the Crocus and Snowdrop at 2 or 3 inches each way. A depth of 4 inches will suit the smaller bulbs, of 6 inches for larger ones. Narcissus, Crocus and Snowdrop are well suited for close clumps by themselves. Beds ought to be prepared and lay some days before planting. Rotten cow dung is one of the best fertilizers for bulbs.

**Lawns.** Mow regularly to end of the season Trim verges of walks, beds, etc. Spud up weeds.

**Lobelia Cardinalis.** This easily grown native plant is very attractive in a clump. The seeds are now ripe. Sow promptly. Old plants may be divided next month or in the spring.

**Order trees, shrubs, hardy plants and bulbs to be set this fall.** After the leaves are matured, say in October, the earlier the planting is done the better. Early orders ensure early delivery from nursery.

**Perennials.** Old clumps of such kinds as are out of growth for the season to be divided and re-set.

**Tritomas.** Watering with liquid manure helps the spikes of bloom a great deal.

**Violets.** Set in frames for fall or spring bloom.

**Weeds.** Some kinds (Chickweed for one) grow rapidly in the fall; continue to work against them.

**PLANT CULTURE UNDER GLASS.**

**Chrysanthemums.** Bedded plants should be lifted, those in pots to receive a final shift promptly. All need plenty of water, and twice a week liquid manure, but not a drop of the latter to touch the leaves. Keep snow plants staked and tied up for inducing shapeliness. Watch for and kill the hairy or any other caterpillars.

**Cinerarias.** See what is said about these in the July issue.

**General Care.** Heat-loving plants will call for some fire this month. As to greenhouse plants avoid fires as long as can be; when necessary start up briskly. Air freely. Green-fly, Thrips, etc., will appear; dispel by Tobacco smoke, by strewing Tobacco stems among the pots, or other effectual means.

**Lifting.** Read directions under "House Plants." Bouvardia, Carnations, Stevia, Violets, etc., are often lifted and bedded out in the plant houses. After planting keep the apartments close, shaded and frequently sprinkled for a week or more, afterwards increasing on light and air.

**Orchids** generally should have the moisture shortened as the days shorten. Too many growers keep them too damp and warm all winter. Begin a course of treatment preparing for a low winter temperature and a near approach to dormancy.

**Pot Plants** moved out last spring to be returned before frosts injure them. Small-sized ones may go in frames for a spell, protecting in bad weather.

**Primulas.** Remarks under Calceolarias apply, save that special care not to over-water must be heeded. Keep Double Whites shaded a month yet.

**Propagation.** Looking to next season's stock, to be pushed now, it being better to depend largely on newly struck plants than on old ones for this. Commence with tender kinds, like Coleus, ending with the hardier greenhouse plants, Geraniums, Verbenas, and the like. Whenever pot plants show young growth fit for cuttings put such in. Pot cuttings at the first sight of roots.

**FRUIT GARDEN AND ORCHARD.**

**Blackberries** of tender proclivities not to have late growth encouraged by cultivating after this.

**Borers** to be dug out to the very end of their holes.

**Budding** of Peaches and Quinces to be finished. Look over early buds; if any did not take re-bud, provided the bark will still raise.

**Fall Planting** of all but stone fruit is advisable. This should be done next month. Prepare the land now; if not practicable to plow and subsoil, trench with the spade. There should be good drainage, or else high-ridge plowing for the rows. Order the trees at once to ensure early delivery.

**General.** Thin late fruit. Clip away leaves or superfluous shoots that shade the fruit; sun is needed for best colors. Drop up heavily laden trees; stay spreading branches of such with rope or wire. Don't sow grain among your fruit trees.



A good Fruit Ladder.

**Grapes** to be gathered and packed by a careful hand, with a view to selecting only ripe clusters, preserving the bloom (the most attractive quality), and removing all imperfect berries.

**Raspberries.** To plow earth against the rows adds new vigor to the plants, ensuring better crops next year. A. M. P.

**Snails** often ascend trees after rains. A circle of fine dry lime or ashes about the stem will prevent.

**Strawberry** and other fruit beds of present setting must be kept scrupulously clear of weeds; so must spring settings. See directions for planting, etc., elsewhere in this paper.

**Picking and Packing.** When these things are carelessly done the returns from market must be poor, after all the trouble of raising fruit. To pick properly good ladders of different lengths are needed. We show a pattern of one easily made from a single pole. Fruit to be mature when picked, but not approaching softness. Let it reach the retailer before its best eating condition. Use new barrels for Apples, half-barrels or crates for Pears, crates, baskets and boxes for Plums, Peaches and Grapes. In packages that are closed there must be gentle pressure to prevent the shaking of the fruit in transit. How the fruit opens at market is the crowning test of a successful grower.

**Pruning** of fruit trees can now be done and no "bleeding" or water sprouts starting from near the cut will follow, as often happens after Spring pruning. A. M. P.

**VEGETABLE GARDEN.**

**Asparagus.** Remove the seed-bearing tops to prevent added plants from seed. For new beds fall planting answers, on sandy or well-drained soil.

**Beans.** All garden varieties in a ripe state are much superior to White Field Beans for the table. Gather and dry immediately they are ripe. Secure late green Beans, before frosts, salting down the surplus for winter use.

**Cabbage** seed for the earliest crop next year may be sown about the 15th, the plants to be wintered in cold frames. Transplant the seedlings into these, at 2x3 inches, November 1st. Clear off the early patches as the crops are gathered.

**Cauliflower.** The directions for Cabbage apply. **Celery.** July-set plants to receive their first "handling" - that is, compacting some soil against the base of the plants, to direct the growth upwards. Earth up earlier crops as directed last month. Pick the striped worms with lath tweezers and kill.

**Corn.** Drying for winter use is in order. Boil until the milk is set; cut from the cob; dry quickly. Save seed from the best hills in the patch.

**Cress or Pepper-grass.** A little patch may yet be sown. It matures rapidly; use while young.

**Egg Plants.** Shelter from frost. See last month.

**Lettuce.** For late fall crop treat as for Cabbage.

**Melons** will ripen better and more evenly for a wisp of straw under each one. Remove all late fruit that stands no chance of ripening.

**Peppers** are injured by slight frost; secure in time.

**Spinach.** The Prickly or Fall variety sown in drills, 1 foot or 15 inches apart, in rich soil, during the first half of the month, will yield early spring "greens" rivaling the Asparagus in deliciousness. Thin to 3 inches apart before November. These thinnings may be gathered and used.

**Squashes.** The winter crops will be advancing rapidly now, and until cool weather. Encourage rooting at the joints by not disturbing the vines.

**Tomatoes.** Protect a goodly number of the plants from early frosts, on which to have the good of the warm weather afterwards, for a later crop.

**Turnips.** It pays to weed these. Thin out the young plants where they stand too close.

**FRUIT AND VEGETABLES UNDER GLASS.**

**Cucumbers.** Seeds started now will in high heat bear by January, and later. Do not encourage much with stimulants at the start; air daily.

**Grapery.** In houses where the wood has ripened and the leaves begin to fall prune the vines and cleanse the canes. A better time for washing or painting the inside wood-work could not be had. Where fruit is not yet ripe, the night temperature should be about 55° to 60°, and 16° or 15° higher by day. Keep the atmosphere rather dry.

**Lettuce** sown this month may be had to form heads in a cool greenhouse before the holidays.

**Mushroom beds** for furnishing the winter supply may yet be prepared if not already done.

**Inquiry Column**

This being the People's Paper, it is open to all their inquiries bearing on gardening. On the other hand, answers to Inquiries are earnestly requested from readers.

The editors and special contributors are ready to do a large share of the answering, but the experience of many being more valuable than of the few, however expert they are, and conditions and localities being so different, they prefer to receive answers, even several of them to the same query, from readers everywhere. Don't hesitate to send answers because you may feel you are no fine writer; we will see that they appear in good shape.

In writing, give the number of the letter and full address, stating your locality and county, the better for publication, unless you desire. Write only on one side of the paper. Flowers, plants named, provided, first, that no more than three be sent at one time, second, that these be fully prepared, third, that several specimens of each be in a good shape. We cannot undertake to name florists' varieties.

102. **Heliotrope from Seed.** Can this plant be raised from seed? If so, when should I start it? NOVICE.

103. **Fuchsias Ailing.** The buds drop when fresh and sound. Do I keep too wet or the soil too poor? I liquid dress them once a week. What shall I do for the tiny insects that have very fine webs on the ends of shoots? MRS. S. K. KNEELAND.

104. **Plant for Name.** What is the enclosed specimen, and how cultivated? VINE.

105. **Cannas and Caladiums.** I have bulbs growing in my garden, mostly in tubs. How shall I save them through the coming winter? M. T. A. KEANE.

106. **Artificial Fountain.** Will some one inform me how one can be constructed? SUBSCRIBER, Berlin, Wis.

107. **Balsams from Seed.** How must I treat Balsams (Double Lady's slipper) to raise seeds that come true? QUESTIONER, Pittsburgh, Pa.

108. **Rose Caterpillars.** How can I get rid of small green caterpillars, about 3-4 of an inch long, that eat the leaves from my Rose-bushes? QUESTIONER, Pittsburgh, Pa.

109. **Books on Flowers.** What ones can you recommend on floriculture, also containing instructions for erecting greenhouses, etc., for persons contemplating entering the business? W. W. ELLSWORTH, Ohio.

110. **Year-old Primroses.** Mine raised a year ago and now in 6 and 7-inch pots are very fine plants. How shall they be treated from now on? MRS. J. C. HUBBELL, Illinois.

111. **Clematis Protection.** How must I protect at the end of the season, or must it be cut down?

112. **Well-water for Plants.** Is this, being hard, as good for watering plants as rain-water?

113. **Cinerarias.** Will plants from seed that was sown some time ago bloom the coming winter?

114. **Roses for Bloom.** I have two rooms for plants, the one considerable warmer than the other, (say 60° and 45°). In which one should my Roses go for winter flowers. MRS. F. C. LAYTON, Angleton Co., Ohio.

**REPLIES TO INQUIRIES.**

102. **Heliotrope from Seed.** The common fragrant Heliotrope produce seeds in small quantities, and this may be purchased from the leading seedsmen. By securing a temperature of about sixty degrees rising, and light rich soil, plants may readily be grown. Sow about next February or March.

104. **Plant for Name.** It is the Double Bindweed, *Calyptrology pubescens flore pleno*, a near relative of the Morning Glory. It is a beautiful hardy climber and of the easiest culture, in fact becoming a troublesome weed in warm, light soils unless the roots are confined in a box. EDS. POPULAR GARDENING.

106. **Tea Leaves in the Soil.** For one we have no more faith in Tea leaves in the soil than in the same weight of any other kind of leaves. LARGE PLANT GROWER, Belfast, Maine.

94. **Hydrangea Hortensis.** It is natural for it to drop its leaves annually. If this is all the plant evidently is at rest. I would advise resetting it just as new growth starts up. MRS. CHAS. PORTER, Athens Co., Ohio.

109. **Books on Flowers.** Henderson's "Practical Floriculture" and Long's "Home Florist" are good books for persons entering the florists' business. W. F. L.

105. **Cannas and Caladiums.** After the tops are injured by frosts take up and dry the bulbs, afterwards storing them in dry sand till spring. W. F. L.

107. **Balsam from Seeds.** To raise seeds that will give double flowers, keep the pollen of single plants from them by pulling up all such as soon as they show their true character.

108. **Rose Caterpillars.** You no doubt refer to Rose slugs. Pick off by hand or scatter White Heliotrope over the leaves while wet, or syringing with strong whale oil soap suds.

103. **Fuchsias Ailing.** Give a light rich soil; they should not become pot bound; liquid manure them only when in bud or bloom. Green lice will yield to tobacco dust or smoke; the tiny insects with webs (Red Spider) to a persistent application of water. EDS. POPULAR GARDENING.

# The Household

## About Patching and Darning.

The people in this world who get beyond the use of patches on garments are few and exceedingly foolish. We formerly knew the wife, now deceased, of a millionaire who to her dying day took great pride in her ability to patch clothes neatly, not from parsimonious motives, but because she was a very sensible woman. Our esteem for the lady was all the greater on this account.

But not every one is able to neatly lay a patch or darn a rent, who might desire to do so, hence we advance a few helpful suggestions: In patching, start by cutting a piece of material of a size slightly larger than to completely cover the worn place. Cut it accurately by the thread; nothing looks more untidy than a crooked patch with unshapely corners.

Next turn in a narrow fold on the four sides of the patch, lay it in place outside the worn part and tack fast. Sew it on all around, either like a seam, or else fell it. If it lies close and flat the tacking threads may then come away.

Now the work must go on from the wrong side, by first cutting away the worn piece, leaving enough margin to turn in as for a hem. Cut little nicks at the corners, to allow it to lie flat, and fell it all round. The corners should be as well shaped as are those of the patch. To have the piece square on the right side, and then an ill-shaped circle of much smaller dimensions on the wrong side, as one sometimes sees, is to spoil the work so far as looks go.

To neatly match the stripes or figure of the garment by the new material is one-half in doing fine patching. When a patch is completed lay an old handkerchief or other thin cloth over it and press out with a hot iron.

Flannel may be mended in the same way as described, only that instead of the edges being folded in, leave flat, and instead of being felled they should be herring-boned all round.

Sheets and similar articles that are worn thin by long use, and are too weak to patch must be darned. For this, real darning cotton—not that used for stockings—but a soft, fine article made for the purpose should be used.

When darning take quite half an inch extra on either side, and not just the very thin place itself and that only. If so done there is danger of the mended part not getting through the first wash without breaking out. By running several lines of strong sewing cotton round the thin part, before doing the darning it will strengthen the foundation greatly, and will not show afterwards.

Use a long fine darning for fine fabrics; a thicker one for coarser cloth. Take a thread and miss two threads uniformly, going straight across. Leave a moderate loop at the end to allow for shrinking, turn and go back again, getting your stitches on a line with each other.

## Brieflets.

**Gelatine** is not nutritious.

**Oyster juice** aids digestion.

**Shops** must not stand long in iron.

**What patents** crave for let them have.

**Vinegar-saturated** sugar will cure hicough.

**Blow some** Cayenne Pepper in the mice holes.

**To beat eggs** quickly add a little salt or fine sugar.

**Iron** can be kept from rusting by touching up with mutton suet and dusting with powdered lime.

**Strong odors** on the hands need not annoy one long, as a bit of ground mustard mixed with water and rubbed over them will make them sweet.

**Do the slats** of your bed creak? This is not pleasant and may be prevented by wrapping the part of each slat where it rests on the wire with paper.

**To Clean Mirrors.** Wash well with a damp leather or sponge; then dip a soft cloth in powder blue and rub the glass well. Result, a beautiful polish.

**Retreshing as Well as Healthy.** At this season of the year, when the feet are likely to get over-heated and to be painful, they may be greatly

relieved by soaking them at night in very hot water from ten to twenty minutes. Pour cold water over them just before drying them.

**To Cement China.** Use shellac dissolved in alcohol. Heat the pieces hot, and put the varnish on the broken edges, press tightly together and set away for a few days, when it will be very solid, and if carefully done, will break in another place before it will come apart. *Philadelphia Record.*

"**Popular Gardening's**" prescription for improving the happiness of American wives generally is this: Less drudging for themselves, and more for hired help; less fear of sunlight and air, and more light work among flowers and gardening out-of-doors; less meat and pastry, more fruit, vegetables, milk and grain on the table. No charge for this.

**Now for a little** simple household science and cool firm butter in the hottest weather, all without expense or ice. Cover the butter in lump or dish closely with a clean cloth. There may be some wax paper on the top—and over this place a handful of worsted, with a lot of ends hanging over the butter and touching the cloth. Above all suspend a bucket of water with a small hole in it to allow of a steady, slow dropping of water on the worsted. This arrangement should be placed in a draught, and here, by the process of evaporating the slowly conducted water on the outside of the butter, there will be drawn so much heat from the lump that it will remain solid although the temperature of the air be at 100°. It will work.

**Sugar is high-priced** in fruit-canning time, as every one knows. Our correspondent, H. A. Green, of Chester Co., S. C., in a recent letter very sensibly brings this forward as a strong point in favor of canning without sugar, as she now does almost altogether. Then out of the fruit season, at the time of using, sugar is materially cheaper. This is what she says of her method: Cook the fruit till done, not using any sugar. Place glass cans on a folded cloth, kept wet with cold water (to prevent breaking), for filling. A short-necked, wide-mouthed funnel is handy for use. Put on the cover while hot, using rubber that is soft and with the cover on it all around. Sweeten when used. Some sour fruits are better for scalding with the sugar. I rarely lose a can; have never had one broken from hot fruit by my method.

# Poultry.

## Fattening Poultry.

After the laying season comes the time for reducing on numbers by working off the old hens. The sooner all surplus can be converted into money the better, for no board bills will be paid by many fowls now for a long time. Sometimes, too, early-fattened fowls bring as good a price as those marketed at the holidays, with the gain of the cost of keeping for some months in the bargain.

To fatten fowls rapidly is the great secret of doing so profitably. This necessitates that they be kept closely confined during the process. Even the matter of profit aside, and the increased excellence of the flesh of closely kept fattening stock over that which is allowed to roam is remarkably great.

For hens the coops should be airy, but if so small as to allow but one hen in each all the better. Where individual coops are not had, then several and up to half a dozen fowls may be confined together in a coop, but of such a size as will leave them fairly uncrowded, and with not much space to spare. If the bottom is made of slats three inches wide, with an inch space between, and then the coop is raised from the ground somewhat, it will add to the airing and cleanliness of the affair. Turkeys, ducks and geese do better for being in coops open to the ground. The two last named should be allowed to run to the water once daily for a wash. Fattening coops should be located in a partly darkened place.

At the start give no food for six or eight hours, and then begin a course of regular feeding three times a day. Do not imagine that because fowls show a preference for eating whole grain, that this is the best, for it is not. Let the ground-work be Corn meal well boiled and crumbly. With this may be mixed a vari-

ety of articles, such as boiled Potatoes, Oatmeal or Barley porridge, and one should not forget the helpful nature of stale bread crusts and so on from the table. A little beef suet added occasionally will be relished, and this possesses high fattening properties.

There must be pure and fresh water in the coop also. As soon as the birds are satisfied at each eating all remaining food should be removed. In two or three weeks they should be very fat and salable. If now the high feeding and close confinement was to be kept steadily up they would be disposed to sicken.

## CONDENSED POULTRY NOTES.

**Lice** signify neglect.

**Disease** seeks out the crowded pens.

**For egg-eating** apply the axe cure.

**Weeds** have real value if carried fresh and young to the hen-coop.

**Queen Victoria's** chicken house is a palatial semi-gothic building, says the *Court Circular*.

**When fowls** are kept let it be done in a place not too near the stable. Horses and cows may become lousy from hens, causing great vexation.

**Birds** are scarcer than they once were, to the great loss of our fruit. But hens and turkeys are birds also; let them be kept in the orchard more.

**Dry Earth.** The *Farm Journal* would not undertake to raise chickens, or to keep poultry through the winter and spring, without a free supply of dry earth. The best time to store it is whenever it is dry.

**The exercise** of summer ranging for fowls is of great value, but the damage done is often appalling. To gain the former benefits and avoid the latter disadvantages feed liberally at the beginning of the day before roving is begun.

**The Guinea fowl,** remarks the *National Stockman*, is a great forager and destroys many insects that the hens will not touch. They do not scratch in the garden, and, though not easily kept near the house, they make known the places where they lay by a peculiar noise, which enables one accustomed to them to find all the eggs they lay. They really cost almost nothing to raise, and when roosting near the house create an alarm should intruders make their appearance.

**Scratching** for their food is a natural instinct of fowls. Proof: They will scratch if feeding on a heap of grain. Now one benefit that comes from this instinct is that rapid swallowing is prevented, for while they scratch they do not peck. But the instinct may be overcome by feeding. We are disposed to feed too much at a time, and especially of soft food, with injury to fowls. If grain that is being fed was always scattered among straw or chaff it would make them scratch for a living.

**It is a good plan** to treat the nests in the hen-house about this time the same, and for the same obvious reasons, as the berths and fixtures for emigrants in ocean steamers are treated after each voyage, namely, to burn them. But let this be done outside of the house and not inside, as one man we know of once did, burning the house down at the same time. To make such an annual sacrifice of nests without much cost the new nests should be cheaply built as being done for temporary use.

**No Discounting of Nature.** Mr. A. I. Root, of Medina, Ohio, comes to the conclusion that in poultry raising, if we try hard enough, we can assist Nature; but if we don't look out we shall be only stumbling blocks in her way. The experience he relates is not at all new, but it is interesting and to the point. He says: Just now I am a good deal puzzled. A hen that has the range of our whole 18 acres made a nest on the ground, under a lumber-pile, and she hatched every egg but one; and more than that, she went off with her eight chickens, without a bit of care from anybody. When they were four or five days old she was discovered off by herself, with every chick as bright and brisk as a cricket. They didn't have any corn meal nor cracked wheat, nor bread and milk, and yet they seemed to be good for a half-mile tramp, chasing their mother. Well, in my nice poultry yard, with all its modern appliances, I get only two or three chickens from a setting—sometimes not a chick. Last season I feared my Brahma rooster was bad, and so I bought a higher-priced one; but it does not make any difference. Old Dame Nature beats me all to pieces. The fowls that have the run of our whole 18 acres board themselves, lay eggs and raise chickens; expense, 0; income, a good lot of eggs every day. Your expression, "depth of ignorance and bad management," some way seems to fit me tightop.







