THE GARDEN

CONDUCTED BY

RACHEL R. TODD M.D.

COMPILED AND EDITED
BY W. N. WILKINSON

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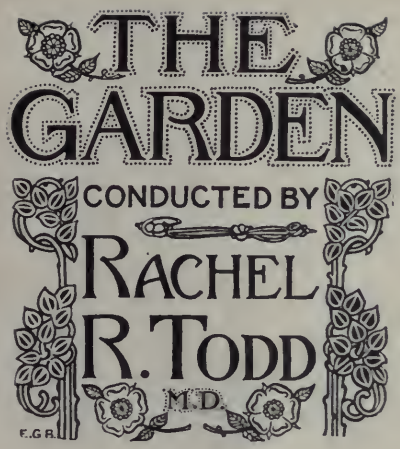

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SO MANY readers of The Toronto World have made inquiries as to whether it is possible to obtain the articles on The Garden, by Rachael R. Todd, M. D., in pamphlet form, that Mr. W. N. Wilkinson, managing editor, has compiled a series of these articles, dealing with spring planting and the care of the garden during the spring and summer. This is the first volume, and will be followed by one in the fall, containing hints on planting, the growing of bulbs and care of flowers during the autumn and winter. Care has been taken by the editor in revising the matter for this volume to eliminate extraneous matter. As each article deals with some one subject only, the index at the end of the book, will enable a quick reference to it.

Rachel R. Todd, M. D., C. M.

PLANT CHARACTER STUDY

Different individuals require different treatment, enjoy different pleasures, dread different dangers, and are threatened or overshadowed by different sorrows.

Almost in the same way, all plant life is made up of nature forces, vastly contradictory. The final results of the working-out of these forces spell life—or death.

Like human beings, plants are threatened with different dangers. They are immune from certain diseases, or they are predisposed to the same. They are proof against the ravages of certain insects, certain vermin, certain molds, or they are very susceptible to the life-draining effects of such.

Certain plants require rich, nutritious soils, which same soils would quickly cause other plants to mold, rot, or, on the other hand, would produce a rank and unnatural growth, too intolerable to be permitted.

Certain plants require warmth above ground, warmth below ground, a nice modicum of moisture, and a close protection from draughts. These, by the way, are those that revel in loneliness. They love to be left undisturbed, in sole possession of earth, air and currents—and they breathe out the fragrances of heaven itself.

Again, we find plants that need as consistent attentions as young children. They must be coddled. Above all things, they must be loved. They want their faces washed daily. They love a daily tepid bath. They shiver and grumble when they get wet, cold feet. Adverse winds, an unfortunate draught, hot or cold, simply crinkles them up. They get their faces and limbs sunburnt if they stand in the sun before they are quite dry. They become unhealthy if they are too muffled up.

And so runs the story. As with humans, just so with plants. A successful mother knows her children. They do not realize, yet, that she does know them. They have a divine intuition that sends them running to her to be "kissed and made well." In some cases the hurt is not too real, and quite often the hurt is very real—but bearable; with the help of mother love, forgotten.

A successful gardener knows his plants. If he adds a member to his collection he sets about learning the nature of that plant. He studies its habits, its needs, its nature—and uses common-sense and mother love.

ORDERING YOUR FRESH STOCK FOR THE SPRING

The gardener who knows just what new stock he wants orders that stock early, and, therefore, gets the pick of the choicest material, for as a general rule all florists and nurserymen assign their stock as the orders come in, reserving each order, marked, until a suitable time for the shipping of it arrives.

Besides it is only fair to these men who raise immense stock to let them have some idea of the amount of stock to be early disposed of. If you send in your order for a dozen choice two or three-year-old rose bushes late in March, the likelihood is that, weeks before, the choicest of these bushes have already been reserved and marked and set aside for the benefit of the "early birds."

Then, too, all plant men like to deal with customers who order early, judging, and rightly so, too, that these customers know what they are about. Nurserymen like to deal with people who know what they are about, because these customers are more likely to do well with their stock than others.

And every nurseryman likes to know that his choice stock has gone into the care of someone who will appreciate the fact that a good article has been sent, which is worthy of the best care, and which will give the best results.

So early customers are good customers, because they are good advertisers. Don't you think that when a man gets a splendidly successful bush or tree or plant from a certain firm, and that plant surpasses all his expectations—don't you think that man is going to order more stock next year, and be the means of other gardeners patronizing his firm also, because the successful man will always call that firm "his firm"?

Then, too, don't forget that ordering early means planting early. planting early means successful gardening.

In the case of small fruits, for instance, late planting is poor gardening, because the stock often dies, and in any event the harvest is late, and, therefore, often frosted.

Take plenty of time to look well over your new catalogs.

SOME FIRST PRINCIPLES IN PLANNING A GARDEN

One of the first principles in planning a garden is "to make bloom the waste places."

Following close in importance is the principle of filling up awkward corners or gaps and concealing unsightly gaps. And here it is that we are able to make use of such things as rockeries, summer houses, pergolas, groups of shrubs, or even one single shrub properly placed, trellises covered with trumpet honeysuckle or wistaria, and many other tricks of the trade.

A third point is to plan for privacy in the home surroundings, because privacy is always absolutely essential to home charm. Here come in our hedges, our lines of shrubs, our clumps of evergreens. As pointed out before, an element of mystery in the planning is always helpful to charm. Why? Now ask why. Isn't a half-hidden element always an absorbing one, and therefore stimulating to the imagination?

A line of level-topped, close-clipped, impenetrable evergreen hedges always hides something, and hiding protects. Now what is that hidden? Or why—now why, does that clump of crimson-flowered spirea look so secretive, and how comes it so high? On what is it planted? And so forth? A clever gardener can form some pretty problems to set the prying passerby a-guessing.

All this means charm in a garden.

And lastly, do not forget the underlying principle of every successful garden, that is the principle of true proportion, without which every form of garden decoration, whether it be a simple arch or a stately pergola, a summer-house of quaint design or trellis covered with trailing vines; whether it be a water garden, a rockery, or a simple group of shrubs to fill an uninteresting corner, is lacking in perfect charm.

Give due regard, then, to proportion. Do not plant a tall and stately yucca on the uppermost reaches of your rockery; nor yet leave an iris clump alone at the foot of a formal rockery. Do not dwarf your small ten-by-twelve back lawn, by a large round flower bed, nor yet have a clump of peonies in a narrow three-foot border.

SOME GENERAL PRINCIPLES OF PLANNING A GARDEN

But when we speak of gardens all so glibly we do not necessarily mean those pleasure grounds of the rich, with their row on row of beautifully-ordered beds; their rose gardens and their pergolas; their rock gardens, and their lily pools; their summer-houses wreathed in smiling vines, and their arches gayly wound with flaunting roses; their shrubberies and their trim hedges; their flaming beds of blazing perennials, where the stately digitalis looks down in haughty scorn upon the saucy upturned faces of the fragrant pinks, perky amidst a forest of gray-green mist; and the proud larkspur with its waving spears of amazing blue (what monarch was ever so royal) strives to reach those heights unknown to all save the peerless hollyhock.

No. Every man may have his garden, though it be but a small back-yard, gay with golden coreopsis and purple pansy; a tiny spot of marigolds and sweet alyssum; or a dainty border bravely supporting the creepy, crawly portulacca and the incomparable myosotis.

Here in the small spot the simple possessor may reap far more happiness from his carefully-tended plants than is obtained by the wealthy man, who leaves all the work, and, therefore, all the true joy, to his paid gardener.

Do not forget that man measures happiness by what he himself experiences, and not by what someone else experiences. And so it is quite possible for him who possesses but a tiny pot, but who knows every tiny bud and branch and leaf of them, to reap even more true joy than the man who, possessing lordly acres, knows not one of all his rare possessions.

ASKING QUESTIONS

Nothing is more disappointing to a gardener than to find that a newly-tried plant is not up to his expectations.

There may be one or two reasons for this failure. Either the gardener himself has not given the proper amount of care in the cultivation of this new plant, either as regards soil, situation, exposure or attention, or he has expected too much from his new plant.

In the middle of the summer is a good time to look around at the various beds and borders of neighbors' gardens, or those larger and more formal ones, situated in the public gardens of parks, squares, and any other grounds that may be thrown open for the benefit of the public. One may always get fresh ideas from these places. Or one may recognize some of the very plants that are growing at home, and compare them with others. One may see just how tidy certain borders and beds may be kept, with little or no trouble, all depending upon the kind of border plant put in.

In the large public gardens, where large staffs of men are kept for attending the beds and lawns, one may often reap a very appreciable amount of information by asking a question or two. Always ready to give

any hints they can, always glad to receive a word of praise, one will find them to be perfect storehouses of the best kind of information—that is, reliable information reaped, in most cases, from pure experience.

ANNUALS—BIENNIALS—PERENNIALS

An annual is a plant which completes its life cycle, from germination to seed-ripening, within one year.

The seed is sown in the early or late spring; the seedlings are transplanted, or not, according to the variety of plant; bloom appears, comes to perfection, fades; finally seeds form, either as a berry, seedpod, etc., and, if the plant is left undisturbed until the seeds are ripened, the plant seeds itself in the ground, and may, or may not, re-appear from these seeds next year.

Such plants are: Asters, petunias, phlox drummond, marigold, nicotinia, verbena, poppy, portulacca, ten weeks' stock, godetia, morning glory, sweet peas, and many others too numerous to mention.

No experienced gardener will neglect the annuals, because long ago they proved their worthiness. Those named are among the most popular, and most easily grown. These are, moreover, capable of giving a beautiful display of bloom with a minimum of trouble. Grown from seeds in a few short weeks, flowering over a more or less long period of weeks, they give plenty of color, bloom and a certain amount of fragrance.

For convenience, we divide annuals into hardy and half hardy varieties. Hardy annuals are those that may be sown out of doors, in the beds or borders where they are to bloom, or may be transplanted. Half-hardy annuals are those which germinate much more slowly, and in order to obtain seedlings that will bloom before the frosts come, the seed must be planted either in a hotbed or greenhouse where they may receive the required heat to cause sufficient growth. Then they are transplanted outdoors in the selected places. Some of these latter are: Ageratum, carnations, galliardia, golden feather, dianthus, celosia, and others.

Biennials are plants that complete their life cycle in the second year from germination. Sown one year, they bloom and ripen their seeds the next year. Some biennials may be classed among the perennials, according to the manner of sowing. That is, if sown for three years in succession, they may be safely left to perpetuate themselves year after year. Biennials that are popular, and easily grown, are: Foxgloves, wallflowers, sweet rocket, sweet William, primula, Iceland poppy. Several biennials that are hardy are absolutely essential in every well-ordered garden, in order to have some stock that will surely bloom.

No gardener will depend upon annuals alone to provide home flowers.

Perennials are those plants which require at least two years before bloom appears, and the plant will live three or more years.

When gardeners speak of perennials, as a rule, they have in mind herbaceous perennials; but, strictly speaking, perennials include shrubs, trees, and bulbous plants.

Many biennials may be counted as perennials, especially if the seed of the plant in mind has been sown for two or three years in succession. They may thereafter be left to increase to such an extent that, sooner or later, their roots may be divided.

Such plants are the columbine, sweet william, peony, the different hardy lilies, such as lemon, orange, maid-lily, spiderwort, the many varieties of bellflowers, clematis, and many others.

A careful and observant gardener may find out for himself many valuable points about his various roots and shrubs by exercising a little careful experimenting.

Anyone can learn to divide, and thereby increase the various roots that will bear sub-division. A little point we might add just here concerning the transplanting of these newly sub-divided roots is this: Be sure to plant the new little roots very firmly beneath the surface, and deep enough, so that after the freshly-disturbed earth has been watered a number of times, and sunk back again to its usual place, the new roots are not left sticking half out of the ground, with a number of the delicate fibres drying and dying in the air and sun.

Again, do not be afraid to pack the earth very firmly around the new plants.

Some perennials will bear dividing two or three times in one season; others will bear having side slips that are not in bloom taken off and planted to form new specimens. This last may be done with sweet william. Again, others, after bloom is over, may have their tall, straggling flower shoots that are going to seed clipped down to the ground; and if plenty of water is given, bloom will appear in a few weeks. Forget-me-nots may be forced to give three or four different crops of flowers if treated in this way; and every one of the clipped-off shoots may be planted in the ground to form new plants for next year.

CLEANING UP THE PERENNIALS

Keep a daily eye on the garden, watching especially the clump of perennials. Shear off the left-on stems of the peonies. Do not pull them up. If you do it once, and take a look at what you have pulled up, you will not do it again, because you will see that with the dead stalk you have pulled up a flat red dish pink "crown," or "nose," that would in all probability have become a gorgeous bloom. It is an excellent plan to heap a spadeful or two of fertilized earth on top of these clumps. Also, I hope you did not uncover the clumps too soon. Every spring someone loses his peony bloom by this very carelessness. Peony blooms are more easily chilled, and so killed, than any other perennial I know of.

Most perennials should be heeled-up with a garden fork, cuddling the earth close around the roots and heaping it up for some inches higher. It will be noticed that many of the plants are straggly or very loose in the ground. The frost has done this. All that can be done, but this is very important, is to make them firm by scraping the earth up closely around them and patting it in tightly. Such are the sweet williams, the pinks, the Canterbury bells, the snapdragon, and a few others.

I started a whole new supply of sweet william last spring, transplanting them in August and September. This spring they are fine, fat plants, having wintered well, but I have had to go over every one of them, push them back into the ground, and scrape the earth close around their roots.

If your iris clumps are of good age, say four or five years, you will probably find that they, too, need a few spadefuls of earth piled over them early in April.

April is too early to think of preparing any new garden beds or making any change in the position of plants. There is no real, permanent warmth in the ground sufficient to provide heat to the roots. And heat to the roots is most essential when they are moved from one spot to another in the early spring.

Nothing can be done to the bulb beds save keep an eye on their general appearance, for the purpose of removing withered blooms or blighted leaves. Perhaps here and there a bulb will have to be removed where it has proved a failure, or often it is possible to replace a blighted bulb by carefully lifting one from a spot where its absence will not be noticed so much, and placed in the vacant spot. Bulbs can be lifted from one spot to another without injury, even while they are in bloom, although this cannot

be done with perennials so early in the season. In this way unseemly gaps in the lines of bloom may be mended.

The clumps of perennials should be gone over, and all dead stalks removed, not by pulling them out forcibly, as this never fails to bring up some new shoots along with the old stalks, but by using the garden shears to clip the withered stems off close to the earth.

The columbines have been in evidence since the last week in March, and by April are some three inches or so in height, with the buds forming in the centre of the clump. Remove all the dead stems by clipping. Do take a close look at these plants. Did you ever see anything so delicately lovely as the closely-curled rosettes of metallic prune-green foliage?

The myosotis (forget-me-nots) have been twinkling out in tiny, fairy-like leaves, close to the ground, for a week or ten days. Have you ever noticed what ugly, black, ragged strings last year's vines have been all through the cold winter? Do not clear away these burned-up looking strings. Truly, they do not appear to have the least spark of life iu them. But just wait a few days longer and you shall see what you shall see.

The pink roots should be heeled up with the garden fork to make them firm and steady in the ground. Do not move them away or attempt to divide yet.

PERENNIALS EASILY GROWN FROM SEED

Now, in the matter of growing perennials, one word, be patient. Perennials grow very slowly. Having planted the seeds, see to it that the surface of the bed is kept moist all the time. Cover it during the middle of the day, because the hot days of July and August will cook wee plants in the shortest time. If by Sept. 1 the seedlings are large enough to be transplanted, they will have a good six weeks of growing weather to make them ready for the winter. Growth will go on under the warm mulching that will be spread above the bed for the winter. Nearly half the list mentioned above will do well in shady spots. All will stand transplanting readily, very early in the spring. This collection I have given you will give an ideal amount of coloring, bloom and fragrance:

Pearl achillea, one of the most beautiful white flowering perennials; double daisy-like flowers from early June to September. Splendid for shady spots.

Columbine, content to thrive in sun or shade, these dainty, graceful flowers are unequaled. See descriptions above for complete instructions.

Hollyhocks should be planted as backgrounds. They belong in the same class as the larkspurs, and should have careful winter protection.

APRIL IN THE GARDEN

By April time the gardener should have removed most of the mulching from the various beds. It is never a wise plan to leave the heavy, rich manure on the beds until the last minute. Of course, one wishes the full benefit of the early rains which will soak through the richly nitrogen-laden material, carrying food and strengthening moisture down into the earth. But too much of this richness is most detrimental to the well-being of the various roots buried beneath the surface.

About the middle of March, weather conditions being favorable, the thickest portion of the straw and leaves and manure should have been removed, and a light sprinkling of straw spread loosely, but fairly thickly back again.

If this method is practised it will be found that all roots will send up stout, sturdy shoots, strong and vigorous, and well able to withstand the

various abrupt changes in the weather. Otherwise, many poor, spindly weaklings will appear.

Be careful not to uncover the peony roots too soon. Every year gardeners lose their supply of bloom by too early an exposure of the tender young red brown crowns, all of which contain the flower buds. Keep them covered yet awhile. Be careful, when pulling up last year's old stalks, not to bring up any soft young shoots that are always clinging tightly to the old stalk. The better way is to cut off the old stalks close to the ground, not pulling them up at all.

If the garden is large and the beds numerous, the best and cheapest way to procure stock is to grow everything possible from seed. This may be done either in flat boxes, indoors, or in the hotbed, outdoors.

In order that the seedlings be ready for transplanting by the third week in May (earlier than this would hardly be safe from the dangers of late frost), the seeds should be put in at once, that is, April 1; in fact, a week sooner, if possible. Those who have their seeds in now will have good, sturdy plants in plenty of time for the May transplanting. For those who have not their seeds in yet, delay no longer, but get your boxes ready at once.

The best boxes should be about four inches deep, 18 to 20 inches wide, and not longer than two feet; these dimensions will give a very handy box for moving about. Do not choose those having dovetailed corners; the moisture will warp them and spread the corners apart. Cut numerous holes in the bottom of each box to provide necessary drainage, and that the drainage will not be interfered with, nail a pair of one-half inch cleats across the bottom boards as well.

Boxes being now ready, prepare the soil. Spread a bottom layer of straw and manure in each first. Fill up with soil made up of part sand, part loam, sifted fine through an ordinary old-fashioned ash sieve to powder down any lumps. This last point is very necessary, lumpy earth affording a poor medium for the fine seeds. Firm the earth down well by pressing flat with a small level board, patted over the surface.

Very fine seed should be scattered broadcast, after which a handful or so of very finely powdered earth must be spread on top to cover the seeds. Water thoroughly by setting the flat in a tank of water, which will soak upwards from the bottom, wetting everything well without disturbing the seeds—a very important point. Label, cover with glass, or a sheet of white paper, and set away in a warm place.

PLANTS THAT BLOOM IN APRIL

LUNGWORT, VIRGINIAN COWSLIP, BLUEBELL, PULMONARIA OFFICINALIS

If the plant is in your garden, you will know it by one of these names. Like most tramps, it wanders around the country under various aliases, any one of which is well known.

One of the very early spring flowers, it may be found wild along the sloping banks of brooks, or in low, moist meadows. In the wild state, its peculiar burning purple foliage is most remarkable, being more brilliant than when the plant has been tamed. But at all times, and in any situation, the leaves are lovely, for they soon change to a soft green-gray-blue, most restful to the eye as well as to the mind.

The inflorescence is not unlike that of the forget-me-not, long racemes of pink buds finally unfolding into trumpet-shaped blossoms, an inch or so long, arranged in clusters at the end of a stem two feet long. Such a changing feast of color, pink, then bright blue, next lilac, fading to a very light blue, all displayed in one cluster. After the flowers comes

the fruit, queer leathery little nuts, wrinkled and wizened. At last the foliage dies off, leaving a healthy root, full of waiting life for next spring.

The start in your stock may be either from the roots got at the florist, or by transplanting from the wild state, or by seedlings. Plenty of moist loam, with a little sand, good draining, an abundance of sun, if possible, and nature will do the rest. Keep dividing your stock, to increase your roots; give an occasional watering with liquid manure, and cultivate once and a while. Do not forget to protect from frost.

No garden should be without this thoroughly reliable stand-by, because of its easy cultivation, its hardiness, its great profusion of bloom, its wealth of color, and its general usefulness.

As a border plant, it certainly rivals the forget-me-not. On the rockery it shows off well. In shady corners it lights up the shadows. As a verandah plant, large clumps in full flower make a grateful ornament, causing much admiration.

BLEEDING HEART

(DIELYTRA SPECTABILIS)

The first living specimen of this plant seen in Europe was sent to the London Horticultural Society in 1846 by one Robert Fortune, who brought it, along with some other varieties, from China, where he had gone in 1842 as a representative of the society for purposes of research. The roots were placed in the grounds of the society at once, and the following year, to the great delight of everybody, the plant sent up fine, healthy stalks covered with delicate green, beautifully decorative leaves, and long drooping sprays of pendant rose-colored hearts, the whole proving an entirely unique and interesting type of plant.

Since that time hundreds of specimens have been grown and been scattered over the whole country to such an extent that the idea has, in some way, grown in people's minds that this is a very old-fashioned flower. It is, of course, but not with us. The first everyday name that was given it—"dielytra"—and the name by which many people of twenty and thirty years ago knew it, has fallen out of use, the florists now-a-days calling it "dicentra."

"Dicentra spectabilis" has proved to be a valuable acquisition to our garden flora, both on account of its rare beauty and also on account of its altogether unusual type. The plant is hardy, and what is quite as important, an early bloomer. While some think that as a cut flower, the long, graceful sprays have little or no value—though why I am sure I cannot conceive—yet they grant its value as a specimen plant. Unfortunately a bed of these plants, while providing a delicate and grateful beauty during the blooming time, do not allow of any other plants being placed in the same bed. This means a bed devoid of bloom for many long months. True, the leaves are highly decorative and retain a cool and pleasant green throughout the season, but this in itself is hardly sufficient. Therefore it is not wise to allow too much space to be taken up by your stock. A few—say three or four—filling an odd corner or two should be sufficient. A large clump growing in a dark fence-corner, or planted in front of a group of evergreens; or, again, placed in the fern bed; these should constitute one's supply, and will be found all that is needed. The last location mentioned is ideal. Try it and see.

After bloom has ceased, take up the root for division, that is, if you wish to increase your stock, and separate the roots into small pieces. Every single little piece will grow if cared for, but will not flower next year. So be sure to leave at least one clump undivided for flowers next season.

GALLIARDIA OR BLANKET FLOWER

This is a perennial, which gives striking flowers for the border, and for cut-flower purposes.

The leaves are a restful gray-green, and the blossoms are borne at the end of a long, thin stem. These blossoms are somewhat remindful of a large double daisy, two or three inches across; sometimes double, sometimes single, the colors range from yellow through all the browns, orange, crimsons, purples, often with a shining, sheeny, metallic lustre. The flowers continue until the frost has made himself quite at home. The flowers are very welcome so late in the year.

BOLTONIA

The boltonias are true autumn flowers, like the asters and the salvias, and the galliardias, and the chrysanthemums.

The boltonias are also called the "false chamomiles," because of their appearance being so familiar to that of the chamomile. Now, the chamomile is the anthemis, the yellow variety of which is called the golden marguerite.

All the chamomiles are branching, downy-stemmed herbs, bearing daisy-like white flowers with golden centres, exactly resembling small daisies.

So that, now, at last, we have reached a partial description of the new boltonias. They are nothing more or less than very refined and genteel chamomiles in colors, either white, or yellow, or soft pinkish lavender. The blooms are very much larger than the flowers of the chamomile, however.

These new flowers are being used for long borders, producing from the middle of July until late in autumn countless strong, long-stemmed flowers. In fact, wherever the plants are sown in numbers, there you may be sure of a perfect sea of waving bloom.

For cut flowers the blooms are excellent, lacking nothing save fragrance.

Boltonia asteroides sends up great branching blooms five feet high, of pure white snowy flowers.

Boltonia latisquama produces the pinkish lavenders so much in demand among the florists. And then there is a dwarf kind, boltonia nana, also pink, and perfectly entrancing.

These plants bloom away week after week, need no staking, and once thoroughly established, require absolutely no attention. Indeed, in popular favor, boltonias run the asters a close race in autumn popularity.

Since we have mentioned the chamomiles so frequently in this talk, we might add for the benefit of those who do not know the plant, that the mayweed so common along our waysides, those small gray-green, dusty-foliaged plants with yellow-centred, daisy-like blossoms, is the chamomile, a valuable herb weed, that will not be put down and out.

CAMPANULA PYRAMIDALIS

THE CHIMNEY BELLFLOWERS.

All the members of the bellflower family are increasing lovely, but some folk vow that a certain stiffness about these plants detracts from their otherwise perfect loveliness.

For long enough the chimney bellflower grew in the garden more or less neglected, their possibilities little suspected. I think their loveliness cannot be surpassed. One point only they lack. They are absolutely devoid of any fragrance. But then, too, they are also devoid of any rank odor, which is so often the case when a plant is not fragrant.

The specimen I have on my desk to write from is 4 feet 7 inches by measurement. There are just twenty open bells deeply five-pointed, almost the exact counterpart of a lily, except that the corolla is one entire piece. Opening out this flower bell, it has the appearance of a deeply scalloped overskirt, each scalloped half as long as the body of the skirt. The scalloped points have a tendency to turn sharply backwards, which increased the lily-like look. On the central stem,the bells hang from the under side of the stem—or rather, one should say, the outer side. As the stem continues to grow upwards, more buds form. On this stem before me are no less than fifteen buds of increasing size. Unfortunately, the lower bells open first; and, withering, the corolla hangs, an ugly light brown ragl, really disfiguring the plant. On the lower reaches of the plant, smaller be-flowered branches spring from the axils of the lower leaves, and these bear from six to ten bells. The leaves of this certainly peculiar plant are small, not longer than three inches, pointed oblong, one to two inches wide, deeply veined, dark green above, very light below, serrate heart-shaped at the base, where it is attached closely to the stem, without a sign of a petiole (stem). These leaves are altogether out of keeping, I have always thought, with the rest of the plant.

Now, the root is more or less of a bulb; at least after one season, a long white tapering bulbous root is formed. As long as this is in the ground numbers of small plants will continue to come up. These should be pulled off, and planted separately. No matter what time of the summer these are planted, they will grow, so that by a system of planting one may have a series of these lovely soldier-like plants. Planted close together, they will grow taller than perennial phlox, and far outlast them in beauty.

As cut flowers, they are not so lovely as standing a thousand or so strong in long lines, behind shorter plants.

In order to get the very best from them, however, they absolutely must be detached from the bulb-like root, and planted just as one would plant annuals.

COLEUS—THE WONDERFUL FOLIAGE PLANT

Of late years coleus plants raised entirely from seedlings have become so popular for borderings and filling in garden beds, that most people have forgotten what an important part they played some thirty or forty years ago in the scheme of household decorations.

We have in mind now one huge plant (a "Joseph's Coat," our grandmother used to call it), whose great crimson leaves rimmed with crinkly gold were blotched and speckled with shimmering patches of melting hues. Standing in one dimly-lighted corner of the great hall, it occupied an honored position opposite the solemn old grandfather's clock. Higher than our childish head stood the gracious thing, and to even dream of stretching one timid finger in its direction was a shivering, shaking crime.

Nor was this old farm house the single one possessing such a coleus plant. In those days the careful housewife vied with her neighbors for miles around for supremacy in the matter of lovely plants, even as she did in the matter of useful and unique herb gardens, butter, the golden color of which rivaled the first gleaming rays of the early morning sun, and bread, the flaky purity of which put to shame the newly-fallen stars of November snows. Ah, those were the days in which women, working with a definite end in view, filled every minute with the joy of work.

How often were to be seen, on sunny windows, rows of sturdy foliage plants, as everyone called them. These were the very same plants now known as coleus plants. No plant will show so quickly what the atmosphere of the house is. Healthy air means a healthy coleus. Hot, dry, stuffy air

means a sickly, drooping, dying coleus. We are not saying a word about the effect of such an atmosphere upon the human beings living in houses with such air.

The vast range of rich, variegated colors shown by these coleuses enables one to make an exacting choice. Do you desire something darkly Oriental, showing glowing crimsons, melting browns, or velvety maroons? Or something with marvelous tints of gold and green, with wavy bands of orangy brown along the fringed edges? Or, again, a shiny, waxy wonder, whose every leaf and stem and stock shows the coursing life blood, ruby, within? 'Tis easy to have your wildest desire, the field is so vast from which to choose; and never one leaf like another.

Buy a single package of coleus seed. Scatter this seed in some fairly rich earth, just such earth as you have been using for the other potted plants. Place the box upstairs in the attic, if the attic is fairly warm, just sufficiently so that the frost is kept out. Let the sun shine upon that box of earth until the tiny shoots appear. It may be some six or eight weeks, but wait patiently. Once the plants are up, growth is quicker than before. When large enough to show the colorings and leaf shapes, choose the most desirable specimens, and carefully remove to individual pots. Give a fair amount of water. Too much moisture will cause a white mould to form on the leaves and stalks.

Turn the plants daily, so that a symmetrical form is encouraged. Protect from draughts, hot air, gas fumes, and occasionally have the man of the house smoke his pipe into the wealth of colored leaves to drive away any insects that are fond of breeding in these tender coleus plants.

THE CYCLAMEN, OR ALPINE VIOLET

Many people are not aware of the remarkable ease with which the alpine violet can be cultivated. Commonly known as the cyclamen.

It is not generally known, either, that these plants may be raised from seeds. This way of procuring stock is very slow, however, since the seedlings require considerable time in which to form the necessary bulb or corm, for the cyclamen is mostly thought of as a bulbous plant.

Do you know the cyclamen? The leaves are fleshy, often spotted, with whitish or yellowish blotches here and there, either irregularly or quite symmetrically along the green. These leaves are large and more or less heart-shaped.

Even when not in flower the cyclamen is a pretty, nay, an unusual ornament, on account of the unique leaves.

The flowers, from white to a deep blood-red, are borne singly on fleshy stalks, six to eight inches long, well above the thick, low-spreading mass of leaves. There is one variety that produces a curious magenta flower. It is decidedly not pretty. No magenta flowers are pretty.

Grown for indoor flowering plants, these cyclamen are usually satisfactory. Given a cool and shady spot, they will thrive merrily without the least hint of sun.

While these plants also do not like a swamp surrounding, yet they do demand plenty of moisture, and an almost daily sprinkling of the leaves.

Once carefully potted, the need for repotting does not again soon come round, for the tremendous growth of the plant is above, and not below, the earth.

To have a fine pot several good-sized coms should be placed in one large pot. Take care to have the earth fairly peaty, and certainly not too heavy. A little leaf mould in the bottom of the pot is advisable, and some touches of lime very grateful to the bulbs.

One of the best incentives to fresh bloom is the spraying of the whole plant every day.

COSMOS

Cosmos is a comparatively new flower. From Mexico it has been brought into this country, and has been trying to become hardened to this rigorous climate.

An annual, with smooth opposite deeply-cut leaves, sending up long stems topped with flat ray-like flowers or white, or pink, or crimson, with yellowish centres, it is of fairly easy culture, although it is more or less new to us.

The long, thin stems give the flowers a graceful waving appearance when growing, and make the blossoms very desirable for bouquets. While there is nothing startlingly beautiful, or unique, it may be said that it is simply one more of the many fairly desirable annuals that all gardeners may grow with great success and little trouble in their gardens, no matter how small or how unpretentious that garden may be.

One may plant a great patch of it in the fence corner, or may place a large clump under a tall growing tree that will let in sufficient sun and air to satisfy the flower, or it may be planted in a bed along with some other tall flowering plant, so that the flower stems will mingle pleasantly together. Such another suitable plant might be the scabious, or love-in-a-mist, or even the annual larkspurs. These plants all flower about the same time, and will form suitable companions for the cosmos and for each other.

CANTERBURY BELLS

One cannot but feel sorry that a plant capable of producing so much beauty of form and such brilliancy of coloring as well as great luxuriance of bloom, is able to send out an odor of the rankest—a harsh, wild, altogether repellant smell that offends the most tolerant of admirers.

In fact, no member of the campanula family, of which the Canterbury bell is by far the most important, possesses the least fragrance. At the same time, no other member of the family throws off such an offensive odor.

Nevertheless, such value is attached to these plants on account of coloring, form, and luxuriance, that no garden can afford to be without one or more members of this family. The smaller species of the bellflowers, such as the harebell and the famous bluebell, have a delightful, dainty beauty, simple in its exquisite exclusiveness, that has made them well known the world over. Then come the taller, more robust species, such as the Carpathian harebell and the chimney bellflower, the former almost as well-loved as the violet, the latter a species sending up tall tapering spears hung with deep rich blue scalloped bells, a splendid autumn flowering variety. Then come the Canterbury bells, whose wide, deep bells are unsurpassed for their robust and symmetrical beauty.

The family as a whole provides a species for almost every situation, moist or dry, sunny or shaded, and the flowers run along thru the hottest days of July and August, when the deep, rich blue is so needed to produce cool effects, and when fine flowers are at a premium. Their deep blues are unequaled by any other flower known—for one reason that the sun and heat seem to have little or no effect in causing the colors to fade.

Gross feeders, as one need hardly be told, the plants need plenty of moisture, well soaked into the roots. The fleshy, succulent stems are brittle and easily broken down with their weight of bloom, so that some support is needed, especially if the plants are more than usually successful.

The Canterbury bell is useful in almost any situation, but one need not be told that sun, moisture and food are necessary for the production of the many flowers.

Sow the seeds early in the spring, as soon as the frost will allow working up the ground. Transplant when four or more leaves have grown on the main stem. In September, transplant a second time to the permanent bed for the following season. Give the plants careful watching until they are firmly rooted, covering before the first sharp frosts do any mischief. When the time arrives to cover for the winter, lay on a good supply of straw and stable manure, so that plenty of nitrogenous material will be carried down with the moisture from the melting snows, not only during mild spells in the winter, but also when spring thaws and rains arrive.

When the beds are being prepared again for the season, work in a good supply of mulching, so that the great, greedy plants will have a good supply stowed away for future use.

All the members of this family are better treated as biennials; that is, they complete their life cycle in the second year from germination. Sown one year, they bloom and ripen the second year. Therefore, in order to have a continuous bloom, one should sow the seeds every year until the succession is assured. The plants that bloom this year will seed down for the year after next. Next spring the seedlings will shoot up, be ready for transplanting in July or August, and be ready for the permanent bed or border in September.

The plant will bear repeated transplanting, and, in fact, improves thus.

CALCEOLARIA

There are two distinct types of calceolaria, the herbaceous and the shrubby. The first dies back to the roots at the end of the growing season, the latter holds both its stems and its leaves. Herbaceous calceolarias are generally grown as annuals, fresh batches being raised from seed every year. The principal seedsmen have produced some beautiful strains which form large plants under careful culture, covered with large, richly-colored pouches.

The seed is rather expensive, and should be handled with care when sowing in the early spring.

When the seedlings are fairly started, they grow very quickly, and may be repotted till they fill six-inch pots, in which they may be left to bloom. They will be safe in any cool spot, or in the ordinary small greenhouse, and may be expected to bloom in early autumn.

The ordinary shrub calceolaria is the dwarf yellow used in our outdoor gardens. These are very brilliant plants, well known to most people, and much admired.

Unfortunately, the plant is subject to a disease which carries off many plants every season. Spraying early with Bordeau mixture will save many plants. But this spraying should be done early, else absolutely no good will be accomplished.

Cuttings of the young shoots may be taken in October and put in sandy soil in a cold frame, over which a mat may be thrown in cold weather, when winter approaches.

CANDYTUFT

Iberis sempervirens, the evergreen candytuft, and iberis umbellata, the purple candytuft, are two really old-fashioned flowers, for it is recorded in botanical magazines that the seeds of these varieties were first introduced into England about the year 1587. In that year a gardener, one Gerard, received from the Island of Crete the seeds of the "candy mustard," which he planted at once in his own garden, producing the first year flat heads of purple, white, blue, pinkish-white, and a deep cream. From the name

"Candia," or "Candy," which was the ancient name of the Island of Crete, the flowers received their name, "candytuft."

So that the little flower is quite 300 years old, with us, at any rate.

The common white, or evergreen variety, is, without exception, one of the best bordering plants that can be found, ranking closely with sweet alyssum, myosotis, and phlox sublata. Where durability, cheapness, and ease in keeping within bounds are points to be considered, this little plant fills every requirement mentioned. Blooming, as it does, almost from the first few days, it so provides an abundance of flowers when flowers are at a premium. Like the myosotis, the long, straggling seed stalks may be sheared off close to the ground, and in a very short time the new shoots will make a compact evergreen border, spattered here and there with an occasional bloom.

For the rockery, it is unequaled as a ground cover, spreading with great rapidity, clinging to the rough surfaces of the rocks, finding its way and rooting itself in small crannies and crevices between the stones.

The common annual candytuft, with colored flowers, is the purple variety; but, while the name would imply that one color alone is to be looked for, yet what really does occur is a truly wonderful array of nearly every tint except deep yellow.

The base color is purple. But this purple comes out in so many tints and shades that we practically have everything, from deepest maroon, ranging thru magentas, pinks, blues, flesh tints, all of the most delicate variations, until the eye cannot but be satisfied, as well as delighted, with the feast of colors.

A delightful combination edging is formed by planting alternate clumps of phlox sublata, common white candytuft, and myosotis, which will promise you an edging of infinite variety in color, form, and perfume.

THE COLUMBINE

Columbine is supposed to be the first perennial of the old herbaceous class that comes into flower. But there seems to be so many "firsts" that one hardly knows where to start counting.

Have you ever noticed the first curled-up leaves of the columbine? Like wee doubled-up fists, ready to do battle with all and sundry who try to hinder its being first to bloom. At least, that is what one might very well liken them to. Later on, when the leaves have opened out, and a few more have been born, the young plant is a perfect marvel of beauty, the young leaves forming lovely pinked-out rosettes of changing metallic tints of greenery-brownery-prunery red.

The flower of the columbine is composed of five petals, formed in the shape of a funnel which is prolonged into a long, narrow, closed spear, with a rounded nob at the end; these are joined by the sepals, which are spread out in the likeness of wings. When the queer flowers hang swaying in the spring breeze, one may easily trace the resemblance to doves, closly perched, beaks together, wings half-fluttering, and all cooing together. These flowers are true "horns of plenty" to the busy humming bees that haunt the clumps of dainty, graceful blossoms.

The plants look well on the rockery, or in clumps, especially if the roots are allowed to multiply until the clumps are quite large. Plant the seeds early in March in hotbed or flat, transplanting to the permanent position not later than the second week in May. These seedlings will not bloom until late the first season, but the following will be among the first to bloom.

Give plenty of manure mulching in the spring, providing sufficient water through the warm weather, and cover well in fall to protect from frost. The clumps will last for many years if divided occasionally.

CHIVES AND SHALLOTS

On an average of one person in every thousand will recognize these herbs, so common to our grandmother's old-fashioned herb gardens, and so indispensable to many of the old-fashioned sauces and soups. It is well for many of our modern housekeepers to become acquainted with both herbs, for the pair will form a splendid addition to the list of every-day "savories."

Chives belong to the allium, or onion, tribe, and are perennials. If one can imagine tiny spring onions, whose tender white bulb is no larger than a thickened straw, and whose stiff, rich green stems are scarcely half the thickness of the same straw, the whole plant some six inches high, and perhaps producing a pretty, pale purple flower from the central stalk, one can readily see that such an herb is not only a necessity to the cook, but also an ornament to the herb border. The plant will multiply readily, so that often a young bunch of chives will yield from twenty to thirty roots.

For soups, salads, stews and sauces, chives are splendid seasoning agents, giving a faint, very delicate onion taste.

Old-fashioned folk used to divide the roots year after year, and plant these to form stiff, little borders to the flower beds. The low, violet-crowned clumps were well-fitted for perennial borders, both on account of the flowers which appear early in spring, and from the fact that the hollow green stems retain a vivid and unchanging green through the hottest spells of drought.

While the chive rarely seeds, in this country, yet it thrives in any good soil, multiplying with incredible rapidity. Any nurseryman will be able to supply roots at small cost.

Shallots also belong to the allium tribe. Like the former herb, chives, the shallot is a most useful member of the family, and no kitchen garden should be without a goodly patch of healthy shallots. The cook can use shallots in endless ways—in soups, sauces, stews and pickles, as well as in plain cooking—there is no end to the use they may be put, where a slight oniony flavoring is desired.

Buy bulbs from the nurseryman, as seedlings are not useful until the second, and, indeed, often the third year.

These young shallot bulbs must be planted early in spring, in rich earth, and should be planted some five or six inches deep, and in rows at least ten inches apart. By the end of the summer, the plants will have become quite bushy, forming thick clumps. About the beginning of September these may be pulled up and dried for winter use in the sun. Be sure to leave enough healthy plants under cover in the bed for new stock next spring.

CLIVIA: IMANTOPHYLLUM

The clivia, known also as imantophyllum, belongs to the well-known amaryllis family.

Almost everyone who loves flowers and tries to have at least one especially beautiful flowering variety, owns a pot of some one or other of the amaryllidacae. This family is, above all others, remarkable for the never-failing beauty of its flowers, both as regards color and shape and fragrance. The family is a vast one, comprising, as everybody will remember, such well-known favorites as the narcissus, daffodils, jonquils, snowdrop and tuberose.

The clivia, however, is not too well known among amateurs. It should be a great favorite for the house and greenhouse, as it lends itself readily to indoor care.

Spring is a good time to plant the bulbs, as soon as fresh growth makes

itself evident. The drainage should be good and soil three parts fibrous loam, one part leaf mold, some sand and a trifle charcoal.

All through the summer the pots should be carefully watched, a fair amount of water being given, and the growth kept in check until autumn, when it will be found that the roots have become pot-bound. This latter condition is the forerunner of prolific bloom for early winter, consequently repotting is not advisable.

Clivias have been greatly improved of late years; so much so that the ordinary old-fashioned orange-flowering variety, I. miniatum, is almost shelved.

A good winter flowering variety is I. gardeni, sending up in the dark, gloomy days marvelously lively stalks of brilliant red lily flowers, standing often 18 inches high.

Clivia nobilis is the old-fashioned spring flowering kind, producing early in February great stalks of drooping orange-red lilies in umbels.

After flowering, set the pots away for a time in the dusky coolness of an unused room, but do not let the earth dry out. Always, even while the rooting is taking place, see that the soil is sufficiently moist to provide a constant modicum of food.

FORGET-ME-NOT

There is an ever-changing charm and constant delight about the pretty forget-me-not that endears it to the everyday heart. Not only does it fill all the demands that any lover of spring flowers may express, but it continues its good work, week in and week out, throughout the whole summer, and, if the plants are properly managed, will continue to flower until the frost comes.

Of course, the forget-me-not, to be seen in all its perfect beauty, should be grown in a border, allowing it abundance of room, plenty of sunshine, and copious watering morning and evening. Producing, as it does, hundreds of bright blue flowers and a perfect miniature forest of long, delicate green branches, covered with narrow, tea-leaf shaped flowers, the food required for such luxuriant growth is enormous. The moisture and nourishment to be drawn from the earth, no matter how well enriched that earth has been, is never quite sufficient for the needs of a good edging of these plants. Unfortunately, the roots are very superficial, being composed of countless delicate threads, mere strings that only penetrate a short distance under the surface.

Consequently, should the top earth be allowed to dry out ever so little, the plants wilt to the ground. However, if this should happen, a plentiful watering will restore them to their original freshness. But do not let such carelessness happen often, or the border or bed will soon present a dilapidated appearance.

Used to carpet bulb beds, the fresh, delicate blue harmonizes delightfully with the more brilliant hues of the daffodils, or tulips, or whatever the bed chosen.

I do not know any other plant that will endure so well as many transplantings as one may wish. Given abundance of water, and they will live on, and, better still, bloom away merrily.

Plants may be raised from seed, or from cuttings, or by root division, or even from small slips stuck in the ground anywhere.

Some of the newer varieties are greatly improved in size and coloring, among them being some shades of purple, pink and lavender. But, then, who wants purple forget-me-nots?

The thing could hardly be tolerated. Purple forget-me-nots. Never! One can scarcely imagine such a thing.

FOXGLOVE DIGITALIS

Many people think the foxglove to be the last word in stateliness and unique beauty.

In the main, this belief is almost undoubtedly quite true, and yet, like all the other plants that send up one or more long, slowly-developing flower stems, there are one or two decidedly annoying features about the plant.

For instance, a well-grown foxglove in full flower is a plant of dignity and great beauty, for a few days, and then the whole effect of the tall flower stem is spoiled by the withering bells upon the lowermost reaches of the stalk. As the top of the flowering stem is always unfolding new buds, the stem is never in perfect flower, nor after the first few days is it without its ragged and dying blossoms.

Apart from this unfortunate habit, which gives the flower stem a very untidy appearance—apart from this drawback the foxglove is a very desirable plant.

The name digitalis comes from the Latin word "digitus," a finger. Some claim the thimble shape of the single flowers suggested the name; others again claim the name was given because the plant points straight skyward like a finger. However that may be, the height, four to five feet, makes this plant a suitable one for the herbaceous border, either planted just in front of a clump of larkspurs or a group of perennial phlox. These two just named grow a foot or so taller than the digitalis, whose flower stalks usually reach just high enough to hide the lower ragged and unsightly withered leaves of these old-fashioned border plants.

The foxglove is a biennial; that is, flowering the second year. The seeds planted in open ground in March, if the month is warm, or, better still, planted in April, will send up seedlings, at first rather timid looking. Presently, rather large, tufted leaves appear, and remain throughout the first year. In the following year, there shoots up one single, very erect, stem, with oblong pointed leaves arranged around the stout stalk. This stalk, growing higher, suddenly becomes a thinner, bud-bearing raceme, thickly covered with growing blossoms. These buds grow all on one side, apparently, but examination will reveal the truth; that is, the heavy bells twist round the stem so that they hang downwards, apparently from one side, but not really so.

After the second year, the plants, as a rule, die out. The seeds, there fore, of the foxglove should be planted every year in order to insure a yearly succession of blooming plants.

The colors are usually very delicate pinks and blues. The inner portions of the hanging bells are thickly splotched with dark spots, giving the flowers a peculiar appearance.

These deep bells are regular storehouses of thick, yellow honey, and are frequented by the bees in great numbers.

FORSYTHIA SUSPENS A (THE GOLDEN BELL)

There is no shrub so delightful as the golden bell. With its graceful, weeping habit, its long, trailing branches, thin, delicate, smoothly green, with tiny dark splotches on the new limbs, the bush will attain a height of quite ten feet. The long trailers will lie on the ground and take root themselves if left undisturbed.

This is not a good thing to permit, however. The shrub should be pruned very early in the summer, after the blooming season is over. As the flowers are borne on the wood of the preceding season, the tree should be coaxed to send out new shoots. To do this, all the old wood must be pruned away. Do not be at all sparing with the pruning knife. Cut away all

branches of more than two seasons, in order to induce free shooting.

As to soil, almost any kind will do, for the bush is one of the hardiest. But, of course, all shrubs should be given soil as well furnished with nourishment as it is possible to get hold of.

Plant the tree against a background of dark green, either at the foot of a thickly-growing vine, or among a dark evergreen shrubbery. This will bring out a delightful contrast of color, form and habit.

Particularly well does the golden bell look when placed apart from any other plant. In the corner of an iron fence, or a wire one, where it will obtain abundance of air, light and sunshine, this shrub will do unusually well.

As regards the value of the golden bells, I would sooner part with my choicest lilacs—which is saying much—than do without them.

GOLDEN TUFT — ALYSSUM SAXATILE

A delightful little creeping plant, and one that no garden should be without, no matter how small, is the old-fashioned golden tuft, a member of the useful alyssum tribe. Commencing quite early in the spring, usually the last week of April, it spreads a brilliant yellow mat over rocks and stones and earth, blooming away as merrily as you please until Jack Frost comes along with his nippers.

Golden tuft is a perennial of extreme hardiness, is easily grown, requires little attention—once thoroughly started—and is without doubt the most prolific yellow bloomer of early spring. It produces its flowers in loose panicles, each head lasting several weeks, before the least sign of decay appears.

On account of the unusual long "tap root," which renders transplanting (unless in the hands of an adept) an extremely difficult matter, the plants are best raised from seed in one's own garden, in a spot chosen as the permanent bed; if the plants come up too thickly they can be weeded out without disturbing those which are to remain. Or, if transplanting is to be tried, it may be done while the plants are quite young, before the tap root has penetrated any distance into the earth, so that there will be less risk of breaking these roots. If the seed is sown this spring the plants will bloom next spring, according to the rule of perennials.

The stock may be increased the second year by division of the roots, or by cuttings. While this plant is not very particular as to soil, yet it does not love heavy or wet earth. Especially hateful to it is a heavy clay. Given a light, warm, sandy medium in which to grow, this flower will be a constant delight with its cheerful yellow heads spreading wherever they are able to push their way.

As a border edging it forms a beautiful golden frame for other plants. Especially adapted for a rockery or any kind of rock garden, its roots will penetrate deeply among the stones and rocks, and thus a permanent plant will be obtained, ready to spring up year after year with a constant supply of golden flowers.

Give plenty of water, especially through the month of August, and treat once and a while to a dose of liquid manure. Protect the roots through the winter months.

HELIOTROPE

Heliotrope is really a house plant, altho many grow it quite successfully in the outdoor garden.

This is one of the most richly perfumed of all plants, although not in itself strikingly beautiful, either as to leaf or flower. And yet the coarse,

hairy, dark green leaves are a perfect setting for the delicate and truly modest blossom. Many folk do not know that heliotrope is a member of the same family as the forget-me-not. Yet this is so.

If you have been growing your plants in a cool spot in the outdoor garden, do not delay too long in bringing your plants indoors, that is, if you wish to have winter bloom.

Prepare some good loam, some sand, a fourth of old manure, and thoroughly mix. This mixture will make a suitable soil for producing good house plants.

As a rule, you will not want to bring in the large plants as they stand from the garden beds. These will be much too large. But choose a nice, fat, straight branch some six inches, or perhaps ten, in length. Remove it from the old plant. Remove all the lower leaves to about two inches from the tip. This will leave some four or five leaves on the shoot. Pinch off the top bud. This will prevent further growth without branching.

Plant the shoot half its length in the prepared soil, so that about three inches of the shoot are under the earth. Soon small fibre roots will be thrown out. In a week or so a few lateral branches will just begin to peep from the scars of the old removed leaves. By the time this has occurred your plant had better be brought up from the cellar or from underneath the dark, shady tree, where it was set, as soon as the planting had taken place.

Before exposing your new plant to the strong light, soak for an hour in a pail of water. Allow the strong sun to reach the new plant gradually, for heliotrope is tender alike of heat and cold.

When the purple blossoms appear, give plenty of water, and do not forget to spray or wash the leaves.

Heliotrope will not grow in any room where the gas escapes, a common thing, unfortunately, in city houses.

IRIS

There is so much to be said about these altogether delightful flowers that I shall not even attempt to say much about them. Their beauty is entirely beyond any description that my poor pen can do justice to.

The iris, or flowering flag, as many know them better, has been called the poor man's orchid—and rightly, too. I do not think that any person should be excused for not knowing something about this family, which comprises the crocus, the gladiolus, the blackberry lily, the ixia, and the tigridia, each and every one of which is remarkable for some unusual beauty peculiar to itself. The iris itself is, of course, the most characteristic and remarkable.

When I tell you that there are already some one hundred and seventy-five specimens known to botanists, you will at once realize the task before us if we were to attempt to go carefully into the subject of irises.

However, there are two main species that we are concerned with—the German irises and the Japanese irises.

The German irises are purely garden flowers, into whose composition have gone the strains of a score or more of primitives, and it is owing to this great diversity of origin that the varieties have an equal diversity of coloring ranging from white, through many hues of purple, yellow, bronze, claret, blue and mauve. Many are exquisitely veined and marked. The leaves are long, broad, swordlike, and are more or less evergreen. The flowers singly, or in twos, and occasionally threes, come from the centre of the sword sheath, on a tall, strong stem, proudly uplifted above the rest of the plant.

The Japanese irises are very beautiful. There are many points of difference between the two species, which we need not just here concern

ourselves with, other than that the leaves are not evergreen. The leaves are much more delicate and narrower in appearance. The flowers are rather more gracefully poised on the stem, and the roots are more of a bulbous character.

Easily grown, easily wintered, the roots may be divided, and the stock increased every season after the flowering is over. I have found that by constant division the blooms increase in size and intensity of coloring. Many gardeners allow the roots to remain undisturbed year after year, until immense clumps have developed. As the roots increase, they have a tendency to come to the surface of the ground, because, increasing, they have piled up on those of preceding years, and are crying out for immediate attention, in other words, division. While nothing looks more attractive and distinguished than a fair-sized group, the tall sword leaves topped with clusters of healthy rich-colored flowers, yet single plants placed in lines behind some smaller growing flowers, say sweet williams, give a stately and formal look to the bed or border that nothing else except perhaps the gladiolus will give.

Save every single piece of root, plant in rich soil, the smaller the root the richer the soil, with an abundance of water, and the small, perhaps despised, piece of root will soon reward your care and attention with a splendid flower.

Remember that the iris is by rights a water plant, therefore be generous with the water.

Irises come in flower early. By careful choosing and observant transplanting, the blooming season may be lengthened in a wonderful way. Some varieties bloom quite late, so that even in August one may have them in flower.

LEMON LILIES

To even attempt the description of a lily, how altogether ridiculous, because futile. No lily but is beautiful beyond description, whether it be the stately calla, sacred to the Egyptians, who gazed reverently upon it, growing coldly white and aloof above the sluggish waters of the River Nile; or whether it be the tiny vale lilies, shyly fragrant within the shelter of their broad, green sheathing leaves; whether it be the gorgeous tiger, dazzling the mind and eye alike, or the brave, wee snowdrop, blooming bravely, alone above the melting snow.

A lily is a lily. The very name itself seems to convey to the mind some of the many characteristics possessed by the various members of this immense family.

Just now we want to talk about the old-fashioned lemon lilies. These lilies are so closely related to the ordinary orange lilies that the two are often confused. Certainly in many respects a close similarity is present; for instance, the roots of each. Now nothing on earth, or in the earth for that matter, either, resembles the peculiar collection of "tail-ed bulbs," one end of each being attached to a main stem, the whole forming a reserve of nourishment, on which the plant lives, besides counting that drawn from the ground. The older the root the greater the number of bulblets attached to each plant.

A peculiar thing we have discovered about these small bulblets. If the large root seems to have a very large number of these, remove as many as you think may be spared, never failing to leave at least three fair-sized ones attached to the central root. Plant these, each separately, in rich earth, keep well watered, and in the course of nine months or a year they will throw out root fibres, and in two years will be as large (capable of flowering, too) as the original plant.

The lemon lilies are of the palest, most delicate yellow, smaller than

the ordinary orange (or sometimes called day lily), and give off a dainty fragrance.

Planted among stocky, bushy plants, they raise their slender flower stalks above the surroundings, and gleam out like golden stars.

Divide the roots in the usual way, at least every fall. We have found that constant division of most roots guarantees much larger bloom the next

SWEET PEAS

The sweet pea is a flower which should be in every garden. Many people will say that sweet peas are too hard to grow and need too much care to be worth bothering about, but with a little attention and careful watching, sweet peas can be made to bloom from early summer to fall. Seeds should be bought carefully, and early. Good, rich soil is needed.

It is not necessary to have the sweet peas planted in a row alongside the back yard fence. They will grow anywhere, and many gardeners plant them in the centre of large beds, with branches of trees or shrubs for the plants to cling to.

Care must be taken in preparing the soil. Dig a trench a foot or more deep, and place in it some well-rotted manure. Then cover this with several inches of good loam, and plant the seeds. As the tiny shoots appear, keep sprinkling earth over them until they are covered to the depth of several inches. In this way a strong, sturdy growth is assured, as the roots have taken firm hold in the earth. Be sure to provide netting or branches, up which the plants may grow. And don't fail to cut the flowers off every day. The more sweet peas are picked the better and more profuse the bloom. The flower will collapse if left to bear the double burden of flower and seed production. Give plenty of water.

Most amateur gardeners do not classify sweet peas according to color, but it is a good plan. E. T. Cook, in The Canadian Courier, recently gave the following classification, which is about the best yet published:

White—Dorothy Eckford, White Spencer, Nora Unwin, White Wonder, Shaasta.

Lavender (a lovely color in sweet peas)—Lady Grisel Hamilton, Florence Nightingale, Countess of Radnor.

Pink and rose (these shades are delightful, clear and useful in all forms of dainty decorations)—John Ingman, Countess Spencer, Arthur Unwin, Beatrice Spencer, Dainty, Apple Blossom, Gladys Unwin, Queen of Spain.

Red or scarlet and crimson—King Edward, Queen Alexandra, Chrissie Unwin, Coccinea, which is usually regarded as a cerise shade.

Salmon and orange shades—St. George, Bolton Pink, Earl Spencer, Evelyn Byatt, George Herbert, Henry Eckford.

Purple and bluish shades—Frank Dolby, Countess of Cadogan, Tennant Spencer, Captain of the Blues, Shapzada, Black Knight, Lord Nelson, Navy Blue, Tom Bolton.

Primrose and buff—Dora Breadmore, Mrs. Breadmore, Mrs. Collier.

THE CALLA LILY OR ARUM LILY

The calla lily, so beautiful, so stately, so remotely aloof in its bearing, so intimately connected with the saddest of all ceremonials, has from time immemorial been cultivated as the one choicest of all house plants.

I wonder how many know that this wonderful white lily belongs to the same family that numbers among its members the odd "Jack-in-the-pulpit," and the odorous "skunk cabbage," two wild flower plants known to every lover of the wild?

Indeed, the arum family is peculiar, in that it possesses one of the

loveliest flowers in the world, and one of the most indescribably ugly, namely, this very small white calla and the skunk cabbage.

The white calla is often called "the lily of the Nile," while the botanical name under which it is now known is richardia africana, after L. C. Richard, a French botanist, who introduced the root into England about the year 1730 from the Cape of Good Hope. It was then known as calla æthiopica by which name it is still sometimes called.

The root is more or less of a thick, fleshy bulb, out of which grows the flowering column, which is from the very beginning protected by closely enfolding leaves.

The column finally outstrips these enrolling leaves in height and sends aloft the peculiar flower.

Like the typical flowers of the arum family, this white lily form is composed of a thick, brownish golden spadix, surrounded by a graceful enclosing and backfolding bract or leaf, which slowly turns snowy white.

The long funnel formation of this flower is often ten inches long, a truly regal crown for the stately plant, the leaves of which are clear green and beautiful beyond compare.

Given a healthy root, there is no difficulty in the culture of the white calla. Fresh stock is obtained by the division of the tender offshoots that appear in the spring.

As potted plants a rich soil is best, three parts loam, one part sand, and one part decayed cow manure, an abundance of water at first, plenty of sun, and a fair amount of heat.

LILY OF THE VALLEY

Lily of the valley is a plant very easy to grow. In many old gardens, forgotten and neglected, it has bloomed on and on, year after year, forgotten by all save bee and butterfly. Anxious to attract the attention of the casual passerby, it has escaped from the confines of the old gardens, and, scampering gleefully along the highways, makes glad the heart of the young boys and girls, early on the hunt for wild flowers, and the first signs of spring.

Every season the beds should be thinned out in spots, for these lilies multiply so rapidly that they will ovverrun everything in sight, and then it is only a question of the survival of the fittest. The vale lily usually comes out uppermost in the struggle for life. By keeping the plants thinned out, larger and longer spikes of flowers will be obtained; but let me give a point just here: if the roots are transplanted one year, in all probability the following year no flowers will appear, but the second season will be much finer specimens.

To show how they will multiply, I am not exaggerating in the least when I tell you that last spring I was forced to throw away three barrelfuls. It nearly broke our hearts, as we were like the old woman who believed that nothing should be wasted; there was no room in the garden for them. Nobody nearby had any desire, apparently, for the gardening is hard work, you know, and many think it is also such dirty work. "Dear me," and our lilies had to go out into the lane.

Vale lilies look unusually well on any kind of rock work. In shady spots, under trees, or on the north side of walls or fences, especially if the soil is fairly moist, they will do well. One drawback, however, is this: where they are nothing else can grow at the same time, because their roots form such a dense mat that all the nourishment is drawn from that part of the soil. There is such a great deal to say about this wee plant that it can hardly be attempted in this short space. All I can say is: If you have none, buy some, and learn about them from themselves.

THE BED OF LILY OF THE VALLEY

There is truly no other spot in the whole garden from which one may reap a larger reward for little work than the lily-of-the-valley bed. Too often, however, the amateur gardener, having managed to grow himself a fine bed, follows the plan: "Let well enough alone." As a sure result of following this homely old falsehood (in this case), he will find his spring blossoms deteriorating in a year or two, and, finally, if something is not done for the welfare of the roots, they will die out.

What is the trouble? Simply this, the roots have developed themselves to death, and by a constant overcrowding of a space intended only for a few plants, but ultimately occupied by five times the original number, a very unhappy result has obtained. The plants starved to death.

I know no perennial that will develop more quickly than lily of the valley. Each small "pip" is provided with a regular tuft of thick white cord-like rootlets, twisting in and out, each one from three to six inches long. From the base of the root of the "pip," when multiplication takes place, issues a long runner that burrows its way along through the subsoil until it finds a suitable place through which to push its way into the upper world. These runners serve to bind the many roots of the various plants into a firm, unyielding mass, through which nothing can penetrate. You can readily understand, then, how serious the condition of overcrowding will soon become, more especially when this added information is given, namely, every flowering "pip," as well as every strong, healthy plant, multiplies from three to four times every season.

Think, then, of the food necessary to even a small bed. The original amount of nutritious material in the earth of the bed will soon be consumed, and a fresh supply must be obtained by addition from some source.

This can only be done by a thorough good mulching with old, well-rotted stable manure. The material should be spread thickly on top of the bed. Nor is it necessary to add an inter-layer of old leaves and such debris between the mulching and the bed, because, as a rule, the dark green shield-like leaves of the strongest of the plants remain attached to the roots all through the winter. These form an ever-present inter-layer against any too close effects from the mulching.

Every lily of the valley bed should be thoroughly mulched each autumn. The manure should be spread over the beds before the fall rains set in, so that a good percentage of nitrogenous material is swept down into the earth, to be almost at once drunk up by the countless roots.

While we do not advise a complete transplanting of the beds each fall, yet it is wise to thin out each bed, at least 50 per cent., each September. This time will allow the roots to become settled in their new beds (those that were removed and transplanted), and will not set the plants so far back that bloom will fail to appear the following spring.

LILACS

Of late year lilacs have been so assiduously cultivated and improved that we have now some superb varieties. No garden should be without its one or more specimens.

Lilac bushes are not easy to deal with, although most people think that all that is necessary to do is to simply plant their shrubs and let them grow. Much depends upon the pruning, because according to the manner of pruning depends the crop of bloom.

Another thing, keep down all the young shoots, called suckers, that spring up so freely from the base of the tree. These suckers are a tremendous drain on the general vitality of the root, and usurp nourishment that should be directed towards the production of bloom. Cut these

out, from the very root, unless you are desirous of obtaining a new shrub. If this is the point in view, clear away all but the one selected sucker. Let this be one that has sprung up some distance from the old tree. When sufficient small rootlets have formed on its own root, take the spade and cut down deeply between the old and the new, so that no connection is left, but do not lift the new shoot yet. Leave it growing, just where it came up, until next spring. By not disturbing it, those tiny new roots (and it is really surprising how a few wee rootlets will keep the "sucker" alive) will have grown into fair-sized roots, and if carefully lifted, with plnety of earth around its earth-fibres, may be transplanted to its permanent spot.

I have been told time and again by those who are considered authorities on the subject, that it is an utter impossibility to secure from the parent tree "suckers" that will grow into shrubs exactly like the old tree. But I have not found this to be true. One huge old Persian lilac has supplied many gardens with young trees, apparently exactly similar to itself. From the countless young shoots that will persist in growing, sufficient shoots, well rooted, have been produced to form a hedge nearly one hundred feet in length, all exactly similar to the old tree.

The white lilacs are the most difficult varieties to coax into bloom. If they are not exactly suited as to soil, situation and exposure, to say nothing of pruning, bloom cannot be depended on. Many amateur gardeners are not aware of the fact that it is unwise to disturb the secondary roots lying just below the surface of the earth. This is often done in attempting to supply extra nourishment to the tree by digging around it trenches, and filling these with manure. In most cases this plan does more harm than good, because of the destruction of the net of earth-fibres an inch or more below the ground. A much better plan is to saturate the earth around the tree with rich manure water, made by filling a tub or barrel with old, well-rotted stable manure, covering this with water, allowing to stand for a few hours, then drawing it off in pails.

A copious drink once or twice a week while the buds are forming will produce marvelous results.

LARKSPUR

In English gardens, the larkspur is one of the mainstays of the hardy border. There one may see every shade of blue, from deepest sky blue to the most delicate shades of violet and amethyst, towering above the forest of deep-cut gray-green leaves. In this Ontario of ours, however, we cannot hope to vie with English gardens. It is not necessary to go into the various reasons, even would time and space permit.

However, many have earned a hard-won success in their gallant fight to produce without spot or blemish, healthy larkspurs of the old-fashioned type. But, unfortunately, their success is often too short-lived. The plant of late years has been subject to a black blight—a fungous growth upon the leaves—that bids fair to exterminate the whole species unless constant war is waged upon the enemy.

It is not a very pleasant sight to view a choice collection slowly wither (after becoming more or less spotted and blotched) and die, leaving nothing but the tall flower spikes standing. But such an experience is common to only too many of our gardeners.

The only remedy is the Bordeau mixture, used early. Not the least use after the fungous growth has started, for then the ravages cannot be undone.

Larkspurs here may be treated as perennials, that is, the seeds sown in early summer, the seedlings transplanted in September, and the roots placed in their permanent places early the following spring. Bloom will

take place in June and last through July, after which the tall flower spikes may be cut down. It is possible to have a second blooming if the plants are strong, along about early September, if such has been done.

The tall varieties are best seen when used as backgrounds in the herbaceous border, and all varieties are used best in clumps or large groups of separate colors.

The plants require loamy soil, and, as a rule, a sunny exposure, with plenty of winter protection.

LOVE-IN-A-MIST

"Love-in-a-mist," or "nigella," as the botanists call it, is without any manner of doubt a bewitching addition to any garden. Flowering, as it does, in the very hottest period of the hot months, when so many of our other perennials and annuals are long past their "beauty time," and gone to seed, and when one has to look carefully about the garden to find a fresh flower, a flower that as yet shows no sign of the withering effects of the scorching sun, such a flower cannot but be welcome, old-fashioned or not.

Of all the annuals planted, I really believe that the nigella requires the least looking after, and, certainly, very little water. One might almost say that it is capable of taking care of itself, so well does it seem to get along neglected.

Sow your seeds in open ground in the richest soil you have in your garden, choosing a location, either a sunny stretch behind the rockery or a bed that does not need to be kept immaculately tidy. You cannot have any neat or tidy beds where "love-in-a-mist" is growing. The wealth of foliage, although the leaves are nothing more than threads, weighs down the plant, which has the slenderest of stalks, so that the plant itself will sprawl all over the place, do what you may. To tie up the stems spoils the whole effect.

Bloom lasts for four or five weeks from August on.

CARE OF THE LAWN

From early spring onward the lawn will need careful attention. Spots will appear where the heavy rains have made uneven surfaces, little hollows here and little humps over there, all marring the smooth sweep of green. These bad places will appear in the most carefully wintered lawns, showing up as soon as the straw and manure has been raked off.

This top dressing, by the way, should never be allowed to remain on too long, else considerable harm will be done. A few good rains will have carried down plenty of nitrogenous material from this top mulching. But enough is enough. If the sun should warm up unduly, the amount of heat generated beneath this dressing is simply amazing, and spells ruin to the turf. Large patches of yellowish-green will apepar, showing where the steaming took place. As the first grass is always very bright and green, the contrast formed by the discolored spots is not inviting.

Prevention is better than cure, so take warning.

To mend the hollows, the best plan is to lift the sod above, level up the hollow with some loamy sand, and perhaps a spadeful of manure, pound all down well with the back of the spade, or by means of a flat board nailed to the end of a short beam, making the whole surface of the earth smooth and level and firm, then replace the sod. Keep these spots well watered, giving them an occasional good soaking through the hot spells; by this plan the mended spaces will not look patchy, a thing which often takes place, especially if new sod had to be added. By using the old sod it will be of the same texture as the rest of the lawn, a thing not possible when fresh sods have to be brought from the fields, and often requiring a whole season's

cutting and doctoring in order to get the color and texture of the surrounding grass.

Wherever bare spots have appeared, add fresh sod, taking care to find sods as near the quality of the lawn grass as possible.

Especially see to it that these fresh sods contain no weeds. Sprinkle selected grass seeds over such spots as seem thin or poor in appearance. Do not forget to scatter plenty of some good, rich fertilizer, like bone meal, over the entire lawn a few times during the season, always after a rain. Such little odds and ends attended to will in a short time give a perfect lawn, one to be proud of, and one that will enhance the value of the property.

GRADING AND SEEDING

Grading means shaping the surface of the land to the desired level. This means filling in low spots with earth from high spots, and doing this lays bare a subsoil in which nothing can grow save perhaps the most aggressive of weeds. For this very reason it is always necessary before grading to remove the top soil from both the places to be filled in and any hillocks to be levelled. This top soil will be useful to respread when the grading is done.

What a familiar sight it is to see the hard, yellow clay or other unfertile earth, taken from cellar excavations, being spread with disastrous results over perfectly good top soil. In such cases the top soil should have been removed, with such little trouble, too, and then respread after the cellar soil had been used. Nothing on earth in the shape of fertilizer will render that yellow clay fit soil for any kind of plant growth.

After grading has been satisfactorily carried out, and drainage looked after, when necessary, and the top soil levelled, by spading and raking, or plowing and harrowing (if a large lawn is in process of making) as described above, the seeding will be in order.

The quantity of seed necessary for 300 square feet (that would be a lawn 20 x 15 feet) is one quart, or at the rate of five bushels for one acre. This may seem a large quantity, but, remember, we want a lawn of fine-leaved grass; we want it to grow quickly, and we want the grass to crowd out any weeds, the seeds of which are in all soils.

Lawn seed may be sown any time from April to October, but preferably in early spring or early fall, to get the benefit of the spring and fall rains. Choose for the sowing a quiet day, so that the seed will fall as evenly as possible. Make two sowings, the second at right angles to the first, which will insure a more even distribution. After sowing, harrow or rake the ground, and then roll, which will press the seed well into the earth.

Watch for weeds, and dig or "spud" them up as soon as seen. If caught young, the long roots will be easily lifted out completely.

USE THE MOWER EARLY

As soon as it is at all possible, the lawn should have its first mowing. Before this cutting, however, the roller should be used for several days, going slowly and carefully back and forward until the surface has attained the desired evenness. This should be done, of course, while the ground is still very soft from the soaked-in snow and early rains.

As the first crop of grass is always unusually coarse and thick, sometimes even containing thick tufts that have appeared, it will be no easy task to push the machine across the surface. See to it that the machine is well sharpened for this first cutting. A dull mower is very little use, simply

slipping over the top of the grass. This procedure is disastrous to the machine, and little good to the grass.

See to it, then, that the mower is put in thorough order, nuts well tightened, the different bearings fully oiled, and, above all, the blades properly set. This last is important. If the blades are set too low, they will shear the grass off too close, or, worse yet, will cut into the very turf, tearing up roots as well as earth. Again, do not have the blades too high, else the grass will be left too long. It is a good plan to have your mower fairly low set for the first part of the season, when the crop is strong and thick, and high set later in the summer, when the grass is at its lowest vitality.

If there are lumps in the lawn, and a roller is not obtainable, these lumps should be well soaked, and then pounded down as flat as possible. This to save the mower. Nothing is more disastrous to any kind of machine than to run it over uneven surfaces. The machine soon becomes twisted and altogether undone.

The first cutting should include careful and close attention to those parts where the machine cannot be run. The long grass shears will come in handy in such places. Around rocks, the edges of beds, any permanent fixtures such as vases or pedestals, garden furniture, old stumps, left for ornament, all such places must be clipped close with the shears. This will help your lawn present a neat and tidy appearance. It is a good plan to do this clipping before the mower is used on the lawn.

LAWN PATCHING

Nothing short of constant attention will keep any patch of grass in condition through long hot spells of dry weather. Constant cutting has a tendency to turn the lawn a burnt color, because lacking sufficient moisture to start the young shoots again, the dry, burnt roots are visible.

When the lawn commences to look like this, stop the mower and turn on the hose, without the nozzle. That means, let the hose lie on the ground, and let the water run out of the tube and sink slowly into the earth. You will find when first this is done that the top of the ground is so hard and burnt up that the water will show a tendency to run off, spreading over a wide surface; until the top has become softened, the water will not sink in. Think then, how foolish it is to spend so much time trying to water your little patch of lawn by using the sprinkler. It is little or no use. The blades of grass take the moisture, hold it, and eventually the drops simply evaporate.

Once the lawn has got into a poor condition, nothing short of a good solid soaking from a rainstorm will do any good. How frequently you will notice that after a shower the lawns are very little benefited. That is because the top of the earth is in the condition I spoke about above. The water will NOT sink in. It cannot.

But it is quite possible to have your grass green and thick through the whole of the hot spell if the plan of letting the water run out of the hose right on to the ground and sink in is followed.

A spell of an hour or so early in the morning, before the sun has heated the top of the earth, will do more good than the same time spent in the evening, especially if the day has been hot. Then the earth is hot for some distance down, and the water evaporates to a very great degree. Therefore, a certain amount of the water coming out of your hose is actually lost.

Choose the morning hours, then, to mend your grass before sitting down to your breakfast, turn on the hose, and let it run onto the grass until you have finished.

MARIGOLDS

The marigold is not a favorite with present-day gardeners. Why, we do not know. But the fact truly remains.

Whether on account of the peculiar rank odor so common to many of the varieties, or whether by reason of the fact that the marigold will grow like a weed almost anywhere, and, consequently, so some reason, easily grown, makes it too common.

There are deep yellows and deep velvet browns; there are striped ones and fringed ones; there are single blossoms and double blossoms, and all of them carry in their hearts some undying touch of gold. A bed of marigolds forms a gleaming patch in your garden that no other flower can possibly equal.

Sturdy, long-flowering, almost everlasting in their power of resisting decay; requiring little care, little moisture, little cultivation; and self-seeding—if you will let them—really the marigolds have many good points.

No flower, however, will combine readily with any one of the varieties of marigold. These insist on a spot apart from the "common herd." Could there be any more determined aristocratic tendency? I think not.

I think the marigold deserves to return to its old-time popularity.

NICOTINIA

Flower of the dusk, as it has so often been called, it has become very popular during the last few years. I do not know any plant that has gained in popularity as nicotinia. And this plant is really so useful, in such a variety of ways, that what we would do without it is hard to tell.

For placing in shady spots, under trees, in front of shrubberies, behind low-growing varieties, it has no peer.

A profuse bloomer, the immense gray-green, rough leaves form a rather pleasing contrast among the various greens of the other leaves.

The fragrance towards evening is delicate, and yet very penetrating. The tall flower stalks can be picked off when only two or three flowers are showing; yet, place the branch in a vase and the buds will not only open up in time, but will also send out their grateful fragrance for many days after they have been taken from the mother plant.

Pour plenty of water on the roots. One does not need to be told that the plant is necessarily a gross feeder. Look at the leaves! Look at the great root stalk! Water it must have, and in abundance.

The nicotinia is a plant that will continue to bloom long after the rest of the garden folk have gone to rest. All that is needed to help it out is a slight protection from the first sharp frosts. But do not forget to pick off the flowering branches freely. Pull off whole lengths of them.

I plant many specimens among the rose bushes. When the roses have departed, and long before that, too, the long, snow-white bells are peeking shyly out among the prickly branches. The firm branches of the rose bushes form a support for the great, straggling branches of the nicotinia.

POLYGONUM CUSPIDATUM

This is a plant that has made many poor gardeners bitterly rue the unlucky day on which it became an inmate of their garden, for no weed was ever more prolific, more wickedly persistent, more eternally everlasting, more ubiquitious, more—oh, well, enough said.

The deceiving catalogue calls it the Japanese polygonum, a bold (too true), handsome (?) plant, four to six feet tall, with stout, clustered stems. From the axils of the leaves (which are smooth, oblong, dark, clean green) are borne (late in September, although this is not told) myriads of

small, white flowers, in a cloud-like mass of sprays, giving a soft, misty effect. Hardy and stately, useful for giving bold masses of foliage and tropical effects." This is copied, as the quotations marks show—and out of a catalogue.

But let me add from experience. Once this plant gets a foothold in your garden it will never, never die, and you will spend the rest of your days quoting "Never more," and pulling up the fat red noses that spring up, just like the first healthy sprouts of rhubarb, save that the rhubarb stays at home minding its own business, while this plant is on the tramp.

The fresh new stems are fleshy, hollow, and extraordinarily rapid in growth, like bamboo plants. Up and up and up they shoot, the stronger the root the stronger the hollow stem. Rich blood red at first, white an inch underground, the stems soon take on a red-green and finally green color. The tall clumps are really very pretty when covered with bloom in fall, and make very pretty sprays for large floor vases. In a day or so, however, the wee flowers fall to pieces and make the whole place very untidy.

A strong clump of ten or twelve stout stalks make a very imposing bush, especially if all the side shoots are kept off until the top branches, spreading outwards, give the clump an umbrella shape. The stalks must be tied loosely together with tape, else they will straggle apart, making an untidy bush.

The root beneath ground is a puzzle to get out. It forms a hard, red-yellow knot of the toughest kind that one can imagine. There is nothing like it. From this central knot, long runners creep under the surface of the ground to an incredible distance before coming to the top.

When you are trying to oust the plant, do not drop one single, tiny piece of the "sucker," because the minute your back is turned it will take root. My advice is to commence a thorough war of extermination, as soon as a sign of it appears. For close on fifteen years we have been pulling up the stray shoots, and they are still appearing.

POPPIES.

How are your poppies? Look at them well and take notice whether they are in the best possible place that you could choose for them in your garden. Or can you find a better spot for next year? Unfortunately the lower leaves of these pretty grey foliaged plants are apt to become spotted and turn yellow, long before their blooming season is over. They are a prey to a destroying blight that very soon riddle the leaves thru and thru.

A simple medicated spray, either of whale-oil, soap lotion or even the fine spray of clear water from the hose, should be used constantly and early.

Too much heat will turn the leaves a dirty yellowish brown. Too much shade and dampness will soon bring along a mouldy fungus, utterly destroying. And yet some people have the most perfect poppy collection that nothing seems to injure.

Poppies have long deeply penetrating top roots, that should form a sufficient hold on the ground to keep the plant erect. Yet they need support, even tho it be slight.

The chief objection to the poppy is the shortness of the flowering season, and the death of the plant almost immediately afterwards; thus, the poppy beds are bare in midsummer. The question is, what to plant so that these bare spots are not too noticeable. And that is the problem everyone must work out for themselves.

Some gardeners claim that these plants are so uncertain, the season so short, and the trouble required to bring them to even a small degree of perfection so great, that other plants give so much more satisfaction, they are preferable to the poppies. But notwithstanding all the grumble-

ing, there is something so utterly and indescribably lovely and ethereal about the silky short-lived tissue-like blossoms, the restful shade of the leaves, surely nothing can compare to them.

Then the seedpods are truly decorative in themselves.

PRIMROSES.

One could no more think of an English springtime without primroses than we Canadians could think of a Canadian spring with maple syrup!

And yet the English primrose will grow here in our own Canada, and, moreover, will grow well, too. It is not the Canadian winter that is so hard on the little plant as to render its life here difficult; it is the intense heat of our August and September! This being guarded against, the English primrose will grow here quite contentedly.

In Canada, two varieties of primroses are cultivated; polyanthus and the common primrose. Polyanthus is in some respects a little the hardier of the two. Given a moist location, with some little protection from the intense heat of the sun, and these two old-world plants will flourish and blossom away, year after year, as contented as they were at home, across the sea. Blooming at the same time as the moss pink, and the forget-me-not, the beautiful, coarse leaves are not less attractive than the delightful flowers.

Polyanthus produces tall, erect flower shapes of a velvet reddish-brown, with bright yellow centre and golden border, sometimes with one corolla inside the other, like a double flower-head. A good, well established clump will have from ten to fifteen splendid flow-scapes, forming grand glowing trusses of color.

Primrose vulgaris is the true English plant, a low, tufted plant, some six inches tall, very free blooming and very early, with the most delightful elusive fragrance that only a true English primrose can produce; the colors range from palest yellow to pinkish purple and lilac.

Seedlings should be started in May and June for flowering the following season. The stock may be increased by division of root, after the first year.

There are some fine rock plants among the Chinese primroses. These are obtained from seed planted in open ground in May. By fall the plants will be ready to transplant into beds for the next spring's blooming, and should be carefully wintered for early blooming.

Primrose growing is not by any means as difficult as most people think. One needs but to buy a packet of seed, sow in open ground, and wait results for transplanting. Proceed as usual in such cases, with all perennials, and the delightful surprise received the following season is well worth working for.

ANNUAL PHLOX

Those who desire profusion of flowers and variety of coloring, attained with the least amount of labor possible, may arrive at their desire by sowing phlox in mixed varieties in the early spring.

Now, do not confuse this "phlox" with those tall-growing perennial phlox, the delight and standby of the herbaceous borders in so many gardens.

This phlox is quite a different plant—an annual—needing to be sown every year—and a rich addition to every garden.

And, by the way, do not confuse this annual variety with the very early phlox sublata, an early alpine, or ground pink.

This phlox is the "phlox drummondi," or dwarf summer phlox, growing from ten inches to perhaps twelve.

Fresh green oblong leaves, perhaps two inches long, almost hidden by the bright flower heads, clothe the short stalk. As a rule at first each plant bears one flower head composed of several flat, fivepetalled flowers. Later, and specially if the first flowers are plucked early, more blossoms appear from short shoots appearing from the axils of the first leaves.

Day after day, week after week, long into late autumn, your phlox bed will be brilliant with dazzling, warm tints. From dark maroons, pinks, lavenders, white pure, white with tinged centres, indeed every shade but true blue. No one can complain over a lack of shades from which to choose.

This phlox is little trouble. Everyone knows it. Everyone has a patch of the bright flowers running down the kitchen walk or bordering the beds by the fence. Even on the rockery one can find a fitting spot, for it finds itself a home wherever fairly rich soil can be given it.

A pretty conmbination bed can be made by sowing phlox drummondi and "love-in-a-mist" together in the same bed. The latter grows somewhat taller, but the delightfully feathery, mossy appearance of the fine-cut foliage of the plants out of which the misty white and blue stars are peeping forms one of the loveliest contrasts one could imagine.

THE PERENNIAL PHLOX

The tall slender stalks of the perennial phlox plants are just now coming into bloom.

I know no other perennials that give such luxuriant returns for such little labor. With the smallest amount of care your phlox will continue to flower year ofter year, the roots increasing in health and vigor and size, enabling you to increase your stock by division of root each spring.

This is a matter that should never be neglected,—the dividing of your roots up into the smallest imaginable pieces (and it is no easy matter, often to break up these roots, on account of their knotty nature), every single piece of which will grow and in most cases, if the new root has not been broken off too chall, it will send up a stalk that will produce a flower bed.

The second year after this minute dividing, you will have enormous flower heads. Two-year-old trusses are always the largest, the following year, the heads deteriorating very much in size. This dividing and translating is pracically the only thing difficult in phlox culture—and who can say that it is a hard thing to do? The best plan to have a continued succession of large sized trusses, is to have a succession of freshly divided roots.

The best way to procure your stock is to buy good one year old roots, named, from reliable dealers, as the seedlings do not always come true. In fact, one often will get rather weird results from seeds, that is, if any results are obtained at all.

Have your soil as rich and as well-drained as possible. Have a sunny situation. Phlox will not do as well in heavy ground, or in an airless corner. Remember, a corner need not be airless, just because it is a corner. Nor need a bed on th north side of a high close board fence be damp and non-flower producing because of its situation. But these are questions for discussion elsewhere.

Plenty of winter protection, moist mulching in spring, and abundance of sun and air, will give an amazing richness of coloring. An occasional watering with liquid manure is a miracle worker in the hot season.

The reliable roots are easily obtained. But be sure to buy named varieties. The following are some old well-tried colors, sure to give plenty of bloom.

Belvidere, is a deep salmon pink., blooming early in July, and half way thru Aguust. Colquelicot is a wonderful fiery red, like a glowing flame, that will brighten your whole border. Mrs. Jenkins is snow white, early in July and Strohlein is an early orange variety.

GETTING THE ROSE BUSHES READY FOR WINTER

Adequate protection against the severities of our variable winters, is the guarantee of sure success in the matter of producing healthy roses in early summer and late autumn. For many a long year, the difficulties of rose growing in this country were considered too great and too many to fight against. By degrees, however, and constant experiments, with imported stock, by crossing one variety with another, and by the raising of seedlings, new and hardier material has been obtained.

Acclimatization of many beautiful varieties has been managed, and, today, Ontario stands first among the Dominion provinces, as far as rose-growing matters.

Only those who have struggled valiantly with a tender or unhealthy bush, can form any idea of the constant vigilance against disease and pests, that our pioneer rose growers have been forced to exercise. For it is the hardest task among all gardening projects, to grow a satisfactory rose. One of the most important factors in this production of hardy, outdoor roses is the factor of winter protection.

No rosebush—no matter how hardy that especial variety is said to be —no rosebush should be allowed to stand thru the winter unprotected.

True, we have some who say that a certain amount of necessary pruning is accomplished by hard frosting. But that is a theory that we have not—most decidedly not—found either safe or successful in after-production of bloom.

If your bush needs pruning, and pruning it does need, the knife is the proper thing to use. While it is all very well to trust nature to attend to certain matters according to her own methods, yet, do not forget that the rose bushes now being cultivated are not the pure products of nature, but the trophies, hardly won, too, of a long struggle with many adverse agencies all working against rose culture.

Now to work. Where your roses have grown straggly, and sent up many long, thin canes, take your clippers and cut down some of the tops sufficient to level off a foot of the bush. Now drive three or four stout, high stakes around the bush—and do not drive them in too close to the main stems, else the roots will be interfered with.

Drive in these stakes, then, a good distance from the bush, and let the tops slant inward, so that they touch at the top. Shake plenty of rich mulching inside the inclosure, banking it well up around the stems six inches or so high. Next wind some long ropes of hay—or straw will do as well—and with these hay ropes shut your bush in warm and tight for the winter, by winding the whole length around the driven-in stakes. This will form a close, Indian-like tent, in which the bush may sleep sound thru the winter.

Some gardeners simply wind up their bushes without the aid of the stakes, by winding the straw ropes in close contact with the stems of the bushes. However, where the bushes are high and none too sturdy, the weight of the snow and ice upon this unsupported covering of hay will cause the whole bush to sag downwards, the result often being a broken-down bush. Then, too, if the straw covering is too close to the stems, it will form a cosy shelter for the winter nests of devastating field mice.

NEW YEAR'S AND LENTEN ROSES

(Helleborus; Ord. Ranunuiacae).

These peculiar plants are also frequently called Christmas Roses.

While the Helleborus niger (as the botanists name this plant) is not, strictly speaking, a bulbous plant, yet it is one of the favorites handled by the florists.

So easy is the Helleborus niger of culture that almost every country home has its cherished specimen. One of the great values of this plant is the fact that the flowers are produced early in spring, if not just around the Christmas season. The plant is unusually hardy, is a perennial, can be grown indoors or outdoors.

The root stock is short, thick and jet black (from which the name), the flower stem simple or branched; leaves evergreen, leathery, irregularly lobed, with long petioles, or stems. The flowers are five petaled, white, of a leathery texture, two or three inches across. Sometimes the white petals are flushed with purple.

The whole plant is rather odd, both on account of its black jet root stock, its leaves springing directly from the root, the red-dotted leaf stems and the curiously inturned sepals forming two-lipped tubes of nectar.

It may be grown in our gardens as an ornamental plant, blooming in mild seasons from December to March outdoors, with a little protection. Even in cold weather, when not zero, bloom occurs. Indeed, the same weather that will permit the lowly chickweed to open its wee corollas will also serve to coax the snowy Christmas Rose.

The best time to plant is September, the roots being planted a foot apart.

When in flower, the blossoms should be protected from rainstorms, which often occur in early spring, and storms of sleet, because they are rather easily injured.

Fresh stock is obtained by division after flowering. This is always a delicate operation, since the old roots dislike any disturbing.

Madame Foucarde is the famous St. Brigid's Christmas rose, an excellent variety for amateurs, as also is the lovely snowy Juverna.

THE TUBEROSE

"The tuberose," according to Harriet L. Keeler, is a plant that may be said to have experienced in its many changes, "the slings and arrows of outrageous fortune."

Once borne upon the very crest of fashion, associated with the camelia in the most aristocratic period of that flower's social reign, yet it has so fallen that there are few who now do it honor, either in house or garden.

Two causes have contributed to bring about this downfall, namely, its heavy odor, and its funereal associations. Then, too, gardeners' ideals have changed, and the stiff, clumsy stalk, laden with stiff, heavy blossoms, does not and cannot harmonize with the tousled beauties whose sway is now unquestioned. As a matter of fact, the double tuberose never did harmonize with any other flower; never was it anything else but a lump of cloying sweetness among our garden flowers.

However one may agree or not agree with Harriet Keeler, whose opinions are not to be questioned, nevertheless, there may be those who disagree most decidedly on this matter.

The tuberose is a delicately beautiful plant. The flower stems rise to the height of ten, twelve, or eighteen inches, bearing at th ends many double rosettes of a creamy-white waxiness that no other flower possesses. These rosettes measure often four or five inches across, and exhale a

sweetness that is nothing short of deadly in its pungent fragrance. This perfume lasts a long time.

I have known people to become deadly sick, nauseated, to be seized with faintness, even to become livid and clammy after inhaling this odor for the briefest space.

The perfume is worse than intoxicating—it is suffocatingly poisonous to many.

Tuberose plants in bloom should on no account be allowed in the sick room. Nor should bunches of flowers that number tuberoses amongst them be allowed in the patient's room either.

Tuberoses should be planted in the open garden—and kept there. A ten-acre field is rather an appropriate situation for them, in the estimation of many people.

ANOTHER WORD OR TWO ABOUT THE ROSES

Look at your amblers. Have they finished blooming? If their beauty has commenced to fade, clip off every single spray of flowers, even if there is one or two fresh roses upon the bunches. The rest of the bunch, having finished flowering, gives a ragged, shaggy look that any extra fresh flower will not hide. Therefore do not spare them. Clip cleanly.

Now is the time when the new, thick, green shoots are appearing from the base of the plant. There may be several splendid thick branches make their appearance. In this case, select two of them to save. Rub off the others. See that the ones you choose to save are growing from the best spots. Now, this means that, should there be one coming up from the earth, and another coming out from an old branch, the better one is the first. That one is coming right up from the root underground, and is bound to be the strongest, and therefore the one that will have sufficient strength supplied to it to let it grow the highest.

Long trailers are needed from your ramblers. These will produce flowers next year. However, it sometimes happens that no branches from the root under ground appear, and those that do appear come from some one of the old branches. The question then is (if there happens to be a number of them) which to save. Choose one that looks as if it may be most easily trained against the wall, without twisting it around.

Be sure to spray these fresh shoots every night and morning. The tender young ends are most delectable to the Aphis fly, and you will find them in swarms on your shoots very often. No medicated spray is at all necessary. All that is needed is the ordinary fine spray from the hose. That will sweep these little green pests right off the shoot.

True, they will be as thick on the very same spots next time you spray—but, never mind! Remember you are giving the bush plenty of drink—and that is what the bush needs.

If you follow this plan, you will have some grand new trailers for next season.

I did not tell you to cut out any old wooded stems, because surely that has been spoken of so often that it is not necessary to caution you about it again. But, for fear you should forget, be sure and cut out all old wood, even last year's limbs.

I think it best not to prune away the branches that were flowering this year—not yet. Wait until next spring to do that. Something might happen to the new shoots, leaving you nothing to depend upon for bloom next year. If the worst should happen, the branches that produced bloom this year, if left alone, will send out many little flowering sprays next year.

But, provided your new trailers coming up now winter safely, they will give all the bloom needed next summer, and spring having arrived,

your new trailers in good shape for bloom, then you may cut away the branches that bloomed this year.

On no account, allow these to remain and bloom, if your new trailers are ready for bloom, too.

PRUNING THE ROSES

Spring is the time to prune the roses—when they are just commencing to show their "eyes."

In order to prune roses properly, you must always bear in mind what kind of rose is under treatment. The hybrid perpetuals, the teas, the climbers, the mosses, all require different pruning. As a rule, however, the teas should be more lightly pruned than any of the others, simply clipping a few inches from the tops of the canes, and thinning out the shoots where they have grown too thick.

The hybrid perpetuals should be trimmed back to within four or five "eyes"; the new shoots that will appear will bear the blossoms, for this season. Be sure to cut out all dead wood; every bush will show more or less winter-killed canes, all of which must yield to the shears.

Many gardeners, especially those who are not any too sure of themselves, with regard to rose pruning, make the mistake of not pruning away sufficient wood to force the plant to a strong and vigorous growth. A reliable rosarian states that the rose surgeon who wields his knife without fear will reap a triple fee in bloom.

The ramblers send out their flower shoots from the new canes of the previous season, and if there are plenty of these in evidence, all the older wood should go. The desirable canes are those that spring up from the base. If these basal canes are few, it will be safer to shorten the old canes to an inch from where any new canes spring from them. The point for a raw amateur to be careful is, not to cut away the one-season-old canes in mistake. See to it, this coming summer, that a few vigorous new canes are coaxed up from the very base of the plant, to be in readiness for next summer.

A safe general rule to follow, if rose growing is new to you, is to prune all roses back to within half their old growth. Experience, and careful questioning from any successful rosarians with whom you can talk, will soon give you knowledge, and, above all, confidence in the matter of pruning. Having gained a certain amount of confidence, it will come easier to you to prune freely, which means plenty of roses.

MRS. JOHN LAING

Mrs. John Laing is a rose that appeals straight to the heart of every gardener. There are so many good points about this beautiful pink rose that one might go "on forever"—but who can possibly describe a pink rose, anyway?

We merely aim to tell amateur gardeners who have not a specimen of Mrs. John Laing in their garden, that their garden, no matter how perfect in their eyes, cannot possibly be so, without Mrs. John.

We bought a bush last spring (a year ago), and planted it in a suitable situation. It was a nerve-racking experience to decide just where to cut off the proper branches, according to pruning directions.

No sign of bloom last year, altho it was especially impressed upon us that luxuriant bloom could not but be expected the same year. Winter approached, and, being wise as well as wary, we took good care to wrap up our new bush well.

This spring we pruned lightly. Seven buds rewarded us, quite early in June. The first rose was of an immense size, very full and deep; the

stems were very long, of the first and second rose; the others have not grown out to such a length. The buds are rather long, and of a clear, light pink.

When the first rose opened, as it seemed to do all at once, we were amazed at the richness of the deep pink. I myself have seen no other pink rose to compare with Mrs. John in that especial deep shade of pink.

And the fragrance! The fragrance seems to savor a little of all the rare spices one ever heard of. Certainly, the fragrance from this rose is rather more intense, more intoxicating, than that given off from any other pink rose. Paul Neyron is nearest to it than any other. But, who can compare pink roses?

PAUL NEYRON

We do not intend to go into ecstasies just now on the rose question. It has always been our opinion that Canada is the land of the rose. But, as yet, rose culture here is in its infancy. Very much so, indeed. We are growing.

We put in a small Paul Neyron last year. Not the least sign of a bloom. But, in spite of glowing promises given us by catalogs and dealers, we knew better than to expect bloom the first year, especially after transplanting. Some of our best authorities claim that all plants should be put into their places early in the autumn. And then, again, we find others declaring that spring is the best time to increase one's stock.

However, if one plants a rosebush in spring, how can they expect bloom the same year?

Paul Neyron is catalogued as being the largest and finest hybrid perpetual that we possess. Bright, shining, pink; very double and full; finely scented; clear in color and bewitchingly beautiful.

WINTER PROTECTION FOR ROSE BUSHES

Where it is at all possible to do so, your tall, climbing roses should be taken down from their supports and laid carefully flat upon the ground. This is quite possible to manage; but great care must, of course, be taken when the long vines are being bent in a downward direction. Do not press them towards the ground too sharply. It will not be possible to turn the whole length of the vine so it will rest on the ground. Should you try to accomplish this, the result will be that your vine cannot help but split off, about three feet from the root. Therefore do not try to be too particular in laying the whole vine on the ground. If you are successful in laying the greater length of the vine safely along the ground, be content. That portion which remains three feet or more upright can be easily covered with your straw windings. The main idea in this laying down of not only rose vines but many other flowering vines is to provide for a certain amount of protection, scarcely possible otherwise.

Anyone can easily understand how difficult and unsatisfactory it would be to wind with straw a vine some twenty or less feet high climbing against a wall or some other support. Therefore the taking down of vines allows of their more easy covering while resting full length, or nearly so, upon the ground.

Once spread out on the ground, manure or plain hay or straw, or even grass cuttings, should be laid closely over the whole vine.

All climbing roses, Dorothy Perkins, Baltimore Belle, all ramblers, all benefit very materially under such treatment.

Many of the harder varieties of tea roses can be preserved with almost no difficulty, provided the bushes are well wrapped up in ropes of straw wound round driven-in stakes.

We have found this method rather better than that of placing straw or hay close to the stems, in flat layers, leaving six inches or so of the tops to be winter killed. We, instead, clip off these straggly tips, then close in the top of the bush completely, thus keeping out every degree of frost possible. Too close wrapping will cause the buds to swell, often, during an unusually warm spell of weather. This is always disastrous, because the next severe stretch of frost will nip off the swollen buds.

Again, too close coverings will allow of the wintering of certain pests, such as the rose bug, or the Aphis fly—a thing to be deplored, because all pests have the power to increase with amazing rapidity in the warmth of winter coverings.

SALVIA

Red and Blue

The salvias are the perennial sages. This statement will give some who do not know this salvias, but who do know the sages—will give an idea of the character of the leaves and general appearance of the bush.

The red flowering salvias have grown to be quite favorites during the last few years. Many people do not know, however, that there is a blue-flowering variety.

Salvia pratensis is the blue meadow sage, which flowers from early in May until rather late in July.

The scarlet salvia is one of our most brilliant and startling red flowers grown in present day gardens. I know only one other such burning flower, and that is the scarlet lightening.

The red salvia has a thick square stem, like all the mints or sages; coarse, sage green, hairy, saw-toothed leaves, deeply ribbed and furrowed.

The flowers grow on long, slender stems, quite two and three feet tall. Belonging to the labiate, or two-lipped flowers, the blossoms are simply long "horns of plenty" for the seed, that are drawn to the flower by the bewitching barbaric color, that strikes and holds the eye from a long distance. Like drops of dripping, fresh, gleaming blood, or tiny points of burning flame—oh! there is no describing the flowers!

A true midsummer flower, you will find your scarlet sages blooming until the frost comes along and nips everything black.

One of the best uses you can put this plant to, is the hiding of an unsightly fence or bordering a carriage walk. Planted in numbers, thickly in long lines, you will have a mass of burning flame that will continue to burn until the eye wearies of it. The cool, strong green of the leaves however, forms a welcome relief.

Sow your seeds in open ground, early in April. Not sooner will the frost have left the ground, or will sufficient warmth have come to the soil to start germination. When the young plants are four or five-leaved, you may transplant to their selected places. After that, it is but a matter of careful spraying to keep the leaves fresh and give enough moisture for the heavy growth.

SWEET WILLIAM

(Dianthus Bar).

The old-fashioned Sweet William belongs to the pink family, altho many people are not aware of this fact. It is called the bunch pink, probably from the manner in which the small florets are arranged in a close cyme, or head, borne at the top of the stem.

Each tiny floret is composed of five petals, toothed, nicked, fringed, or rounded. The colorings run riot, from every shade of red, white, pinks,

yellows, every shade and tint of the rainbow showing somewhere. The grand range of colorings must be seen to be appreciated. A head of Sweet William is a very gorgeous affair, indeed. The texture of the darker petals is velvety, intensely striking. and wonderfully ringed, streaked or blotched. As a general rule, each bunch of blossoms is homogeneous in its color and markings, but occasionally one may come across a cyme made up of florets, differently marked and colored. Double forms occur, but this "doubling" does not improve the appearance of the flower head, a blur of massed color being the result, not at all remarkable for any originality of form or coloring.

The leaves are oblong, from an inch to five in length, from a fraction of an inch to an inch in width. The leaves are not at all remarkable for beauty, either of form or color, and the least lack of moisture will cause a sickly yellowish tint to appear.

Sweet William is a perennial, which means that seed must be sown one year, the plants blossoming the following year. No matter how early in the season the seeds may be planted the first season, no bloom will result until the next year. Also, no matter how late in the esason the seeds may be sown, the bloo mwill follow, just as surely the following year. If seeds are sown early in the spring, the plants will have attained a size large enough to divide and transplant before autumn. By constant dividing, the flowers may be cultivated until immense heads are obtained.

A fine plan to follow is to pull off all the small, secondary shoots that come up from the main flower stem, and allow the one immense head to come to perfection; that is, if one is striving for size alone. Every one of the small shoots that can be removed from the main root will grow into other plants, if they are placed in the earth and kept well watered. In this way, one's stock may be constantly renewed, with almost no trouble.

When growing Sweet Williams, one cannot but be struck with the exceeding fineness of the thread-like root. It is very important that this root be well covered with earth.

Cultivate your plants constantly, heeling the earth close up around each plant. This not only conserves the moisture, but also gives the plant a firmer hold in the ground.

Protect well with a thick mulching of straw and manure, to save the plants from the severity of the winter. One more word of advice—Divide your roots frequently.

SWEET SCABIOUS

(Mourning Bride).

It is only when one attempts to describe a blossom that one realizes how almost impossible a thing it is to do, and give a correct idea of the true appearance of a flower. And this is a much more difficult thing to do when the blossom happens to be quite unknown to the reader. All botanists will know the difficulty.

Now, here is a blossom utterly baffling a sensible description. Those who know the "mourning bride" will have no difficulty in understanding what is meant when we say that the flower is shaped somewhat like a beehive or dome. But, think how many people may interpret this term, and still have no true idea of the flower.

Well, just imagine a dome-shaped green pin-cushion sort of thing, stuck full of hundreds of tiny, cone-shaped, four-petaled florets, each one full to the brim of richest honey. Think of each row of florets containing a feast for the bees; each row being composed of florets smaller in size than the row below, until, at the summit, the wee florets are unspeakably tiny; the whole dome about two inches, more or less, in

diameter at the base; an inch from base to summit; and underneath the base a fringed green mat, whose curving points give a softening look to the whole flower. These flowers are borne singly on long, hair-like stems of two feet high, and the plant sends up dozens and dozens of them. Indeed, there are more flowers than leaves.

The colors are snow-white, purple, pink, yellow, lavender, and one variety produces the loveliest dark, velvety maroon, flecked here and there with tiny specks of white. Examination shows these specks to be the white stamens protruding from the florets.

No insects, no mold, no blight, no "anything" to cause a blemish to the beauty of the plant! A prettier bouquet flower, because of the graceful long stems; and the fact that the blossom does not wither for many, many days after being picked.

In some localities it is called "flea-bane," because the old folk kept it in their old gardens for the one purpose of keeping away the fleas! About this latter truth we cannot say one word.

Simply sow the seeds in spring in open ground; thin out the plants when they have grown a suitable size; and give a glance of attention once in a while. Then, later, pick all the flowers you wish.

We have just read in an old book that the name "mourning bride," or "mournful widow," came from the fact that in Europe this flower is a favorite in funeral wreaths.

SUNFLOWERS

The old-fashioned, large-flowered sunflower has grown to be almost entirely neglected of late years. Why, we do not know.

A sunflower is a curious thing to watch—and an educational thing to watch, as well. Have you ever watched its great, wide-open face staring full at the sun, no matter where he goes to? If you have not, just plant a seed or two next spring, for the one single reason that you want to watch that sunflower staring at the sun from dawn until dusk. You will see the great, dark, yellow-fringed eye, slowly turn, from the east to the west, as the sun moves thru the sky. It is not only queer—it is positively uncanny.

Neltje Blanchan, in her book, "Nature's Garden," gives some interesting facts concerning this gigantic flower. Champlain, it seems, discovered the Indians on Huron's shore, three centuries ago, cultivating it, for its stalks, which furnished them with a textile fibre; for its leaves, which gave them fodder; for its seeds, which gave them food and hair oil (!); and for its yellow petals, which gave them a strong yellow dye.

Swine, poultry and parrots were fed on its seeds. Its flowers, even under Indian cultivation, had reached an enormous size.

Early settlers in Canada were not slow sending home to Europe so decorative and so useful an acquisition to the garden.

It was found that the Indians had brought the sunflower from its native prairies beyond the Mississippi. Formerly the garden species was thought to be a native of Peru and Mexico; because the Spanish conquerors found it employed as a mystic and sacred symbol much as the Egyptians employed as a mystic and sacred lotus in their sculpture. In the temples the handmaidens wore upon their breasts plates of gold beaten into the likeness of the sunflower.

But, none of the eighteen species of helianthus (sunflower) found so far south produces under cultivation the great plants that stand like golden-helmeted phalanx in every old-fashioned garden in the north. Many birds, especially of the sparrow and finch tribe, come to feast on the oily seeds. And, what could be a more charming sight, than to see a family of goldfinches settle upon the huge, top-heavy heads, unconsciously formning a study in brown and gold. So saays Neltje Blanchan.

SOME PRINCIPLES OF WINTER PROTECTION

No living thing on this wide earth is so strong that, at some period of its life, it is not thankful for and benefited by careful attention, helpful support and wise protection (and, by the way, while this is especially true of plant life, it is more especially true of human life).

Care, support, protection—at any cost—at all cost. The point is to obtain certain, sure and definite results. Therefore, it is not a question so much of how you protect your trees, plants and bushes in winter, so long so you do obtain these looked-for results.

Why do we wear clothes? To keep warm; to keep cool; to avoid sunburn; to avoid frostbite; to temper the effects of cutting winds; to ward off insect bits; to keep dry; and many diverse reasons.

In the same way, we wrap up, bank up and mulch our gardens. For many of our most cherished fruits, flowers and vegetables are existing under conditions that are vastly different from those conditions under which they originally sprouted and grew. Therefore, the wise gardener imitates, as well as he can, those original conditions.

Some of the well-known dangers against which we give winter protection are:

1. Cold and cutting winds.
2. Low temperatures and sudden changes in the temperatures.
3. Actual freezing of moisture that is present within the life cells of the plants, which freezing of the moisture causes a rupturing of the cells and a destruction of valuable tissues.
4. The alternate thawing and freezing of the soil, heavy with moisture, which causes a heaving upwards, or a sinking with disastrous results to plant roots. They are pushed upwards, often becoming quite exposed to the raw elements. Sometimes the plants themselves are uprooted and overthrown by a simple windstorm, which they would otherwise have safely weathered.
5. Protection against the whipping and breaking of branches and vines by strong winds. It is hardly necessary to go deeply into this very obvious danger and the irremediable results.
6. Protection against marauding winter animals, such as rabbits, field mice, squirrels, who do tremendous damage to shrubs and trees, especially young stock, by gnawing the tender young bark for winter food. It is by no means an unusual thing to find a choice new shrub completely stripped for six or eight inches above the ground of its protecting bark. Rabbits are too fond of this delectable occupation to ignor the danger.

Many children have their rabbit hutches, and it is quite the custom (and naturally so, too) for the boys to allow their pets a run thru the garden. Indeed, the little fellows are allowed to run loose, perhaps for a whole morning. While they are running loose be quite sure they are also into mischief.

We ourselves have had some exciting chases winter after winter, after inquisitive and none too particular visitors, who have got "out of bounds."

7. Protection against the scalding effects of direct, and therefore, too intense sunlight, especially after a stretch of many dark wind-biting days.
8. Protection against production, or unnatural winter growth, caused by undue stimulation of sleeping forces. This is caused by a spell of warm, sunny weather, and is a danger not to be overlooked.
9. Protection against an excessive drying-out of the soil, especially where such gross feeders are planted as paeonies, grape vines, wistaria vines and the like.
10. The breaking of snow-overloaded branches.

SOME LATE BLO OMING PLANTS

For instance, there is the larkspurs; not the perennial larkspur, which grows to such a height in the full summer time; but the annual variety, grown from seeds planted in April. Doubles and singles, blues, dark and light; lavenders, pinks, whites, and the decicate feathery foliage, forming such a background for the long racemes. What flower could be lovelier? And, until late November one may be able to gather sprays for the house.

Many people utterly despise the old-fashioned marigolds. Certainly the odor is strong and rank, but the giant marigolds, with their great double orange-gold flowers are sturdy and able to stand a certain degree of heavy frost without any ill-health. We have seen so many carriage drives bordered with scarlet salvia, but everyone knows how utterly and finally destructive, both to foliage and flower, is the first frost. Leaves withered and black, flowers wilted and drooping.

Now, the thought came to us to advise the planting of mixed varieties of the giant marigolds, instead of the scarlet salvias. These marigolds bear bravely intense heat, drought and early frosts. Swirling dusts from the streets do not affect the plants, and the flowers are borne in great profusion.

The old-fashioned Zinias, homely annuals of old-time gardens, will bloom away as merrily as you please. True, the foliage is stiff, the flowers are stiff and regular, and of fragrance there is absolutely none. But sow the seeds in some odd corner and your late autumn days will be brightened rarely.

Ten weeks' stock, of which there are so many varieties, double, single, and every color imaginable, may be kept in bloom very late, by removing the first tall flower spike, thus preventing seeding, and encouraging the bushy growth of the plant. It is surprising how late in the season one may have these sweet scented flowers, always so welcome an addition to the table decorations. And, of course, there are the chrysanthamums.

SEEDS TO BE GATHERED

Yes, even in July, if you please. If you do not believe it, just take a look around your beds.

Some plants form seeds much more quickly than others do. And, do not forget that many have been in blossom since early March.

Do you know that the forget-me-nots have seeded themselves down some time ago? Look close around your patches of these flowers. Do you see many tiny leaves just coming up? These are young forget-me-nots, if you please. This is a plant whose seeds you will not need to gather.

But there may be some especially fine plant you noticed, when in bloom, whose seeds you want. Did you mark it? Or has it gone to seed and you do not know which one it was?

It is always a good plan where the plants are growing in clumps to mark with a piece of tape or like matter so that it can be readily picked out. Usually the first blooms are the largest, and those are the seeds best saved.

The Sweet Williams are seeding now. Some of the seed vessels are now opening, and should be gathered, for altho falling on the earth they will come up next year, still it may be desired to save some.

Gather up in a special envelope and mark. It is best not to put these seeds away until they are perfectly dry, else there is danger of moist occurring. Let them remain on a paper in the sun, for a day or so, up in the attic, or in a vacant room, where there is no danger of casual passer-by upsetting them.

Seeds are best left open to the air in a china or glass vesesl, until

needed, if such can be managed. Put your seed cups on the top shelf of the pantry, or some place where they will not be disturbed. Often a careless maid will throw things out in her cupboard cleaning hurry, so be sure to put a marker along with the seeds.

SEEDPODS

The study of seed-pods cannot but be beautiful, as well as interesting and educative. Most of our garden flowers produce either pretty or unique pods. All are more or less decorative.

About the first seed vessels to form—at least to form in such a manner that an outsider's attention is attracted—is the columbine. I wonder how many gardenfolk have ever noticed these peculiar five-celled vessels. Borne upright at the end of the flower stems are many rich green vessels, made up of five narrow cigar-shaped pods, joined together vertically. Thru many long weeks three vessels remain, turning slowly deep brown, until they have become like so much thin brown paper. Then each of the five cells opens at the top, and the seeds escape. The seeds are jet black tiny bullets. While these seed-pods are on the plant, the effect is most decorative.

Sweet William forms seed vessels next. But seeds and flowers are frequently forming at the same time as the great flat flower heads. Each seed pod is a narrow cylinder opening at the top. and disclosing the tiny black seeds, which are flat, not at all like the gleaming seeds of the columbine.

On account of the fact of bloom and seed growing at the same time on sweet william, it is impossible to find one perfect uniform seed head, as in most plants.

The Canterbury bells produce the prettiest carved and fluted seed vessels of deep rich green, also containing five seed cells. Since every plant bears dozens of bells, and wherever there was a bell, a seed vessel forms, just try to imagine, the attractive appearance of a Canterbury bell bush. Just as the bells hung downwards, so do the seed vessels. But instead of a bell hanging there, a five-rayed star an inch in diameter, hangs from the stem. At the back of the star, the body of the pod swells out in the shape of a round bowl, the outside beiny hung with five dimpled flaps, giving a quaint and ancient look.

Turn the bowl right side up—and there you have a circled rim, from which the star points ray out, and within the circle are many yellow brown berries.

These pods hang on the plant until very late, as the seeds within take long to ripen.

DECORATIVE SEEDPODS

Nobody can possibly deny the short and ethereal loveliness of the poppy, whose life is but a day.

Indeed the whole life of the poppy plant is short, since only a little while after flowering, the seeds have ripened, and the plant dies down. So that at no time of the poppy's life is it other than beautiful, because what could be more shyly lovely than the slowly forming, drooping green-hidden bud?

After the bud, the flower; after the flower, the seed pod. And when, pray, did ever flower produce a more perfect and quaintly beautiful seed-pod than this same poppy? A long pale, delicate green fleshy stem—supporting a small round globe wearing a crinkled and fluted crown—a globe that grows with remarkable rapidity—a tender, easily broken globe, filled with countless snow-white tiny ronud seeds. These seed pods of the

poppy give a more or less attractive appearance to the plant, with its acanthus-shaped deeply cut leaves. These pods need not be left on the stem until they ripen, but may be pulled off, and the whole globe laid away in a safe spot to ripen. When the pod is ripe, the shell has become as thin as rice paper, breaking almost with a breath, disclosing the shiny snowy seeds.

But for a dream of fairy-like beauty, pick a branch of the seeding nigella or "love-in-a-mist." I am sure the attempt at description will result in a nightmare—but —

You will remember that nigella is covered with foliage more like green hair than like leaves. Instead of leaves made up of leaflets, and veins and ribs, and so on, negella covers its stalk with leaves composed of short thick green bristles attached to the main ribs. One might also say they are skeleton leaves. You will remember that the double starry blue flower is buried, tangled in this green mist that surrounds it. And suddenly, when or how, no one seems to know, there—instead of the star, is a globe-like vessel of palest green, buried in the tangles of green bristles. This globe is rathr longer, up-and-down-ways, than across. Crowning the globe, is a five-pointed star-like formation, from which rises five upright green horns an inch long. The globe is soft to the touch as if distended with air.

Breaking open the vessel, each compartment contains two piles of oblong pale green seeds, piled closely side by side, reaching from floor to roof. These flat seeds soon ripen. Each compartment contains about forty seeds.

A seeding branch of nigella is very decorative, because each branch bears all its pods at once—that is, you will not find a pod and a flower on the same branch. So that there are little balloons and big ones, all looking ready to fly away at the least touch.

THE SAVORY CORNER

What is the finest sauce or soup without its seasoning? Alas! nothing but an insipid preparation, unfit to tickle the palate or satisfy the most unexacting gourmand. Every housekeeper knows the peculiarly delightful feeling of superiority that comes over her, when she is able to go out into her own "savory" corner, tucked away happily in some hidden but sunny spot of the garden, and pick a crinkly handful of vivid parsley, a pungent spray of mint, or a smelly, sniffy leaf of sage, with which to add the final touch to her "piece de resistance."

For ther are no "savorys" like those taken fresh and dewy from one's own carefully-tended herb garden. They are one and all so much more savory when gathered a few minutes before they are needed. Under such conditions they do not lose any flavor, not the least whiff of their aromatic pungency. Nor can there be any mixture with foreign substances.

No ordinary cook would think of serving spring lamb without its classic accompaniment of mint. And who would dare the Thanksgiving dinner with no hope of securing sage or summer savory? Vegetable soup without parsley would be a despair, and lamb broth with no rice, something to shudder at. One might as well try to think of the summer linens packed away without lavender or sweet clover as a mint-julep without mint. And so the herb plot should really be in existence in every well-ordered garden.

Now let us see! Parsley should be sown in the spring. Unless conditions are unusually favorable the plants will not be very large the first year, altho it will be guite possible to gather some few tasty sprigs for occasional use. If the plants are covered during the winter with some

light straw or grass cuttings it will be no task for our housekeeper to avail herself of the fresh leaves all through the winter. Indeed, parsley is singularly resistant to the ordinary frosts, and has even been known to survive, unprotected, a fairly severe siege of cold. A plant or two may be potted and grown in a cool spot for immediate use.

Sage and thyme are both favorites, well known, and entirely indispensible in one's herb garden. These are best procured as small, sturdy roots from any old kitchen garden, or from your nurseryman, although they may be slowly raised from seed.

Mint, marjoram, fennel, dill summer savory, and winter savory, all these are old standbys, and easily grown, should have a place in every garden.

Horseradish? Most certainly. The cook who has never had the indescribable bliss and anguish of grating her own horseradish roots, dug freshly from the black earth, is no cook worthy of the name.

THE TUSSOCK MOTH AND OTHER PESTS

Everyone knows the dreadful havoc this moth has worked with thousands of the shade trees. Much of this mischief might have been prevented, and those valuable trees, that required so many long, weary years to reach the perfection of beauty that they did reach, would have been saved, if hundreds of the citizens of this same town had taken the smallest bit of pride in their town, and helped the authorities to check this moth. And this is the way they might have done it, and may do so this summer, now—right away. We will explain:

The tussock moth is that small, caterpillar-like creature of remarkably beautiful appearance, with his brown and yellow tufts of hair sticking from his back. He seems to have many projecting horns, but the two first noticed are those issuing from either side of the head. He is a voracious feeder, as need not be remarked when one remembers the trees destroyed during the last few years.

The cocoons that have been left on the trees over winter, full of tiny, snow-white eggs, have broken open just the other day. Each of those tiny white eggs becomes a minute worm, or rather caterpillar, (not being an authority on this subject, I may not be using the proper terms, but these are the terms that will explain to the ordinary person) with two minute hair-like horns projecting from his head. This creature grows with the most wonderful rapidity. In fact, only a few days are necessary for the pest to become full grown. His life is not very long. Next week even, you will see him, crawling, nervously, and with a very business-like air—crawling hurriedly here and there, looking for some convenient place to place himself, so that he may commence the weaving of the nest, which becomes the cocoon.

Watch him weave this nest. He first places himself, if he can find such a place, in a crack or crevice, or some such place where there is a partial protection. Then he commences the weaving. He literally plucks his coat bare to get material to form the silk for the thread to weave his shroud. He works away, never resting, never halting until he is covered in, safe and snug. Then he goes to sleep, after performing the duty nature gave him to do.

When you see him hurrying rapidly up a tree or anywhere else, then is the time to destroy him. Or, destroy the cocoon. Every cocoon left to mature means countless pests of destruction.

Every citizen should at least take care of the trees in front of his own house, whether they are on the boulevard or on home property. If each householder were to make a point of watching his own trees, much

harm would be prevented. It is such an easy matter to look after three or four trees. But what a task to look after a city full of worm-eaten trees!

The tussock moth should be known by every citizen of this town. Indeed, it has for some time been a puzzle to us how so many householders could remain in such apparently gross ignorance—we had almost said criminal ignorance—of its existence.

Suppose we let one of these cocoons remain under our eye thru the winter, and watch it, for the sake of the important knowledge—nay, the appalling knowledge—that may be learned from its study.

There it hangs, thru the long, cold months, harmless. Spring comes along. All life, sleeping or awake, feels her stirring touch. Mr. Sun is helping along the busy world. Even tho his direct rays have not yet reached into many hidden corners, yet his warming influence is at work. Keep your two eyes on that cocoon, because when the time does come, things will happen so quickly that your long watch will have been in vain; for in less than the twinkling of an eye your cocoon has become an empty shell. Too often have we ourselves watched the marvel, not to know the truth.

Well! What has happened? If you have not relaxed your watch too long, you may possibly—possibly, we repeat— catch a glimpse of the tiniest, wee, grey, fuzy, speck, a fraction of an inch in length, just moving—no more—somewhere near the now empty cocoon. Probably you will see the tiny antennae wiggling furiously. Watch him for an hour, and he will be twice as big; but, unless you place a glass over the mite, he will certainly wiggle out of sight before you can draw two breaths. He, too, will disappear, like his brothers, some thousands of them, all securely hidden among the leaves.

Within a week, he will have grown into one of those busy caterpillars, with three or four crimson tufts of silk decorating the sinuous length of his busy back; one of those delightful pests that drop upon the cringing shoulders of passers-by, making the very goose flesh stand out upon their skins. In a few days more you will notice thousands of the poor, crushed things, some struggling away to die, some hurrying with nervous, searching energy, seeking a spot where they may spin, from the silken tufts upon their backs, a snow-white shroud to shelter their naked bodies. Within that glittering shell takes place the marvel of life, and sleep and death, and resurrection.

Is this not worth studying? Especially if one can learn to control the destructive forces let loose.

THE QUESTION OF WATERING

The watering of the garden is sometimes a serious question to consider. Before laying out one's beds and borders, the matter should be very carefully considered. In towns and cities where the water facilities permit the use of hydrants, it is apparently an easy matter to keep one's plants, shrubs and vegetables in a good condition.

But even when the garden hose is at hand to use daily, night and morning, the business of watering is very carelessly attended to. In a large percentage of cases the garden is watered for the night, and not watered at all. "Do you know what we are talking about?" we hear some exclaim. "What sort of contradiction is that to make?"

Let us explain then:

The ordinary garden hose can only convey just so much water in a given time and no more. With the full humming, whizzing spray turned on, full force, it may seem to the one handling the hose that a most copious drenching is being given—that the earth is thoroly soaked—that the

plants are almost drowned out—and so on. But not so. There seems to be a great quantity of water flowing from that hose, but, after all, there is nothing like the quantity that one imagines. After standing for an hour or so, plying the hose, you may find how thoroly the watering business has been accomplished by the simple expedient of poking a finger into the flower beds. Often one will be horrified to find the earth barely wet, half an inch below the surface. The roots have never been reached. Where has all the water gone to?

The true test of the quantity of water pouring from the hose will be found out by filling a pail from the hose. How long does it take to fill one single pail? It will surprise you. Try it! And how far does one pailful go, if one were forced to carry the water by pailfuls? Not very far, indeed!

And often the water from the spray has never reached the ground at all, but has been scattered on the leaves.

A splendid plan, especially where there are many old strong roots, thickly covered with foliage, such, for instance, as paeonies, canterbury bells, and such like, is to first spray the uper part of the plant, so that the leaves may be gratefully refreshed after the heat and dust of the day, then remove the nozzle, and placing the end of the hose close to the roots, let the water simply well into the ground for the length of time that it would take to fill three or four pails full. If this plan is followed at least twice a week, really oftener is not needed, and the leaves washed off quickly every evening, with a short refreshing drink before the sun is hot, you will find your heavy roots improve wonderfully. The ordinary careless spraying, night after night, does not begin to touch these deep roots.

Nor can a garden of any size be gone over thoroly every night. True, it may be "sprayed," but that is not "watered."

Take one portion of the garden every evening for a thoro soaking and in this way the whole place can be gone over at least once a week.

WATER THE GARDEN BEDS, EVEN NOW

It is a mistake to put away the hose too soon. There are many young perennials even now struggling for a little help in the way of moisture. If these thirsty young things do not get a good long drink, how under the still hot sun do you suppose they are going to continue the struggle? There is some good growth in the ground, even this late in the autumn.

There is no time in the year when growth has left the ground!

But, just now, when most people think, "Oh! the poor garden is a ruin"—just at this very time go out and give the poor things a good wetting. Of course, some of your near neighbors will think you have taken leave of what few senses you originally had—but the laugh will be yours next spring. But, most especially, the laugh will belong to those panting parched plants.

If you are not in a mood to believe this little warning just take a look at some of your new perennials that you transplanted late in August. A word to the wise—

Coming home from a late holiday we found beds dry as dust, in spite of the fact that others vowed to the highest heavens that they themselves had daily drenched those same beds with the cooling spray—yes, daily, night and morning. Yet the fact remains only too patent—most of our precious, grey Scotch Pinks—you know those old-fashioned, spicy double-fringed ones—have not only grown very bushy and top-heavy, so that to an inexperienced eye they seem in the pink of health—but also, alas, poor frail stems, brittle as glass, are ready to break at the slightest touch. And all for want of water.

Now, the unfortunate occurrence is quoted so that others who have these same old favorites, may hie them to the garden and see how their stock is conditioning for the winter. There is but one thing to do in this case and that is to get down on our knees, cultivating fork in hand, and slowly, patiently, lovingly, cuddle the brown earth as closely, as firmly, and as high up around those poor brittle stems, as it is possible to do. We must almost bury the whole little grey dwarf bushes in the warm earth. This done, we must cover with layers of manure, and hope for the best.

ODDS AND ENDS

October is one of our most important months in the garden. It is the month of the year when a successful gardener keeps his eyes open every minute of the time, to attend to an infinite number of odd jobs. He is on the alert constantly.

A few long trailers have developed here and there since the last clipping of the shrubs, leaves now falling every day must be husbanded for mulching and protective purposes; lawns must be kept trim and neat; borders must absolutely be looked after as carefully as in the middle of summer, or there will be a terrific muddle to clean up in the spring. All litter and rubbish must be put out of sight; also keep the beds well watered.

November is such an erratic month that one cannot depend upon the weather she may give us. Therefore, do all that can be done, while yet there is time. Every gardener knows his own needs best, and wastes no precious minutes.

There are many odds and ends that may be left until just before the last minute before being attended to. By the last minute, we mean the minute when the hard frosts have set in; when it is no longer possible to work comfortably outdoors; when one cannot in wisdom, kneel upon the damp ground to heel up a whole row of neglected pinks or sweet williams.

All these should be attended to by the end of October. The things to be done are legion.

Take your weeding fork, get down upon your knees and loosen the earth all around such plants as sweet williams, dianths, irises; all the lily bulbs that bloom in mid-summer; clematis bulbs, columbines; and, in short, every perennial, or biennial, that you are desirious of wintering successfully. After the earth is well loosened, just as you have been doing every week, all summer long, heel the earth firmly and closely up around these roots, piling the moist soil well up against the tender main stalks. Nothing is more disastrous to plants than to have their upper roots half exposed to the weather. This happens invariably to all plants that are not carefully looked after in this very respect. The rains wash away the soil around them, the sun dries it into powder, and it is blown away, the frost, alternating with the milder weather, forces the roots upward—and. in short, all sorts of things happen.

This being done, the beds are ready for their mulching later on.

GARDEN PESTS—REMEDIES

Leaf bug of the dahlia.

This is a wicked wretch that brings despair, disaster and death to our healthiest dahlia plants.

As a rule dahlias are remarkably free from these troubles. However, they will be attacked occasionally by mildew, especially when their surroundings are not satisfactory and when they have received a setback from some unfavorable condition. A copious spraying with copper solution will deal successfully with this. Apply twice a week for two or three weeks, or until all signs of the trouble disappear.

If they are very badly affected, and do not readily yield to treatment, cut them down to within a foot or so of the ground and encourage an entirely new growth.

Green fly (aphis) will often attack the plants if their vitality is lowered from some cause. They will be found on the under side of the leaves. A liberal use of tobacco dust, or spraying with tobacco water, will soon destroy them. Keep at this treatment as long as a single sign of these vermin remains.

The aster bug and cucumber beetle will attack dahlias if they are prevalent in your region. As a rule, however, these pests appear in small numbers so that they may be picked off by hand.

In all dahlia growing be careful to watch for any signs of cutworms when the luscious young shoots are coming up from the root. At this time, above all others, the light green stalks are deliciously succulent to bugs, beetles, and such like.

A liberal sprinkling of lime, slacked in the open air, will usually prove sufficiently discouraging to all such as had intended enjoying a feast. Even if some of the fat shoots have been eaten up, they will develop again below the surface, conditions being encouraging.

In our own minds we have always depended a deal on the help of the hose spray.

Careful and copious spraying, with an observant eye on the alert to see that the spray is none too strong on tender young shoots, and also carefully directed towards the under sides of the foliage—this is our one dependable remedy. Insects cannot get much headway if they are swept out of existence every morning with a fine, cool spray.

Early on a scorching morning we noticed a few branches of our purple clematis commence to wilt. Happily it was one of the shortest branches coming up from the root.

As a terrible calamity had happened last year in the very middle of the blooming season—a calamity which had commenced with the same quick wiltering of leaves, followed by the darkening in color until they were black, soft, and apparently utterly lifeless, we wasted no time in hunting the cause.

When a healthy, thoroly well-rooted and tried blooming plant suddenly becomes ill in this manner there is but one thing to do, that is trace the sickness to its beginning.

In this case the topmost leaves withered first. Within half-a-day the whole long branch, from the base to the very tip, leaves, buds, tendrils and all, became soft, finally black (the leaves remaining toughly attached to the vine for days before they fell off), and it did not need a very skilled expert to tell that something had eaten at the innermost life of the plant. Tracing inch by inch down the hard brown squarish vine, no sign of trouble or anything out of the ordinary appeared until where the branch issued from the soil. So it was plain trouble was below. Several other fine healthy branches also came from the same root. So far they had not yet showed signs of disease. Therefore, the trouble must be below earth. Digging—oh so very carefully—with searching fingers around the five or six strong stems coming up from below, we finally found a spot on the injured branch that looked as if the fine bark had been scratched away with a pin. It seemed to be peeling off in narrow strips. No one of the others was marked in the same way. What to do? We did not dare to uncover the very root. But we might go further with the injured branch —it was dead, anyway. So it was cut off at that spot. Riddled thru, dried completely out; no signs of bug or nest of any kind. Sprinkling some fine wood ashes around the root, we left the plant alone. We had not found the trouble. Nothing further happened that season. The other

branches continued to grow and bloomed well. Therefore, we thankfully concluded, at least part of the root was all right.

But, this season, the very minute we saw similar symptons to work we got. Half-an-hour after discovering the first yellow-looking leaf—it had not yet even withered badly—we dug down, and half-an-inch from where the branch came up from the root, and about an inch below the top of the soil, there we saw some queer-shaped bugs, dark brown, humped, like a potato bug, but much smaller, in fact, about the size of the well-known brilliant ladybug, and clinging so tightly to the brown bark that it was with difficulty we could loosen them. But we loosened those bugs for good.

They were the fatal "borers," at least that is the conclusion we drew. Certainly nothing further has happened. By the greatest luck we had managed to see the first wilting leaf in time to make the search for the colony of borers.

Before filling up the slight hollow around the branches issuing from the root we sifted in some fresh wood ashes from the kitchen stove. But, first we killed every bug. We even hunted out our magnifying reading glasses to help us with the search. We evidently found them all. Bordeau mixture is the improved spray for this borer. But I fail to see what good any spray will do when the poor plant is left long enough to the ravages of an enemy to let the enemy eat out the very heart of the plant.

TIE UP ALL STRAGGLY BRANCHES

October is the time to commence the tying up of your climbing vines and bushes. On examination it will be found that many of the tenderer climbing roses may be taken carefully from their fastenings and laid gently down upon the ground. In doing this, be very careful not to bend the long canes too sharply over, else the bark may split near the root. It will be quite sufficient if the long, branching vines are in contact with the earth, where they may rest beneath the warm mulching of leaves and manure, presently to be layered upon all the garden.

Many vines, especially if they are yet of a tender age, not many years old, may be more safely wintered thus, than by risking their welfare undisturbed. Wistarias, even tho the main vine be as thick as an ordinary broom handle, are very easily taken from their summer moorings, and bent to the ground for better covering. Clematis vines, altho as a rule springing up freshly from the main bulbous roots, often make so much splendidly woody growth that it is nothing short of heart breaking when one thinks that all those long, spindly vines will not send out young shoots next spring.

Just take those clematis vines down from the trellis work, or whatever support to which they are clinging, and having been most careful not to bend the vines too sharply to earth (for they are brittle, not at all as elastic as the wistaria), then at the proper time cover with leaves and mulching. Next spring your clematis vines will send out shoots from the very topmost tips of last year's wood. Just think of the gain. Also, your wistaria will surprise you.

This does sound not only difficult but impossible. Yet it is for the good of these vines, and, once started at the work, and having gained a little confidence, you will be astonished at the good work you may accomplish.

Where it is impossible to take down and cover the long canes, then the next best thing to do—and do not neglect it—is to tie securely all

straggling branches either to the old supports, or to strong central branches, or to new stakes.

This same warning applies as well to young shrubs and trees. No winter ever passes by without leaving many easily prevented ravages behind in its tracks. Soft snows, and sleet, and ice storms do the most mischief. True, after one of these storms, the snap of the camera is thru all the land; but so also is the snap of many breaking branches.

We warn you, too, when tackling the climbing roses, do not forget to be well gloved. You may adore your roses; they doubtless adore you also; but thorns are thorns; and, in our humble opinion and experience, nothing on earth sends a more piercing, entirely-unforgettable stab thru one's whole system than a rose thorn.

LOOKING AROUND

The summer over, autumn well on its way, bulbs all snugly in their beds, the wise and thoughtful gardener will seize the opportunity given in the few weeks before the frost sets in for good, of making several improvements on the garden plan of the past seasons.

No matter how well and carefully planned the garden has been, no matter how luxuriant and altogether satisfying the bloom has been, nevertheless, no garden has ever been perfect. Nor does any gardener ever plan his layout the same year after year.

During the summer our observant gardener has, no doubt, seen several new plants that he has decided to make his; has observed a few new garden tricks that he himself can make use of; has decided on improvements, on changes, on things to be added, and things to be discarded. All means work.

The three or four weeks between bulb planting and the arrival of mulching time presents a good opportunity of carrying out these several plans.

For instance, perhaps our gardener has decided on making a rockery, or rock garden; or perhaps he has determined to add a water garden, to add to the restful attractions in some hidden corner at the back of his lawn. Perhaps a summer house has been decided upon. Hedges may have been thought about; new shrubs chosen. Pergolas on which to spread new vines or support choice grape vines are to be built.

Arches across the garden gate, or between hidden pathways, are to be built to frame a happy picture. Perhaps even fresh walks are to be laid, or old ones are to be freshened up. Cold frames are to be built and hot beds against the early appearance of next spring.

And so the wise gardener will make use of these fine workable days before the November rains set in, and so soften the ground that outside work is not quite feasible.

October is the ideal month in which to do most of these tasks.

There are countless plants, mostly perennials, from which cuttings may be taken and planted to increase one's stock for next year. A careful, observant and economical gardener will not wait until late in summer or the last days of fall to seize the ever-present opportunities that sturdy, bushy plants are even as early in the season as June offering him to increase the number of favorite plants.

For instance, the sweet williams, perennials of sturdy growth are already headed up, the heavy heads spiky with tiny green florets that will show up in a few days, now, as gorgeous blotches of color. If one looks closely, it will be seen that theplant is composed of usually one strong thick stalk, topped by the great flower-head, but, besides this thick central stem, there are also a number of smaller side stalks, issuing from the base of the root, topped with their several flower heads, which help to form

a bushy plant more or less symmetrical in form. There will be found also several lesser stalks, also from the base root, but which show no sign of a flat-topped flower head. These will not flower this year, or, in fact, at all. Many gardeners, especially those who are striving to produce especially fine flower heads, simply remove these side shoots, because they require for their nourishment food that might be directed towards the more perfect development of the main flower head. In fact, it will often be noticed that in this plant especially all the side shoots are removed, leaving but one central stem. In this way, some enormous blooms are produced.

But it is to those small, non-flowering side shoots that we wish to direct your attention. Simply plant them with the usual care that is given to the transplanting of seedlings. Where the stem can be stripped down closely to the very root so that a thread or two of the original root is secured, the wee plant will do finely. But even if this cannot be managed the shoot will take root of itself in a short time, provided plenty of moisture is given. This new plant will flower next year. Do you see what has been gained? One whole year in the plant's life. Because, you will remember that sweet williams are perennials, the seed being sown one year, the seedlings transplanted in the early fall of the same year, and the following year bloom may be expected. But in this case, where the shoot has been taken from the flowering plant of this season, blooms will be secured next year. There is practically no time in the summer when one may not remove these sidelings from this plant and still be sure that rooting will occur. Of course, one must not leave this too late, because the new plant should be given plenty of time to grow strong for the winter.

I find a good plan is to remove the side shoots and plant them just behind the old plant. They will not be forgotten or neglected, because each time the original plant is cared for there are the wee shootlings taking shelter behind the mother plant.

Forget-me-nots may be treated in this same way, from June on. But, since the stems of this plant are much softer and contain more water in their make-up, they wither down for a time after planting, presenting a yellow and ragged look. Therefore plant the shoots in some sheltered corner, where they will not be seen—but do not forget them. Last year we planted all the winter stalks, from the house bouquets, from time to time, in odd corners, here and there—and you should just see the miles and miles of bordering we have this season.

THE SCENTED GARDEN

Have you a corner devoted entirely to the "perfumers" or are your scented flowers strewn here and there and everywhere thruout the whole garden?

A pretty plan is to have one separate corner set aside for certain plants that are notable for their perfume. Many of the old-fashioned herbs are famous from time immemorial for the glory of their perfume. These are lavender, famous in history and in song; sweet rocket, one of the oldest flowers in cultivation, vieing with the lily and the rose in its popularity in the time of the French revolution; vale lilies, the delicate, elusive sweetness of which no pen can describe; wall flowers; clove carnations; heliotrope, heavy, rich and pungent; bergamond, that low-growing herb, simply to breathe on whose leaves causes it to give out an almost intoxicating heaviness; mignonet, only do try to keep the plants free from vermin; southernwood; nicotinia, or tobacco plant, famous for the delicious odors of the dusk; mock orange, a shrub, one of

the syringas; sweet sultans, which are the purple varieties of the old centuraes, known of old to the English some three hundred years ago, and many other plants, all fragrant at some time of the day.

It is quite possible to have many, if not all, of these mentioned, to say nothing of the dozens of others, easily available. By no means forget to have some specimens that commence to make their presence known towards the evening's approach. There is something so indescribably enchanting to sit in the coolness of the evening in some favorite spot, and breathe in the pure breath of these night flowers that many people make a special effort to excel in their "scented corners."

Strange it is that so many of our heaviest scented flowers are white. Instance, nicotinia, mock orange, madonna lilies, and white double stock.

Here I shall give the plan for a "scented garden" that has been a source of delight and mystery all last summer. In one corner of a high wire fence are planted three thick, old syringas, or mock orange. These bushes are trimmed quite high, so that at least three feet from the ground the first spreading branches issue. This open space allows of free passage of air and sunlight, to freshen up what might otherwise be damp and heavy soil. Under the shrubs are some hundred old lily-of-the-valley roots, the young pips being kept thinned out continually. This forces the old roots to bloom, and sends all the strength that might otherwise be wasted on the production of new leaves, into flower stalks, which are really of prodigious size. These roots are permanent, so that each year increases their value. A few nicotina plants are next in order. By the time the vale lilies have finished blooming the nicotinias have commenced to shoot up to two feet or more, and the long, white trumpets are unfolding. White ten-weeks'-stock are growing in the row in front of the nicotinia, getting ready to bloom about the last week in June, and from that time until November the air around is heavy with sweetness. The madonna lilies, fifty of them, are planted in clumps of three between the nicotinia stalks, each plant acting more or less as a support to each other. In July these bloom, but nicotinia has been blooming at least three weeks before the madonnas, and will continue until frosted. White, lemon-scented verbenas form a front border to this most beautiful and most richly-scented corner that ever was planted.

From early morning until midnight thru April, when the syringas are in flower, until late in November, when the nicotinias are still holding the fort, for no single minute in all this time is this corner without flower or perfume.

SOME GARDEN TRICKS

Do you know that you can have your rose bushes covered with flowers long after the blooming season of the rose itself has passed?

And this is the way it may be done. Plant, just beneath the rose bush, and about two inches from the main stem, a plant of nicotinia. Everyone knows how tall and straggly the long slim willowy flower-stems of nicotinia grow. These long shoots will shoot up between the branches of the rosebush, which will serve as a firm support for the nicotina stars.

Your rosebush will afford a constant harvest of blossoms and perfume all thru the long hot summer. Try this plan.

Another good plan is to plant those large fringed California petunias, among the rosebushes, one plant beneath each rosebush. The firm support afforded the petunias, by the strong branches, will induce speedy growth, and also the fair amount of shade gained from the shelter of the rose branches will give a delicacy to these flowers gained in no other way.

Other plants that may be treated in this way are verbenas. These also do well when planted "under the rose."

Do not be afraid that this way of affording support to the straggly flower stems of the above-mentioned flowers will in any way injure the roses. They are not affected in the least. On the other hand the constant spraying necessary for the satisfactory growth of those plants, will be of great benefit to their companions.

Why not allow your clematis vines to climb up the trunk of any tall tree on your lawn? If the tree is trimmed high, sufficient sun will be obtained by the clematis, to afford splendid growth. The tree will not be injured by affording support to the vine. If you have an elm the rough bark will serve excellently for the clinging tendrils to fasten securely to.

There are many little tricks an observant gardener may make use of, such as these mentioned, all of which will save many an odd moment's work, and enhance the beauty and comfort of his home. He needs but to look around him, and study how to make use of the things at his hand.

TAKING STOCK OF YOUR GARDEN

A wise gardener never lets one single day pass over his head without seeing some place or thing that may be improved next year. Here and there, as he works along, heeling up the earth around the roots of the various plants, an idea will crop up, some fresh thought for the betterment of his grounds. Think, for instance, during the hot days that are on their road to us now, how delightful it would have been if one had arranged for a small pool or water garden over there under the shade of the giant balm of Gilead tree. Imagine the charm of a group of purple iris, an arrowhead or two, vieing in beauty with the golden marsh marigold.

Or what about a rugged rockery over there in front of that bare corner, where the close wooden fence on the north shuts out the sun and air, making the earth damp, heavy and sour. A clump or two of large stones would add wonderfully to the look of the place, to say nothing of the improvement to the character of the earth itself. It is nothing short of wonderful the way a few stones will serve to drain the moisture from a damp corner, and raising the surface of the ground, so that, whatever is planted therein, bringing such plants closer to the sunlight, with the result that one of these fine days a bright flower or two will surprise and delight one.

How about an arch over the garden gate? An arch over wihch one may train a clean green vine, or a rambler, or some such vine? Think what a perfect frame, for the first glance into the garden, such an arch might make.

Notice, especially, if certain plants are flourishing as they should, in the situations where they are now growing. Is there any other spot where they might do better?

If one is doubtful, plant an odd specimen or two in various spots, noting how well each one grows.

Plant every cutting, small shoot, or sucker, that you can manage to pull off the main plants. These will root if looked after properly, and your stock will increase amazingly.

Sow pansy, hollyhock, columbine, in order to have large "transplantings" for late August. These will bloom early next year.

Keep cultivating every spare minute.

TRANSPLANTING

Before transplanting see that the beds have been well spaded and manured. The proper manner of doing this is as follows:

Having laid out the proper dimensions, commence removing the earth from one end of the bed; having dug out a space at least a foot deep, and about two feet from the end of the bed, throw in old, well-rotted manure containing plenty of straw and hay, to let in air; now throw back over this the earth removed, keeping the manure and straw well out of sight beneath the earth. Don't mix up earth and straw and manure, so that little bits of straw and manure are sticking up here and there and all over. Leave everything below, out of sight, neat and tidy. Of course, when the beds have all been gone over after this fashion, the tops will be some distance above the surrounding level. But this will allow free drainage and full exposure to the sun. Do not water the beds before transplanting the young shoots.

One great rule must be followed in transplanting, and that is, not to be sure and leave plenty of earth around the roots, altho that is important, too; but, be sure and plant deeply, patting the earth high and firm around the plant. Each plant wants to be held tightly in the earth, so that its roots may seize hold of the fine particles surrounding them quickly.

MORE ABOUT INSECTICIDES

Always keep a good supply of insecticides on hand. Or, if not the actual solutions themselves, keep the formulae and the proper materials for the preparation of these common medicated sprays. Plant enemies and pests have increased to such a very great extent these last few years, that comparatively few flowers are free from a pest of some kind or other.

The rose has always been a prey to countless pests. But now we find the dahlia, the clematis, and even the good old aster affected, and all plants are becoming more and more difficult to raise for this very reason.

The rose is in need of almost hourly care and watching, from the time the first wee bud begins to swell, until the end of the season. One of its most dreaded fungous diseases is the "black spot." which must be given thoro treatment from the beginning, even before the leaves start in the spring, especially if the bush was de-affected the previous season. Use Bordeaux mixture, and repeat at least once or twice a week during the growing season.

Cosmos Borer is a wicked pest to the cosmos, dahlia, aster and clematis. The preventitive is a teaspoonful of Paris green to three gallons of water, poured around the base of the plant, using sufficient to wet the earth to a depth of at least six inches. The Bordeaux seldom goes deeper than six inches; in fact, seldom deeper than four inches; but it is always best to be on the safe side. Begin when the plant is a foot high, and contiue thru the season.

Another pest is the black beetle, who loves to feast on the asters, eating the young "transplantlings," the buds, and, if left in uninterrupted possession, will soon infest the whole bed. This beetle looks very much like the common "blister beetle," but is rather smaller, and of a deeper jet black. It is very easily killed by knocking the branch over a dish of water diluted with kerosene mixture.

To catch this villain, watch for him early in the morning, when he is very sleepy or sluggish, and can easily be captured in this manner. However, in these days, it seems as if the proper thing to do is to

spray all one's plants very early in their lives, and thus make sure that any young insects have been well dosed. It is worse than useless to wait until bud, blossom and leaves have been attacked.

THE VIOLET

The sweet violet of old England (viola odorata) is the parent plant of the many single and double varieties that glorify and perfume our gardens from April's earliest warming days. By assiduous cultivation, plants have been produced whose blossoms are remarkable for their immense size, for the depth and individuality of their coloring, and for their rare and subtle fragrance.

Most of these varieties are entirely hardy and quite easily managed in any ordinary garden bed. Indeed, it is not at all difficult, especially in moderate climates, to have healthy bloom of some description, from the open garden, all the year round—straight thru autumn, in the sunny stretches of winter, and in countless numbers from beds blue with them in spring. This, of course, with the help of hotbed and cold frame.

The commonest of our native violets is viola cucullata, the ordinary blue violet. Found roaming here and there and everywhere along our roadsides, embroidering meadow, lowland and upland, climbing up steep hills and down shady ravines, hiding coyly in cool nooks and corners beside brooks and streams, its bright blue blossom is dear to the heart of every little urchin, on the hunt for wild flowers, almost before the last traces of winter have vanished. Rich in color as abundant in blossom, it is, however, not so strongly fragrant as other varieties. The clean, refreshing green leaves, heart shaped, saw edged, are folded inwards when first put forth, and the five-petalled, bluish-purple, golden-hearted, are surely too familiar for more detailed description.

The horned violet (viola cornuta) is a tufted perennial with diffuse stems whose hybrid forms are the bedding violets for the florists, exceedingly easy of cultivation, and blooming luxuriantly all thru the summer.

A FEW ODDS AND ENDS

The cheapest and by far the best way to work up a good reliable stock of perennials is to grow them from seed for yourself.

We warned everyone long ago to watch for the most beautiful and most perfect blooms in the garden, to mark these, so that, when gone to seed, you would know just which was which, and to gather these seeds for the beginning of a new stock.

These seeds, of course, were planted some weeks ago, and should be showing above ground and getting on a few leaves. They should be large enough by September to transplant into their permanent beds.

Get this transplanting done at once, so that the moved plants will have plenty of time to send out new, strong roots, and get settled comfortably in their new quarters before the rigors of winter try them.

We hope everyone will try some "Gold Dust" this year, that is "alyssum saxatile"; also some rock cress, "arabis albida." These should have been planted some weeks ago, as we warned everybody.

THE WALLFLOWER

A plant that is not so well known (especially among city gardeners) as it should be, is the old-fashioned wall-flower, loved of old by our

grandmothers, but almost forgotten by their grand-children, some of whom are woefully lacking in their powers of perception.

The idea became prevalent some few years ago, that the wallflower was not hardy, here in Canada, but the truth is that, given the same careful wintering that we accord our other perennials, it will not only grow, but grow well, and bloom profusely.

The colors are so delightfully out of the ordinary, turning, as they do, thru all the shades of golden-brown, brown-reds, apricot and orange, that if any plant on earth should be strictly in the present fashion, certainly that plant should be the wallflower. The rage for barbaric color should remind us that the wallflower can vie successfully with the most outre shades, and come out easily the winner.

By careful selection, some unusual strains have been evolved, especially noticeable for richness of color and earliness of bloom. The plants are best raised from seeds sown in one's own garden early in May. When the seedlings have attained a fair size they may be transplanted, choosing for this work a dull, cloudy day, preferably just before a stretch of wet weather. The continued dampness just after moving makes for success, as nothing else will. Train the plants to grow stocky and bushy, nipping off any straggling branches and keeping the earth heeled up well.

It will thrive in most soils, but always does well in soil containing limestone, which it loves. Rocky walls, rockeries, sandy banks and such spots are especially well liked. Do not forget to have a good, large patch near some favorite window, so that you may enjoy the delicate perfume. Do not spare the flowers. The more you cut, the more will be produced, and they do make lovely flowers for the table.

Too much mulching with manure will give coarse, heavy plants, not at all desirable.

CAREFUL COLOR COMBINATIONS AND CONTRASTS

Too often it happens that our eye is offended by an unharmonious display of colorings, thru either ignorance or carelessness on the part of the gardener. This is such a pity, because, to many people, the sight of even one misplaced color spoils the whole color scheme.

By a little careful planning, which means, however, a certain sure knowledge of the capabilities of the plants in question, a bed composed of even what are admittedly ugly colors, can be turned into a soft and pleasing picture.

But, when purples and pinks, and certain shades of purplish blue are all blended together in one hideous mass!

This is sure to happen where petunias, for instance, are used in the bedding scheme. Another plant that is guilty of producing hideous colors is the portulacca.

It is never a wise plan to sow mixed seeds of petunias, especially when, for a few cents more, special colors may be bought. Nothing is prettier than those large, fringed varieties, when grown in solid beds of one color.

Where purple and magenta tints crop up, transplant the specimens, or pull them up and discard entirely. But, if one must have magnetas, and magneta-purples, do combine them with pure whites. This is the only color allowable with them. Where a petunia shows one of those utterly indescribable, hopelessly ugly mottled, muddy grey-purple, do pull it up, and thus prevent any seed from forming.

And, I think there is no plant that offends so often in this respect than the poor old petunia. Her children are so often ugly ducklings that never by any chance turn into graceful swans.

Leaving the petunia, take a look at that vine called cobea scandens, a wild, rank, rapid climber, so common lately. What excuse it has for existing I am sure I cannot conceive, nor why it is purchased, when, for the same price, much prettier specimens can be obtained. Anything uglier than the twisted scraggly tendrils and leaves, or more irritating than the sorry, colored blue cup I have never seen! And yet people go on planting it, season after season. Nothing harmonizes with its leaves, flower, or color. It is a fairly rapid climber—and that is all that can be said in its favor.

BACK-YARD GARDENS

Fertilizers must be considered. Of course, nothing can take the place of the nourishment to be obtained from a good mulching of stable manure, but this is not always obtainable, especially in city gardens. Unfortunately, too, many of our small gardens have been given a thick top dressing of the heavy, gray clay dug out of the cellars at the time of building, and spread, for lack of other space, over what was undoubtedly fairly good earth, in the back yards or side lawns. This practice of dumping cellar earth around the newly-built houses has made the making of even the most unpretentious gardens a very difficult thing. To fertilize this heavy clay is almost an impossibility, unless one has unlimited loads of stable manure to put in, and this needs to be done year after year. What then to do?

A few loads of good top earth will have to be obtained to start with, and to help warm up the cold, sour clay, a load or two of yellow sand will have to be brought in. Of course, it will be more or less of an expense, but it is the only thing to do. The big seed houses will supply fertilizers in any quantity desired, and also give proper instructions to the purchasers as to the amount necessary for their especial needs. Then large quantities, if obtainable, of wood ashes may be worked into the clay, and the soot from the kitchen pipes. All grass cuttings should be saved for the purpose of helping to lighten the soil.

I have found it an excellent plan to buy some baled hay, and straw in bundles, for no other purpose than to help loosen up the soil. The way I worked the thing was thus: Pailful after pailful of the despised clay was dug out, until a good, long bed, some two feet deep, was ready; then a layer of hay or straw, or grass cuttings, in fact, everything of that nature that had been saved up for the purpose, was laid down to the depth of at least one foot; old plant stalks, withered branches and such like, all was put in; then in went the clay; next on top, my good earth, in which the plants were planted. The roots gained plenty of air, the loose straw and hay held plenty of moisture, and the growth, even the first season, was not at all to be despised. Every year this plan has been followed, and now, after nearly twenty years, the earth is fast

SOME DAILY TASKS—CULTIVATION AND WATERING

Early in the morning, while yet the dew is undried, or after the sun has set, and before the hose has been used, take out the cultivator, or a strong, wide-pronged fork, and loosen the earth around the roots of as many of your plants as you have the time for. In hot weather every

single plant should have the earth loosened up around the roots at least once a week.

After a heavy rainstorm, too, the need is imperative. After a terrific storm, we found our beds covered with a strong, thick layer of hard cement. At least, that is exactly what it felt and looked like as soon as the sun had dried the surface a bit. Not only that, but many small plants, seedlings and such like, were pounded into the earth. Some had leaves buried into the cement. After all such storms you must absolutely get out your gardening fork and heel up the earth around every root. Keep the earth well roughened up all the time. Never let it become pulverized so finely that after each watering, when the moisture has sunken in, the surface is smooth and unbroken. Such a condition seems to hold the stems as if in a vise, and growth will not proceed other than very slowly. Water night and morning these days. I have found an excellent plan to remove the nozzle from the hose, and, laying the end of the pipe right among the thick stems of all such plants as pæonies, iris, perennial stocks, Columbine, lilies, bleeding heart, turn on the water and let the whole volume from the pipe sink gratefully into the very roots. One thoro attention such as this about every three days will carry all the heavy clumps, successfully thru the hottest and driest season, and will do more good than a long session with the sprinkler.

Where the space to be gone over every evening is large, form the plan of washing off all the leaves for a minute every night, especially after a hot day, and then devote the rest of the time to soaking the various roots. Too often we see the one attending the hose stand for twenty minutes or half an hour, spraying one tree or shrub, under the mistaken impression that the tree is getting a good soaking—well, so it is—and at the same time a great quantity of water is being wasted, water that had much better have been given to the roots. That tree simply needs its leaves well washed once, and any tree can be so watered in a couple of minutes, after that the water is being wasted. This is energy misdirected, because the person did not stop to think.

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