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THE HOME GARDEN

GARDEN CALENDAR FOR AUGUST Order Bulbs now, and full list of Hardy Plants,

plant: Many Hardy Border Plants in suitable wea-er: Bulbs, and especially: Phloxes, Pyrethrums, appliniums, Gaillardias, Lilies, Crown Imperials, rawberries, Primroses, Polyanthuses, Broccoli, Salad

Narcissi, Scillas, Chionodoxa, Fressias. v: Prickly Spinach, Cabbage, Red Cabbage, ort, Cauliflower, Tripoli Onion, Lettuces, Cos, abbage, Endive, Turnips for winter, Horn Carustard and Cress Radish, Cucumber in heat, in heat, Primula, Calceolaria, Hardy Annuals ring, Mignonette, Forget-me-Not, Grass Seeds, v, Tomato.

THE CODLIN MOTH



every fruit-growing community continuous warfare must be waged against the ravages of insect pests and fungus diseases; especially is this the case where apples compose the bulk of the crop; and it must not be forgotten that eternal vigilance is the price of success.

It is not my intention to write an essay including the entire category of insect troubles which the fruit grower is heir to, but will confine myself to the subject of the Codlin Moth, which makes its presence so conspicuous at this season of the year.

Codlin-moth (Carpocapsa pomonella, Linn.) Description. This moth is about half an inch long, and when at rest has the wings folded close to its body. Its general color is grayish brown. "The fore wings are marked with alternate, transverse, wavy streaks of ash gray and brown, and have on the inner hind angle a large, tawny-brown spot, with streaks of light bronze or copper color, nearly in the form of a horseshoe; at a little distance they resemble watered silk." The hind wings are of a glossy light brown color.

The moths first appear in spring having passed the winter in cocoons. The first moths fly about the time that the blossoms fall from the apple trees, and they continue to appear for two or three weeks, or even longer. Very soon after leaving the cocoons the moths lay heir eggs, generally at the blossom ends of the little apples. The eggs soon hatch and the larvae immediately begin to eat the fruit. The second generation of moths appears in about six weeks. Two or three broods are produced in a season, and this fact tends to increase the difficulty of treating the insect successfully.

Formerly the principal remedy for the codin-moth was to destroy all the windfalls, either gathering by hand, or having them eaten by stock-which was allowed to run in the orehard. This practice was fairly successful. Since the moth is a night-flying insect, it has been repeatedly tried to attract it by means of lights. Rarely is one caught, and it is useless to atempt to trap the moth in this manner.

Spraying with arsenites is rapidly taking the place of the many methods which were formerly employed to destroy the pest. The applications are safe, easily made, and are almost invariably followed by excellent results. The first application should be made as soon as the blossoms fall from the trees, earlier ones being unnecessary. But as soon as the blossoms have fallen, spray thoroughly, using either Paris green or London purple. The operation must not be delayed until the apples are as large as cherries, but should be immediately performed. It is well to spray a second time about ten days later, but if the weather is rainy, applications are advisable after heavy showers, since the poison is more or less washed away by a beating rain. Poison must be at the blossom end of the apple when the larva appears, for when the worm is once inside the fruit it can no longer be reached; the first thing that it eats should be poison.

Since the second brood comes from the first, if the first is killed there can be no second, therefore the necessity of doing the work well from the beginning. The appearance of the later broods is probably too irregular to allow of successful treatment, and it is not always advisable to make special applications for their destruction.

By applying a combination of an insecticide and a fungicide, we can treat both the codlinmoth and the apple scab, thus saving the labor of one treatment. The most reliable combinaion thus far made is that of the Bordeaux mixture and Paris green or London purple. This combination is as effective as when separate treatments are made against the ingus and the insect. The use of the amonical carbonate of copper applied in connection with the arsenites has also given good results, and as the mixture is more easily applied than Bordeaux, it may in some rare cases be given the preference.

In Paris green we have a combined insectiide and fungicide, already prepared, but the ingicidal value is not so strong as might be shed. Its use during the past two years las, however, shown that it affords apples insiderable protection against fungi. age of susceptible varieties may be rendered fairly perfect by the arsenite, and in conseuence, the vigor of the tree itself will be conerably increased. Its additional value as an ecticide makes it one of the best remedies r destroying orchard pests.

Stock is frequently pastured in bearing orhards which are in permanent sod, and doubts are often expressed as to the advisability of removing the animals after the trees have been rayed with arsenical poisons or other mater-Cook has conducted some experiments to test this point, and in no case could he find

sons than are generally used; and I have still to hear of the first case in which pasturing stock under sprayed trees, whatever the application may have been, has been followed by bad results. When one coniders how small is the amount of poison used per tree, the small percentage of it that falls to the ground, and how little of this adheres to those parts of the herbage that are eaten, it will be seen that there is practically no danger to the stock.

A great many successful horticulturists adis, keep the surface of the soil in a thoroughly cultivated condition and do not permit weeds or other rubish to accumulate around the base of the trees. By this means you not only assist the trees in making a good healthy growth, but you conserve the moisture in the ground which is so necessary for the full development the presence of the moth grub causes premabe seen how necessary it is to remove the firmly to the wall by its tendrils, and gives no

windfalls and destroy them either by burning, burying, or feeding to stock. A very good plan is, when the fruit begins to fall, to turn a few hogs or sheep into the orchard, which devour the fruit thereby removing any chance of the grub making its way back to the tree in order to spin its cocoon, as it would do in a few days if not destroyed. So it would appear that the person 'who keeps his orchard in a clean and thorough state of cultivation is the one who does not have his fruit condemned by the fruit inspector.

THE BEST WALL PLANTS

Frequently the question arises as to what are the most suitable climbers for covering walls. In the first place, the word "climbers" is given a great deal of latitude by some people for they refer to any plant growing against a wall as a climber. For the present I propose to discard the word, for some of the best plants mentioned below are not climbers at all, but quite strong bushy. shrubs when allowed to grow naturally. The reason for placing such plants against a support is that a little extra protection is necessary for them than is obtainable in the open ground or that they prove such excellent subjects for covering walls that it is out of the question to neglect them. .. In the selection of the best plants it is necessary to settle on the height of the wall to be dealt

with, for if a wall is only to feet or 12 feet more trouble than an annual cutting back. high the planter has a far wider range of subjects to deal with than if the wall is double that height. Consideration is also needed as to the particular part of the country in which the wall is situated, for if in the milder places, such as Devonshire and Cornwall, many plants may be grown which have to be included among the occupants of the warm greenhouse further north. With these objects in view I have based the following selection on the material required for a wall 20 feet or 25 feet high, situated in any but the coldest part of the country.

The Planting of Wall Shrubs When about to plant shrubs at the base of wall care should be taken to excavate holes at least 3 feet across and 2 feet deep, filling them with good soil. It is not advisable to procure large plants to begin with, for small ones become established quicker, and eventually outgrow older specimens.

After Treatment

Until the available space is covered it will be necessary, in the case of plants that do not cling naturally to the wall, to go over them occasionally and nail up the leading branches, pruning away all those that are not required. When, however, all the space has been covered, the owner has to decide as to whether his plants are to be kept neatly cut back to the wall or whether they are to hang naturally. The latter way has much to commend it. On the other hand, they take up a lot of room grown in this manner, harbor dirt, attract sparrows, and are often damaged by wind.

Selection of Sorts

Ivy. Although ivy is so common every-

that horses or sheep were in the least injured. It grows rapidly, thrives in both town and each year. Until the branches have covered are not mentioned, but for general purposes country, and gives a good account of itself in their alloted space they should be trained up those referred to will hold their own anypositions where other plants would fail. It also gives little trouble when once established, except a good hard cutting back in April each year. In addition to the common ivy and the stronger growing variety called canariensis. the following sorts are of use: Algeriensis, amurensis and dentata, notable for their very large leaves, digitata, emerald green, caenwoodiana, deltoidea, donerailensis, himalaica and nigra, with comparatively small leaves; marginata major, and Crippsii, with silver vocate the system of clean orcharding. That variegated leaves; and chrysophylla, chrysomela and palmata aurea, with golden variegat-

The Virginian Creeper (Vitis inconstans syn. Ampelopsis Veitchii). As a deciduous shrub the same may be said of this as of the Ivy as an evergreen, for it thrives in almost any position, is ornamental throughout the of the fruit. As it is an established fact that summer, and during autumn is gorgeous by reason of the bright colors affected by the ture ripening and dropping of the fruit, it will foliage. It climbs without assistance, is held

two or three times a year, cutting away the weak points of the shoots in spring; after a good foundation of branches has been laid, however, vigorous pruning in July and again during winter may be resorted to, with the end in view of obtaining short, well-budded spurs, from which an abundance of the lovely racemes of fragrant lilac flowers will be produced during May and June.

Escallonia macrantha. Should a site be available on a south or west wall, this lovely flowering shrub might well be introduced. Although quite hardy in many counties, it is not to be depended on in the open ground everywhere; with the extra protection, however, afforded by a wall it becomes quite safe. As an evergreen it has much to commend it, but its ost pleasing period is during late summer and early autumn, when laden with its short racemes of pretty rose-colored flowers. By pruning the breast wood fairly close back in April the plant is readily kept within bounds. Clematis montana.—Although most of the

decorative sorts of Clematis are valuable, for clothing walls, there is nothing more beautiful than the Himalayan Mountain Clematis when covered with its glittering, starry white flowers in May. A strong and vigorous grower, it thrives under a variety of conditions, and is not subject to the distressing disease that so often proves fatal to the garden Clematises. It quickly covers a large area, forming long shoots annually, from almost every bud of which flowers are produced. To keep it within bounds it is necessary to cut the young wood hard back as soon as the flowers have fallen. Should variety be required, a form called rubens, with reddish flowers, has been introduced from China.

Hydrangea petiolaris. It is curious that this Japanese Hydrangea has not been made more use of in the past for covering walls, for it is of rapid and compact growth, and a self to its support by means of aerial roots after the manner of the Ivy. The leaves are deciduous, but after their fall a rather bright effect is tile and a few larger and more conspicuous sterile ones composing each head. Pruning consists of trimming back breast wood in

The Winter-flowered Jasmine (Jasmium nudiflorum.) A charming effect is produced

by this plant when covered with its pretty golden flowers from December to February. t may be planted in any aspect, and always blooms well. The branches should be cut well back as soon as the flowers have fallen.

The Jasmine. This is the summer-flowering Jasmine, and admired by all on account of the fragrance of its pure white flowers, which are produced over a period of two or three months. It thrives best in a sunny position, and should be well thinned out each spring, taking care to retain a fair amount of young wood yearly. Left to grow naturally it forms a picturesque tangle.

- Cydonia japonica. In some parts of the country this is essentially the cottager's wall plant, and is generally spoken of as "Japanica." Trained against a wall it readily attains a height of 20 feet, and by being kept well spurred back during summer it rarely fails to produce an abundance of scarlet flowers in oring. The variety cardinalis is exceptionally rich colored.

Garrya elliptica. This evergreen shrub does not require very severe pruning to be had in its best condition. It is well suited for planting in the angle of a wall, where it can be allowed a certain amount of freedom. Apart from its evergreen leaves the long, pendulous catkins of yellowish green flowers are very conspicuous in March.

Cotoneaster microphylla. Though it is not usual to plant this against a high wall, it will under favorable circumstances surmount one 20 feet high. It forms a compact green surface, and is very effective in May when covered with white flowers, and again in autumn when laden with vermilion fruits.

This completes the list of twelve of the best subjects for walls. Of course, many first-rate plants have had to be omitted which would be in every way desirable. Roses, for example,

where.-W. Dallimore, in The Garden.

WATERING

What to Do and What Not to Do.

It goes without saying that on most soils ome watering must be done in any ordinary summer, though its necessity may be very much lessened by a proper system of deep cultivation. In one dry summer I had a bed of herbaceous Phloxes, moisture-loving plants, which stood the whole of the drought without flagging, though they were never watered, simply because the bed had been dug right out the previous autumn to a depth of two feet, thus giving them an extensive root run. In another part of the garden of similar aspect and with similar natural conditions, except that the ground had not been so treated, the leaves of some clumps of Phloxes hung limply down the stem for a good part of July and August. This practice will obviate the necessity of watering most herbaceous plants, but of course it is not always practicable.

Annuals and bedding plants generally, however, are different, and whatever method of cultivation is practised, they will suffer from a severe drought, though good cultivation is helpful. In addition to deep digging, a gentle hoeing or loosening of the surface checks the rise of moisture from below and consequent evaporation. This is just the reverse of what happens when surface watering is practised, when, all the water being in the top 2 inches or 3 inches of soil, which is of close nature, it is rapidly evaporated by the sun's heat. The obvious inference from this is that the best thing to do is to water seldom, and only when absolutely necessary, and then do it in such a way that the soil is saturated to a depth of at least a foot-deeper if possible.

This can be done, as regards beds and borders, in two ways. The soil can be very lightly. loosened at the surface, and the water put on with a fine rose at intervals of half an hour during a long summer evening, the intervals giving the water time to percolate down, and lessening the liability of the soil to run together. The alternative is to cover the soil with a layer of short manure and half turn it in, when, the soil being in such a rough state and kept open by little pieces of very porous stuff, it will absorb any amount of water, which may be poured on with as coarse a rose as you possess, the manure feeding the plants at the same time. This is a more satisfactory method than the former, and scarcely takes up more time, while the ground can be watered so thoroughly that it will need no more water for two or three weeks, perhaps not again during the summer if an ordinary, amount of rain falls. For marrow beds, outclinger, fastening itself door cucumber beds, clumps of sweet peas, dahlias and other moisture-loving plants, a different course can be adopted. If a flower pot is sunk in the ground up to the rim with a few pieces of broken pot underneath, water can be poured into it with a pail and it will run into the ground, and there is the satisfacproduced by the brown tion of knowing that nearly all the water will bark. The flowers are be absorbed by the roots, very little of it being in large flat cymes in evaporated from the surface of the soil. This July and August, a is a specially advantageous practice where the goodly number of fer-ground has been raised to make a bed, as for to make a bed, as, for instance, a marrow bed. For some special things which it is desired to water occasionally, such as lilies, a mulching round the stems with light manure partly turned into the surface soil is the best practice, as it lets the water run quickly into the soil, and has not the unsightliness of a flower-pot let into the ground, which, however, does not show among the marrows or underneath spreading things like dahlias.

> Where rain water is available it should by all means be used, hard water, especially very hard water, not only not helping to dissolve the food material of the soil, but caking the ground together to a worse extent than rain water, and shutting out the air, the carbonate or sulphate of lime in the water solidifying between the particles and cementing them together, thus forming a hard crust, in pretty much the same way as the inside of a kettle becomes incrusted by the boiling of hard water, the pure water going off as steam and the solid matter in the water remaining.

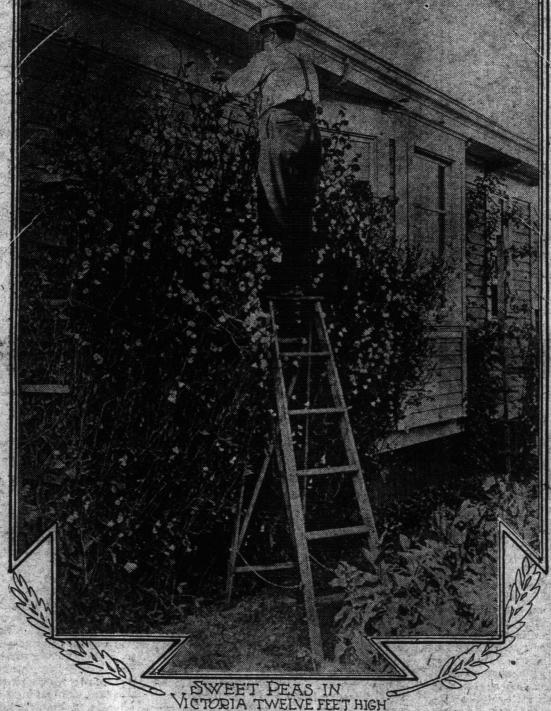
____ SWEET PEAS IN VICTORIA

The sweet peas pictured on this page were grown by B. H. Cross, Toronto street, Victoria and will illustrate the possibilities of sweet pea growing in Victoria. They stood over twelve feet high and consist of five varieties, twenty seeds in all being sown. Mr. Cross is a flower enthusiast, and besides being a sweet pea specialist, has a splendid collection of dahlias and gladiolas, specimens of which we hope to be able to show our readers at some

WHEN TO PRUNE SHRUBS

The best time to prune such shrubs as spirea, mock orange, lilac, etc., is in the summer immediately after flowering, but successful pruning may be done in the winter time or in early spring before flowering has commenced; but great care, must be used not to remove too many flower buds. If pruning must be done confine it to removing the dead wood and any branches which are interfering with one another. Thinning out the young shoots of deutzia during the winter can hardly be recommended.

It will be much better to delay this work until after the flowering season is over.



The Fire Thorn (Crataegus Pyracantha).

This is known better, perhaps, under the simple specific name of Pyracantha. It is a first-rate wall plant, though strictly a bushy shrub. When kept cut fairly close back to a wall its dark evergreen eaves are effective, while it is of neat appearance. In addition to its general, green effect it has two periods of extra beauty, one in May, when covered with its large flat heads of white flowers, and again in autumn

Godlin-Moth-all parts natural size

and winter, when laden with its profusion of rich orange scarlet fruits.

Wistaria. For the front of a house, either where, it must be admitted that it is the most useful of all wall plants. As an evergreen it has the advantage of keeping an otherwise ugly, object sightly throughout the year, while alone or in conjunction with Ivy, the Wistaria