

fruits: For cherries take Early Richmond, Elkhorn, Black Tartarian. Plums—Canada Orleans, Lombard, Washington, Reine Claude, Bradshaw and the Gages. In peaches—Yellow St. John, Barnard, Garfield, Elberta and Smock; one might plant a couple of trees of Alexander and Hates Early. For pears—Duchess, Louise Bonne, Bartlett, Anjou and Clapp's Favorite. Any of the named varieties of the different fruits would give satisfaction.

In planting stock, be sure and trim back the branches, cutting off at least two-thirds of the growth. It is a severe check on the roots to be torn from their union with the soil, and to meet this we must cut back the top growth. Then the roots and rootlets are always more or less broken. In selecting a situation, a fairly good soil should be chosen—and never set trees in a low, wet place. Wet, sour soil is death to any kind of fruit plants. Exercise care in planting, and give careful attention and cultivation thereafter, and your efforts will be met with success. JOHN B. PETTIT.
Wentworth Co., Ont.

The Gladiolus.

BY FLORIST.

The average farmer does not, as a rule, believe in spending much time in propagating or cultivating the beautiful flowers. He looks upon them as a sort of luxury with which he cannot find time to meddle, and although he enjoys seeing a beautiful bouquet adorn his table, he does not appreciate them enough to take part in the labor necessary to bring them to perfection. As a consequence the work of preparing the flower beds and propagating and cultivating the plants falls to the lot of the wife or other female members of the family. Few are the farmers' wives who find any great amount of time for such labor, and as a rule they have to snatch every little opportunity to make use of the spade and rake; in fact, engage in work which is too heavy for them, and at times when they are already almost exhausted from their household tasks, and should be resting before starting other duties. Under such circumstances women generally try to select such flowers as will give the nicest bloom for the least amount of labor. There is nothing in Flora's kingdom so easy of culture as bulbous flowers. That round of planting tiny seeds, thinning out, transplanting and replanting does not have to be gone through with to bring about the desired results, but once carefully set and a little care after will bring satisfaction in the way of bloom.

Chief among the summer-flowering bulbs is the gladiolus. It is the summer flower for the masses. From its great richness and brilliancy of color, of almost every shade, it is one of the most beautiful and striking flowers in cultivation, and is every year becoming more popular, and as the newer varieties are better known, no lover of flowers will be without them. They embrace great variety, both early and late, and as a consequence the flowering season extends over a great part of the year, from June to November. They are easily grown, any fair soil will be suitable, and the conditions must be extremely unfavorable under which the gladiolus will not thrive. While the gladiolus will thrive in almost any soil and bloom under adverse conditions, it is like all other plants in that it will give the greater satisfaction for extra care given it. For best results, it should be planted in a sunny situation, in soil that is quite rich, and worked mellow as deep as can be done with the spade. The richer the soil the larger will be the spike, flowers and bulbs, and it also deepens the colors. Gladioli thrive best when kept well supplied with moisture, consequently should be well cultivated so as much moisture as possible may be kept in the soil.

Gladioli may be planted in clumps, in solid beds or in long rows, and the depth to be set depends upon the nature of the soil. If the soil be heavy, three inches from top of bulb to surface of soil is quite sufficient; while if the soil is very light, six inches is none too much. When planting in rows, open a trench the desired depth, place the bulbs root side down, about three inches apart, then carefully draw the soil back into the trench, covering up the bulbs. When doing this, care must be taken not to allow any lumps to rest upon the crown of the bulbs, as it would cause the stalk to shoot out to the side of the row in the way of cultivation. If to be planted irregularly, use a trowel and make a hole large enough to allow the bulb to go to the required depth, and be sure the bottom rests upon the soil under before covering, and never allow any manure to lie in contact with the bulb, as it is almost sure to cause it to rot. In this case plant from four to six inches apart. Gladioli may be planted as soon as the ground can be worked in the spring. They come into bloom between two and three months after planting, much depending upon the nature of the season. It is a good plan to make three or four plantings, at intervals of about two weeks.

If desired, the spikes may be cut as soon as the first flower at the bottom is fully expanded, and put in a pot of fresh water. In this way every bud will open out perfectly, and sometimes a single spike of bloom will last nearly two weeks. Change the water and break off withered flowers every second day. A very pleasing experiment is to place a spike of white bloom in a bottle of ink, or in a bowl in which has been dissolved a part of a package of dye of any shade. As intimated before, the gladiolus loves moisture, and where only a few are grown it would pay to water liberally, but keep the ground loose. Neat stakes might also be used where but a few are grown, to keep the spikes from being

blown over and ruined by the wind and rains. Before hard freezing in the fall the bulbs should be lifted, the soil shaken off the roots, and the top cut off close to the bulb. They should then be put in some open shed, away from frosts, to dry for a few weeks. Then pull off the roots and old corm and place in thin layers in any receptacle, and store in a cool, dry place where they are sure to be free from frost, and keep for replanting the next spring.

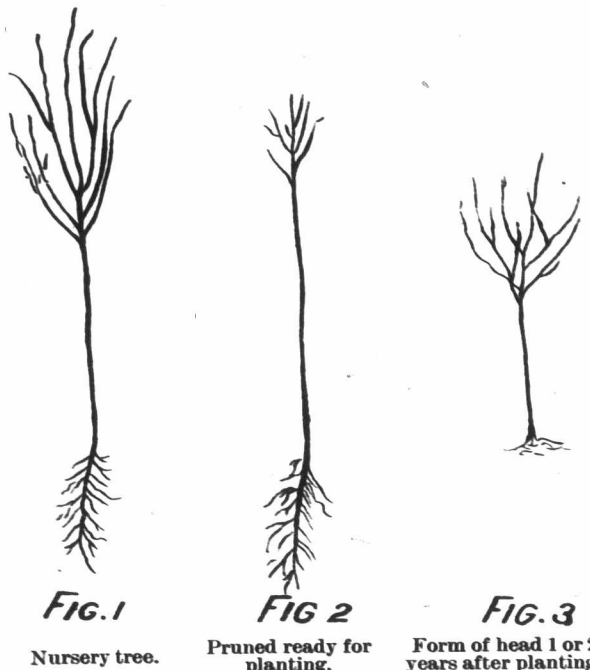
There are hundreds of named varieties of gladioli, many of which are extremely beautiful. There are also many mixtures sent out by reliable growers and dealers which give entire satisfaction. The general public would probably feel better satisfied with these mixtures than with the named varieties, which are often quite expensive. However, there is nothing like having the best.

Orchard Culture.

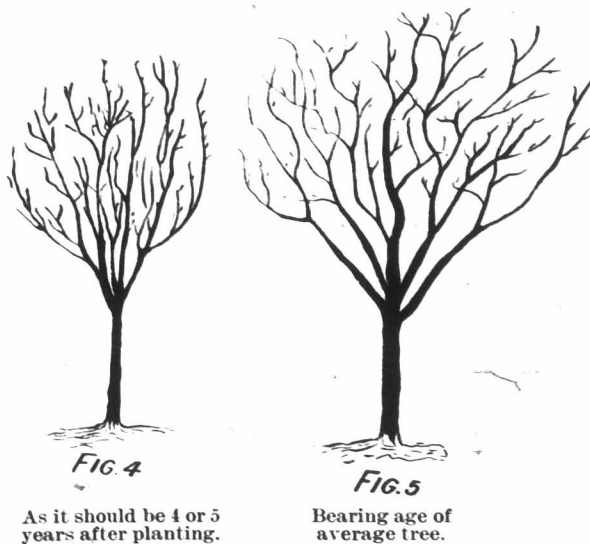
BY G. C. CASTON.

PRUNING.

The pruning of fruit trees is a subject about



which there is some controversy and difference of opinion as to how to do it and when to do it? The main objects in pruning is to keep the tree in proper shape and symmetry, and keep the top open to the sun and air. The practice of shortening in, to form a compact head with strong limbs, is used mostly with plums, pears and peaches. This system is seldom used with apples. The proper way to prune a tree is to begin when the tree is planted, and follow it up every year as the tree grows, using good judgment in shaping the top, keeping it in proper shape, removing the surplus wood a little every year, so that there will be no need of cutting out large limbs as the tree grows older. As orchards require cultivation in order to do well, the heads of the trees should be kept well up, and the time to do this is when they are young, cutting out



limbs that are inclined to droop. There is little danger of getting the heads too high, as they will come down low enough when loaded with fruit. A tree should be pruned so that the fruit is distributed as evenly as possible all over the tree. Some of the so-called professional pruners begin at the base of the limb and strip it out nearly to the end, leaving only a wisp of brush at the outer end. The upper surface of the bark is exposed to the hot rays of the sun, and the limb resembles a cow's tail more than anything else. This is a detestable practice. It is not pruning, it is spoliation. As to the time of year, I prefer to prune after growth has started. I do not approve of pruning when the wood is frozen; that is positively injurious. Where a large amount of pruning has to be done, it is a difficult matter to get it all done just at the right time, but for my own satisfaction I have made experiments in pruning at different seasons of the year, and have found the

best results from pruning early in June. Wounds made by pruning at that time will never bleed, and will immediately begin to heal around the edges, and by the end of the season will have made considerable progress in healing. Wherever it is necessary to remove a good-sized limb, the wounds should be kept covered with grafting-wax to exclude the air and prevent exposure to the weather while the healing process is going on. With attention to annual pruning and the exercise of good judgment, it will seldom be necessary to remove large limbs. The cutting out of large limbs should be avoided as much as possible. Some varieties that are of an open, spreading habit of growth, such as Duchess or Talman Sweet, require very little pruning, while others, such as Spy and Russet, require considerable thinning. There is no more pleasing sight to the eye of the experienced fruit-grower than a symmetrical, well-pruned tree; and no one should undertake the work without a proper knowledge of the ideal aimed at, and the results sought to be obtained by the operation. In addition to a good pruning saw and pair of pruning shears, a folding stepladder should be provided, and most of the work should be done from the ladder. A man should not be allowed to get up in a tree with a pair of thick-soled boots on; he should have rubbers or shoe-packs for that purpose, more especially if summer pruning is done. And here, in closing the subject of pruning, let me summarize a few of the main points: Begin when planting the tree, and cut the top back sufficient to balance the roots; afterwards, a little every year. In spreading habits of growth, prune to direct an upward growth and keep the tops well up. Keep the tree in proper symmetry; keep the top open sufficiently to the sun and air, but don't cut out all the center and leave the limbs exposed to the sun. Have the foliage and fruit evenly distributed over the tree. Fruit will lack flavor if not well colored. To get full color and perfect flavor, it must have air and sunshine. Plums and other fruits that are inclined to load heavily, require to be shortened in to form a compact head and strong limbs to carry the load, but the tops should not be too close. Finally, get the right idea of the object in view, the why and wherefore, then use good judgment and do it right.

Scale Insects: Aphis.—Though the dreaded San José scale is believed to be confined as yet in this Province, to a limited area of Southern Ontario—and let us hope it may spread no farther—yet we have another scale insect common to the whole Province that does considerable injury to apple trees, often, where not attended to, stunting the growth of the trees. This is the *Oyster-shell Bark Louse*. The young lice may be seen coming from under the shell about the first week of June and spreading over the bark and up on the new growth of the terminal limbs. They insert their tiny bills and suck the juices of the bark; finally they form a scale-covering over their bodies, in shape like an oyster shell, and from this shell a large brood issues the following year. They differ from the San José scale, in that they are not nearly so prolific. The female lays eggs from which the young are produced, while the San José produces living young. The oyster-shell louse is found plentifully on the trunks of young trees, and on older trees they spread out on the smaller branches. A good strong alkali wash will remove them from the trunks and lower limbs wherever they can be reached with a broom. The best thing I have tried is lye made from hardwood ashes. Take lye that will float a potato, and dilute with water till the potato sinks. This will do for large trees; for young trees, dilute a little more. Use a birch broom and dip it in the lye and scrub the trunks and limbs. This gives the bark a smooth, healthy appearance, and removes the bark lice and other insects and prevents the borers from depositing their eggs in the bark. These usually deposit their eggs in the bark near the ground about the first week in June, and a timely application of the alkali wash is one of the best preventives of this troublesome insect. Prof. Macoun, of the Ottawa Experimental Farm, reports having been entirely successful in removing the oyster-shell louse from the branches and twigs of the apple trees, where they cannot be got at with the broom, by spraying the tree tops in early spring with whitewash.

The Aphides.—Small green and black lice that are found on the under surface of the leaves of the terminal growths about midsummer. They often do serious damage, more particularly to plums and cherries, but are often found plentifully on young apple trees. As they are suckling insects, they must be treated with something that will kill them by contact, such as whale-oil soap or kerosene emulsion applied with a spray-pump. The best time to deal with them is when they are hatching out in the early summer. The eggs are laid in the crotches of the small twigs, and it is easier to destroy them then than when they have spread to the leaves. The Spramotor Co., of London, Ont., have perfected an attachment to their pumps that mixes the kerosene with the water, makes the emulsion, and applies it at the same time. The percentage of kerosene can be controlled by means of a gauge. This apparatus simplifies the work of making and applying kerosene emulsion.

And now, in closing the subject of orchard culture, I hope I have not written in vain, but that what I have written will be useful to someone, and that to some extent, at least, it may result in better care, better cultivation, and if so, better results are sure to follow. I have endeavored to point out what I believe to be the chief causes of unproductive or-

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