

GARDEN AND ORCHARD.

Apple Trees Among the Nova Scotia Granite.

BY AN OLD FARMER.

On land thoroughly drained and the soil of sufficient depth, apple trees are found to flourish and bear equally as well among the granite rocks as those planted on land free from stone if given the same care in pruning and protection from the cold north wind. Thousands of acres of such land could be made profitable in growing apple trees where clearing off the rocks would cost more than the land is worth for tillage. On many farms throughout the Valley of the Annapolis a large portion of the land is rocky, where among the rocks is found the very best of soil for the growth of apple trees. Many of our young men, instead of leaving to seek employment in a foreign land, would find it more profitable to occupy their leisure time at home in clearing and draining the land and planting an orchard of apple trees, to accomplish which very little money is required, say from five to ten dollars per acre for the land, and with his own labor could do all that is required to give him an orchard that in ten years would produce nearly a barrel of apples for each tree, and in twenty years, with proper treatment, five or more barrels each.

How to Plant.—In setting out young trees, cut off the tap root, if any, and set the tree on the surface level and haul sufficient earth (sandy loam is best) and cover the roots a foot or more, and annually after the tree has started to grow spread two or three inches in depth of loam or bog mud around the tree as far as the branches extend to replenish the soil that has been washed away by the rains and protect the roots in dry weather.

The best trees are grown by planting the seed where you want the tree to grow, and whether the seed is planted or young trees set out there should not be less than forty feet space between them, so that they may attain full growth without shading the whole ground, as they require the warmth of the sun to ripen and flavor the fruit; but many persons favor planting nearer, and say they will do equally as well for a number of years and bear as much per tree, and when they are grown so as to shade the ground, cut some out and leave sufficient room for the others to grow. But seldom, if ever, is the man found with the courage of his convictions to cut them down, but leaves them to encumber the ground without producing good fruit.

Pruning.—Start the tree with not more than three branches about five or six feet from the ground and prune so as to form low and spreading branches. Cut out all the suckers and limbs that cross each other and chafe the bark, and keep the tree well thinned out annually so the sun may shine on the fruit, which very much improves its flavor. Any time is better than no time, but April is a good month to prune, when the frost is out of the wood and before the buds start; it then has the whole season to form a new growth of bark where the limb was cut off.

Cultivation and Fertilizer.—If sufficient net wire is fastened to stakes around the trees to prevent the hogs from injuring them, and they are allowed to root up the ground, the trees will not require any other cultivation or fertilizers.

Pruning the Orchard.

Perhaps no department of the farm is receiving more consideration at present than the apple orchard. That it should be pruned occasionally goes without saying. The time and manner of doing the work is worthy of careful consideration. With regard to the proper time for pruning, an old adage says: "Prune in winter for wood, and in summer for fruit," and probably no better rule can be given. The *Canadian Horticulturist* says that the philosophy of this is explained by the fact that anything which checks the wood growth of the tree tends to the metamorphosis of leaf buds into fruit buds; and, on the contrary, that which favors wood growth lessens that tendency. Thus, while a tree is young and growing rapidly, it produces little or no fruit; but when it has attained a certain degree of maturity, and grows less vigorously, it begins to produce fruit. On the same principle, a tree that has been girdled will often be overloaded with blossoms, though not yet of the usual bearing age, or limbs which are artificially bent down will yield fruit before the other limbs of the same tree. Now, summer pruning checks the growth of the tree, and therefore tends to increase its fruitfulness. By it the foliage is removed just when it is in active operation, taking in from the atmosphere carbon

and otherwise transforming the crude sap into a suitable liquid for building up the cellular tissues of the tree. To a limited extent this may be done in safety, but done too freely the tree will be some time in recovering its strength.

In favor of the summer time it is urged that wounds made then heal more readily than when made in the winter; but perfect healing will also follow winter pruning, provided the wound is properly protected from the air and moisture by paint or varnish. Generally speaking, summer pruning should be done from the middle of June to the middle of July.

A caution which the *Horticulturist* notices is never to prune in spring after the buds begin to swell and the first growth is pushing, for the sap, being active and not yet sufficiently matured for healing the cut, will leak, and this so-called "bleeding" will continue for a long time.

The proper manner of pruning is perhaps of more importance than the time of doing it. It is altogether a bad custom to neglect to prune until the limbs are very large or to cut them out in such a way as to leave a stump sticking out from the trunk. When dead stubs are allowed to project from the trunk they are almost certain to decay right back into the body of the tree, thus sooner or later rendering it hollow or rotten-hearted. Large limbs should never be removed, if possible to avoid it; but if necessary, they should be sawed as closely as possible to the trunk, and the wound should be immediately covered with some preparation which will exclude the air. Various preparations have been recommended, as a coating of thick paint or coal tar of such consistency that it may be applied with a brush. A satisfactory preparation is made by taking a quart of alcohol and dissolving in it as much green shellac as will make a liquid of the consistency of paint.

8th its leaves showed some brown spots, which soon gave the foliage a draggled appearance. The fruit continued to look well until August 8th, when the branches were bending with the load they carried. The fruit fell from the tree largely from the middle of August until the middle of September, when an excessive drought was experienced. The picked apples which showed no rot, taken from the tree on September 19th, weighed 43 pounds and numbered 416. Forty-eight per cent. of these had been attacked with codling moth. The rotting apples numbered 117, of which 61 per cent. were injured. We might add that several other trials all resulted in favor of spraying, some of them even more strikingly than the one illustrated herewith.

Planting Evergreens.

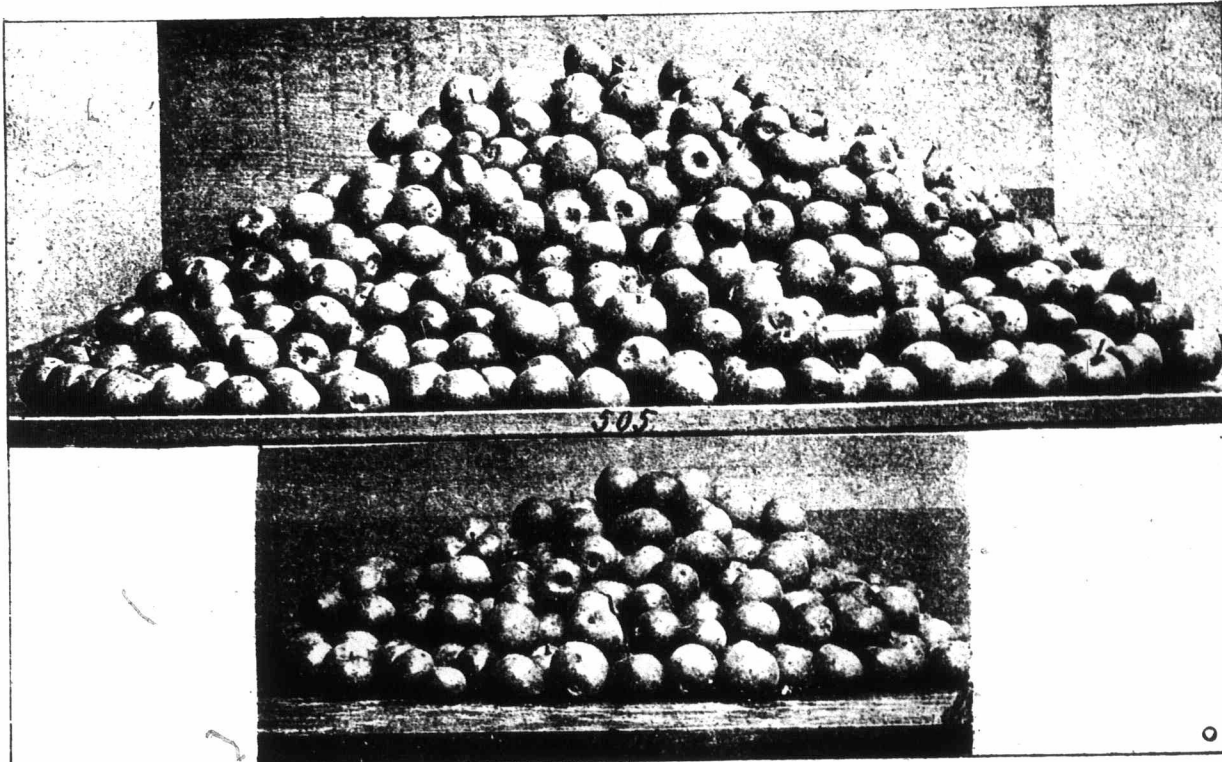
In passing a farm where the owner has appreciated the value of trees to such an extent as to decorate his homestead with them, one at once becomes anxious to learn who this well-to-do, sensible man is. And yet how few, comparatively, take the trouble to go and do likewise. It requires no persuasion to convince one that a lot tastily decorated with evergreens and deciduous trees is more beautiful, more comfortable, and much more valuable, if put upon the market, than the bare homestead, having few if any more trees than those of the fruit orchard somewhere out at the back. Why this is the case, every man owning a farm bare of ornamental and shade trees will be able to answer for himself if an answer is desired. This and other countries are recognizing the importance of more attention to this work, and have established "Arbor Day," which we regret is not more practically recognized than it is, although the extent to which it is observed cannot but prove a great benefit within a very few years.

It goes without saying that no "front" is at all perfect without at least a few nice, shapely evergreens. We do not approve of stiff moulding and trimming trees into monotonously uniform bunches; neither is a loose, straggling, sprawling evergreen a thing of beauty.

Hedges are entirely becoming and always admired, and, of course, must be kept trimmed. Now, to obtain a cedar or spruce hedge is not a difficult nor expensive matter. First of all the ground must be prepared in much the same manner as it would be for fruit bushes, or even for a corn crop, by cultivation and manuring, so that a fine, mellow, rich tilth is obtained. This can be done at leisure some time before the planting is to take place. While the worth of a beautiful hedge surrounding a lawn or bordering a walk is fairly well recognized, its true value when on the north and west sides of a fruit garden is not appreciated to nearly its full extent. Not only does it protect fruit bushes from bleak and destructive winds, but it also prevents the forming of heavy snowdrifts, which are so destructive to currant and berry plants and bushes.

A very fine pair of cedar hedges on the farm of Thos. Baty, near London, Ont., which have only to be seen to be admired, were planted and cared for in the following manner: The ground had been plowed the fall previous to planting, and furrows left where the hedge rows were to stand. Immediately after spring seeding, a cedar swamp was visited, where young cedars from 18 inches to three feet high were pulled up and hauled home on a hay-rack. They were planted the following day about a foot apart in the row. The larger plants were trimmed back to about the height of the lower ones, and these seemed to grow the best. A number that were over were planted in a block in the garden and used the next spring to replace those that had died. The ground on each side of the row was hoed the first year and mulched the second. The hedges took care of themselves after that, except that they have been trimmed once a year. Another equally good hedge in the same county was treated much the same, except that it was planted towards the end of May. It is preferable to secure the young trees from fairly high ground. Many persons will require to get nursery-grown stock.

The value of windbreaks at the north and west sides of outbuildings and residence can be appreciated to their full value only when lived behind for a time. A single or double row of Norway spruce answers exceedingly well for this purpose. They may be set out in either spring or fall, but the ground should be fallowed some time before the time of planting. A few hours with a team three or four times in the season will put the ground in



505—Apples picked from sprayed tree—weight, 135 pounds. 506—Apples picked from unsprayed tree—weight, 43 pounds.

As to the form in which to shape the tree, it is well to study the natural habit of the tree, and prune to favor that, some sorts being spreading, others pyramidal. Begin the work after the young trees are set out, and continue year by year removing the suckers and small branches that threaten to cross others or make the head too thick. A too common practice is to leave trees till nearly of mature size and then begin cutting out large limbs, a system of reckless butchery that soon leaves a decrepit, dying orchard.

Spraying vs. Non-Spraying.

To spray or not to spray is the question which many orchardists are debating in their minds this season. The accompanying illustration is a grand object lesson, showing the difference between the product of sprayed and unsprayed apple trees growing side by side in 1895, as much alike as possible in everything but spraying. The cut is reproduced from Bulletin No. 59, on spraying experiments in 1895, conducted by Kentucky Agricultural Station.

The trees were of the Ben Davis variety, of medium size and very thrifty. The tree from which the apples represented by Fig. 505 were taken was sprayed after much the same fashion as is recommended in the spray calendar published in April 15th issue of the *ADVOCATE*. From this tree 1,351 apples, not rotting, and weighing 135 pounds, were picked September 20th; 248 (18 per cent.) were mined by codling moth. Of rotting apples, 335 were taken from the tree, and 130 (39 per cent.) of these were injured.

The tree from which the apples represented by Fig. 506 were taken bore more apples than the sprayed tree, but lost most of them before picking time. During the fore part of the season its leaves and fruit remained in better condition than that of other unsprayed trees. On June 8th its leaves were unspotted and its apples sound. By August