

Veitch's Virginian Creeper, a pretty, small-leaved kind, labelled *Ampelopsis Veitchii*, showing in its leafage a number of colours,—tints of blue, light green, and purplish red; what colour it will die of in autumn remains to be seen, but in its summer growing garb, it is quite a gem. This was exhibited climbing to a miniature wall, built up in the pot the plant was in, to accommodate its habit of clinging to a rough surface. The Common Virginian Creeper (of which the novelty is a variety), is the most commonly used and most ornamental creeper for houses and verandahs on this continent, and is quite hardy throughout the Dominion. If *A. Veitchii* is equally hardy, it will soon be seen creeping up the front walls and fences of our rural homes. Hovey's Magazine thus writes of it:—"This is a miniature foliage variety of our Virginian creeper, which clings to any building with the tenacity of the strongest ivy, and, producing in great profusion its dense foliage of a glossy green shaded with purple, cannot fail to command great attention. It is of exceedingly rapid growth, and requires no nailing, and from earliest spring it produces its beautiful purple-tinted leaves so thickly as to form the most perfect coating wherever it is planted, the young shoots being quite purple. The leaves are sometimes divided into three parts, and are sometimes entire, turning red in autumn, similar to the old kind. It was introduced by Messrs. Veitch, and long received first class certificates and prizes at the great shows in London."

It is a pity that more use is not made of another beautiful creeper, which is easily got, viz., our Virginian Clematis, which is perfectly hardy, and so very beautiful both in summer and autumn, that it attracts the attention of all visitors to the Rifle Range at Bedford, where it is perfectly wild.—seeking to cover with its foliage and feathery festoons the naked stone walls about the camp.

The Orchard.

APPLE CULTURE.

The Fruit Growers' Association of Ontario offered a prize for the best Essay on the Cultivation of the Apple in that province, which has been published at length in the *Toronto Globe*, and from which we select a few of the more prominent practical hints.

In relation to the profitableness of an orchard, some editorial remarks in the *Canadian Farmer* will be found most conclusive. "Take a piece of ground containing 20 acres; it will require, to plant it 40 feet apart each way, 600 trees. These can be had of the best quality for \$20 per hundred. Planting say \$40, cost

of cultivation \$150 per annum, rent \$8 per acre. The expenses of the first year then will be \$470, for each succeeding year \$310. At the end of five years we will have expended \$1,710. The fruit will be worth the 6th and 7th years, 25 cents per tree, for each year, the 8th 50 cents, the 9th \$1, the 10th \$1.50, and the 11th \$2. This very moderate estimate will give at the end of the 11th year, cash received \$3,300, cash paid \$3,570, leaving a balance of \$270 against the orchard; another year's crop, or \$1,200 will cover this, and any unforeseen expenses." We have thus an investment which has not only paid itself at the end of 12 years, but has also given an annual rent of \$8 per acre. The article above quoted goes on to show, that not only will the orchard give after this a clear annual income of \$1,000, but also that there is no danger of depreciation in the value of apples, but a probability of its enhancement.

No one who gives attention to these candid calculations, can doubt that in a large portion of Ontario the elements of wealth are suffered to lie dormant.

The selection of a site will require the exercise of judgment. The best soil is a clay loam, with a warm not too tenacious subsoil, and good natural or artificial drainage. Other soils may be made to produce good results however, by proper management, enriching the sandy, and thoroughly working and draining the tenacious clayey soils. It should, if possible, be in such a position as to be free from all danger of being infested with insects from contiguous orchards. It is also desirable to have it well fenced, not only to keep excursive animals out, but also to be able to keep pigs, &c., in it, which are very useful in a large orchard.

The best exposure for tender sorts, and in the colder parts of the province, is undoubtedly the South, but in most localities any exposure will be found to answer, especially if a row of trees protect the orchard on the side from whence the prevailing cold winds come. The matter of protection is of more importance than is generally supposed, and will increase the value of an orchard 25 per cent.

It is an entire mistake for the general orchardist to plant a large number of different kinds; the amateur, the nursery man, the one for curiosity, the other for trade, may plant many varieties, but for profit, there is nothing like one or two leading kinds.

It is a very important point to get trees from a reliable party. The price is altogether a secondary matter. What sensible man would hesitate to give for first class trees, "true to name," 5 or even 10 cents more per tree than he would for trees which might turn out to be the finest of Newton Pippins, or with at least equal probability the most insipid of pumpkin sweets, or something worse; and I would

say, having dealt with both Canadian and American nurseries, I find the Canadian to be much the more reliable; among these may be mentioned, as leading and excellent establishments, the St. Catherine's, Toronto, Windsor, Hamilton, and Paris nurseries.

When the trees are received, if from any cause it is not wished to plant immediately, they may be heeled in, by simply digging a trench, laying them in in a sloping position, and covering the roots with earth.

Pruning, in order to become proficient in it, requires a good deal of practice, combined with close observation, but by careful attention to the ends sought to be attained, any one can achieve a gratifying amount of success in this, one of the most important, as it is the most neglected, of the duties of the orchardist.

Grafting succeeds best when done just before the leaves appear. The scions should be cut a month before using them, packed in damp moss, and laid in the cellar, or one end inserted in the ground about two inches.

Grafting wax is generally used, and may be made as follows:—Beeswax 3 parts, resin 4 parts, and lard 3 parts, these well mixed while warm. But grafting clay, when properly made, is fully equal to the wax, and is generally more easily prepared. It is made as follows:—Clay loam, 3 parts, fresh stable manure, 1 part, add a little salt to prevent it cracking, and mix it well a few days before using.

Whip grafting, which is commonly used on small stocks, is performed as follows: The stock is cut off at the place where it is desired to graft, then a clean slanting cut from one to two inches long made in an upward direction; a small cut should now be made downward in this cut so as to form a tongue in the centre of it, the scion should now be cut in the same manner, making the slanting cut if possible with one stroke of the knife; form the tongue so as to fit the other, then placing them so as to meet the bark exactly, tie them round (with bass strings or woollen yarn), and clay or wax them carefully over. On one side at least, the bark should meet nicely; they must be firmly tied, and every part of the wound covered with the mixture.

Cleft grafting (for larger stocks) is done by splitting the stock, inserting a scion at each side of the stock, and then waxing it over. The scions should be cut wedge shape, and a little thicker at the out edge.

It is best, in grafting trees, to graft one half one year, the other the next, thus avoiding the risk of destroying the tree in one year.

If the grower carefully harvested and marketed his apples, and considered that the interests of the public were identical with his own, not only would he save a