deep, unless in underdrained clayey subsoils, as before stated. If the subsoil is bad, it should be thrown out, and rich earth or compost, put in the place, in which the tree should be planted, so as to be not more than an inch deeper after the soil has settled, than it was in the nursery; and as the earth is filled in, the tree should be gently shaken, so as to make the fine earth fill up all the interstices about the roots. When the hole is about two thirds full, the earth should be trod around the roots to firm the tree, and if in spring, a bucket of water should be thrown into the hole, which will cause the earth to settle equally about the roots. The rest of the earth should then be filled in loosely, without further treading; and if the tree is in an exposed situation, or large, it should be staked to keep it from blowing about; if in sheltered situations, and the trees are small, they will not require staking. I have never staked a tree I planted yet, and have found no need of doing so. Where necessary, the stake should be placed slanting, and tied to the tree with a straw rope, or other soft bandage, which should be wound two or three times round the stem of the tree before tying it to the stake, to prevent injury from rubbing.

After the trees are planted, the soil should, for several years at least, be thoroughly cultivated with root crops that require manure, such as potatoes, beets, carrots, turnips, and other vegetables; but care must be taken in planting these crops, not to have any of them within three or four feet of the trees. I have seen a fine young orchard, planted with great care, nearly killed the first year by a foolish greediness in allowing the hills of potatoes to be planted close up to the tree. This space round each tree should always be kept free from all crops, and regularly hoed and dug, for if large weeds are allowed to grow up round the trees, they are as hurtful, or more so, than crops, or grass. When necessary, from any circumstance, to lay the orchard down in grass, a space of from six to eight feet in diameter, according to the size of the tree, should be kept clear of grass and weeds, by digging and hoeing repeatedly.

In no case should grain crops be sown in an orchard, as they are the most injurious that could be put in it.—Indian Corn might be planted but it must be kept a considerable distance from the trees, and it is not nearly so good as low hoed crops. After the trees commence bearing, it would be found far more profitable to cultivate the ground regularly without planting any crops; the increased product, both in quantity and quality, would well pay for the labour, and I cannot see why it should be considered that the crop of fruit is the only one on the farm that will not pay for separate cultivation.—*Montreal Witness.*

ROOT GRAFTING.

This method of propagation is admirably adapted to hardy, thrifty varieties of apples, pears and plums, and as such is perhaps the most popular in the Horticultural world. *Tender or unthrifty sorts, however, should never be so worked at the West*—such varieties in our climate need all the additional vigour and hardihood, to be gained by an exchange of their own stocks and roots for those of seedlings. In grafting wild plums upon wild plum stocks, the graft should always be below ground a few inches, so that it may throw out roots of its own. If set low at first, but not low enough, the tree should be taken up and set deeper afterwards. If this is not done, the tree, we think, will be comparatively tender or shortened. But it is, with the apple tree more particularly, that root-grafting obtains and shines forth in all its glory. That variety alone, so far as we know, is so worked in the winter season and kept in boxes till spring, at the usual grafting season.

We subjoin the usual practice in root-grafting, as given in an article written by us three years since for the Horticulturist, with, however, some few alterations. When ready to commence operations, take a lot of roots, as many as are wanted during the day, and cut them up in pieces three or four inches long—never longer—marking the upper end of the roots when necessary, in order to distinguish them, and throw the pieces into a pail of water. If desirable to cut close, the upper piece need not have more than an inch of clear root upon it. In regard to size, they may vary from that of the scion, to an inch or more in diameter—but the best size, perhaps, is about three-eighths or half an inch thick. When the roots are cut they should be washed by stirring and turning them a few times in the pail, and changing the water once, leaving them when washed in the water.

After marking the name of the variety to be grafted, upon a little stake eight or nine inches long which should be kept constantly with that variety, and in boxing put between it and the next kind—two or three hundred grafts are prepared ready for setting and piled up. They should be from three and a half to four inches in length, and with a tongue, as in splice grafting—the cut or slant at the grafted end of both the scion and root, not exceeding about half an inch in length. After taking out a quantity of roots, and piling them up with the lower ends towards you, they are then, one by one, prepared with a tongue and the grafts inserted.

They should now be waxed, or tied, ready for packing away in the boxes. If waxed, they must be previously spread out so that the outside moisture can dry off. The wax is made by melting and stirring together four parts rosin, one and a half beeswax, and one of tallow—to be applied while in a fluid state, with a shaving brush, which is neatly and quickly done. If preferred, they may be tied with tow or bass strings, or corn husks.—This we think quite as good a way as any, though perhaps not so speedy as the other. They are now ready for the boxes, which should be about twenty-four inches long, twelve wide, and five and a half high on the inside, and need not be very tight. Such a box will hold from 600 to 1,000 roots, according to their size and the closeness of packing. Fill the box partly full of fine earth, and pack some snugly against one end; then take a handful of the root-grafts, and after evening the tops, set them up slanting against the earth, beginning at the right hand side of the box, having the tops an inch or two above it. In order to get the tops even, and keep the tiers separate across the box, a thin, narrow strip of board is placed behind each tier. After placing a row, the dirt should be worked among the roots and packed snugly against them, using a little punch to jam down the dirt behind, each tier and next the box. There need be no fear of disjoining the grafts in boxing, unless handled very roughly. When the box is full it should be set away in a cool, dark, moist cellar, or place where they will not freeze, nor the mice get at them.

They should be planted out as early as the ground will admit, though we have planted them as late as the middle of May, but not with so good success. The best stage, we think, for planting them out is when the buds have burst, and the young shoots have fairly started—but have set them when they had grown several inches. A week or two before putting out they should be exposed to the light and air, and well watered. Should the cellar where they are kept be very dry, they might require watering in the winter.

In planting out rub off all the shoots from the roots, and set in good, mellow soil, with the top of the scion an inch or so above the ground.

Root-grafting, as above, can be done at any time during the winter. The regular day's work is 500, which, however, under favourable circumstances, is an easy task. In case the roots or scions cut during the day, be not all used the same day, they can be kept over night in the water.—*Wisconsin Farmer.*