

## GRAFTS AND GRAFTING.

MR. EDITOR,—The premium grafts came duly to hand of one yearling Russian, or Cossack, apple. I cannot tell whether they are true to name; if they are, and the fruit is as long as the name, we shall want a corn basket and wheelbarrow to get each one to the cellar; neither can I tell what quality they may prove to be, as I have no dictionary large enough to pronounce a word so long, or give any derivation or root to even guess at its meaning. However, as it is time to top graft, I avail myself of the privilege. I cut off close to the little root, and save one bud to make my tree, cut up my wood in pieces of three buds each, and set nine limbs in an old tree that was called Powell's Beauty, which, in due time, will prove what the quality is like. As I have had much experience in grafting, having practised it for over forty years, I still have a strong desire to continue testing new varieties as they come along; which in this age of the world are making rapid strides. Our collections are getting large, and the most cultivated fruit grower is almost at a loss at times to determine what to plant.

I need not speak of the method of inserting grafts, as there has been so much written in books, journals, and horticulturists, that the few hints I may offer might not be of any farther service. I think the way the grafts are located in limbs has much to do with insuring a good result.

May I here say it is a law of nature that all overtopped limbs (no matter how close or high above ground) shut in from the sun, *invariably die*; and without securing the uppermost limbs of the tree to insert scions, such as have plenty of sunlight without having large and healthy limbs still over them, to rob your scions of their food, as the sap or food of the tree *rises* more vigorous

and in greater supply to the *highest growth of the tree*.

Grafting one limb under another is of but little worth. My rule is not to cut a limb over two inches in diameter, keep well out, one inch to one and a half inches is the best size, the wound will sooner heal; the limb will then give with the weight of fruit, and not break off so easily. I have inserted three hundred scions in one tree, some twenty to twenty-five feet above ground, and in three years had a full top with quite a crop of fruit. In later years some of the grafted limbs had to be taken away, as I set thickly and cut away the remaining portions of old wood piecemeal, so as not to check the growth too quickly; as the after care of the scions is by far the most important to preserve branches enough to take up the flowing sap, and not undermine the constitution of your tree, but keep it healthy and vigorous. When you have inserted grafts sufficient for an entire top, the original branches will receive a tremendous impetus to grow. The grafted stock will sprout profusely and soon choke out the scions and stop their growth, too much cutting and pruning them will injure the tree, often to cut or head back branches without removing entirely, leaving the leaves on the branches, not covering up the scions. They need looking after through the months of July, August and September.

The following spring cut back to eight or ten inches, and at intervals through the summer arrange your limbs for bearing by not allowing them to grow too thickly together, and removing part of old wood were not needed; second year, head back again, and remove all old remaining wood from the tree.

As to the varieties for top grafting, I would not take a slow growing