

unsightly by the white crust it makes on the surface, unless the earth is stirred with a trowel, to let it sink into the soil.

Both of the above are valuable in the vegetable garden; also, for cabbage and egg plants, artichokes, &c.

Preserving Buds and Grafts.

The mode suggested by T. G. Yeomands, of Walworth, New York, of preserving the scions of fruit trees in moist saw-dust, has proved superior to any other. It is better than damp moss in the facility with which the scion may be perfectly embedded in it, leaving no interestices, and it exceeds moist sand in being lighter, more spongy, and entirely free from a grit which may injure a knife. We have without any difficulty preserved scions, which were cut in the summer, for budding, till the following spring, and inserted them as grafts with entire success; and we have kept water-cut grafts till midsummer perfectly fresh, and employed them successfully in budding. A bushel of saw-dust will retain its moisture for many weeks nearly unaltered; but water must not be applied too copiously, or water soaking and decay will be the result. The north side of a building, or a cellar, is the best place.—[N. Y. Farmer and Mechanic.

Disbudding is the art of preventing the development of useless buds at the expense of those which should be preserved; as it must be more advantageous to check an unnecessary shoot at its start, than to wait until it has exhausted the tree of a quarter or less quantity of sap, and then cut it off. Roses judiciously disbudded not only bloom better, but form finer and more vigorous plants. The practice is especially applicable to peach, apple and pear trees. Do not permit a tree to form too many buds, as it would have both sound vigorous and weak ones.

The true Red Antwerp Raspberry is regarded as the most profitable of all fruits to cultivate for market. Mr. Nathaniel Haileck of Milton N. Y., raised 3300 baskets on three fourths of an acre this year, which he sold at 10 cents per basket—\$330; soil strong deep loam. Plants have been set out one, two, and three years. Fruit delicious.

In propagating pinks, carnations, picotees and many other flowering plants and shrubs by cuttings, cut the stem no more than half off, at a hard, well developed joint, which should be bent down and covered with good earth. This enables what will soon be a complete cutting and separate plant, to draw nourishment from the parent roots in part, till new ones are formed. After this, sever the connection, and pot the new plant, or transplant the new tree you have called into existence.

Fruit trees, shrubberies, dahlias, &c. often suffer from drouth, and frequent watering is troublesome and expensive. Place a thick coat of pine straw or other leaves around the tree or bush, so soon as the roots extend. Now water thoroughly once, and the covering will greatly retard evaporation, and keep the earth moist for weeks under the straw in dry weather.

Mechanical.

Manufactures—Cast Steel.

The nature of Cast Steel being, in reality, but little known, its manufacture being confined to but few localities, and its exact properties comparatively not fully understood by many, may render some remarks relative to the properties and habitudes of this most valuable form of iron acceptable to our readers. And we cannot better illustrate the subject than to give the facts, as stated by a Correspondent in one of our foreign exchanges. One fact is understood, that when bars of iron, which have, by process of cementation, become converted into what is called blistered steel, they are, when highly carbonated, extremely brittle, and their internal structure has been altered from a fine granular or fibrous texture, to a large crystalline grain, more or less brilliant and homogenous, in proportion to the purity and soundness of the original bar-iron. The homogeneity is, however, never perfect; and in all cases there are portions, or particles, of each converted bar which have not imbibed any, or a sufficient proportion of carbon to constitute steel; so that the bar is, at best, a mixture of true steel and malleable iron. To produce steel, these cemented bars are broken down, and placed in crucibles of the best clay, in which they are exposed to the intense heat of an air-furnace, until fusion has taken place. When the fusion is supposed to be complete, the steel is poured into cast-iron moulds, heated, but not red hot. As long as any pieces of the steel remain unmelted, a hissing, frying sound may be heard, on moving the cover of the crucible; and the surface of the portion of the metal is observed to be agitated by the incessant escape of gas of great expansive power. When the steel is all fused, the hissing ceases; and the surface of the metal appears like a bright convex mirror, and free from agitation. It does not, however, follow that the metal is fit for pouring; for, though the steely portion of the charge is now perfectly fluid and in a state of extreme division, yet the portion of the charge consisting of the uncarbonated iron (or, in other words, the malleable iron) requiring for its fusion a heat far exceeding the temperature required for reducing the