

turning a single furrow 26 to 30 inches deep, and wide in proportion, turning a couple of furrow slices, 12 to 14 inches deep, drawing a mole plough—working combined grubber, roller, and drag harrows, following one another in succession, and reducing a rough-ploughed surface to something more nearly approaching tith—working also a special combination of ploughs intended for vine culture, and enabling the tillage of two six or seven-foot intervals between rows of standard vines. The work was looked at with astonishment in some instances, satisfaction in others, admiration in many, and with pleasure throughout.

If it is a mere question of difficulty, however great, steam power has proved equal to the task. There never was such a sight exhibited before, as the opening of a 30-inch trench, under the most intractable circumstances, at the rate of about two miles an hour; and it seems that in the deep alluvial soil, on which sugar cultivation is most profitable, an operation of this kind is once a year desirable.

The principal manufactures at the steam plough works may be summarised as under:—Steam cultivating engines and machinery to suit every class of soil and crop. Traction engines, road rolling engines, and road locomotives and wagons, for hauling, thrashing, pumping, and road making. Semi-fixed and stationary engines of every class, single or compound, from 6 to 70 nominal horse-power. Electric light engines, with Hartnell's latest patent automatic expansion gear. Colliery engines and plant, oil pulleys, &c. Air-compressing engines and machinery of every kind. Light railway plant, locomotives, and rolling stock, for sugar estates, mines, and military works. Steel wire ropes, &c., &c.

Between 1857 and 1887 the firm have received some hundreds of much coveted awards, gold and silver medals, cups, diplomas, and money prizes.

They stood foremost in the great steam-ploughing contest at the last Newcastle meeting (1864), and their display last week at Leeds is a splendid proof of the enormous advance accomplished by the firm since then. We give illustrations of two of the steam-ploughing tackles then exhibited—the single furrow deep plough and the seven-furrow digger, intended for the widest operation—equal to 30 to 50 acres daily.—*Eng. Ag. Gazette.* (1)

HORTICULTURAL DEPARTMENT.

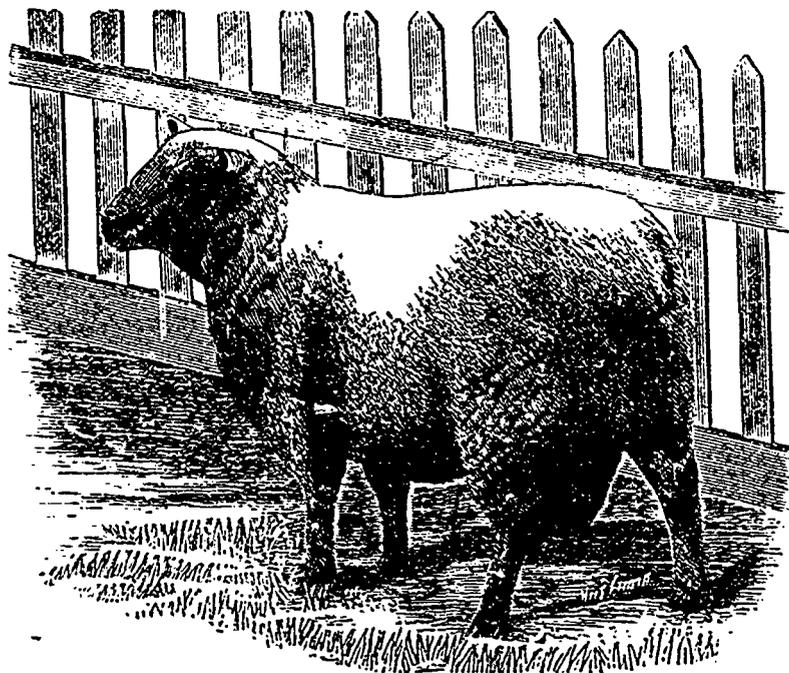
RAISING FRUIT IN POTS.

The facility with which fruit may be raised in abundance in this country, does not render so necessary the culture

of fruit in pots and under glass as in Britain; but the beautiful ornaments which are thus obtained, and the attractive objects for horticultural and other exhibitions, will prevent the practice from falling into entire disuse. Among the fruits which are particularly adapted to this mode of culture are nectarines and grapes. The accompanying engravings, which we have reduced from those which have appeared at different times in *Gardening Illustrated*, are good representations of handsomely grown specimens.

The varieties of grapes selected for this purpose should be strong bearers, and those of smaller growth among exotics, and the skill particularly required in the management is in watering, which should be enough for their growth at all times, but not so abundant as to cause the decay of the small roots around the sides of the pot. The soil best adapted to the purpose is a mixture of leaf mould, old rotted sods and

cow manure, with a small quantity of bone dust, fine charcoal and air-slaked lime. These are of course to be well mixed some weeks before use. Broken pots or shells should be placed at the bottom for drainage; twelve inches is a suitable size for the pots. Liquid manure may be used as the grapes swell in growth, made with a pound of guano in half a barrel of water, or of other materials of equal strength, as cow manure and soot. If much stronger, it should be applied more sparingly, or with caution. The vine should bear for only a few years, and then be replaced with a new one. After the first summer, it should be



A VERY SUPERIOR ENGLISH SOUTH-DOWN.

taken out of the pot, the soil shaken from the roots, the longest roots pruned, and repotted with fresh compost. It is the practice of good cultivators not to allow it to fruit the following season, and not till the second year. The vines will bear more uniformly if allowed to hang down, or they may be fastened to training wires, or wound around strong stakes, as shown in the engraving. Among the sorts suitable for pots are Royal Muscadine, Black Hamburg and Alicante, but not the Muscats. Although the quantity of fruit obtained in this way will be small, the management will afford interesting employment, and the ornamental result will repay the care and labor.

Among the different fruit trees which may be raised in pots, the nectarine has some special advantages. The shelter which is given it in this way will give certain crops every year, and it will not be liable to the winter-killing of the fruit-buds which peach and nectarines suffer when the trees are growing in open ground. The same protection shields the young fruit from the attacks of the curculio, to which it is otherwise particularly liable, this insect appearing to attack the nectarine in preference to any other fruit.

One-year trees from the bud should be selected, and foot or fifteen-inch pots used; the soil need not be very rich at first,

(2) See Journal for October.