

PLAIN DITCHING.

Little success can be expected on most soils in growing small fruits, without proper drainage. A large plantation of Cuthbert raspberries, planted upon clay loam, has been an utter failure. The bushes have been stunted in growth and have borne very little fruit, and this of a small size, almost unfit for shipment. The soil seemed in every way to be rich and very suitable, for a plantation of larger fruits grows on it with much vigor, plums and apples being planted in a portion of the same field. The secret is evidently lack of drainage, for in those parts of the farm where this has been systematically attended to, the Cuthbert is a most decided success.

The grading of ditches and drains is a very important matter, and one which is often done too carelessly, resulting in the tiles being frequently filled with sand or other rubbish. Our custom of grading has been with the use of a spirit level, laid upon stout boards along the bottom; but a much better plan is given in *Farm and Home*. It consists in setting stakes four feet apart, along the line where the



Fig. 51.—PLAN FOR EXACT GRADING.

drain is to be laid; laths are tacked across from stake to stake, as here illustrated. Across the top of each a cord is run, and the whole arrangement so placed that the line is the exact grade, which is desired at the bottom of the drain. When this is done, any one can dig the ditch and grade it, using a rod long enough to reach from the line to the bottom of the desired ditch.

HOW TO GROW FRUIT.—A novice, anxious to learn fruit raising, would do well not to select less than four, nor more than ten acres, of his best corn land. It ought to be heavy rather than light, well drained, on reasonably high, airy land, but not exposed to sweeping winds. On this plant apple trees fifty feet apart. Peach, plum, pear, and cherry trees can be planted in rows intersecting the above each way, leaving the completely planted orchard in rows twenty-five feet apart. Plant but few varieties and only those doing well under similar conditions. Experiment with no new or wonderful things. Keep to the beaten paths. Devote this land to fruit exclusively. Keep all domestic animals, except poultry off of it. Manure it every year. Plow it at least once and cultivate it several times each year. Allow no grass or grain to be raised in the orchard, except corn while it is young. Prune carefully every year and keep up a vigorous fight against insects and vermin.—P. W. KING, *Greene County, N. Y.*