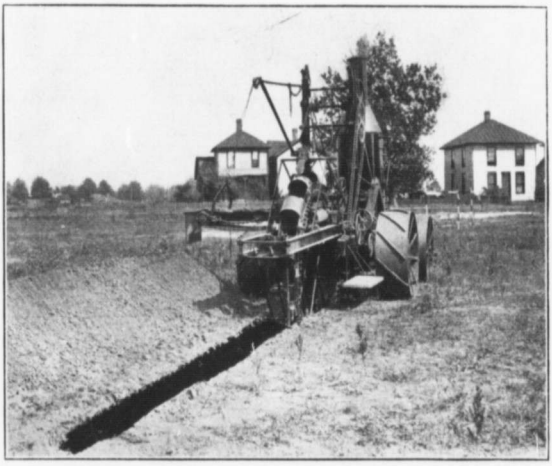
stage with sufficient distinction to lead to its general use, and few in the United States. At present writing I know of only one which has anything of a history. The Buckeye Traction Ditcher, manufactured at Findlay, Ohio, of which two cuts are shown, has been on the market for about twelve years. At first it was very imperfect and met with but indifferent success, so much so that in 1924 when I saw one of them at one of the American Experiment Stations it was not represented to me as satisfactory. Since that it has been very much improved and the later models are giving good satisfaction.



DITCHING MACHINE AT WORK.

In October last it was my privilege to see two of these machines working and their performance was very creditable. They travel slowly, digging as they go. One could not wish for a better trench, straight, uniform in width, smooth sides, true to grade, and ready for the tile in one transit over the ground. The soils in which they happened to be working were ideal for ditching machines, one a loam and the other a heavy clay, both free from stones. For stony or gravelly land a special machine, with steel pinions, and steel cutters and "rooters" is manufactured. The Cornell College of Agriculture has one, and it has given them good results in stony land. It is claimed by those who have used them that they dig from 90 to 100 rods a day on an average.

Perhaps the method of operation may be understood from the cuts, except the means by which a true grade is obtained even over rough ground. The digging wheel is so hung that it may be lowered as the engine rises, or raised as the engine sinks. An arm attached to the frame of the digging