the small stones, would answer an excellent purpose, provided there was sufficient fall, the drains 18 to 24 feet apart, with good leading drains to drain off the water from these small drains, which should be constructed of larger dimensions, and have a regular opening made after the plan described to be adopted at the Industrial school at Fincurry. These small drains would only require a square yard of broken stone to fill eighteen or twenty yards, or about from thirty to forty square yards to the arpent, according to the distance which the drains would be apart, and any kind of stone would answer for breaking. We do not say that draining in this way would be the best that could be adopted, but we know it would be a cheap mode, if stone could be had conveniently, and we believe, if properly executed, it would answer an excellent purpose.

The drains are run parallel, 24 feet apart, 20 inches wide at top, 40 inches deep, and 3 inches wide at bottom, filled with stones, broken large, as those used in repairing public roads, to the depth of 10 inches, over which sods of the green sward lightly pared off are laid, overlapping each other; on the sods is thrown down the material raised in sinking the drains.

"The main drain at the lower end of the field is sunk to the depth of forty-six inches, in a direction transverse to the parallels, and secured in the following manner.—Flags are laid on the edge in an upright position, on one side of the bottom of the drain; next, flags are laid on the opposite side, in an inclined direction; the under edges of the last laid flags press against that side of the drain by which they are laid; the opposite edges rest on the upper edges of the upright laid flags. leaving sufficient space for the water from the parallels to pass between. A vacuum occurs between the inclined flags, and that side of the drain against which their lower edges press, which is filled with round stones, serving the double purpose of admitting the water, and keeping the flags in their places; a light covering of broken stones is then laid over; next a sod of green sward is laid over the earth thrown down, as in the parallels.

Oval tiles of three or four inches would answer best for the main drains, when small stones would be made use of for the parallel drains; and we have seen excellent tiles made here of several sizes, by a machine imported by Major Campbell, Civil Secretary. The tiles are the square bottomed which is considered the best shape. We may form some idea of the extent to which drainage is carried on in England, when we hear of one manufacturer in Yorkshire, disposing of 140 tile machines in a short time.

The following is part of an article on that first of all agricultural improvements—"Draining":—

Another authority for deep draining is Mr. Spencer, of Wrotham, Kent, who, in a letter to the Royal Agricultural Society, details some experiments made in five feet drains, showing that if shallow drains are placed near these, the water will be drained from them to the others. His mode of executing the work he has described as follows:—The drain, 4 feet deep, is made about two feet wide at the top, and the width of the tile at the bottom. The first three feet are to be taken out with a common spade or three tine fork, the bottom with a narrow spade made for the purpose, and a curved hoe to take out the crumbs. Four men should be employed in one drain, each taking a foot deep: the last man lays the tile, filling it up with the soil that is taken out, which is to be well trodden down on the tile. Many people imagine the water runs along the top of the land to the drain, and then descends to the tile. This is not the case. The water enters at the bottom of the drain. If the bottom water be taken away, the top water will surely follow. This may be seen if two drains are cut in a field, four feet deep, when the land is wet The water will be perceived coming in at the bottom; and by taking that away will penetrate through the soil, leaving the top perfectly dry. This will be the case even on land not subsoiled.

In the Royal Agricultural Journal, vol. 3, there is an able article by Mr. Parkes on the quantity of water discharged from drains, and which gives a number of experiments to show that deep draining is not only the most effectual but the cheapest mode that can be adopted. I will now mention, he states, an experiment which every farmer is competent to make, and which cannot fail to throw light on the action and effect of his drains, and on the relative condition of different pieces of land as to porosity, or filtrating activity. I allude to the simple ascertainment by measure, of the quantity of water discharged from different drains, after rain, in the same time. In reply to numerous enquiries on this subject, I have only succeeded in obtaining sufficiently exact information from Mr. Hammond, whose intelligence had led him to make the experiment without any suggestion from me. He states, I found after the late rains (February 17, 1844) that a drain, 4 feet deep, ran 8 pints of water in the same time that another 3 feet deep ran 5 pints, although placed at equal distances. It would appear, then,