Seneca county, N. Y., who had been experimenting with tiles from 1835 to 1851, and had laid 16 miles of them on a few acres of his clayey land, raised the largest crop of Indian corn produced in that county, being 83 bushels of shelled corn per acre; he says, on this clayey soil, when laid down to grass, not one squre foot of the clover froze out. But before, many acres of wheat were lost on the upland by freezing out, and none would grow on the lowlands. Now there is no loss from that cause.

It is on account of this winter-killing or freezing out, that farmers have such great difficulty in getting and keeping their fields in grass, particularly clover and some other grasses of similar growth, the soil being pulverized only a few inches in depth, unless we have ploughed deep, and then only to the depth of the plough. Below this there is a stratum of clay or tight loam nearly impervious to water. The fall rains saturate the surface soil, which holds it like a sponge if it has been well pulverized before seeding. The ground is suddenly frozen and crystalizes into ice, the soil being thrown up with it, often appearing a little like a honeycomb. A few such operations are sufficient to draw them out root and branch, and to our sorrow we see them laying dead on the surface of the field in the spring. Thorough draining followed, by subsoiling, or deep plowing, lets down the water through the soil, leaving the roots so free from an excess of it that the ground is not "heaved up" at all; the plants retain their position, and when the warmth of the genial sun reaches them, are ready to strike root downward and spring upward with renewed vigor, refreshed by their winter's repose.

DRAINING OFF SWAMP LANDS.

We extract the following correspondence from the "Journal of the N. Y. State Agricultural Society," as the experience of a Long Island farmer in draining swamp lands:

As but few experiments have been made in this favored section in draining swamp lands—deemed by many almost worthless and as what may have been accomplished has seldom met the eye of the farming interest, it will be my endeavor, in a brief way, to show that few investments will realize better, and that no lands can be rendered more highly productive. The careful farmer, though of a reflective turn of mind, is not usually inclined to experimenting, except on a limited scale; yet in general, if I mistake not, it is only necessary to exhibit a fair probability of profit, to enlist his prompt acquiescence in new enterprises; and it will be a source of great satisfaction if the following statements shall serve in any measure to awaken new interest in this important branch of agricultural operations.

The land of which I now propose to speak is situated in a valley declining to the west, consisting of about twenty acres, one third of which was black muck, or peat, of various depths, the greatest being about seven feet; the remainder, a heavy slate-colored loam, bordering on clay. The substratum was hard-pan, occasionally met with in this region, of sufficient closeness to hold water. The tract sloped gently upward right and left from the centre, facilitating drainage. I commenced by opening a main canal from west to east from the lowest point of depression. As the adjacent land afforded but a slight fall, this opening was at first only about one foot deep by three feet wide at the top, increasing gradually to the highest point, where it reached the depth of four feet; this became necessary, as it took the water from the more elevated fields. This principal channel remains open from necessity, a portion of it which had been closed being forced open by pressure. It was ascertainad that the water, which at times entirely submerged the swamp was derived in part from springs, which were discovered while running the cross drains. These drains were generally at distances of about two rods apart, being from two and a half to four feet deep by six inches wide at the bottom and eighteen inches at the surfaee. For one third of the space I brought into use draining tile of the "horseshoe" pattern; for a part of the remainder I used small stones, and for the balance brush, to which I was obliged to resort in the absence of a firm bottom; and much to my surprise, after a test of five years, this latter work remains sound and even more reliable than any others, discharging copiously, and as yet requiring no repairs. The result so far is highly encouraging, and with a few additional drains the whole plot will be reclaimed.

Those who were familiar with the swamp in bygone years would now scarcely recognize the spot. A more forbidding spectacle could scarcely be imagined, the whole being densely covered with sumach, alders,