

principles of land drainage and its effects better understood, by the majority of our farmers, greater exertions would be made by them, to put their farms in a better position, in regard to this most important work in connexion with agriculture.

It is now about 16 years since the first drain tiles were made in this part of the country; they were made by hand at the Bowmanville pottery, and were used by John Smart, Esq., on his farm at Port Darlington, and after a fair trial, he found them to be the best, although not the cheapest material for that purpose at that time. And although he had previously drained with cedar to a considerable extent, still by taking into account the difference in the durability, he adopted the tiles in preference to the cedar, and continued to use them for a number of years, until he changed the nature of his farm from that of a wet cold clay, which he could never begin to labour in spring until it was almost too late to sow, and in consequence of which the crops were very often rusted and almost worthless, to that of a rich mellow clay, which can scarcely be equalled in this section of the country for producing any kind of crops. In regard to the cedar drains which I have stated Mr. Smart had constructed fifteen or twenty years ago, they now gave more or less every year, and will soon be useless altogether.

I am aware that some persons will scarcely think it possible, but it is nevertheless true, that I have examined the drains and found the cedar in many places completely decayed, by what is termed dry rot, not by wet rot, as it would be almost natural to suppose, and in many places nothing now remains to uphold the soil, and the drains are frequently being broken through even by animals passing over them. So much then for cedar drains.

The next gentleman who commenced draining operations after Mr. Smart was the Hon. S. Simpson, a gentleman of high standing and of considerable energy and ability, who having become possessed of a nicely situated farm in the vicinity of Bowmanville, determined to make it second to none in this country, either as to its general appearance, or capability of producing crops. But finding many portions of it cold and wet, in consequence of which it would not produce good crops, he determined to commence draining; and in order to obtain drain tiles at a cheaper rate, than they could be made for, by hand, he

was the means of importing the first machine for making tiles into this part of the country since which, he has spared no means necessary to put his farm (comparatively speaking) into a good state of cultivation in regard to drainage. Mathew Jones, Esq., another eminent agriculturist in this section, has done much to improve his farm in this respect.

There are many others whom I mention who have not hesitated to follow a good example in regard to this important work. But suffice it, to say, that through the example of those gentlemen whom I have mentioned, many have been induced to improve their farms by what is termed partial drainage.

The gentlemen mentioned were at that time considered high farmers, and it was supposed by many, that they had more money than knew how to make a good use of, and that was, as it were, throwing money away, a supposition however has proved erroneous even by the small amount of draining they have done, compared with that which it would yet pay them to construct, they have established the fact, not only in their own minds but also in the minds of many farmers at large, that it will pay to drain, and that the land drained partially, the farmer can commence operations a week earlier in spring on undrained soils. This is of itself a great advantage when we consider the shortness of our seasons, even where crops on drained soil are not more sure than on undrained land, for there is not the least doubt, and that the produce is frequently from five to ten bushels per acre more in consequence of even partial draining. These facts, as I have already stated, have been established in the minds of many, but I cannot say in that of a majority of our farmers, many of whom, although possessed of means to enable them to drain, because they cannot see that the money put out in that way would yield them interest equal to what they are very frequently promised for the use of their spare money, will not even give it a trial. Many farmers also, have no doubt, are ignorant of the fact that a great change takes place in the soil after it is cleared of stumps, and that the chemical properties formerly existing in the vegetable matter become exhausted. It is a well established fact, that the soil becomes more retentive in its nature and more compact, consequently it requires more care and attention, both as regards manure, drainage, subsoiling and many