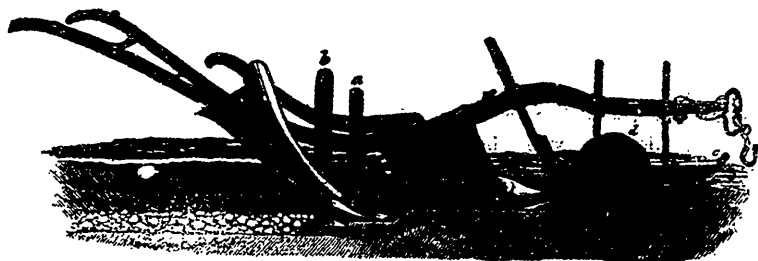


dant that a conduit is necessary, a few boards can be nailed together, so as to form an efficient and enduring drain. We have seen hundreds of miles of drains in the old country, before the introduction of tiles, made from 30 to 36 inches deep in stiff clays, and filled at the bottom with heath or brush, and even with twisted ropes of straw, that have been in effectual operation, even on arable lands, after 15 or 20 years. In such cases the drain was dug with sides at a uniform angle, having a breadth at the bottom of only 2 or 3 inches, and the clay rammed closely down on the material at the bottom. The brushwood in a few years would rot and disappear, but the aperture would remain, the clay arch gradually attaining sufficient strength to support itself. This method is only adapted to stiff clays. And in this country such drains must be sufficiently deep to be beyond the reach of frost, (say 3 feet) and their mouths should be formed for a few feet with stone or other enduring material, to prevent injury from frost.

We wish to be distinctly understood in the preceding remarks as having no wish or inclination to slight or undervalue the benefits of a thorough system of under-draining, carried out in a permanent man-

ner. Much land in the neighbourhood of large populations, where pipes of 2 inches diameter can be obtained for six or eight dollars a thousand, might be profitably drained, after the methods now pursued in Europe. But even on such lands we should always bear in mind that it is only the better class of soils, such as are naturally rich, and only require to be laid dry, that will yield to any system of draining the largest amount of profit. In carrying out the English practice of draining in Canada, we must take special care so to modify it as to suit the particular wants and means of the great body of our farmers, and also the climate and soils of this country. Our opinion is that in general we require deeper drains and at greater and not uniform distances, than they do on the stiff English clays. If the preceding remarks should afford any useful suggestions, particularly to our remote and more needy farmers, and in any degree prevent them from neglecting draining altogether, because they are incapable, from want of means and the unsuitable state of their lands, of carrying out a more complete and expensive system, which can only be adapted to more favorable situations and circumstances, our object will have been accomplished.

COTGREAVE'S SUBSOIL PLOUGH.



This Plough combines the common plough, the trench plough, and the subsoil plough in *one implement*. It is capable of tilling the land to any required depth, requires but little skill in holding, and pul-

verises the soil at one operation in an efficient manner. The land may thus be prepared, with advantage to the succeeding crop, a considerable time before it is required for use. It may likewise be ploughed