

VOL. III. No. 1.

TORONTO, UPPER CANADA, JANUARY 1, 1866.

POSTAGE FREE.

The Field.

Steam Cultivation.

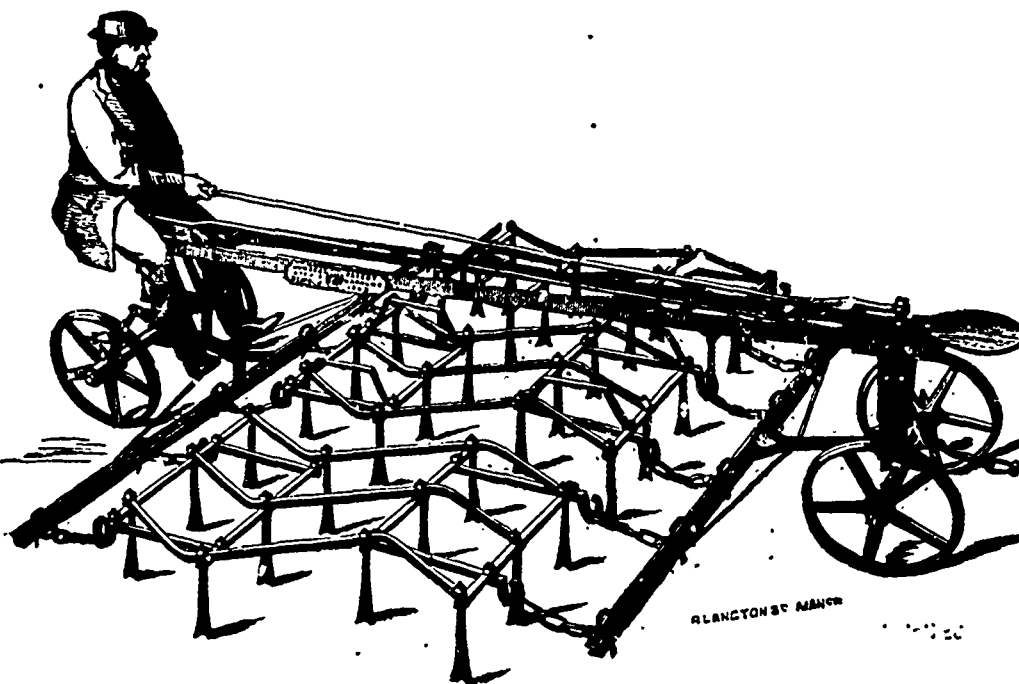
In order to secure the advantages enumerated in the concluding paragraph of our last article, steam ploughing apparatus should be:—

1. Simple in its construction.
2. Easily understood and managed by ordinary farm hands.
3. Readily adapted to work in any desired position.
4. Moderate in its first cost, and
5. Economical in wear.

These features are combined in a greater or less degree by the respective systems of Fowler, Howard and Smith. The implements of the last-named patentee, are of slighter construction than those of the other two makers; but the first expense of Smith's apparatus is about £500, while the cost of the engine and tackle of Howard or Fowler amounts to close upon £1,000. It is our opinion, however, that the manifest superiority and effectiveness of the stronger and more expensive sets, compensate for the extra price in the long run. The large outlay of capital necessary to procure a set of tackle will ever be a formidable obstacle to anything like a general adoption of steam culture. Many British farmers were stunned by the very mention of the amount required, and promptly dismissed the subject from their minds. The formation of district steam cultivating companies removed this obstacle, and the agriculturist derived from hiring, the advantages which he was unable to purchase. Besides the question of expense, there are other considerations which will tend to render the company system more popular than that of individual investment. Farmers are qualified to undertake the management of steam machinery. If a breakage occurs, they are ordinarily without facilities for having it repaired, while the area of single farms, in the majority of instances, is incommensurate with the demands of the steam plough. The last is an objection of extraordinary gravity. For, unless the engine and tackle can be kept fully employed, their advantages are not fully maintained. In the system of letting and hiring, a

competent inspector is usually appointed to take the superintendence of a district, and is responsible to the Company for the due preservation of the tackle, and for the proceeds derived from the work performed. By this means, somewhere in the neighbourhood of twelve acres per day are cultivated, and the system appears to give general satisfaction. We have before us quite a number of tabulated reports of the yearly working expenses incurred by Companies as well as by private individuals, who are working the steam plough. Several of the statements are by interested parties, and bear unmistakeable evidence of being "cooked." We give the substance of a very instructive record of the pros and cons of steam culture which recently appeared in the

Having thus specified the sort of soil dealt with, and the course of cropping, it may in the second place be well to shew what work is usually performed in preparing for each crop. To begin, then, with the breaking up of the wheat or stubble, in September, for roots: If weedy, the plot is scarified and harrowed; and when the rubbish has been well weathered, it is turned down with a ten-inch furrow without difficulty. Manure is also covered in without difficulty, in the same way. The land, in spring, is ridged with horses; the dung is applied; and the ridge is split, and left for the deposit of seed. For wheat after potatoes, only one scarifying is required; for oats, the land is skimmed before winter, and a six-inch furrow, with ten loads of manure, is given before sowing; for green rye, the land is scarified, dunged, and ploughed in September, and sown directly, so that it may be cleared from May to July following. As the rye is cut green, the land is dunged and ploughed (generally with horse-power) as it is cleared; and, so long as these seasons serve, the vacant place is filled up with cabbages, dibbed, and subsequently with turnips, rape, &c. If the cabbages are removed in March, the land is fitted for spring wheat with a single furrow, if in April, for barley. For wheat after seed, one furrow suffices. All this work, by reason of being done at the proper season, quickly done, thoroughly done, is now



columns of the *Mark Lane Express*. The apparatus has been used for six years, and the register, it is stated, has been most completely kept, by one who had no foregone conclusions to serve, and who took to steam on purely economic grounds. The history of the operations is thus summarised: The farm in question is situated in the neighbourhood of London. The soil is light, and rests on a chalk substratum. It consists of 600 acres of mixed land, but land mainly under the plough. Of this, 300 acres are under the seven-course shift—potatoes, wheat, oats or barley, green rye, peas or tares, and crop after, barley, seeds, wheat; 130 acres are under the six-course system—potatoes, wheat, mangels, wheat, seeds, wheat; 90 acres under the four-course, lie at some distance, and are worked for sheep. The soil, which varies in depth from six inches to six feet, is not drained, and under all circumstances can be ploughed with two horses.

effected by means of a ten-horse-power engine and apparatus, and nine horses. Formerly, that is to say, so late as 1858, twenty-two horses were employed in producing a result for inferior dimensions.

The apparatus was supplied in the year 1859. (The name of the implement maker is not furnished.) The first attack upon the land was a formidable one, alike for the plough and the land. The soil was matted together with weeds, and the pan offered a great resistance to the thrust of the share. The work actually performed is stated as follows:—

For the crop of 1861—
Land under tillage..... 400 acres.
Days at work ploughing and scarifying.. 70 days.

The number of working days in this year would have been greater had not the wet autumn of 1860 interfered.

For the crop of 1862—
Land under tillage..... 510 acres.