



The Field.

The Forest Cultivator.

The implement represented in the accompanying cut has been constructed to meet the wants of a large portion of the country which is yet new. It is especially adapted to work among stumps or in land encumbered with roots, where an ordinary plough cannot operate to advantage. The shares, or teeth, are so constructed as to rise and pass over the roots, immediately digging in again, and tearing up the soil. These shares may be set deep or shallow, according to the nature of the land to be operated upon. The inventor and patentee, Mr. John A. Cull, of this city, claims for this implement, that from the thorough way in which it works close up to stumps, and the manner in which it stirs the soil, an average of five bushels of spring wheat more per acre can be

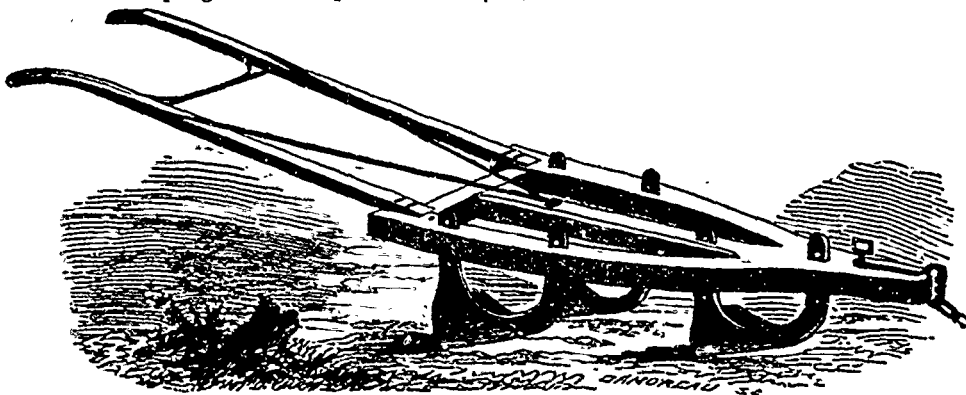
touching the stumps,—the mould is shaken off, and enough thus deposited to cover the seed, where none could possibly be dug up except with a spade or hoe. We understand that this implement has been submitted to the most thorough trials and has been inspected by some of the best practical agriculturists in Canada, and that the unanimous opinion about it is that it is unequalled for new land infested with roots and stumps. The cultivator as figured in the subjoined cut is a great improvement upon the original idea, various alterations having been made in order to overcome difficulties which at first presented themselves in the practical working of the implement. It is now submitted to the farmers of Canada in the confident belief that it will be found of great service in subduing newly cleared land, and making it fit for the reception of seed.

Further information in reference to this implement may be obtained from the proprietor above named,

with wooden rollers for crushing the cane. Near Utica, Illinois, a Chicago sugar refiner, grew a plot of 400 acres the past season, the produce of which he intended manufacturing at his city works.

Not only are our neighbours experimenting with Sorghum as a sugar crop, but on a smaller scale the manufacture of beet root sugar is being attempted. It is a well-established fact that sugar can be profitably made from the sugar beet in Europe, even in the face of a high tax. Various circumstances have discouraged experimenters with this crop on the American continent. Still there are those who are sanguine enough to believe that it can be made to pay. A firm in New York city (Messrs. Gennon & Brothers), planted the past season between one and two hundred acres of sugar beet in Illinois, and have erected buildings, machinery, &c., to give the thing a thorough test. They have invested between forty and fifty thousand dollars in the undertaking, and must either be of a very speculative turn, or have pretty good reason to expect success.

Every community and nation should aim to be as far as possible self-sustaining. In the important article of domestic consumption under consideration large sums are annually spent, which flow directly out of the country. It were well if even part of this outflow could be arrested, and this, at least, we believe to be practicable. We have in Canada still remaining large forests of the sugar maple, which ought to be preserved for their saccharine product. There is much destruction in sugar bushes by wrong modes of tapping the trees, needless cutting for firewood, &c, which ought to be avoided. Maple sugar, too, is often so badly made, that it is not in the high repute it deserves. We have before expressed and now repeat the opinion that Sorghum might be cultivated to advantage in many parts of Canada for molasses and syrup, though it is doubtful whether it would ripen sufficiently to granulate into sugar. But even this is not decided as yet by actual and careful experiment. The settled portion of Canada is no farther north than the northern part of Iowa, and though the isothermal lines are somewhat in favor of the West, yet the difference is hardly so great as to deter us from trying our best. Then as to the sugar beet, it can be grown here as well as in Europe. We hope that enterprise and capital will be directed toward this matter, and that what with the maple, Sorghum and beet, we may ere long raise our own "sweetening" as successfully as our neighbours across the lines.



THE FOREST CULTIVATOR.

obtained by its use, than on the old plan of merely scratching the seed in with the harrow. For oats and barley, when fall ploughing has been done, it is considered very effective, as it breaks up the mixed portions of land round the stumps, and during the hurry of spring work accomplishes the result far more speedily as well as thoroughly, than a second ploughing would do. A good team, well used to the work, will thus go over five acres of fall-ploughed land in a day, and an excellent tilth is obtained. It prepares the land finely for turnips and potatoes, making a seed-bed in which the turnip grows with such rapidity that it is soon out of reach of the fly, and providing for potatoes an ample supply of soil for covering the seed and forming a good-sized hill at hoeing time.

to whom, also, all applications for the purchase of single cultivators, County, Township and Shop rights, must be made.

Home-Made Sugar.

Our neighbours in the Northern States are experimenting with an energy which does them great credit, upon the manufacture of sugar. It is astonishing with what rapidity any new crop, contrivance, or line of business, diffuses itself among them. We find from the Patent Office Report, that although it is only seven years since the Sorghum or Chinese sugar cane was introduced, it is estimated that already sugar, molasses and syrup to the amount of from eight to ten millions of dollars per annum, are being produced in the States north of the Ohio. The editor of the *American Agriculturist*, who has recently made a tour of observation through the Western States, says that in Iowa a very large proportion of the population depends mainly upon home-produced Sorghum syrup for "family sweetening." It is used even for tea and coffee, and in curing beef and pork. Hundreds of plots of from $\frac{1}{2}$ to $1\frac{1}{2}$ acres, and occasionally a large field may be seen, together with home-made mills

Flax Culture.

To the Editor of THE CANADA FARMER:

Sir,—Since my last letter on this subject, the time is now about up for sowing—a dropping-season we are told is the most congenial for the flax plant; in this particular the farmer will have no cause to find fault of late. Should the season turn out favourable otherwise, the increased quantity put in the ground

It is not claimed for this implement that it will work well in soddy, grassy land, yet where there is only a small quantity of grass, or the land is in a rough, weedy state, it is said to be very effective. It does not work well in tough stubble, but when stumpy land has been "haggled" by the plough, running the Forest Cultivator across the furrows makes a splendid job. The shares always carry more or less mould with them, and in rasping over the roots,—often almost