

bably be found sufficient as the motion is rapid. The knives are adjusted by two screws at each end in a very safe manner. They are arranged spirally, the diameter of the circle they describe being about 8 inches. The gearing is very simple and being all attached to the cast-iron frame which forms the mouth of the feeding-box is not likely to get out of order. The chief merit of the improved machine is its *durability*. The price is \$20.

#### MR. SHERIFF TREADWELL'S PREMIUMS.

Mr. Sheriff Treadwell, of L'Orignal, late President of the Prescott County Agricultural Society, and at present President of the Provincial Agricultural Association, having very generously offered One Hundred Dollars, to be distributed in the County of Prescott, in the Townships of East and West Hawkesbury, Longueuil and Caledonia, viz.,—£5 to the best cultivated farm, and £1 5s. to the best garden. The conditions were published in the *Agriculturist* for August last. These premiums have been awarded, and the following is a report by Mr. Alfred Cass, one of the successful candidates, as to the way in which he manages his farm. Amongst the gardens, that of Mr. William Walker was very worthy of notice. In writing to the President, Mr. Cass says:—

L'ORIGNAL, 11th Sept., 1854.

SIR,—Having been often and strongly solicited to give you some account of my experience as an agriculturist, permit me to make the following remarks:—

My farm, which consists of 300 acres, is partly cleared and partly under wood. I have about 200 acres of clearance, two-thirds of which are annually cultivated, while the remaining one-third is set apart for grazing. I use the iron Scotch plough and the Scotch harrow, which I consider preferable to all others. As early as possible in the fall, I commence ploughing, so as to allow all foul seeds to germinate before the frost sets in, and also to afford sufficient time for the decomposition of stubble, and other vegetable substances contained in the soil. A second ploughing in the spring thoroughly cleanses the land, and prepares it for sowing. On clay soil I sow wheat; on loam, sand or gravel, oats and corn, with potatoes, or any other of the root crops that may seem suited to the soil. Various kinds of wheat have been introduced into this country, and tried thoroughly, but, so far as my experience goes, the Black Sea is the only kind upon which dependence can be placed. It is suited to a great variety of soil, and is not liable to rust, a quality from which no other kind is ex-

empt; consequently, late sowing may be followed with success.

The root crops I consider as indispensably connected with the farm stock generally. In the management of milch cows, especially when confining them to dry fodder, greatly augments the quantity and quality of the milk, and materially tends to facilitate digestion. The objection to the root crop is the difficulty and expense attending its culture; but this objection may be greatly obviated by a proper use of implements, and a due selection of a suitable soil. My method is as follows:—I choose land of a light loam, manure light, plough not less than three times, and drag twice. I make no drills with the plough, but leave the surface perfectly level. I then employ Emery's seed-sower and drill-harrow, by which the work of ten men may be done by one. I sow 2½ lbs. of turnip seed to the acre, a quantity far too much but for the ravages insects make upon the plants in the early stages of growth. The first hoeing I allow them all to remain. In the second hoeing, I thin them if necessary, leaving the most healthy and thrifty generally about eight inches apart, and even a greater distance if the soil is very rich. In feeding out I clean them well, and then use Emery's vegetable-cutter, with which one man can cut in fifteen minutes as many as will suffice for fifteen or twenty cows. Thus the crop is raised and disposed of with the greatest economy in time and labor. My treatment of beets and carrots is exactly similar. I generally sow from thirty to thirty-five bushels of wheat, yielding on an average from ten to fifteen bushels of seed. I sow about the same quantity of oats, with about the same average yield. I cut from forty to sixty tons of hay, and, notwithstanding its high price, I find it more advantageous to consume it on the farm; for it must be borne in mind that a farm drained of its produce, without a due return being made by the application of manure, will ultimately become exhausted and worthless. Throughout the winter I keep my cattle stalled, and, having water and everything necessary for their accommodation within the stable, the least possible amount of labor is required for their care. From my stock of cows I have made this season 2,000 lbs. of cheese, worth 6d. per lb., and about 400 lbs. of butter, worth 10d. per lb., besides keeping 12 hogs in good condition from the refuse of the Dairy; so that I consider myself amply remunerated for feeding hay to my cattle at \$16 per ton. I have not kept Debt and Credit, as deemed necessary by you, but I think it a matter of high importance, as it would serve as a compass to show us where we are.

I employ implements of various descriptions to save manual labor, such as corn-sheller, hay-cutter, seed-drill, hay-rake, and numerous other articles, with which the labor of the farm is greatly facilitated, and its produce raised at the least possible cost. My wood land consists chiefly of maple, from which I manufacture yearly about 1½ tons of sugar, which I consider to be a small item of profit. I also cultivate forest trees of various descriptions, with very good success.