

The rollers here described are expensive, and in the present condition of agricultural improvement in Canada will scarcely warrant the opinion that they will come into immediate use. A cheaper kind of clod-crusher may be made, by using a series of strong wooden bars, as a substitute for the smooth surface of the solid cylinder. When the land is dry, this forms an effective clod-crusher. It is very simple in its construction, consisting of some thirty strong oaken bars, attached to three wheels, about three feet in diameter, one at each end, and the other in the centre, to which is added a frame and tongue, precisely like those already described. Any person at all acquainted with the use of edge tools may make a roller or clod-crusher of this kind; and on heavy clay soils it would be found an efficient implement in reducing them to a perfect tilth and friable condition. In most cases it would not be found sufficiently heavy to break the clods; and to remedy this, a quantity of stones may be piled on the top of the frame, which may be regulated to suit the strength of the team, or condition of the land.

THE REAPING MACHINE.

There are at least eight different machines for harvesting grain that are propelled by horse power. Of these there is only one that may really be termed a labor-saving and economising machine. That machine was invented by Mr. Obed Hussey, of Baltimore, Maryland, upwards of fifteen years ago. Mr. Hussey being a plain unassuming mechanic, has allowed his machine to speak for itself, and it has therefore very gradually obtained popular favor. It has, however, given unqualified satisfaction to all who have purchased or seen them in operation. About three hundred machines per annum of this kind are sold, and the demand for them was so great the past season, that twice that number might have been sold if they could have been supplied in time for the harvest. Unlike most inventors, Mr. Hussey has retained the sole right of manufacturing his machines, and they are made only at Baltimore, under his immediate inspection and

superintendence, and at Auburn, N. Y., under the management of his brother. Last year he applied to Congress for the extension of the period of his patent, and to indemnify him in some measure for the great service he has rendered his country, an additional fourteen years will have to expire before his machine becomes public property, at least to the citizens of the United States. Although a long period has now elapsed since the invention and use of Hussey's Reaper, still in point of intrinsic improvement, it has undergone very little change. The speed of the blades, or cutting principle, by an alteration in the gearing, has been increased, and the place where the person who attends the machine sits, has been changed, enabling him with greater ease to discharge the cut grain behind the machine. These are about all the improvements that have been effected in the machine, since its first introduction to public notice.

The machine consists of a low frame, which may be elevated or lowered to any reasonable extent, to suit the grain to be harvested, resting on two wheels, the large or power wheel being about $3\frac{1}{2}$ feet in diameter, and the small one which supports the side next to the standing grain, only fourteen inches in diameter. They are both made of cast iron, and may be detached from the platform on which lies the grain, whenever the machine has to be transported any great distance. The main or power wheel weighs upwards of 300 lbs., and is firmly keyed to an axle on which is also a cog wheel which communicates motion to the cutters. The cutting apparatus consists of steel blades about five inches long, and three wide at the base. They are formed like lancets, being sharp on both sides, and come perfectly to a point, and are rivetted on an iron rod, forming an instrument, to appearance, like a saw. A row of strong iron spikes or guards are firmly fixed to the front edge of the platform, pointing horizontally forward, each of which