CANADIAN AGRICULTURAL MACHINERY.

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has been largely extended by all manufacturers. Now the platform is made of sheet steel rolled perfectly level, and braced beneath by diagonal and cross braces of angle steel. This gives the platform extra strength and rigidity combined with lightness. The main frame of the machine, the braces and shafting are all of steel; the sprocket wheels and the working parts on which there is not much strain are of malleable iron, and the bearings of the main gear-shaft are of cast iron, as is also the frame of the binding mechanism attachment, to keep the shafting in permanent alignment.

Reaper.—On farms where the crop is not of sufficient acreage to warrant the purchase of a binder, the reaper is used. The selfdelivery reaper has a gearing driven from the main wheel, which operates four or five rake-arms over a quadrant-shaped platform. These lay the grain against the knife, carry it across the platform, and deliver it in even-sized gavels, ready for tying by hand. The adjustment of the rake-arms will allow every rake to deliver, as is done when the crop is heavy, or only the second, third, fourth or fifth, according to the crop, or all the rakes can be thrown out of gear.

The manual delivery reaper is a combination of the ordinary mower and a reaping attachment. This attachment consists of a tilting platform, pivoted to a cutter-bar, and the necessary guards, extension dividers, supporting wheels for the inside and outside shoes, and an extra seat for the second operator, who lays the grain against the knife by a long-handled rake, and tilts the platform with his foot to allow the cut grain to pass off it.

In all varieties of farm machinery the manufacturer must have his machine—Firstly, strong enough and of sufficient capacity to successfully handle the most difficult conditions to be met with in the class of work for which it is intended; Secondly, as light as possible without imparing its strength and of the lightest possible draught; Thirdly, simple in construction and easy in operation. Agricultural implements are not, as a rule, operated by expert mechanical men, so there must be no complicated mechanisms, and all adjusting levers must be easily worked and convenient to the driver.