INE WORKS CO.,

ave one hand of mill or engine In direct action mills we generally hand saw irons and saw, so that e we we usually have in the more

l orders which we need hardly say

OFFICE

RANTFORD, CANADA.

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BRANTFORD, ONTARIO, CANADA.

The following is a very fair description of our Champion Portable Saw Mills taken from the *American Exporter* of June, 1885. The description of the working of the Mill is applicable to all our Portable Mills :--

A Complete Portable Saw Mill.

(FROM THE AMERICAN EXPORTER.)

The cut shown on this page (see page to) represents a complete portable saw mill as used in America. It is complete within itself, capable cf being taken into any timber tract or on any gentleman's estate, and cutting from the rough logs of any size from 30 inches in diameter downwards, of any length from 6 feet up to 20 or 22 feet long, or longer lengths when the carriage is so arranged. This mill is placed on the ground in any convenient locality, oftentimes at the foot of a gentle slope rising say 6 feet in '25 or 30 feet. On this slope the logs are piled, and a wooden tramway or track made of wooden rails is run slantwise gradually up the hill. Along this track, on upper side, skids are placed, with their outer end just the height of a log car. These skids hold the logs back, and on them and behind them are piled all the logs that are to be cut in the mill." A car is run out, and a man, with what are called cant hooks in America, rolls the log on the car, and the car of its own weight then runs into the mill. On arriving at the mill, the platform of the car is the same height as the skidway before the carriage in the front part of the mill. Two or four or more logs can be placed on this skidway, depending on its s ze. As the capriage is run down to the skidwar the headblocks bring run back as far as necessary for the size of the log that is to be sawn, the log is rolled on and held. firmly to each upright by the Knight dogs shown in the cut, they, for this purpose, being run out further than the headblock as shown in the headblock nearest the saw in cut, (see page 10) and the sawyer, who stands in front of the carriage in.mediately at the frame, grasps the handle of the set works which extends over the log and sets the log-forward on the slides till it is sufficiently past the saw, that the saw will take off the proper thickness of slab. He then grasps the lever shown in the centre of the end of the frame, pulls it towards him, and the log at once moves up to the saw and past it, the saw cutting off the slab. When the saw has made the entire cut, the lever referred to before is shoved the reverse way from the sawyer, and the carriage immediately starts back. While it is running back, the sawyer puts his foot on a treadle, not shown, but which rises an inch or