

engine is very clearly shown attached by belt to the pulley on the saw mandrel. It will be noticed that there are three bearings under the saw mandrel, making it perfectly strong and rigid. This, coupled with the timber gauge explained before and the inserted tooth saws that are used, enables the mill to saw perfectly smooth and true lumber.

One other feature is very noticeable in this mill, namely the fire-proof qualities of the engine. Mills of this kind would no doubt be more frequently used on large estates to cut up timber that is blown down by storms, or in forests that require to have the timber thinned out from them, provided the owners were assured that there would be no danger in communicating fire to the remainder of the forest. This engine being perfectly fireproof, every spark or coal being thrown into water, obviates all danger of fire, so that gentlemen can introduce it to their forests without any hesitation, resting assured that it will cut their timber perfectly true, and at the same time very expeditiously, and also in no way endangering their property. The manufacturers assert that saws can be used on these mills as large as 52 inches in diameter, 10 gauge, which is $\frac{1}{8}$ inch full in thickness; and 54 inches in diameter, as thin as 9 gauge, which is scant $\frac{3}{32}$ inch thick. It will be seen, therefore, that very little of the timber is wasted in sawdust. The manufacturers also assert that with the mill shown in the engraving four men will cut of pine 7,000 feet board measure per day of ten or eleven hours, and of square timber a much larger amount. Of hard wood, such as English oak and other hard woods, 5,000 feet per day would be a good day's work, although, no doubt, more than this could be done by expert men.

The manufacturers send us a letter from Mr. William Stoddart, (see page 10) contractor on the Canadian Pacific Railway, in which he states he has cut with one of their 16 h. p. mills as high as 15,000 feet of bridge timber in ten hours. We should imagine that this would be an invaluable plant for railway contractors and others to be moved along new lines of railways as they are advanced to cut the ties or sleepers, bridge timber, station house timber, etc., etc., as required.

The manufacturers do not confine themselves to the style of engine here shown. They also manufacture sectional upright boilers readily taken apart; horizontal boilers of the locomotive style; or the return tubular fire box style; or return tubular boilers to build in brick. In fact they state that they are prepared to furnish any style of boiler that customers may desire, and portable and stationary mills of all capacities. As they are doing a very large export trade they feel confident that they can give good satisfaction to any who may entrust them with their orders. They have lately issued a very large and comprehensive catalogue of their machinery which will be sent free to all.