

A SPLENDIDLY EQUIPPED WOOD-WORKING PLANT.

DESCRIPTION OF THE NEW SAW MILL AND PLANING MILL OF J. W. HOWRY & SONS, FENELON FALLS, ONT.

IN the march of progress that is characteristic of the days in which we live the advances that have been made in manufacturing lines stand out most prominent. In wood-working the advance has, in some respects, been more noticeable than in some other directions of manufacture. This point has been reached, that it is impossible to keep up in the race and competition of today, unless the most improved machinery constitutes the equipment of wood-working establishments. The concern satisfied to work along with the old plant, finds itself handicapped at every turn, the productive power of the institution weakened and the cost enhanced.

A retrospect of the history of wood-working machinery since the days when Sir Samuel Bentham first secured a number of important patents, contrasted with the equipment of later day establishments, shows very clearly the large progress made. One need only go back a quarter of a century and draw the contrast between the machinery of that day and the present, and in many particulars the difference is as remarkable.

The position of a well equipped wood-working establishment in the present day can be best seen by taking a concrete illustration. We do this by a reference to the saw mill and planing mill of J. W. Howry & Sons, of Fenelon Falls, Ont., whose new mill is considered to be

partment, where the blocks 16" and 18" are worked up into shingles with fancy butts for gables of houses.

The lumber operations of the firm are on a large scale from whatever standpoint the business is viewed. The firm owns large timber interests in the northern districts of Ontario. What is familiarly known as the old Scott mills are theirs, and also the Boyd mills in Monmouth, Sherbourne and Glen Morgan. They have between 12,000,000 and 15,000,000 feet of lumber on hand and expect to manufacture 18,000,000 more before the close of the season; the larger part of it will go to the United States.

The location of the mill property is on the proposed route of the Trent Valley Canal, and the G. T. R., 14 miles north of Lindsay. There is at the present time about eight miles of railroad sidings covering over 50 acres of land.

Messrs. Howry have about 20,000,000 feet of logs on the way down the streams, which are to be manufactured this year, and it is their intention to run the mill winter and summer. Their annual output is about 30,000,000 feet of lumber, 5,000,000 lath, and 15,000,000 shingles.

BURNING SHAVINGS.

IT is considerable of an art to burn shavings in such a manner as to keep up a regular supply of steam and not injure the boiler. Shavings make probably the most intense heat that any boiler is subjected to, except when oil is used. The fireman will put in a small

tial point being that the whiteness of the stock equals that of the genuine cotton material. Thus far, it is stated, the bleaching compounds have consisted of hot solutions of bisulphate of soda and chloride of lime, after bleaching the subdued pulp the cellulose is treated with a compound of chloride of zinc, castor oil and gelatine, resulting in the formation of a paste which is reduced to strands and rubbed into thread. Under the naked eye the pulp thread is said to differ very little in appearance from the real cotton, possesses practically all the features of a pure cotton thread, and is white and soft, but when compared beneath a strong microscope a difference is noticed, the fine, fussy and loose fibres so prominent in cotton threads being missing in the pulp sort, though not to the disadvantage of the latter. The peculiar twist character of cotton thread is also absent in the pulp strand, while the latter seems harder and smoother under the glass.—Northeastern Lumberman.

RESISTANCE OF WOOD.

THE resistance of wood to destruction is extremely variable, depending upon the kind of wood and the conditions to which it is exposed, for the durability of the same specific gravity varies in air and under water. Ordinarily, oak will last one hundred years, beech seventy-five years and the conifers eighty-five years. As estimated by the Engineering Record, oak subjected to alternate dampness and dryness lasts fifty years, pine



PLANING MILL AND BOX FACTORY OF J. W. HOWRY & SONS, FENELON FALLS, ONT.

perhaps the most perfectly furnished in the Dominion. This is especially the case as regards the planing mill and box factory.

J. W. Howry & Sons take their place among the lumbermen of the United States, who have seen in Canada a profitable field for operations, particularly within recent years, as the timber resources of their country have been rapidly diminishing. The firm consists of J. W. Howry, John H. Howry and H. K. Howry. They have long born a reputation as progressive business men in their own country, and the energy they have thrown into business in Canada furnishes further proof of this.

The saw mill at Fenelon Falls is equipped with two 12" Prescott band mills, one Challoner double block shingle machine, lath mills, etc. It is a combination steam and water mill, that is the mill proper running by water, the carriages, log turners, log stops and unloaders being worked by steam. The capacity is 200,000 feet daily, the mill being run 22 hours out of the 24.

The box factory and planing mill, around which in some respects especial interest centres, is 100ft. square, run by water, and is connected with the saw mill by a shaft 200 ft. long, which is attached to a water wheel in the saw mill. In the planing mill there are four surfacers and matchers, one moulder, two cut off saws and one edger. The planing machines and cut off saws are made by the S A Woods Machine Co., of Boston. It is also equipped with one standard band resaw, made by the W. B. Mershon & Co., of Saginaw.

The box factory is equipped with a cut off saw and rip saw and it is capable of turning out four cars of box shooks daily. Here, there is also a patent shingle de-

amount of shavings in front of the furnace, light them and check down the damper until the steam begins to start; then once well under way, he will fire slowly, feeding the shavings "little and often." The sign of proper combustion in a furnace is a bright flame all over the grate surface. This is very hard to secure when shavings are burned, especially if a bunch two feet thick be thrown into the furnace right in front of the fire door, and the fire allowed to taper down to nothing round the edges and back of the furnace. The signs of bad combustion are blue flame, dark spots and smoke. More particularly is this the case when coal is burned. To a certain extent it is true with shavings and with all other kinds of fuel. Good firing is accompanied by an absence of dark smoke, except perhaps for an instant after firing. The thickness of fire is perhaps a matter of choice more than of necessity. Evenness of surface of fire is more to be required than thinness. Regulate the draft according to the thickness of fire, quality and quantity of fuel, etc. A thin fire is best when a boiler must be forced.

ARTIFICIAL YARN FROM WOOD-PULP.

THE production of artificial cotton yarn from wood-pulp is declared by a Rhode Island experimenter to be a practicable industry, the difference between the two materials being said to be very light as regards appearance, softness, strength, lustre and general condition. It appears that for this purpose the wood of the spruce or the pine is used, and is defibrated, after which it is disintegrated thoroughly and subjected to a good bleaching. Much depends upon the latter process, an essen-

at the most twenty years. If kept continually dry, oak wood will last three hundred years and pine one hundred and twenty to one hundred and fifty years. Oak and beech last indefinitely under water, and alder lasts much longer under water than in the air. The most durable woods under water are oak, alder and pine; the least durable, birch, linden and willow.

In the air timber is exposed to the ravages of insects, the sap wood being attacked more than the heart wood. Woods rich in resin, like the elm and poplar, are not so much troubled as those like the alder, willow, birch, yoke elm and red beech, which have an abundance of sap and are rapidly deteriorated.

Observations upon the preservation of timber have shown that, first, the more warm and humid the atmosphere the more rapidly the wood deteriorates; second, timber felled in winter is more durable than that felled in summer; third, timber raised in cold climates is most durable, and fourth, the best timber is that raised on meagre soil.

Timber construction which is protected from heat and humidity is only endangered by worms, and, on the contrary, that which is in a damp and badly-aired place fails by rotting, which is really produced by microscopic vegetable growths. Under water timber is attacked by the taret. The primary cause of the decay of wood is the presence of albuminoid substances in the sap, and incrusting materials which afford nourishment to insects and microscopic vegetations.

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