

SAW MILLS AND LUMBER YARDS HAZARDS.

How the Fire Underwriters Study Fire Prevention— Interesting Address by Mr. C. P. Sparling.

That the sum of \$114,708,965 is invested in the Canadian lumber industry was a fact mentioned by Mr. C. P. Sparling, inspector of the Norwich Union Fire Insurance Society, in addressing the Toronto Insurance Institute. He gave figures showing that 2,498 lumber mills were producing an output per annum valued at \$88,095,993. On these statistics he based an interesting paper on the special hazards of saw mills and lumber yards.

Owing to the inflammable condition of wood in its various forms, the buildings and lumber yards are obliged to be subjected to a strict standard as to construction, equipment and lay-out, in accordance with their environments.

Fire Underwriters Study Fire Prevention.

Saw mills with their lumber yards, owing to the nature of the business, are nearly all found in the wooded districts, on account of the access and easy handling of the timber cut in the limits or forests, hence the entire lack of municipal fire protection obtainable in the more thickly populated sections. The Fire Underwriters are forced to carefully study the question of prevention, solicit the co-operation of the mill and lumber owners to erect and equip mills and place their lumber, laths, slabs, shingles, etc., in such a manner as to eliminate all possible danger arising from fire. With that object they have promulgated from experience, schedules to cover all possible hazards, by that means each mill and yard stand upon their own merits.

The rates on a saw mill vary from \$2.75 on a sprinklered risk to 10 per cent. The higher the rate approaches to 10 per cent., the heavier the risk of carrying it, due to the many deficiencies of proper conditions for protection from elements of fire. The better classes of saw mills average in rating from 4 per cent. to 5 per cent., in such cases the standard requirements are fairly well adhered to. Where there is a mill at 9 per cent. to 10 per cent. all the deficiencies have been charged and if the proprietor or company seeing their cost of insurance, accede to our advice, and immediately put the improvements into force, the rate comes down proportionately and the risk becomes more desirable.

Dangers of Coal Oil Lamps.

Mr. Sparling then detailed the special hazards of the mill and boiler house. The lighting of a mill, he said, is a source of trouble and where electricity is not available they resort to coal oil lamps. In this case we are obliged to allow them with a penalty and insist on their being enclosed, if not, the penalty is increased $2\frac{1}{2}$ times. There is a great liability of explosion in the lamps, there is also risk of fire in the lamp room if situated in the mill. If electric light is used, transformers must not be in mill or adjoining building, so as to eliminate danger from that source.

Standard Refuse Burner.

All mills are obliged to get rid of their unmerchantable refuse such as end pieces, slabs, bark, etc., and for that purpose have to erect a burner to consume them. Experience has shown that it must be constructed on a standard commensurate with the capacity of the mill and perfectly safe for the surrounding property.

The standard adopted by the Fire Underwriters calls for a burner to stand on stone or brick base, to be of iron, lined inside with brick to a height of 12 feet above feed door, from 60 to 100 feet in height and 18 to 30 feet diameter, according to capacity of mill, to be of equal diameter (or with not more than 25 per cent. of difference between) top and base. Top to be enclosed by wire screen from 15 to 25 feet high, with a mesh not exceeding $\frac{1}{4}$ square inch.

No open burner of any kind is allowed within 200 feet of mill. There are a variety of means used for getting clear of this rubbish. As an instance, Lumsden's mills, at Temiskaming, a water power mill, doing a very large business, on a stream running into the Ottawa River, and having a fall of about 175 feet in a mile, have a water chute at the side of the stream carrying the debris to a point about $\frac{1}{4}$ mile from the mill and lumber yards, where it is gathered on the bank for the season and then burned. Other mills of small capacity have open burners constructed some situated from danger to surrounding buildings or lumber, but all more or less hazardous.

Lumber Yard Rates.

The rates on lumber are regulated according to the clear spaces adopted by the owners as between the mill and piling grounds and indicated by posts showing the fire limit and number of feet which range from 50 feet to 400 feet.

The policies issued by the fire companies have a warranty clause inserted stating that the number of feet of continuous clear space will be maintained by the assured as between the mill, working establishments, or refuse burner and a space of 50 feet between property insured and any railway track traversed by a locomotive and any wharf or dock or steamboat landing, and the said spaces shall not be used for the piling of lumber thereon for temporary purposes, tramways upon which lumber is not piled alone being excepted. The space clause does not admit of any erection whatever (excepting tramways) within the space limits.

The hazards being from the mill buildings, refuse burner, smoke stacks, bush fires, smoking, and where there are railroad main tracks and switches, a dock or wharf where steam vessels tie up or land for loading and unloading, there is a hazard of sparks flying from their funnels when burning wood or kindling for steam. Locomotives burning coal are apt to puff out live coals which is also dangerous. Serious losses have been recorded from these causes. A number of incipient fires occur and not reported. An inspector while visiting a large plant recently, reports that while at the dock a tug passed throwing out a profuse display of sparks which started a small fire. On directing attention to it and its attendant danger, a remark was made by one of the employees that it was of a frequent occurrence. The greatest of care should be exercised by those handling the tugs or steam vessels, assisted by those on the shore or docks, where valuable stock of lumber is piled, that nothing of this kind should endanger the property by a loss through fire.

Lumber should be piled in avenues and the piles not too high and not more than 16 to 18 feet in height. The avenues should be wide enough to give easy access to the piles in case of fire. Where a pile of lumber takes fire and it is possible to make an opening or break in it by removing some of the lumber the same should be quickly done, loose boards being stood on end as a sheeting or cover to the unburnt pile, and water played upon it, thus acting similarly to wet blankets for protection by stopping the draft or wind driving the fire into the remaining lumber.

NEW BRUNSWICK.

Large Cement Plant May be Established—British Capital Interested in Proposed Furniture Factory.

St. John, New Brunswick, Feb. 20th.

Another record season in exports by the winter steamships from St. John is anticipated. Up to date the value of these exports is about \$12,000,000 and is larger than for the corresponding period last season. About half is represented by United States produce, including meats, lard, grain, flour, cotton and manufactured lumber. There are now seven steamship docks at the C. P. R. terminus at West St. John. The warehouse at number seven has just been completed and a steamship is now lying there taking cargo.

It seems probable that there will be an average cut of logs this winter, and that the chances for getting them out will be fairly good.

A company is being formed with a capital of \$2,000,000 to establish a cement manufacturing plant at Green Head, close to St. John. It is said the plant will cost \$500,000 and that President Beach of the Pennsylvania Cement Company is interested in the project. A special meeting of the Safety Board will be held to consider the question, as the proposed site is owned by the city.

The story is revived that the Canadian Pacific Railway Company is securing options on coal areas in Queen's County. Options have lately been secured, and the C. P. R. has had the areas carefully examined, but the officials deny any knowledge concerning the options.

Messrs. Ganong Bros. of St. Stephen and others are seeking incorporation as White's, Ltd., with \$150,000 capital, and chief place of business in St. John. They have made an offer for the property of the White Candy Company, and Mr. G. W. Ganong, M.P., states that it is their intention to carry on business in St. John, erecting a factory.

The business men of Fredericton met recently under the auspices of the Board of Trade, to discuss the advantages of the city and arouse a more general interest in its industrial and commercial welfare. Different speakers discussed the city as the centre of a great agricultural district, as an apple producing region, and as a manufacturing and distributing centre. One speaker predicted that when the railway was constructed down the St. John Valley from Woodstock to St. John, passing through Fredericton, there would be an increase in trade in natural products of \$3,250,000.

Miramichi Pulp and Paper Company May be Purchased.

Mr. William Johnson, of Montreal, visited Chatham last week and inspected the property of the Miramichi Pulp and Paper Company now in liquidation. He may purchase the property if the terms are satisfactory. The liquidators are authorized to grant an option on the property for three months at \$345,000.

A British capitalist will arrive at Fredericton this month with the prospect of establishing a large furniture factory, which would utilize the hard woods so plentiful in that vicinity.

The port of St. Stephen may be utilized as the shipping port for large quantities of shingles from the interior of New Brunswick to the West Indies.

There is a large increase over last year in the imports by the steamships coming to St. John, as compared with last year. This is due to general improvement in the trade of the country.

There is a proposal to dam the St. John River for power purposes forty miles above Fredericton, also its large tributary, the Tobique. Both these schemes will be vigorously opposed when they come before the Legislature.—W. E. A.