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The Canada Lumberman

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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PETERBOROUGH, Ont. OCT. 1, 1881.

A FOREST DEPARTMENT.

Renewed interest in the subject of the management of our Woods and Forests has been awakened by recent events. The enormous devastation caused during the late dry season by forest fires, and the contemplated sale of timber limits in the Nipissing district by the Ontario Government, both deserve consideration, and have received it.

These two circumstances, though seemingly of such a widely different nature, in one aspect point in the same direction, and teach the same lesson. The bush fires have notoriously in many, if not in most, instances taken their start from the settlers' fires for clearing purposes. Again, the necessity for the sale of the Nipissing timber limits, when there is already so much pine land under license, and the propriety of economizing our supply of standing timber is so well recognized, arises from the fact that settlers are already establishing themselves on the land in question. Not only, therefore, is a premature sale forced upon the Province, if it would avoid the risk of the destruction of this portion of its capital, but the very fact of the sale will inevitably lead to fresh antagonism between the settlers and the lumbermen with their divergent interests.

It is clear when such evil results arise that there is something wrong with our forest management. That a wasteful destruction of valuable property should constantly occur—that the premature consumption instead of economical use of our fast diminishing forest wealth should be encouraged, are in themselves sufficient proofs that our system is faulty and extravagant.

Does it not seem obvious that the difficulty arises from the want of proper classification of the Crown Lands of the Provinces? Surely it would not be difficult to decide what lands should be opened for settlement, and what might be more advantageously maintained permanently as forest. Where the land is well fitted for cultivation, it may be advisable to clear off the timber and then admit the settler as quickly as possible. On the other hand, where the soil is better fitted for forest growth than for agriculture, the settler should be excluded altogether, and a proper system should be adopted for perpetuating the timber growth. Thus our resources—our capital—would be

utilized in the most fitting and economical manner. It is certain that mixing up settlement and lumbering has proved a failure.

We again urge the propriety of establishing a Bureau of Woods and Forests, which will take this and similar matters in hand.

AS OTHERS SEE US.

The following are extracts from a correspondent's letter to the *Scotman* giving an interesting account of a flying visit he paid to Ottawa, detailing some of the sights he witnessed in that rapidly rising city—the capital of the Dominion of Canada:—"The leading thoroughfares," he says, "have been laid out on a handsome scale, and show a good many substantial buildings." Speaking of the cities he had visited throughout America, he says: "Not one can be said to have really tackled the most important object of municipal management. Quebec is a marvellous agglomeration of pitfalls and sloughs of despond; and in Montreal, though the foot pavements are somewhat better, the carriage ways, for that great commercial centre, are far from satisfactory. In the case of Ottawa, there is more or less paving to be seen along the principal thoroughfares, while the wooden sidewalks are kept in a fair state.

"Scarcely had I completed a general survey of Ottawa," he writes, "when I was taken in hand by a prominent citizen who had kindly undertaken to show the lions. We visited the extensive saw-mills, where timber, floated down the river from distances of fifty to a hundred miles, is cut up into boards. In their mechanical arrangements these mills are very much alike, though with more or less important variations in detail, suggested by the ingenuity of individual managers. In the river above them lie acres of logs, the shooting of which through long slides from a higher to a lower level is considered one of the local sights, and affords a certain mild sensation to tourists who care to trust themselves on the swiftly rushing rafts. Arrived at the mills, the logs are floated one by one into a still water dock, where they are clutched by machinery adapted to convert them into marketable boards with a minimum of manual labor. Hoisted up by means of a chain worked by gearing from the engine, a log is deposited on the travelling platform of a circular saw, revolving with such rapidity that in watching it you are reminded of Smith Mimer's sword, which went clean through a man without his feeling anything but a sort of coldness in his inward. A minute more, and with a weird sound which fancy might interpret as a shriek of triumph over the giant of the forest, the saw has whisked off a slab from one side of the rounded bole, a process which is presently repeated as the other side confronts the relentless teeth. Being thus roughly squared, the log is slid upon another table, where vertical saws, spaced according to the thickness of the boards required, cut their way simultaneously through masses of solid timber. Fed continuously into this machine, the logs come out as so many sheaves of plank. The trimming of rough edges is the work of another moment; and the boards are then sent travelling over a set of endless chains to be, on reaching a certain point, cut to the desired length and delivered at the far end in a state fit for the market. In Ottawa alone the extent and importance of the trade give employment to several thousand persons, whose appearance speaks volumes for the healthy and well-paid character of their occupation. Such indeed is the present prosperity of the lumbering interest that one establishment here has been fitted with the electric light, and is kept running day and night. Being driven by water, the mills have of course, to be closed with the advent of winter; hence this eagerness to make hay while the sun shines. Pail-making, again, illustrates that speed of production attained by division of labor which, whatever may be said against it from the artistic point of view, undoubtedly gives the consumer the advantage of a cheapness otherwise unattainable. As you watch the first stage of the process, before you can count half a dozen, a deft handed boy has slipped within an iron hoop the staves necessary to form a pail or tub. The hoop is driven tight, and the article passed on to a planing machine,

by which, in a trice, inside and out are reduced to perfect smoothness. The cutting of a groove and insertion of the bottom are accomplished with equal celerity; and, ere you have time to turn, the vessel has been fitted with a handle, and ready for the market.

"The power employed in the Ottawa mills is derived from the noble river which, just on the western verge of the town, forms a cataract ranked next to Niagara among the waterfalls of this continent. The depth of the descent does not exceed 40 or 50 ft.; but so great is the volume of water tumbling over a rocky ledge, some 200 feet in length, so terrible the turmoil of the seething caldron which receives its thundering fall, amid clouds of rainbow-tinted spray, that the effect, more especially when viewed from a platform in close proximity, is impressive to the pith of the sublime. Nothing how the mill-wheel water passes off as a mere dribble from the edges of the current, one feels that in this enormous magazine of natural force there is a motive power far more than enough to propel all the saw-mills of Canada."

HOW TO FIGURE SPEED.—THE REASON WHY.

To the Editor of the Canada Lumberman.

SIR,—I notice in your last issue an article under the above title, written, as I understand it, for the purpose of explaining, in a plain way, the principle upon which the rule for computing the relative rates of speed between driving and driven pulleys of given sizes, as also the relative sizes of such pulleys for given rates of speed is based, for the special benefit of such parties interested as are supposed to be unlearned in such matters.

The object is a commendable one, and the writer evidently has a knowledge of the subject, but in presenting the "reasons why" in such a manner as to be easily understood by those for whom they are intended, and to be of practical use to them, the paper appears, to my mind, to be a failure.

The writer describes "the 'rule' laid down in the 'books'" for the solution of this problem—giving the diameter and speed of a driving pulley to find the speed of a driven pulley of a given diameter to be, "multiply the diameter of the driving pulley by its revolutions per minute, and divide by the diameter of the driven pulley." Of course, if it were required to find the size of a driven pulley to produce a given rate of speed, the rule would be—Multiply as before, and divide by the number of revolutions of the driven pulley.

With your permission, I will give my version of the "reasons why" for the above rules.

From the article referred to I quote the following example:—"Suppose the diameter of driver was 25 inches, its speed 180, and a speed of 600 was required, what would be the diameter of the driven pulley?"

The relative rate of speed of the two pulleys respectively is in inverse proportion to their respective diameters, therefore the above question should be stated thus:—

As 180 : 25 :: 600 : diameter driven pulley. Every schoolboy knows that to work this out, you multiply the first and second terms, and divide by the third, say—

$$\frac{180 \times 25}{600} = 7\frac{1}{2}, \text{ the diameter required.}$$

In this operation you exemplify the "rule"—"Multiply the diameter of the driving pulley by its rate of speed, and divide by the speed of the driven pulley," clearly illustrating the principle upon which it is based.

To avoid complications and confusion in computing, where counter shafts are used, apply the above simple rule to each motion separately in regular order, either forward or backward, and you will arrive at a correct conclusion, no matter how many changes of speed or "train of gearing" there may be between the first motion and the last one.

Hoping this may be of use to some of your readers, I am, yours truly,

COGG WHEEL.

St. John, N.B., Sept. 21.

The good accomplished with steel pens is incalculable, but the cost of a box of Esterbrook's is only nominal. The stationers have them. The trade supplied by Brown Bros., Toronto.

TIMBER LIMITS BURNT.

The Kingston *Whig*, of Sept. 20th, says: Last evening a gentleman who has just arrived from "away back," was interviewed in relation to the destruction caused by fires, which of late have been so terrible, convincing settlers of the danger of starting them in dry times in order to clear their farms. The west part of Clarendon and the whole of Miller have been swept over by the fiery scourge, carrying destitution and loss.

Mr. Leopold Ohlman, who resides at a place near the mountain, has lost his barns, house, crops and fences.

Mr. J. Stalker has been a sufferer to a similar extent. The people are thankful that their lives have been spared.

The fire is now in the pineries, and it is asserted that the limits of William Mackay, of Ottawa, have been greatly damaged. They were all burned over, and to preserve the charred timber from further destruction by borers and dry rot Mr. Mackay will need at once to remove the partially destroyed tree trunks and have them sawn up. A large number of men will be wanted to do this work.

Mr. McLaren's limits have also been burned over. The camps of the lumbermen in both Mackay's and McLaren's limits have been burned, but the depots and supply houses have not fallen a prey to the ravaging flames. It is hard to say what the extent of the damage has been.

The heaviest loss to the farmers will be those of their crops and fences. The wood is not of as much consequence to them as it is to the people of the cities who depend on the forest in the rear for their fuel supply.

The fires around Plovera are still raging, but there is now no fear of the destruction of the village. Yesterday the fires were but a few miles from Plovera.

Not much disaster so far has been wrought in Palmerston, the residents of which are very particular as to fire.

Canoto, which has not yet been much settled, but which is now open to settlements, has been all burned over and many acres are described as "a mouldering fire bed." The sight at night is said to have been grand. The country for miles has been lit up by the flames. A short time ago our informant drove out some miles to see the conflagration work up this side of what is known as the mountain. The scene was impressive, the flames creeping up the tall trees and leaping higher and higher until they reached the craggy peak. The fantastic and weird shapes in which the seething flames twisted presented an unparalleled sight in this vicinity. For some hours afterwards the glowing fire could be seen eating its way into the pines. It is stated that even green hardwood has fallen a prey to the destructive element. This is an unusual occurrence, due to the fact that the trees are now almost devoid of sap. The fires will smoulder for a long time unless rain falls.

The most mischievous fire observable is that which runs along the line of the K. & P. R., especially between Parham and the Mississippi.

Saw Mills Burned.

PHILIPSTON, Sept. 25.—About six o'clock this evening Anderson & Tennant's large saw mills, known as the Anten Mills, at Hendrie, three miles south of here, were burnt. The fire burst out suddenly near the boiler-room, and when discovered the interior was a mass of flames. The mill was totally destroyed; cause unknown. Its value was from \$15,000 to \$18,000. The insurance is reported from seven to ten thousand dollars. Very little lumber was burned. The Northern and North Western Railway lose flat cars, burnt.

The *Montreal Times* says that an enterprise of some importance is the coöperation of Messrs. Pike and Richardson, of Pikeville, near Chatham, Ont., who have contracted with parties in Europe to furnish five million elm hoops, twenty-five million elm staves and basswood headings unnumberable. The firm has factories at Bismarck, Rodney, Comber, Tibury, Charing Cross and Buxton. They employ 370 men, besides those engaged in getting out logs, while the capacity of the works is 30,000,000 staves, 6,000,000 hoops, and 1,000,000 set barrel staves.