



PUBLISHED  
SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada

SUBSCRIPTION  
\$2.00 PER ANNUM

VOL. 5. PETERBOROUGH, ONT., SEPTEMBER 15, 1885. NO. 18.

**POINTS FOR MILLMEN.**

**CONCENTRATING OR DIVIDING POWER?**

Skybone's mill was run by a 200 horse power "improved automatic" engine, and Skybone's ran a one-mule power "double compound condensing high-pressure" cussing machine when one little six-inch belt broke and he must needs stop the whole mill in order to fix that belt.

Skybone's finds that having every machine driven by one engine is not what it was cracked up to be. He can't see that he gains anything by it. It takes nearly as much fuel to run his big engine as it would to run several smaller machines; and even that is not much of a saving for fuel does not cost anything, so the nice patent engine is not appreciated much. If Skybone was up where coal was \$12 per ton and wood \$13 per cord, then it would pay to hunt around for "dandy" engines.

As things are generally found around saw mills, an engine with a good plain slide valve gives the best satisfaction, but the tendency now is to put in small independent engines, and as many of them are desired to be connected direct. They are necessarily made to run at high and consequently a different valve is needed.

Here is the keynote of success in building mills in the future. The old adage "a place for everything, and everything in its place" comes pretty near it for we will have "an engine to every machine, and each machine run by its own engine." A different valve is needed for these lightning engines. The slide-valve hardly does the work. The valve of an Armington and Symms engine is well adapted to quick work, but there is no way possible of taking up the wear of valve except by making a new one. The Westinghouse engine seems peculiarly adapted to this class of mill work, and gives satisfaction in every case where it has been used.

Let a man run ten years with a big all connected mill, and then let him pull out his white elephant of an engine and put in half a dozen small engines. That man will think himself in the prophets' "seventh heaven" before he has run his mill six months.

It will not be many years before shafting must go. Many mills are running lines of shafting 100, 200, and even 300 feet in length varying from 1 1/2" to 5" in diameter. It requires lots of power to keep this shafting in motion. In some cases over 50 per cent. of the indicated horse power, has been swallowed up between engine and saw, or planer. With water power especially, the amount of shafting that must be turned by that poor water wheel is a fearful item.

As above stated, shafting must go, and electricity is the agent which will turn shafting out of doors. In the present crude state of development which the science of electricity has

attained, power can be transmitted with a loss of 40 to 50 per cent. and in some cases, even less. Now, if you have a big water power, just get a number of dynamo machines and set them to work at the river bank. Run wires to where you want your saws. Put an electric motor to each machine and you will have the best shafting in the world.

You will never be troubled with hot boxes, your shafting will never get out of line, nor will your belts break, or get caught and wind in around set screws or pulley hubs

Small saws can have motors connected direct, while with most machines, belting from motor to machine would bring the speed right.

Steam feed is the best known to day for sawing lumber, but it will in time be superseded by a little motor geared to the carriage. Any person who has ever had opportunity to watch the operation of an electric railway, cannot but be impressed with the fitness of electricity for this purpose. The ease with which it is controlled is a great point in its favor. The movement of a finger for five or six inches is sufficient to change from quick to slow feed and even to a quick reverse.

To come back to the main question, we must have a divided motor power, no matter whether it is derived from one big river, or from a battery of steam boilers. As before stated, it does not pay to shut down twenty machines and keep fifty idle in order to mend one miserable belt, or to connect one or two machines. Another great point is in the ease with which repairs can be made when the power is divided.

**SUNDAY WORK.**

The big engine or water wheel requires more or less Sunday work, and Sunday work doesn't pay. If any thing about the big mill shows signs of needing repairs, the verdict is "let it go until Sunday," and when Sunday comes all hands care more about getting out of the mill than they do about getting the work done properly. Things are smashed with "good enough," or "don't give a cuss," and Bob, Tom and Mike get themselves away as quickly as possible, leaving behind them jobs patched with a "chip and string," when good solid work should have been put into them. Such make shifts last about two days, then give out again and the mill shuts down three hours while you patch up again so it will go till Sunday.

There is nothing in the mechanical line which will so completely demoralize a mechanic as to be obliged to work on Sundays on repair work. It is not profitable. It does not pay the owner any more than it does the mechanic. Many a good man has spoiled himself by Sunday work. We should stop it. To stop it we must reconstruct some of our old mills, and put in independent engines, and rig things in such a manner that we can stop one machine without delaying eight or ten, and until this is done we shall always be troubled with half repaired

jobs, botched work and sneaking workmen. Let us start this thing as it should go, and not get into the custom of looking upon Sunday as a repair day. It will not take long if we keep on as we are going now, to get so accustomed to Sunday work that it will be required as a matter of course. Give this matter a thought. It is the right course, and it will pay us to adopt it and then—stick to it.

**THE HAND JOINTER.**

Lots of mills still use the old hand edger, or jointer, consisting of a long hand carriage running upon trucks, by a circular saw. To operate this machine unless it is in tiptop condition is misery complete. You put a thick board on that carriage and then push until you wish one leg was three inches shorter than its mate, and can almost imagine yourself leading a stubborn cow along a steep hillside.

This hand edging business is a thing of the past in many mills; and should be laid on the shelf in all. Live rolls are the things to have where hand work must be done, but it is better to get a regular machine which needs no more hard labor than is required by a planer.

Poor work and little of it is the rule with a hand jointer when you joint one edge of a board and then turn it over and joint the other edge. Two saws do much better work than one. Run work between them and if the work does not come out parallel, then there is a good opportunity to find the reason why.

With a hand jointer, if the saw is not exquisitely sharp and true, you can feel the board draw along under your hand while it is cutting, and the board will come out small at either end and large in the middle. If a board is twisted the edges will not be square. One end will be square while the edge at the other end is bevelling, or standing from 1-16 to 1/4 of an inch. Pull out the old jointer, and put in a gang edger and a power jointer. Don't be trudging along 50 years behind in this particular when you have a leg hand saw and a dozen other improved machines

**FIRES.**

There is nothing which can clean out a saw mill as quickly as fire, and there is nothing which the mill man is so careless about as he is with fire, if we except his boilers, and sometimes we think that they are neglected just because there is fire under them. Carelessness in this direction almost amounts to insanity and we can say that some mill owners are fools about handling fire. They have shavings lying about everywhere and if fire drops out of the boiler furnace, they will smother it out with a cart-load of fresh shavings. See how they blow shavings into a fire room. It is outrageous. It should be made a criminal offence, liable to severe punishment

The insurance chaps catch on to this point a little and make owners of mills pay big premiums, but even the underwriters do not know of

one half the rottenness therein. There is no excuse for this idiosyncrasy with fire except pure unadulterated laziness and foolishness.

Mr. J. F. Langdon hit the nail very squarely on the head when he said "all spontaneous combustion in mills generally arose from spontaneous carelessness" on the part of some body. He might have said everybody connected with woodworking establishments, and then he would not have exaggerated at all.

The fellow who put his blower to work before he opened the damper of his boiler, was a fool; when the fire puffed out of the furnace doors and set the pile of shavings all afire, he wished he was somewhere else. This case is no fancy sketch. It happened not long since in Chelsea, Mass., and fifty men in the next building had to get out so quickly that they could not take their bench tools with them.

Piling lumber on top of a boiler to dry, is another foolhardy makeshift. We have seen it often tried, and we have had to get up in the night and turn a hydrant stream on it to keep the mill from going up in smoke.

Another fool of our acquaintance had a defective wall between boiler and dry room, and always kept a barrel of water close to the dry-room door in order to put out the sparks which occasionally blew themselves through the cracks and set fire to the lumber! This man was surely a fool, but he has many comrades. He is not alone in it by any means.

Live steam in a dry room is another cause of fire, but it is nothing in comparison with the danger arising from steam heating pipes. Very often they run under benches, through piles of lumber and among piles of shaving. The fine dry dust collects on them, the shavings pack down and become like tinder, while a bearing overhead is already to drop a little oil down upon the mass of touchwood, and the first we know, our spontaneous combustion, our mill goes up and again the daily paper says, "Mr. Fool's saw mill burned last night, cause unknown.—J. F. Holart in Saw Mill Gazette.

The two new canal basins that were opened at Montreal recently are known as St. Gabriel Nos. 3 and 4. One of them is about 740 feet long, the other about 620 feet, both being 125 feet wide, with a depth of water of 13 feet. The cost is in the neighborhood of \$150,000. They are intended for the use of the lumber and cordwood trade, which have had rather crowded quarters. The spaces round the basins will be divided into lots, which will be rented, but this will probably not be done until next season. Altogether there will be somewhere about thirty lots. The new basins will be a great accommodation to the lumber trade, as the dealers will be enabled to leave their lumber where it is unloaded, for a time, and ship it from there, instead of being compelled to cart it away to the yards.