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NO. 22.

THE *Ottawa Free Press*, of August 29th, says that quite a quantity of lumber is being shipped to the United States by McClymont & Co. per St. Lawrence & Ottawa railway. Twelve cars laden with sawn lumber left from the siding near the engine house across the Rideau to-day. More will follow during the week.

The *Mississippi Lumberman* says that a sale of 1,000 acres of pine land on the St. Louis river for \$12,500 occurred last week. The purchase was made by Mr. Fowler, of Saginaw, Mich. The price is the highest ever paid for timber in that region, but if any body understands the value of pine trees it is Mr. Fowler, who for years has been an extensive operator on the Hudson shore.

The boom in timber lands extends to Pennsylvania. A journal of that State says:—Hon. Samuel Calvin, of Hollidaysburg, recently sold the timber right on a tract of land in White township, Cambria county, for the snug sum of \$45,000. The same tract, timber and all, was bought, it is stated, a number of years ago by that gentleman, from a gentleman of Ebensburg, now deceased, for the sum of \$1,000.

A QUEBRO despatch of last week described arrangements as completed by Messrs. Allan, Grant & Co., of Ottawa, to ship to that city a large number of cars of square timber. A switch will run on the Custom House wharf to accommodate the first cargo, which when arrived will be thrown into the pond alongside the wharf, enclosed by a boom, and then rafted and towed to the cove of Messrs. Cook Bros. & Co.

STAVEYS of public lands now being made in the San Fernando and Catalina mountains have disclosed the fact that there are large tracts of table lands in those mountains, embracing several hundred thousand acres of the very best white and yellow pine, from twenty inches to three feet in diameter. There are groves with an average height of seventy to one hundred feet. The Texas Pacific and Atchison, Topeka & Santa Fe railroads will traverse this region, and make it valuable as a source of supply for southern Arizona, Sonora and Chihuahua.

The report of the Government cinchona plantations in Southern India indicates the astonishing progress made since slips of this valuable tree were first planted in that district twenty years ago. The number of trees now planted out is more than four and a half millions. At present the greater part of the bark produced appears to be consumed in supplying the medical depots at Calcutta, Bombay and Madras; but upward of 3,000 pounds was last year sold to the public, and the annual yield is rapidly increasing with the growth of the trees. The actual profit last year on the capital of the plantation is stated to have been eight per cent.

THE Nova Scotia Glass Co., New Glasgow, have just placed an order for 10,000 boxes to pack the goods of their manufacture. This means the cutting up of some 250,000 feet of lumber. The company are pushing their works forward, and they confidently anticipate being able to make glass Monday week. The crucibles have just been set.

MR. S. P. BENJAMIN, of White Rock Mills, Kings Co., N. S., has started at that place a barrel and box factory for making boxes and barrels for the putting up of apples and plums, etc. He has put in improved machinery, and is able to turn out 240 barrels a day, besides boxes. Next year Mr. Benjamin intends putting in machinery that will turn out at least 60,000 barrels, saying nothing of boxes, which he can furnish to an unlimited extent.

A HARRISBURG, Penn., paper says:—The maple and hemlock forests of Pennsylvania have never had the benefit of the right kind of enterprise to render them as important and productive as their real value ought to produce for them. The maple wealth of Pennsylvania is as valuable as that of her black walnut, if properly handled, because the wood is hard and can be utilized to as beautiful effects in building and furniture as that of walnut or ash. This wood grows to enormous abundance in this State, and will sooner or later become one of the most profitable sources of industry for those who know how to put it on the market.

THE *Timber Trades Journal*, of August 13th, says:—There was a goodly array of shipping reported the last week, both in London and Liverpool, laden or partly laden with timber goods, and those who have been apprehensive of short supplies, will be much cheered by the increasing importation. It is remarkable too that just half of the arrivals at Liverpool were by steamships, and for the first time in London, in a busy import month, more than half were steamers—of 60 timber vessels reported 31 were steamships, one more than half. In Liverpool, of 33 arrivals 16, or barely half, were steamers. Heretofore we have seldom known more than a third of the arrivals steamships.

#### Celebrities.

It is worthy of note that amongst some of the men who have risen from the ranks of industry are the late Rev. Dr. Morley Punshon, a timber merchant's clerk, Bon Johnson, a bricklayer, Carlyle, the son of a stonemason, Socrates, a statury, and Robert Burns, a farm carpenter and laboring rustic.

THE GREATEST POPULARITY OF DR. FOWLER'S EXTRACT OF WILD STRAWBERRY is where it has been long and known. Time cannot detract from its merits. It is the oldest reliable remedy for all bowel complaints incident to the summer season.

#### WHAT BURNS THE MILLS.

With the opening of the season the saw-mill proprietor enters not only upon a period of active labor in the production of lumber, but upon a season fraught with the gravest apprehensions. If he could be about the mill through the night as well as through the day, and were he endowed with powers that did not need to seek recuperation in sleep, he could rest somewhat easy in his mind as he contemplated the risk attaching to his property, in the contemplation of the fact that his own eternal vigilance would prove the price of his safety from the danger of fire.

Careless engineers and faithless watchmen are about the most dangerous things to be found about a mill. The former allows the sawdust to accumulate about the furnace doors or hearth, and if the truth were to be known about many a saw-mill fire, it would be found to have its inception in this scattered sawdust, which ignited while the engineer had "just stepped out of the fire-room for a minute." His call outside proves a most dangerous minute for the proprietor, though the resultant destruction could have been averted if the hearth had been swept before he stepped out. Probably two-thirds of the fires which destroy saw-mills in the day-time arise from this cause. It is no uncommon thing to see the engineer of a saw-mill bank up his hearth doors with sawdust when he shuts down at noon and goes to his dinner. Such an engineer is a most excellent subject for discharge from a man's employ, for if the mill does not take fire the first time he does it, the old adage about taking the pitcher to the well once too often is pretty sure to be verified before the season is over.

Night fires are more usually the result of a too implicit confidence in the watchman than many suppose. We would not assert that all watchmen are unfaithful, but experience has proved the value of a proprietor's call at the mill at unseasonable hours of the night. If you find a wide plank or two laying across the top of your boilers, or suspiciously near the arch, you may be pretty sure that a quiet visit to that locality in the small hours of the night, will find them occupied by a lodger whom you have paid to walk around and see that no marauders are threatening your property, and no incipient blaze is endangering its safety. It is a good thing to have an energetic man in your employ, but when you find your watchman always ready to fill an extra place during the day, and apparently able to do without sleep for an indefinite length of time, you can be almost positively sure that what sleep he dispenses with in the day time is taken at your risk during the night. It is well known to be suspicious of the faithfulness of the man who can watch all night and every night, and grow fat on it, while working half or three-quarters of the time during the day. It is at least a good plan to visit him when he least

expects you, for by such visits you can often reduce the amount of your apprehension, if not the actual premium of your insurance.

The spark catcher on your smoke stack may be all safe enough, for practical purposes—but when you find a little patch of fire here and there through the mill yard, on a hot day, it will pay handsomely to call in the boiler-maker, or set your engineer at work to make the meshes smaller, or to put up a new wire screen in place of the damaged one, which will warn you some day with a hotter blaze than is healthy or profitable. Your fire-pump may be a first-class one; but when you go into a mill and see a row of empty water buckets in the rack on the saw floor, you can rest assured that if a fire ever starts on those premises, the fire pump will be of very little service. Empty buckets are a pretty sure sign of lazy engineers and mill foremen, and disabled pump. Unfortunately, when a fire starts on saw-mill premises, it is usually in too much of a hurry to get through the contract it has taken in hand to allow a machinist to be sent for to put the pumps in order, or to repair the hose which has been hanging on a peg in the wall until it is ready to drop to pieces from decay. The truism that a "stitch in time saves nine," has often been correctly rendered, "a full bucket of water saves the mill." With the record of saw-mill fires daily increasing, it well becomes all who are interested in this class of property to give the subject of its safety from fire a little of the care that is taken to obtain a full stock of logs, or an extraordinary cut by the saws.—*Monetary Times*.

#### Hints Concerning Saws.

A saw just large enough to cut through a board will require less power than a saw larger, the number of teeth, speed and thickness being equal in each. The more teeth the more power, provided the thickness, speed and feed are equal. There is, however, a limit, or a point where a few teeth will not answer the place of a large number. The thinner the saw the more teeth will be required to carry on equal amount of feed to each revolution of the saw, but always at the expense of power. When the bench saws are used, and the sawing is done by a gauge, the lumber is often inclined to clatter and raise up the back of the saw when pushed hard. The reason is that the back half of the saw, having an upward motion, has a tendency to lift and raise the piece being sawn, especially when it springs and pinches on the saw, or crowds between the saw and the gauge; while the cut at the front of the saw has the opposite tendency of holding that part of the piece down. The hook or pitch of the saw-tooth should be on a line from one-quarter to one-fifth for a softer timber. For very fine-toothed saws designed for heavy work, such as shingles, &c., even from soft wood, one-quarter pitch is best.—*Lumber World*.

## TERRIBLE BUSH FIRES.

THOUSANDS OF SQUARE MILES BURNED AND LAID WASTE.

DETROIT, Sept. 9.—The accounts which are hourly coming in as to the ravages of the forest fires show that there has been very little, if any exaggeration in the matter. The high winds that prevailed cut off nearly every means of escape. Large burning masses were lifted up and borne to great distances, starting fires in fresh places, and adding to the destruction. At Freecing the unfortunate people, most of whom are Poles, were caught in a fire-trap, and literally roasted alive, together with their cattle and horses. As a rule they were all now settlers. Numbers of them, blinded by the smoke and crazed by the fury of the flames and the agony of their sufferings, either died of their injuries or committed suicide. At least 300 are supposed to have perished.

The following villages have been completely burned down:—Bad Axe, Verne, Forest Bay, Richmondville, Charleston, Anderson, Decker-ville, Harrisville, and Sandusky. The following have been partly burned:—Port Hope, Mindon, and Ubbey. The loss in the villages is as nothing to that in the country, which is simply incalculable. The exact loss of life cannot yet be adequately ascertained, and the amount of damage done to property can only be roughly estimate.

At Paris, near Port Sanilac, up to last night, forty-five corpses, nearly all those of Poles, were found within a mile, many persons being still missing. In the whole settlement there is not one building left. Houses, crops, fences, all have disappeared.

South of Forestville from the lake back seven miles not one house is left to the square mile.

One man at Cato loses \$10,000 in grist mills, store and hotel. Here the settlers are nearly all Germans, and newcomers, and all have been burned out. The fire swept their property off like a hurricane, and drove many of them like sheep into the lake, where they perished miserably.

In Delaware township the people and cattle crowded to the lake shore. Men, women, and children have lost even the clothes they stood up in, and the unfortunate cattle have had their very hides burned through.

In Huron county the same has happened. One man driving through Huron county directly after the spread of the fire, reported that he had met five women entirely naked, each carrying a child. He gave them two flour bags to cover themselves with. A farmer saved his family, consisting of his wife and eight children by taking refuge in a field of buckwheat. A poor woman in his neighbourhood endeavoured to save herself and children by digging a hole and covering them as best she could with her hands. They were all subsequently found dead. The little ones had their heads burned off to the shoulders. The loss of cattle and animals is immense. Twenty head of cattle were found in a half-acre lot dead. Animals are strewed in all directions.

In addition to the dead, which are estimated at from 700 to 1,000, fully 5,000 persons have been rendered homeless, of whom many are absolutely without shelter.

Near Sanilac township, northwards, the people did not know any fire was near them until it was on them, and all had to run for the lake, and it being but a short distance all reached it in safety. John Kerr and family were asleep when their building caught, and a neighbour seeing it ran and woke them, and they succeeded in saving their house, but lost all else.

Mrs. W. Burgess got separated from her husband and lay all night in a ditch. Another person laid down in a mud-puddle and rowled over all night. Large parties of men have been detailed to bury the dead animals lest their corpses should breed a pestilence. The task of burying the human beings has in many cases been left to strangers, of whom one man reports that he saw 116 persons burned. In one place he saw four wagons bearing eight coffins, and one man walking behind alone. It was his entire family. Another man was following three coffins.

The whole of the Sanilac burnt region has been traversed by Rev. Z. Grenfell, Jr., pastor of the First Baptist Church here. He reports that the horrid of the approach of the fire was

darkness and a copper-coloured appearance of the sky. Later it changed to a deep red, and by two o'clock on the afternoon of Monday it became so dark that lanterns were a necessity in order that people might find their way out of doors. Mr. Grenfell relates the story of a Mr. J. Jenks, who said that the darkness was so intense that in passing his hand before his face it could not be seen. In the woods were many dead of every age, and presenting the revolting appearance of bodies which are scorched and charred by fire. The skill and courage of men seemed impotent to combat such flames, and the fleeing people were caught in fire traps and roasted as were their live stock. Mr. Grenell tells of one farmer who was ploughing with his oxen a few miles from Sand Beach, who, perceiving the approaching darkness, started for his house. Reaching there he found that his wife had gone to a neighbour's. He took two children and gave three others in charge of his eldest daughter. Before travelling many rods they found themselves cut off by the flames. He turned in another direction and escaped with two children; the three children and the daughter were found the next day all of a heap and charred beyond recognition.

William Humphrey, a mail carrier between Argyle and Elmer, started on his route on Monday. Midway he was stopped by the flames, and unhitched his horse from the wagon. Mounting his horse with the mail bags he turned hastily back. The horse found its way back to Argyle without mail-bag or rider. A tag was tied to his main and he was urged back over his usual route. He reached Elmer, but Humphrey's body was found buried in the woods in one place and the half consumed mail-bag in another. The wagon was found reduced to cinders.

At Port Huron the following appeal has been published by the authorities:—

"Our country has been devastated by fire. The suffering is beyond description—people in a starving condition. Will the people of Canada lend aid? We need seed wheat, provisions and clothing. Orders have been received from the Secretary of the Treasurer that all goods for this purpose will pass free of duty."

## THE PARRY SOUND FIRES.

The district of Parry Sound has passed through an experience during the past three weeks which will never be forgotten by the inhabitants, who have been kept in constant dread of the flames which day and night have covered the sky with volumes of smoke so dense that the sun has never appeared but as a great red ball, shorn of its brightness though not of its heat. No rain has fallen of any account since June, and under the intense heat even the streams of this well-watered district have failed. From Mr. J. C. Miller, M.P.P. for Muskoka, who is the head and chief proprietor of the Parry Sound Lumbering Company, a *Globe* reporter has obtained as reliable information as is at present available on the extent of the fires and the destruction caused by them.

What the destruction is, he says, will not be known until the smoke clears away, for the fires are still burning in every direction, and a strong wind, which may at any time spring up, may increase tenfold the devastation wrought thus far. The fires burn in every direction, and there is scarcely a square mile out of more than two thousand in this area but is sending up its contribution to the great pall of smoke which lays over the land. Beyond the multitude of minor fires which at any time may develop into great conflagrations, there have been five or six great fires which have come prominently under his notice. The first of these was started by a settler in the township of Fuller, in the month of June, on the north-western road, a few miles from Parry Sound. During the drought of July this fire burned in an easterly direction over a belt from half a mile to a mile in width across the northern part of the township of Macdougall, and after devastating the lands of the Parry Sound Lumbering Company, passed into the township of Ferguson, sweeping away a large area of forest in the limits of the Ontario Bank. An east wind then drove it back into the township of Cutting, where it is now raging. In all this fire has burned over 15,000 acres of very fine timber country.

Another fire on the Shawanaha River has

swept over the larger portion of the township of that name.

A fire broke out lately on the Nashoutcong River near Bying Inlet, and burning along both sides of the stream, ran south through the townships of Wallbridge and Harrison, enveloping both these townships in flames.

## TWO HUNDRED MILES OF FIRE.

Along the Georgian Bay the Maganotawan Lumber Company have lost heavily by a fire which commenced three weeks ago and burned along a length of thirty miles of coast by a distant island not yet known but probably from six to ten miles, or over two hundred square miles of territory. It is still burning.

## THE TOWNSHIP OF MILLS.

A very destructive fire originated apparently in a criminally careless manner has swept the township of Mills. It was started for the purpose of facilitating the repair of a Government colonization road. It is stated that Mr. Kelsey, who superintends the repairs on the north road, refused to start the fire, as he did not know, the weather being so dry, what destruction it might cause. Mr. D. M. Card, Road Inspector, it is reported came along and, notwithstanding Mr. Kelsey's remonstrances, gave preliminary orders that the fire should be started, saying that they "must build the road and let the fire take its chances." It took its chances, and besides burning out the crops and buildings of a Mr. McVitte destroyed twenty-five square miles of splendid timber yet unused by the Government. Mr. McVitte, it is said, has issued proceedings against the Provincial authorities for the destruction of his property.

In the vicinity of Parry Sound a fire was set on an island either by a camping party or by the Indians. The fire leaped across the islets to the mainland near the Boyne River, and worked its way up to within two hundred yards of the Ontario Bank Mills, which were saved with much difficulty on Monday; the wind carried it south east across the Parry Sound Road in an old barn. The east wind on Wednesday and Thursday drove it back towards the Village of Parry Sound endangering the village, and the large establishment of Wm. Beathly and the Parry Sound Lumbering Company. A telegram yesterday morning said the danger was over. The loss by these fires is already about \$20,000, and the Ontario Bank Mill loss nearly as much.

It is reported that over 3,000,000 feet of saw logs owned by Cook Bros., and others have been burned in the dried up bed of East River, in the township of Chaffey, but the exact truth regarding this is not yet known.

By these great fires between three and four hundred square miles have certainly been burned, but there are fires yet unreported which may add greatly to the area. They still burn and at any hour may sweep much of the territory that remains. The gum forests on good land are rarely destroyed, the fires confining themselves mainly to rocky districts, green timber, and old areas burned in previous years. The loss of life thus far has been nothing so far as learned, and while elsewhere hundreds of farmers are burned out, the writer has heard of only one, McVeth, in the township of Mills, who has lost everything, including a saw mill. Fences have everywhere suffered on the farms, and it has been only by long continued fighting night and day with all the available forces that could be gathered together that the flames have been prevented from sweeping the country. In timber the loss has been enormous, and thus far can scarcely fall short of one million dollars.

The pine which is burned over, unless stripped of its bark before spring, will be attacked by the pine borer—*Pissodes Strobi*—a grub about two inches long and a quarter of an inch thick. This borer is furnished with a nuger-like proboscis, with which it bores right through a tree. The noise of the boring is quite audible. The borer only attacks burned, fallen, or decaying trees, the beetle never depositing its eggs under the bark of a dry tree. Scarcely one out of all the trees now damaged by fire will escape destruction or serious injury from this borer.

In regard to fires Mr. Miller thinks that legislative action is necessary. The present law is a failure, and steps should be taken to secure a better one compelling any farmer who wishes to clear a fallow to obtain first the permission of

the stipendiary Magistrate of the district, who would if he considered it safe to grant the settler's request notify by letter all the timber limit holders of the neighbourhood of the fact. A precaution could likewise be taken by notification in some way of neighbouring settlers. If nothing is done, the loss from fires in future will be enormous.

Mr. Miller could give no information of a definite character regarding the great fires in Muskoka, not being at all familiar with them.

## THE MUSKOKA FIRES.

Mr. C. Duke, of Yorkville, has within the last few days received two letters from his son Charles, who is farming in the Muskoka district, in which are given accounts of the ravages committed out there by the bush fires. The young man writes from Utterson. In his first letter dated September 1st, he informs his father that their experiences of the previous day were "awful." The had at last to fly for their lives. The writer proceeds:—"The two houses are saved and all the live stock, but the barns and fences are all completely gone. We came to Titterton last night, and I am just going up to the farm. I dread to go. I know it will look awful. West's buildings are all gone; Turner's buildings, excepting the house, are all down; Fearon is completely cleared out—not an article left; Captain Openshaw is similarly visited; also Thours. The English minister's house at Port Sidon, and W. Clark's houses are gone, but Mr. Crown's is saved. I don't know how it will end. Poor old Turner died on the roadside after he was carried out. We have saved the fanning-mill, plough and cultivator."

The next letter is dated Tuesday night (last), Young Duke says:—"I cannot give you very good news yet. Rain threatened, but did not come; and yesterday and to-day the flames have been finishing Turner's fences, and the sawlogs are all blazing as I write. The wind is blowing hard. I saw Fearson yesterday; he looks bad; all his sheep were burned to death; everything was swept in the clearance that he lived in, but he saved his other barn and a haystack. Harvey had no fire near him." In a P. S. the writer adds by way of a crumb of comfort, "You need not be anxious, as I think we are all right now."

## CANADIAN SEPPING.

OTTAWA, Sept. 10.—The Department of Marine and Fisheries has just issued a list of vessels on the registry books of the Dominion of Canada on December 31st, 1881. From it it appears that the number of vessels remaining on the registry books of the Dominion on that date including old and new vessels, sailing vessels, steamers and barges, was 7,377, measuring 1,311,218 tons register, as compared with 1870. The number of steamers on the registry book on the same date was 918, with a gross tonnage of 190,159 tons, and a net tonnage of 120,141 tons. Assuming the average value to be \$30 a ton, the value of the registered tonnage of Canada on the 31st December last would be \$39,336,540, or £7,867,308.

## The Sorrows of Genius.

Homer was a beggar.  
Cervantes died in hunger.  
Terrence, the dramatist, was a slave.  
Dryden lived in poverty and distress.  
Sir Walter Raleigh died on the scaffold.  
Butler lived a life of penury and died poor.  
Bacon lived a life of meanness and distress.  
Plutus, the Roman comic poet, turned a mill.  
Paul Borghese had fourteen trades and yet starved with all.  
Tasso, the Italian poet, was often distressed for five shillings.  
Steele, the humorist, lived a life of perfect warfare with bailiffs.  
Otway, the English dramatist, died prematurely and through hunger.  
Bentivoglio was refused admittance into a hospital he had himself erected.  
The death of Collins was through neglect, first causing mental derangement.  
Savage died in prison at Bristol, where he was confined for a debt of forty dollars.  
Goldsmith's Vicar of Wakefield was sold for a trifle to save him from the grip of the law.  
Chatterton, the child of genius and misfortune, destroyed himself at eighteen.

**A VETERAN'S TALK ABOUT LUMBER.**

A representative of this paper visited a veteran in the lumber trade Thursday for the purpose of applying the reportorial plaster and drawing from its burrow some information which might interest, amuse or instruct its readers, according as it might harmonize with their views or appear to them absurd. "Put yourself in his place" is what no one can do, and hence the views we get of things differ.

"So, young man," said the veteran, "you are in search of information about the lumber trade, in order to enlighten the public. Well, wisdom won't die with me, and you need not set me down on the start as the best informed man in the business. If you are looking for the Solomon of the trade, you might as well strike almost any other person. I can send you to such a man, or I can give you my opinion and what I know of lumbering. What points are you dazed on?"

"What effect will the high prices of supplies have on lumbering operations, the coming winter?"

"Very little, in the way of limiting operations. The expense will be increased quite a good deal, of course. Pork will cost about \$20 where it cost \$16 last season; corn about 70 cents in place of 46, but hay and oats are not much higher. Stock will, perhaps, cost more and labor be higher. But the additional expense won't have much more effect on the amount of stock put in than the weather in winter has. If I wanted to help bull the market, I'd say, oh, yes; it'll be too costly business lumbering this winter, and a good many firms will go light. But I don't talk that way, because there is no sense in it. Men who haven't the capital may have to curtail their operations on account of the extra expense, but those who have the stock to cut, the capital to candle it, and confidence in the market, will go in just the same as though pork was but \$10 a barrel."

"Then you think there'll be a large stock out the coming winter?"

"Well, I don't think there will be an excessive crop. Some men will go in as though they thought there was never going to be another chance for them to make a harvest of pine, but there are not many such in the trade now. The firms lumbering in this Saginaw country are pretty much all composed of level-headed, well-balanced men, who can see a good way beyond the ends of their noses. They are in a position where they don't have to market their lumber, unless they choose. Of course, they'll cut enough to satisfy the demand, for the risk from fires is greater than ever, and much timber has to be cut to save it. But there is a powerful reason for conservatism in the cutting of timber in the Saginaw district."

"Do you mean that the stock is becoming small?"

"Yes, you have hit it. Some of the largest mills on the river haven't standing pine enough within reach to last them six years, at the rate they are cutting, and it is my opinion there are not a dozen firms on the river that can count on ten years' cutting, within profitable reach."

"Is there not timber they can get? Some land yet unexplored?"

"Not in the lower peninsula. There is hardly a pine tree standing south of the straits that has not been estimated. A good deal of land has been cut over the second time, and the virgin forest has been penetrated in every direction. The railroad has done the business."

"Then pine land is eagerly sought?"

"You can say so. No hungry grayling ever took a fly more eagerly than men snap at pine land. A few years ago you couldn't give them away; now men are crazy to buy. And no wonder, when you consider the facts I've given you above. The prices which men are paying for standing pine, in my estimation, settles the fate of the market for some time to come. Prices cannot fall materially without ruining every man in the trade who has bought pine lately. There have been many sales where the stumpage cost three and a half to five dollars a thousand, and when you come to put cost of cutting, driving, booming, rafting and sawing into it, of the stumpage, the margin at present prices for lumber isn't much, any one can see."

"What is about the average result on a lot of average Saginaw logs?"

"About fourteen dollars a thousand. You see, the virginity of the forests has been violated, and the best timber has been culled."

"But I see sales at \$17 and \$19 straight."

"Yes, but those are from selected logs and not the common run. In days gone by, when we took the first pick, logs would average 40 per cent. uppers, and often run as high as 40 per cent., but they won't average per cent. now, nor up to best common. Fourteen dollars is about the average result from an average lot of logs on this river now, sir."

"If as you say the pine is getting short in supply, wouldn't it be good policy to go slower in cutting?"

"Well, it might, and then again it might not. It would be, if it wasn't for the pesky fires that rage in the woods every season. Why, whether you believe it or not, it is true, that as much if not more timber has been destroyed in eastern Michigan by fire in the last ten years than has fallen by the axe. It's enough to make a lumberman who loves good timber shed tears to see the long stretches of dead pine which can be seen in a belt from five to nine miles wide extending from Sant Point to Thunder Bay river, while the marks of the devastating fires may be seen in every other locality where there are bodies of pine. Some of the owners of pine would gladly husband their resources, cut less lumber now and let price go up where they ought to be, but the chances are even that fire would destroy more than enough to make the difference in their returns, so that they would really make nothing by the operation. Some of the owners of pine lands are taking the risk and holding off, and as the end of the pine comes nearer there will be more conservatism in cutting and prices have got to go up. The prairies of the west are settling up so rapidly that Wisconsin and Minnesota are not going to have much lumber to spare for eastern consumption, and when the Michigan supply is exhausted, or nearly so, there will be a dearth of pine for the eastern market, unless some new region shall be discovered, and that doesn't seem possible. The lumber problem in this country is going to be a difficulty one to solve and you can't expect me to settle it."—*Lumberman's Gazette.*

**Waste of Gas.**

The cost of gas is a great expense in many a house. A bright light is a luxury, and is appreciated by every one, but it cannot be enjoyed without being paid for. Waste of gas makes the gas bills mount up, and the careful house-keeper may effect a considerable saving by preventing this. The gas meter should be turned off during the day, so that if there are any places where the pipes are defective, escape of gas may be prevented. The condition of the burners has almost as much to do with the amount of a gas bill as the cost of gas per thousand feet. Old worn-out burners are the best friends which the gas companies have. A smell of gas should never be disregarded. It is a sign that there is an escape somewhere, and steps should be immediately taken to discover where it is, and put a stop to it. Last, but not least, gas when not in use should be turned out or left very low. A careless person who leaves the gas "full on," in an unused room, is throwing money away as much as if he cast it into the street.

**Chinese Ingenuity.**

A recent number of a paper published in China records a fresh illustration of the acuteness of the natives in the matter of exports from Hong Kong. Large quantities of matches are bought in this city for re-exporting to other ports, but on coming into the trader's hands they undergo strange transformation. Empty boxes are counterfeited and filled in the following manner:—After emptying the matches as originally packed (each box containing on an average sixty) they commence the refilling by laying two matches across each other, at the bottom of the box, in the form of an X, and fill up the box. The boxes, as now filled, do not contain more than two-thirds the original number of matches, and every gross thus sold realizes 50 per cent. profit.

**IT NEVER FAILS.**—Dr. Fowler's Extract of Wild Strawberry is an unfailing remedy for all kinds of bowel complaint.

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CLERKSHIP IN SHANTY for Winter. Practical knowledge of timber object more than salary. 4 years experience in office, 2 in lumber. Ago nineteen. First class references. Address "CLERK," care of Canada Lumberman, Peterborough, Ontario.

**A BARGAIN—GIST AND SAW MILL FOR SALE.** paying 12 per cent. clear; price \$9,000, and above percentage guaranteed. Apply to

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Lumber, Coal, & Commission Merchants,  
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PORT HOPE.

Is noted for its superior home-like comforts—a well kept table, equalling the best hotels in Toronto, and large, well-furnished rooms. Good sample rooms on ground floor. Walton Street, Port Hope.  
WM. MACKIE, Proprietor.

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GRAVENHURST.

JOHN SHARPE, Proprietor. This Hotel has been newly opened out, pleasantly situated on Main Street, within five minutes walk of Northern Railway station. Bar kept with best assorted Wines, Liquors and Cigars. Every attention paid to guests. Good Stabling. 13116

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BARRIE, ONT.

Collier Street, Adjoining the Market.  
RATES REASONABLE, CENTRAL LOCATION,  
FREE BUS TO AND FROM ALL TRAINS.  
Every accommodation for Commercial and LUMBERMEN.  
W. D. McDONALD, Proprietor.

**Fraser's Hotel,**  
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HENRY FRASER, proprietor, (successor to Dougland Brown.) Mr. Fraser having purchased and thoroughly renovated and refitted that old established hotel, so long and popularly kept and owned by Dougland Brown, in the Village of Gravenhurst, is now in a position to attend to the wants of the travelling and general public. Parties en route to the Muskoka District, will find "Fraser's" a comfortable stopping place. The Bar and Larder are well furnished. Convenient Sample Rooms for Commercial Men. Good stabling and attentive hostler. Free bus to and from trains and steamboats.

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CLUTHE'S PATENT SPIRAL TRUSS all attachments improved. No more buckles, all on solid brass casting. Book on rupture and human frame free. Send address in full post card. Best true information about rupture and deformities. CHAS. CLUTHE, Surgical Machinist, 118 1/2 King Street west, Toronto.

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(ESTABLISHED 1856.)

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688 and 690 Craig Street, Montreal.

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Has no equal for the permanent cure of Coughs, Colds, Sore Throat, Asthma, Croup, Whooping Cough, Bronchitis, and all Lung Diseases.  
Every bottle guaranteed to give satisfaction.  
T. MILBURN & CO., Proprietors Toronto.

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"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maledies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*

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**JAMES EPPS & CO.,** Homeopathic Chemists,  
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With Steel Head, either Cleveland or London make, at \$1.75 Each.

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Two Planers for sale or exchange for a Boiler. 1326

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**BELTING, FILES, BABBIT METAL,  
CHAINS, ROPE, and**

**LUMBERING SUPPLIES.**

**WISDOM & FISH**

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RUBBER HOSE, STEAM PACKING,

LUBRICATING OILS, COTTON WASTE

Wrought Iron Pipe and Fittings, &c.

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**No. 41 Dock Street, St. John, N. B.**  
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N.B.—Estimates for Steam and Hot Water Heating Apparatus furnished on application. All work Warranted. 13120

**WANTED.**

**Cherry, White Ash, Black Ash, and Dry White Pine Lumber.**

Quote Price delivered, and Carefully

Describe:—Quality, Widths, Length, Thickness, and how long Sawed.

**ROBERT C. LOWRY,**

Wholesale Lumber,  
55 Pine Street, New York.

**The Purest and Best Medicine ever Made.**

A combination of Hops, Buchu, Mandrake and Dandelion, with all the best and most valuable properties of all other Bitters, makes the greatest Blood Purifier, Liver Regulator, and Life and Health Restoring Agent on earth.

No disease so possibly long exist where Hop Bitters are used, so varied and perfect are their operations.

They give new life and vigor to the aged and infirm.

To all whose employments cause irregularity of the bowels or urinary organs, or who require an Appetizer, Tonic and mild Stimulant, Hop Bitters are invaluable, without intoxicating.

No matter what your ailment or symptoms are what the disease or ailment is use Hop Bitters. Don't wait until you are sick but if you only feel bad or miserable, use them at once. It may save your life. It has saved hundreds.

\$500 will be paid for a case if they will not cure or help. Do not suffer or let your friends suffer, but use and urge them to use Hop Bitters.

Remember, Hop Bitters is no vile, drugged medicine nostrum, but the Purest and Best Medicine ever made; the "UNVALUED FRIEND and MOVER" and no person or family should be without them.

D. J. C. is an absolute and irrefragable cure for Drunkenness, use of opium, tobacco and narcotics. All sold by Druggists. Send for Circular. Hop Bitters Mfg. Co., Rochester, N.Y. and Toronto, Ont.

## ITEMS OF INTEREST.

SOME arithmeticians have calculated that steam is now doing on the globe, every day, the work of 800,000 men; that is, all the machines and engines worked by steam have 80,000,000 horse-power. Of this the locomotive force represents 30,000,000 horse-power, as it is thought that there are 105,000 locomotives on both hemispheres, which run 220,000 miles.

The lead used in sounding from a vessel usually weighs about 14 pounds, but in deep sea sounding a weight of not less than 150 pounds is frequently employed. Wire has been largely used for a line, as it makes less friction in sinking through the water. With hemp rope a sinker of 300 weight is sometimes twenty minutes in reaching the bottom in 1,500 fathoms of water, so great is the friction of the line.

A FRENCHMAN has devised a method of converting iron into steel, and at the same time producing illuminating gas. The iron is placed in a retort with charcoal or coke in layers, and is heated to 1650 degrees Fahrenheit. Fatty matters are then injected, and as soon as decomposition has taken place, a jet of dry steam is passed over the incandescent mass. The iron is thus changed into steel, while carburetted hydrogen is given off from the retort.

MR. MAXIM, inventor of one of the electric lights, ridicules the idea that there is danger to either life or property from the use of that light, and says that he is ready at any time to take the shock from any number of the largest machines. While lightning will jump through two miles of air and forty feet of solid rock, he asserts that no dynamo machine used for the electric light in this country will make a current of sufficient strength to jump through the one-hundredth part of an inch of either air or stone.

ONE of the great trials which the builder has to endure is the "saltpetering" of the brickwork, or the white streaks which too often disfigure the fronts of brick buildings. It is worth noting that this can usually be prevented by adding oil to the mortar at the rate of a gallon to the cask of lime. Linseed oil is generally used, but any kind will do which does not contain salt. If cement is used in the mortar, an extra gallon of oil must be used for each cask of lime. When the incrustations have once formed on a building, they cannot be permanently removed, though they can be for a time by washing with hot water or the muriatic acid generally used for washing down brickwork.

A WRITER in *Les Mondes* ascribes the exceptional healthiness of butchers to their inhaling the nutritive principles of meat, and a French physician of eminence deduces from this the desirability of vapor baths charged with vitalizing principles. Cooks, at this rate, ought to be amazingly full of vitality. The good health of butchers is probably due to the living entirely in the open air, the same cause which gives so many more years of life, on the average, to the grocer's clerk than to his dry goods brother. Thirty years ago butchers in London never wore hats at work, but drove all over the town bare-headed, as many young butchers do now. The inhaling idea is, like all others, old. A century ago consumptive patients were sent to live over cow houses.

ONE of the most gigantic schemes of its kind is that which proposes to direct the current of the St. Lawrence river, opposite Montreal, into the channel between St. Helen's Island and the southern shore—this to be accomplished by running a dam of large proportions from Point St. Charles, in the western part of the city, to St. Helen's Island. This dam would be 2,700 feet long and 900 feet road, and would give a head of twenty feet for mill elevators and factories. As contemplated, this project would cost some \$7,000,000, and would realize the following advantages: The dam could be utilized either as a railway or carriage road, or both, thus obviating the necessity of a tunnel; and the harbor would be made a still water one, where vessels might winter.

CERTAIN insects are known which give some thing like an electric shock to anything touching them. The *Batavicus genatus*, or "wheel bug" of the West Indies, is one so described by Kirby and Spence. Two other examples have been lately recorded in the "Proceedings" of the Entomological Society of London, by Mr. Yarrell. A letter from Lady de Grey, of Groby,

referred to a shock caused by a beetle, one of the *Zlatarida*, or snapping beetle, and extended from the hand to the elbow. The other case is that of a large, hairy caterpillar in South America. Captain Blakeney on touching it had an electric shock so strong that he lost the use of his arm for a long time, and his life was even considered in danger. The last story is almost incredible, as a caterpillar, no matter how large, can hardly be supposed to supply as much electric energy as a gymnopus.

THE colossal crane or derrick—the most powerful in the world—which has been in process of construction for several years at the royal arsenal, Woolwich, Eng., is now an accomplished fact. The size of this apparatus may be judged from the curious details published, as for instance, that more than eighteen hundred tons of iron have been used in its manufacture, while the brass bearings alone amount to more than three tons. The design has been that a monster crane should be capable of lifting three or four 100-ton guns at once; the purpose, however, for which it has been mainly provided, is not to do work which other appliances could accomplish in detail, but, rather, to meet the probable necessity for dealing with pieces of ordnance so enormous as to defy all the means at present available for mounting them in their carriage. The motive power is steam, and, although calculated to raise twelve hundred tons in case of need, the apparatus is also fixed for raising small weights at accelerated speed, and thus adapted, in many instances, to facilitate the ordinary operations.

THE process of making screws is very interesting. The rough, large wire in big coils is, by drawing through a hole smaller than itself, made the size needed. Then it is put into sawdust and "rattled," and thus brightened. Then the head is shaped down smoothly to the proper size, and the nick put in at the same time. After "rattling" again in sawdust, the thread is cut by another machine, and after another "rattling" and thorough drying, the screws are assorted by hand (the fingers of those who do this move almost literally like lightning), grossed by weight and packed for shipping. That which renders it possible for machines to do all this is a little thing that looks like and opens and shuts like a goose's bill, which picks up a single screw at a time, carries it where needed, holds it till grasped by something else, and returns for another. This is about the most wonderful piece of automatic skill and usefulness to be seen, and it has done distinctive work at the rate of thirty-one screws a minute, although this rate is only experimental as yet; ninety-three gross per day, however, has been the regular work of the machine.

DR. JAMES EDMUNDS, of London, points out in the *English Mechanic* some of the advantages of double glazing in promoting the health of homes in winter. Skylights, he says, ought never to be put up unless double or double-glazed. Double-glazing answers perfectly if the sashes are grooved out for glass on each side, and are then glazed with an air space of one-half inch or more between the panes of glass. The glass must be put in with the ink faces perfectly bright and clean, and the glazing should be done on a cold, dry day, so that it includes watery vapor, which in cold weather will condense inside the air-space and cause mistiness. The double-glazing with an air-space makes a window almost as warm as a brick wall, and not only keeps up the temperature of a room in winter, and saves firing, but it keeps the room cool in hot weather, and it makes the temperature more uniform throughout the apartment. With ordinary thin glazing in winter the inmates are always being chilled on that side which looks toward the window, and baked on the side which is toward the fire, and no sooner do ladies leave the dining-room than the gentlemen instinctively make up to the fire-place and proceed to bake the cold side of their persons. Double-glazing our window sashes would save all this trouble.

DR. PERRIN.—Strengthen your digestion—tone the stomach for utilizing and assimilating every atom of food you take. The body needs it for strength and vigor. Zopen cleanses the entire system, stimulates the liver, keeps you regular, and able to eat ten-penny meals. Letters and postal cards come in daily, telling of cures and help from Zopen, from Brazil. Positive proof of the health and vigor it gives in a ten cent sample. Ask your druggist.

## HOW TO FIGURE SPEED.—THE REASON WHY.

In selling machinery, the maker usually recommends that it be run at a certain rate of speed, which has been demonstrated by experience to be most favorable to its successful operation. To fix upon the relative size of pulleys to be used in communicating this motion from the "line shaft" is a calculation which seems to be very imperfectly understood by the average mechanic. Conversation on the subject with a large number of engineers, millwrights, and others, has led me to think there was a demand for more light, and accordingly I offer the following system, the convenience and accuracy of which I have proven by years of practical use. This simple example will illustrate:—

Given, a 20-inch pulley revolving 100 revolutions per minute, a belt from which will drive a 10-inch pulley how fast?

The "rule" laid down on the "books" says, "Multiply the diameter of the driving pulley by its revolutions per minute, and divide by the diameter of the driven pulley." I find no fault with this rule, but would suggest that the teacher and text book of the future will be successful in proportion as they abound in "reasons why," and give the student principles from which to form his own rules. As every rule must be based upon a principle, when one is familiar with the latter the former becomes self-evident and not easily forgotten.

The speed of a driven pulley will bear exactly the same relation to the speed of its driver as its diameter does to the diameter of the driver.

In the above instance, the driven pulley being smaller, let its size represent the denominator of a fraction, of which the diameter of the driving pulley shall stand as a numerator, thus:

$$\frac{20}{10} \text{ of } 100 = 200$$

Or, suppose the diameter of driver was 25 inches its speed 180, and a speed of 600 was required, what must be the diameter of driven pulley?

Reasoning: Since the speed must be greater, its diameter must, of course, be less than that of the driver. How much? As much less as its speed is greater, thus its size will be

$$\frac{180}{600} \text{ of } 25 = \frac{75}{10} \text{ or } 7\frac{1}{2} \text{ inches.}$$

This not only leaves less room for a misstatement of the problem, but in most cases the multiplications and divisions may be made mentally, thus saving time and avoiding liability to error.

These advantages are of still greater importance where intermediate pulleys or "counter" shafts are used to multiply motion. For instance, it is required to "set up" a planing machine, the cylinder of which must run 3,500; it has a pulley 4 inches; the counter shaft has pulleys 6 and 24 inches, respectively; the line shaft runs 160; what size driving pulley will be required?

Reasoning: The 4-inch pulley being driven from one 24 inches, the larger pulley will revolve as much slower as 24 is greater than 4, and the drive pulley on line shaft must be as much larger than the driven or counter shaft, as its speed is slower than that of the counter shaft which it drives. The entire operation may be analyzed as follows:

For the sake of clearness, I will suppose that the motion was communicated direct from the line shaft to the 4-inch pulley, in which case the drive pulley must be

$$\frac{3500}{160} \text{ of } 4, \text{ or } 87\frac{1}{2} \text{ inches.}$$

The use of a counter shaft will decrease the size of driver exactly in proportion to the relative size of its pulleys. In the above instances the pulleys on counter shaft are 6 inches and 24 inches, consequently the driving pulley will only require to be 6-24 as large as when no counter shaft was used, and this being understood the whole problem may be disposed of as follows:

$$\frac{3500}{160} \times \frac{6}{24} = \frac{175}{8} \text{ or } 21\frac{3}{8} \text{ inches.}$$

This method is even more useful where pulleys are not exact as to measurement and also in computing trains of gearing, etc., of which I shall have something to say at another time.

STERLING ELLIOTT.

## THE DESTRUCTION OF WOOD IN CANADA.

A correspondent of the *Scotsman*, taking notes in Ontario and the outlying districts, writes:—"The Canadians have been so accustomed to a plethora of wood that they contemplate the waste of it, with remarkable indifference. To the west of Lachute," he says, "additional fields were in course of being conquered, not from the primeval forest, but from a good second growth of larch and maple." The simple process appears to be to cut down the trees, burn the trunks and branches, and leave the stumps in the ground. At one time the export trade was very extensive here, but within the last twenty years there has sprung up in these lumber districts a class of men who assume independence of any extraneous help. In referring to a district traversed by rail, the writer says:—"As far as the eye could reach, the timber clothing of the country consisted of a second or third growth of aspen, birch and various kinds of fir. High over the rich expanse of foliage there rose gaunt skeletons of older trees, melancholy records of those bush fires which have robbed and are to-day robbing Canada of so much of her natural wealth." Originating in the thoughtlessness or carelessness of settlers, these conflagrations have been known to devastate thirty or forty square miles at a swoop. "In one day's journey," he says, "I saw six fires burning, which only seemed to a want faning breeze to produce the same serious result."

Further on, in speaking of the snake fences, he writes:—"Their stability is secured without fastenings by the use of three or four times as much material as might have served the purpose, and on every patch of waste ground may be seen a litter of logs and branches in all stages of decay." Even at more than one of the saw-mills he noticed the refuse timber shot into the adjoining rivers to be carried away at pleasure, and probably form with the admixture of mud, after sinking, a serious obstacle to navigation. In a concluding paragraph the writer states "that from the whole of the north-east region of Ontario there has for the past four years been a steady flow of emigration towards the north-west—as an instance, during last spring the Grand Trunk Railway moved some 4,000 per sons."

## A \$25,000 Raft.

H. Pigeon & Sons, of Boston, mast and spar builders, started from below Starbuck's Island to-day for Boston via New York the largest raft ever shipped from this city to the Hub. The timber was cut in Ontario, Canada, north-east from Toronto. On the lake it was made into a raft and towed to Oswego, where it was separated into two rafts of six "cribs" or sections each, and one of seven cribs. John Wells, of Oswego, towed the rafts from that city to Troy. The propeller *Lafayette* left with them for New York. The united rafts were 900 feet long and 34 feet wide. At New York they will be increased by 113 pieces from Clearfield county, Pennsylvania. The raft thus formed will be 1,300 feet long and 64 feet wide. On the ocean the pieces will be united by six tons of cable chains, each piece being bound separately by the chains. The large tug boat *Charles Parson* of Boston will tow the raft along the coast to Boston. The cost of towage from Canada to the destination will approximate \$3,500. It has already amounted to \$2,000. The raft will be worth \$25,000 when it reaches the Hub. Large timber such as make up this gigantic raft were formerly shipped from this city to Boston by rail. The experiment of sending by the river and coast was tried last year by H. Pigeon & Sons, rafts containing 80 and 180 pieces being selected for the trial. The results were perfectly satisfactory, the great economy being in the matter of expense. The pieces in the raft which left to-day were from 75 to 95 feet long, and from 18 to 30 inches in diameter. They will be made into masts and spars of all sizes and descriptions, and will speed the voyages of all kinds of vessels from fishing schooners to the largest men-of-war.—*Troy Times*.

THE FOUNTAIN OF LIFE is the blood. Keep the fountain pure and all the tributaries of health are in good condition. Burdock Blood Bitters will cleanse the blood from all the impurities, expelling Scrofula and all humors, tones up the debilitated system, regulating the liver, bowels and kidneys, and brings health to the afflicted.

**IMPROVEMENTS IN MACHINERY.**

BY R. B. RICHARDS, IN THE "LUMBER WORLD."

When I was about sixteen years of age, my father got an idea into his head that I had the making of a first-rate millwright in me, and so took me in hand to develop my capabilities. How well he succeeded I shall not attempt to say, nor do I believe the reader would be interested in knowing. I have, so long as I can remember, had a liking, natural or acquired, I can't say which, for machinery and mechanical combinations, and, looking back to my boyhood, can recall many crude attempts to devise means to lighten, what I then believed were the arduous labors imposed upon me. My inventive faculties were not, however, equal to the task of decreasing the amount of physical exertion necessary to the accomplishment of my allotted tasks, although I experienced little difficulty in performing them in a manner essentially different from that usually accepted as the most sensible.

As I grow to manhood, I gave no little time and thought to devising new methods of performing mechanical operations, and shall never forget the time when my first application for a patent was allowed; nor my feelings, when I received, at our little country post office, the huge envelope, with the portentous words printed thereupon, "United States Patent Office; Official Business." That envelope stamped me as a man of note; the government had, after patient labor, and diligent search, conceded the fact that I had discovered and utilized something new; that this something new was worthy of governmental recognition, and that so valuable was it, I should have sole property right to, and in it, for the term of fourteen years, with a privilege of extension of this property right for seven years longer if I desired. Our little town had never been the home of an inventor, and I at once became an object of interest to every dweller therein. No one seemed to give the subject of how I should realize a fortune out of my invention, a thought, nor did I at first. I was an inventor; I had a patent, and what more could a man want? I was congratulated on every hand, and more than one expressed the hope that I would not think of removing from the village. I endeavored to wear my honors modestly, but it is not in human nature to resist being condescending to those who have looked upon you as being something inferior to them, when, by reason of the exertion of your own powers, you are enabled to overstep them in popularity, and I am afraid I more than once entertained the suspicion that I was superior to the majority of my companions.

After some months it occurred to me that it would be a good idea to sell my patent. I confess it appeared singular that capitalists and manufacturers in the large cities had not been around to see me in reference to buying me out, but attributing this to ignorance, upon their part, of the fact that such a patent had been granted, I started out to enlighten them. How well I remember the old mother, as with one hand in mine, and the other holding one corner of her apron, she bade me good-bye, with many injunctions as to care of my money and person, and cautious to "beware of them patent fellows." Dear old lady, she had full faith in her boy's smartness, if the "old man" was at times somewhat skeptical. I had never been very far or very long away from home before this, and the importance of the trip rendered it necessary that all the village should be aware of the date of my intended departure, so that I lacked not for hand-shakings and good wishes when I started out. That period of my life is particularly pleasant for me to remember. I had a patent; I was going to sell it; I should come home rich. Railroads in those days were not so numerous as now, and I had to go by stage some sixty miles to reach my destination, where I arrived late and tired in the evening. The next morning, after a long talk with the hotel-keeper, in which I told him I was an inventor and had a patent to sell, information which did not seem to impress him as I thought it should, I set out to find a firm that was engaged in the manufacture of such machinery as I had invented, and a brief sketch of my interview may possibly prove interesting.

Calling a boy, he directed him to take the pieces

man, with a red flannel shirt on, sleeves rolled above his elbows, hands covered with iron filings and oil, who inquired what I wanted. I said: "You manufacture and sell wood-working machinery?"

"Oh, yes," he replied, "can we do anything for you? Our stock is quite complete, and our terms quite as liberal as other makers."

"I am not desiring to purchase, not being engaged in the wood-working line, at least to an extent that would justify me in the employment of machinery," I said, "but I have given a good deal of study to mechanical devices, and have a patent—"

"I am quite busy," interrupted he, "and am not very much interested in such matters anyhow, so you will excuse me if I say that we have all the inventive ability in our establishment that we at present can employ."

"But," I replied, "I am not looking for employment. I have a very good trade that keeps me busy—"

"Better stick to it," he broke in. "Well," said I, "as you do not appear to care about looking into the matter, I will not take up your time. There is another establishment here engaged in the same line, and if you will tell me where they are located, I will not trouble you further."

"Well," said he, "you have a patent. What is it for?"

"A saw table," I replied. "Have you a model with you?"

"Yes, and my patent." "Well, I'll look at it, although such things don't interest me, and I have but little time to spare. Come in and sit down."

We went into an inner room, and I took out my model, which, by the way, had cost me many days of patient labor, and was very elaborately gotten up, and he examined it. "Let's see your patent," said he.

I handed it to him, and after a few minutes examination, he returned it with the remark, "I don't see as it would be to our advantage to take hold of it."

"Is there any objection to the use of the device?" I asked.

"None at all," said he, "if you can get any one to use it."

"Well, if there is no objection to the use of it, why wouldn't it be to your advantage to secure the right to build it?"

"How much do you consider the patent worth?" he asked.

"It ought to be worth about ten thousand dollars," I replied.

"The question," said he "is not what it ought to be worth, but what is it worth?"

"If I could dispose of it at once, I would be willing to take five thousand dollars for it," I answered.

"Good," said he, "now we are arriving at a basis for negotiations. Let me ask you how long a time it took you to conceive and develop this invention?"

I could not see what he was driving at, so replied that from childhood I had been noted for "tinkering" and trying to invent something, and that I believed I had a gift that way.

"Let me put the question to you another way," said he. "How long did you study upon this saw table before you conceived the idea of the combination you have made?"

"Oh, no time to speak of," said I, "it came to me all at once, as it were; that is, I conceived the idea that a saw table susceptible of the changes of position and relations to the saw, such as I have made, would be very convenient to the user, and of money value to me, so after a few days of thought upon the matter, I made a model and applied for a patent."

"Did it take you a month to do all this?" he asked.

"I think not so long as that," said I. "What did your patent cost you?"

"Nearly fifty dollars." "Just step out into the shop with me a few moments," said he.

We went out, and, going straight to the "buzz-saw," he picked up a piece of board, and, in a few moments' time, by the aid of some thin strips or thicker blocks, had cut that board up into pieces, the sawed edges of which presented various angles to the original flat surface.

Calling a boy, he directed him to take the pieces

into the engine-room and we returned to the office.

When we were seated he said, "I have taken you out into my shop only to show you that upon my old saw table I can perform the same operations that you can with your improved and patented arrangement. I can do everything you can, with as great accuracy, but possibly not quite so quickly. You come to me with your invention, that has taken but little of your time to devise, and necessitated but a slight outlay of money, and ask me to pay you the snug sum of five thousand dollars for your patent. If I could not, upon my old saw table, do what you can upon your improved one, and if it was essential that these operations be performed, the price you put upon your patent might be reasonable. If I buy your patent, I must have some prospect of getting my money, with a reasonable profit, back again. I fail, at present, to see how this can be done, and, of course, am not inclined to purchase at your price."

"What, in your opinion, is it worth?" I inquired.

"I should not care to put a value on it," he replied "but I will say this; if your invention were my own, I should not use it for the reason that it would only add to the expense of making an article, in which there is now very little profit, without in any manner adding to its real utility. You are a young man, endeavoring to make money without working for it, unconsciously perhaps, but nevertheless endeavoring to do so. Take my advice, go home, and to work. You say you have a good trade. Stick to your trade, and save your money. Invent all you please, so long as you don't neglect your business, but don't attempt to sell a patent until you know you have something that will facilitate operations, thereby cheapening the cost of performing them, or that will simplify the method of performing them, or that will permit of new operations being performed."

I went home, but it took me a long time to comprehend what the old man meant.

**IRWIN & BOYD**

Commission Lumber Dealers, FORWARDERS, Shipping & General Agents PORT HOPE.

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JOSEPH McAFEE, (LATE ANGLIS McAFEE.) Warehouse, Main St., St. John, N.B. AGRICULTURAL IMPLEMENTS.

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**LUMBERMEN**

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**Travelling Agent.**

MR. A. L. W. BEGG has been appointed agent for the CANADA LUMBERMAN, and is authorized to collect subscriptions and grant receipts therefor and to make contracts for advertisements appearing in its columns.

# The Canada Lumberman

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY  
TOKER & Co. PETERBOROUGH.

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All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

Communications intended for insertion in the CANADA LUMBERMAN, must be accompanied by the name of the writer, not necessarily for publication, but as a guarantee of good faith. Communications to insure insertion (if accepted) in the following number, should be in the hands of the publishers a week before the date of the next issue.

PETERBOROUGH, Ont. SEPT. 15, 1881.

**OUR TIMBER POLICY.**

We are not aware that anything could prove more conclusively the short-sighted and destructive system with which the timber lands of the Province have been and are dealt with than the circumstances which are now about to compel the Ontario Government to place in the market a considerable area of pine lands in the Nipissing district. It is no longer a state secret that the Crown Lands Department of Ontario have recently organized parties to make reports on the timber in those townships in the district referred to that are now prejudiced and liable to be destroyed by the squatters and settlers and pine fire bugs, to which on several occasions we have found it necessary to refer. With wonderful acumen they seek to transfer the risk of this valuable trust to the lumber trade at par. Do they expect that the trade are equally ignorant of their business, and will bid such bonuses as they would have been justified in doing had the fire risks been protected by the department? It is within our knowledge, and our attention has been recently called to the immense depreciation that lumber operators put on the value of standing timber where the ground has been forestalled by the squatter or settler. Perhaps the statement of a practical operator, and one who is prepared at any time to bid for public timber lands, may call attention to this subject; the information is given freely to us to publish, backed up by evidence which may be available should we require to use it.

The circumstances are these, and seem to us what are liable to occur on this now area about to be exposed to sale. The operator states that he bought a limit not a hundred miles from the townships which are to be sold. He discovered that the settlers were damaging the timber, and although most unwillingly, he was compelled to operate. No sooner were his operations started than these settlers and squatters actually cut down and put three to four cross-cuts in from four to six hundred pine trees of the choicest kind. The only reason he could ascertain for this was that they would make sure of shingle timber when, or if over, they should require them. The operator states that each tree would have averaged 140 feet of the best board timber. He further states that he appealed to the Crown Lands Department for protection with no results, and then asked the department to allow

him an equal number of trees from the next township, which was not under licence, and was also refused; so that the operator lost this valuable timber, and the Province the Crown dues which would accrue therefrom.

We do not wish to be understood to claim that the department should not now expose these timber lands for sale; probably it is the only thing left to be done; but we do say that so long as the revenue of the Province did not require it, and the manufacturing requirements of the Province did not demand it, fresh timber areas were better unused. There are quite enough timber lands under license west of the Ottawa section and south of Lake Nipissing exposed to dangerous fire risks, and which should be forced to furnish revenue by keeping other fresh territory out of the market, if it were possible.

**A WORD TO THE TRADE.**

We are now, notwithstanding the fair wind and flow of trade, approaching the period when the careful navigator will take in sail. We are going to ask a question, the answer to which ought to lead all thinking operators to operate carefully. Mr. Operator, had you the pine growing to-day that you have cut down within the last ten years still standing on hand, would you not be able to sell out for more money than you are worth to-day? We anticipate the affirmative reply.

The disposition to pay bonuses for timber lands based on the profits of stocks got out with cheap labor and supplies; the fact of a dear labor and supply market to face for the coming season of manufacture; the fact that for every percentage of advance in our labor there is an equal percentage less work done; the fact that the ebb tide of trade will face us with our stocks on hand, got out on these expensive, and perhaps to some extent unavoidable circumstances, this array of facts should arrest the natural and fatal anxiety of many in the trade to operate too largely and to endeavor to get rich too fast. To those that hold timber lands, we say, go slow. Keep your plant account in service; don't increase it. Keep your mill going—not too high pressure; your foundry bill will be less, and you will cut better lumber. Make up your mind to operate to the extent that you can handle under your personal supervision, and don't compete with your wealthier, but perhaps reckless neighbor for labor, and we safely predict that you will find your properties three years hence more valuable and under better control than those who, carried away by a little temporary prosperity, project increased operations, which can only be carried out under the most advantageous circumstances.

A DISPATCH dated Parry Sound, Sept. 2, says: Serious difficulties have arisen here between the river drivers in the employ of the Ontario Bank and the foreman of the Parry Sound Lumber Company about water rights on the Seguin river. Years ago the company purchased the right to overflow land, and constructed a large dam at the outlet of Mill Lake to hold a supply of water for their mill during dry seasons. The water is now very low, being barely enough to float logs through the sluice at Mill Lake. In order to keep a supply for the drive the Bank men have taken forcible possession of one sluice and have jammed logs on the rapids, holding back the water so as to shut down Mr. Wm. Beatty's flour-mill and the large saw-mill of the Parry Sound Lumber Company. The logs of the Bank, after leaving Mill Lake, must pass over the sluice at the company's mill before reaching the Bank's mill on the Georgian Bay. It is understood that orders have been given by the company's manager to resist this passage by force if necessary, and very serious complications, and even bloodshed, are feared.

THE very great scarcity of fodder next season consequent on the poor crops of hay is a matter of serious comment by the coming winter's operators in the woods. A double misfortune has befallen those of New Brunswick in the destruction of the great reeve fund, that of the Tantamar and now and west marshes being flooded by salt water. The dykes broke at the late high tide, completely submerging them to a depth of upwards of four feet.

**PREVENTION OF FOREST FIRES.**

The Kingston *Whig* has the following editorial:—

"The curse curseless shall not come;" and though like Mackbeth's wife we may hail the oft-seen terror as a "thing of custom," it will not the less work its mission as the penalty for the breach of moral or economic law. A race gifted with other aptitudes than that which has found its home in this country might work out the utilization of the forests which clothed it by converting them into materials which would add to their own wealth and so of mankind; but the discussion hereof would probably open up questions of ethnology as various as those presented by the contemplation of many parts of the world endowed with everything but an intelligent population. There have been forest fires in Ontario since the settlement of the U.E. Loyalists, increasing in destructive energy year by year, and it would seem, vain to hope that they will not recur with greater ravage. The Ottawa valley has been desolated throughout entire townships until there are millions of acres which no man will buy. The consolation afforded by the agricultural commission report that such is not the case is probably the best an ignorant and inculpable people can desire to have. While we can sell a few millions of feet every year, and while the party in power are satisfied with the returns, it is idle to discuss the propriety of enquiring whether this source of revenue is ever likely to fail us, or whether it is worth while to diminish the revenue by measures calculated to ensure its duration. With abundant fuel in the coal mines of a foreign neighbor we may cheer ourselves, while the miles of woodland yearly recede from view, that we have never made any effort to carbonize our wood into charcoal, but have instead dissipated its heat to the empty air. While our streams dry up, and the hum of many a mill is hushed forever imported coal will supply our frontier manufactures with power we have flung back to the heaven that gave it.

It could not be otherwise where national opinion is impervious to any conception of the curse which is wrought on us by the destruction of fertile soil, of fuel, and of building timber every year, it could hardly be expected that criminal negligence in dealing with fire would be punished. The record of the general iniquity in this respect might be shown in darker light. The hideous crime of arson is common in Ontario, and, as might also be expected, no steps are being taken in the interests of justice to bring the criminals to account. No insurance company will keep a policy on foot upon unoccupied farm buildings, and the record of their business shew the wisdom of this provision. It is well known also that bad harvests immediately increase the losses of insurance companies. Much may be allowed for the difficulty of detecting incendiaries, but the difficulty is too often made an excuse for supineness. From the combustible material of farm buildings a law exacting people would derive a reason for greater activity in ferreting out incendiaries. The very ground for such a reason makes them dread injury to themselves from the hands of the wrong doer should their endeavour to track him prove abortive. And so it is with field fires put out among stumps and in log-heaps during the season between May and November. If the farmer is negligent his neighbors suffer and they put up with it. If one per cent of the actionable cases had been dealt with ten years ago it is more than likely the damage would be enormously less. Those who, from a sense of public duty, will bring the offender of this year before the courts, will merit the thanks of the public. Not a single case of negligence should go unpunished. It is one means only, but an important means, of educating criminally careless people to a sense of their duty, and of the rights of others. And such a conviction will spread into the domain of those cases attributed to accident. When the farmer shall be made keenly sensible of their rights and duties in this matter, there will be a ray of hope available to the public that the Government of the Province will do something to protect the Crown Timber Lands from destruction by fire.

TAR BURDOCK BLOOD PURIFIER, the great system renovator, blood and liver syrup, acts on the bowels, liver and kidneys, and is a purgative tonic.

**TORONTO.**

From Our Own Correspondent.

Since my letter to you of two weeks ago lumber has been arriving for export by the N. & N. W. R. quite freely, and the docks belonging to that company are crowded with lumber, recalling to mind the good lumber times which existed at the close of the American civil war. The local dealers, however, are still complaining bitterly at the treatment accorded them by the railway company in the matter of supplying them with cars for the local wants of consumers; dimension stuff in consequence is extremely scarce, and the company persistently refuse to grant them more than a limited number of cars for the wants of the city trade. This discrimination in favor of the foreign markets, as against the wants of our home market, is certainly unjust, when we consider the large amount of pecuniary aid given by our citizens to assist railroad enterprise. This, however, is not the only instance of unfair treatment received by Torontonians at the hands of railway corporations, and so it will continue to the end of the chapter. Railway companies are proverbially slippery customers to deal with, and you never know when you have them; there always seems to be some loop-hole through which to escape from the performance of their engagements.

Another serious cause for complaint, as mentioned in my last letter, is the large increase in their freight tariff, 20 per cent. being the rate of advance from all points of the N. & N. W. R. and its various branches. True, the company try to convince their customers that they are actually granting them concessions, instead of laying on more onerous burdens, inasmuch as they grant them the privilege of loading on a car 20,400 lbs. instead of 20,000 lbs., the latter being the weight previously allowed to shippers. At a first glance this appears plausible, but the company know full well that previously, in at least eight cases out of ten, the latter weight was brought over the road, but want of time and other causes prevented the weighing of all cars to detecting offenders. Their specious pleading in this case virtually amounts to this: We will grant you the liberty to do that which you have hitherto done, and charge you 20 per cent. additional for the privilege of so doing. This increase in rates will tell most severely on dimension stuff cut to order, as shippers cannot venture safely in putting on more than 7,500 feet and keep within the weight at present allowed. This estimate, of course, is based on the lumber being green from the saw, therefore the only course open to them will be an increase in prices on all bill stuff cut to order; and last, unless dry, had better be left at the mills until they are seasoned, as cost of manufacture cannot be realized if brought here in a green state.

Another discrimination in favor of the foreign trade, as against the local dealers, is to be found in the difference of about 25 per cent. in freight rates in favor of all lumber passing over the company's docks; so that all things considered, it is little wonder that yard men and local consumers deal out hard names when discussing this matter, and the fact is undeniable that retailers are so heavily handicapped through the above and other causes, that it is little wonder that so many go to the wall when times of financial depression occur. At present, however, in spite of all difficulties, building goes on as briskly as ever, and it would seem that Toronto had obtained possession of Alladin's wonderful lamp, for turn whichever way you will, new buildings are springing up in all directions, and vacant lots in eligible positions will soon become a thing of the past.

Prices at the various yards remain firm, and former quotations are fully maintained, and should the present dry weather continue much longer, bill stuff will be hard to obtain at any price, as a large number of mills have been compelled to shut down, not daring to continue running until rain has fallen, as the sparks from their smokestacks easily ignite the combustible material laying all around them. Rates to Oswego rule about the same as mentioned formerly, and vessels hard to obtain.

Toronto, Sept. 9, 1881.

Improvements are constantly being made in the manufacture of steel pens. Esterbrook's are of superior excellence. For sale by all stationers.

**EXTENSIVE FIRE.**

**Amherstburg, Sept. 8.**—For the past few days fires have been burning along the line of the Canada Southern Railway in this county, but not till this week was any serious damage done. Watchmen have been employed day and night at places where buildings and other property were in danger. In the neighbourhood of McGregor D. Sicklesteen has had men watching the fires for several days. On Wednesday night, notwithstanding these precautions, Mr. Sicklesteen's mill was totally destroyed, and Thos. Oullette's large stock of hardwood lumber at McGregor was burned and badly damaged. About eleven o'clock on that night fire was discovered in the south side of the mill, and in thirty minutes the entire building was ablaze. Messrs. Oullette's and Sicklesteen's horses were immediately got out and set to work drawing water to the fire, and lumber and logs from it. The men had one force pump and hose, which they worked to great advantage while the water in the well lasted. Everyone who could get a pail was at work, and men never worked more faithfully. Robert Pool and Theophilus Lemay overworked themselves and had to be carried away. Peter Laporte had his feet badly burned, but no one else was injured except by overwork. Telegrams were sent to Messrs. Oullette and Sicklesteen, at Amherstburg, as soon as possible, and they at once drove out. When the fire broke out the watchmen were busily engaged on the north side of the mill, where the fire has been raging in Hiram Walker & Sons' woods, which caught fire from a Canada Southern engine about a week ago. At one time it was thought that the whole village would be burned. Mr. Sicklesteen's loss on the mill is \$6,000; insurance, \$2,500. Mr. Oullette's loss on the lumber, &c., is \$8,000; insurance, \$5,000, of which \$2,000 is in the Royal, and \$3,000 in the Mercantile. Mr. Sicklesteen's mill was only completed last year, and was the best and most complete in the county of Essex. Its destruction will be a great loss, not only to Mr. Sicklesteen, but to the village of McGregor and neighbourhood, as a large number of men depended on employment therein and about for their livelihood. Between McGregor and Essex Centre the bush is full of fire, and in many places the fences along the track are burned. In the neighbourhood of Cottam considerable damage has been done to fences, &c. Word was received here yesterday afternoon that a saw mill at Gesto had been burned, but it is hoped the report is incorrect.

The Montreal Gazette says that the great display of Colonial timbers, which was so important a feature of the London International Exhibition of 1862, and in which Canada was not badly represented, was, at the close of the exhibition, transferred to the museum at Kew. The museum was begun in 1847, the first contributions being a few objects from Sir William Hooker's private collection. The botanical collections at Kew were commenced about the middle of last century by the Princess Dowager of Wales, mother of George the Third. The King, her son, greatly increased them, with the scientific aid of Sir Joseph Banks. The impulse given to navigation and exploration towards the close of the century had the effect of adding a great deal to its botanical treasures, the New Holland house having been specially built for Australian plants. During the two preceding reigns Kew was comparatively neglected, but on the Queen's accession an enquiry was made into its condition, and the result was that the royal gardens were devoted to the public service. Relations are maintained between Kew and all the great botanic gardens of the British Empire.

**THE WORST GENERAL** in the battle field of life is general debility, which the vital forces often fail to conquer. Burdock Blood Bitters are ever victorious against all attacks of chronic disease, they regulate the bowels, act upon the kidneys, liver, and all the secretions, tone up the debilitated system, strengthen the nerves, purify the blood and restore lost vitality. One dollar per bottle. All dealers in medicine can supply you.—T. MILBURN & Co., Toronto, General Agents.

**Worthless Stuff.**

Not so fast my friend; if you could see the strong, healthy, blooming men, women and children that have been raised from beds of sickness, suffering and almost death by the use of Hop Bitters, you would say "Glorious and invaluable remedy."—Philadelphia Times.

**THE MART**  
BY F. W. COATE & CO.

SALE OF VALUABLE

**Timber Limits**  
Near Lake Nipissing.

The subscribers have received instructions to sell by Public Auction, WITHOUT RESERVE, at the Mart, 67 King St. East, in the City of Toronto, on

**Wednesday, 5th Oct. Next**

The Valuable Timber Limits situated near Lake Nipissing, and designated as Berths Nos. 29, 30 and 38 containing 30 square miles each.

The outlet from these limits is by the Hucve River, which runs centrally through a large section of them, affording first-rate facilities for running timber or logs into Lake Nipissing.

By recent survey of two lines and ranging a portion of them, they are known to contain a large quantity of excellent White and Red Pine, represented to be quite equal, if not superior, in quantity and quality to any in the entire district; a considerable portion of it being in close proximity to the river, growing on good even surface and can be easily worked.

The Limits have not been worked, and will be sold to purchasers in separate lots as they are designated and on liberal terms, which will be stated at time of sale. Sale to commence at 12 o'clock.

F. W. COATE & Co., Auctioneers

2122

**E. S. VINDIN,**

Commission, Shipping, Forwarding and General Agent.

**LUMBER MERCHANT**

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Clear, Pickings, Common and Hardwood Lumber, Lath, Shingles, &c.

BILL STUFF CUT TO ORDER. 112-14

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Wholesale Lumber Dealers  
**TORONTO.**

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c.  
A SET OF TUB MACHINERY FOR SALE, CHEAP—OR EXCHANGE FOR LUMBER 1116

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MANUFACTURER OF

Agricultural Implements, Etc  
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HAVING DISPENSED WITH THE SERVICES OF AGENTS, I take this opportunity to bring to the notice of intending purchasers of Reaping Machines, that I have now on hand a quantity of the Celebrated

**HANLAN REAPER,**

which has NEVER BEEN BEATEN YET, and am prepared to allow the Agents commission—FIFTEEN PER CENT—on all purchases. 1171f

**Penetanguishene Foundry**

AND

**MACHINE SHOP**

CRAIG & CAMERON, Proprietors.

The undersigned beg to announce to the public that they are prepared to make all kinds of Mill and Steamboat Brass and Iron Castings. All kinds of FLOW CASTINGS kept on hand. Flow Points and Landslides a specialty.

We have first-class machinery and are prepared to do all kinds of TURNING or PLANING on short notice.

We hope by strict attention to business and moderate charges, to merit a share of the public patronage. All work guaranteed.

G. A. CRAIG,  
C. CAMERON.

11417

**The Best Axes in the World!**

Single, Double and Triple Steel, 28 Patterns.



Warranted Good or Exchanged.



And Burrell's, Warnock's, and Dundar Axes, made specially for the Lumber Trade, repacked any weights without extra charge. Lindsay Pattern of Broad and Blocking Axes. LANCE TOOTH SAWS, warranted good. P. Jewell & Sons (Hartford, Conn.) LEATHER BELTING. CUT FILES. LATH YARN. Mill and Shanty Hardware. No. 1 LARD OIL. Heavy HAMES, BUCKLES and HARNESS TRIMMINGS. Ballard and other RIFLES, from \$10 each. Large assortment of CARTRIDGES.

**GEORGE STETHEM, Peterborough, Ont.**

Importer, Jobber and Retail Dealer in Hardware. 12117

**Wrought Iron Shanty Cook Stoves**

The Best Article ever offered to the Trade.

I have much pleasure in drawing attention to my WROUGHT IRON COOKING STOVE, for Shanty, Hotel and Boarding House use. These Stoves are made of Heavy Sheet Iron, the top and lining of the fire-box being of Heavy Cast Metal and all the connecting parts of substantial Wrought Iron Work. The dimensions of these Stoves are as follows:—

**SINGLE OVEN STOVE**

Top surface contains six 10-inch holes, with ample room between, and one oven 16 x 21 x 26.

**DOUBLE OVEN STOVE**

The Double Oven has a top surface containing twelve 10-inch pot holes, with two ovens, each 16 x 21 x 26. One fire-box of suitable size for area to be heated. Below will be found Testimonials from some of the leading Lumbermen, who have used my Wrought Iron Cook Stoves since I commenced manufacturing them. They are the names of gentlemen who are well known and reliable, and will carry more weight than any recommendation of my own could do.

The Best Stove I have ever Used.

PETERBOROUGH, May 31, 1880.

ADAM HALL, Esq., Peterborough. Dear Sir,—I have used your Wrought Iron Cooking Stove in our lumbering operations since its introduction here, and have no hesitation in saying that I prefer it to any other. For durability, economy and efficiency, where a large number of men are employed, it is the best stove I have ever used. You can, with confidence, offer it to hotels, boarding houses and lumbermen.

Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.

ADAM HALL, Esq., Peterborough. My Dear Sir,—We have used your Wrought Iron Cooking Stove and find it is very satisfactory for lumber operations, especially so on drives. We can recommend it highly.

Yours truly, IRWIN & BOYD.

Gives the Greatest Satisfaction.

PETERBOROUGH, June 3rd, 1880.

A. HALL, Peterborough. Dear Sir,—I have had the Wrought Iron Cook Stove purchased from you, in constant use ever since last fall, and it gives the greatest satisfaction in every respect. I can recommend them highly to any one who is in the lumber business.

Very truly yours, GEO. HILLIARD, M.P.

**EVERY STOVE GUARANTEED**

All the necessary TINWARE and CUTLERY for Shanties supplied at the Lowest Prices.

**ADAM HALL, Peterborough.**



## THOSE FOREST FIRES.

GREAT DESTRUCTION OF VALUABLE TIMBER, ETC.,  
IN THIS DISTRICT.

**MINDEN.**—Forest fires have been raging in this neighborhood for the last week, but have not done much damage until within the last two or three days. Hazlett's, Hilliard's and Ulyot, Saddle & Co.'s timber limits are said to have been damaged to a large extent in the township of Stanhope. The crops and fences in some instances have been totally destroyed.

**MILLBROOK.**—Bush fires have been raging in this vicinity for the past week, destroying barns, grain and fences. A heavy thunderstorm, lasting about six hours, visited here last night, which has greatly stopped the bush fires, though the village is still filled with smoke.

**COBOSCONK.**—The excessive heat of the last few days, together with the long spell of dry weather, has made this entire country one vast tinder-box. Some years ago the whole country to the north and west of this point was swept by fire, killing nearly all the vegetation, since which time the progress of decay in the falling timber has been going on. Now a few small green shrubs with tall, dead trees, and dead decaying down timber cover the face of the ground for some miles. At many places the fire has got a start, and with the gale of wind we had yesterday, its progress was rapid. The smoke was so dense here as to render it almost unbearable. An object could not be discerned one hundred yards away, and falling leaves flew around in every direction, giving the air the appearance of flocks of birds passing steadily in one direction. The inhabitants walked around with handkerchiefs to their eyes, one and all having the appearance of an old toper after a week's holiday. The wind kept up at a high rate until late on Wednesday. Yesterday morning, however, it was almost a dead calm. Had it continued as fiercely as the day before there would have been great danger from a fire approaching from the north-west, and distant not more than three miles, with abundance of fodder to supply it. South from this point two farmers have lost all their fences and buildings, and several more their fences, while to the north numerous fences are burning in every direction. At the north siding where there is a large quantity of cord-wood piled the fire has raged for several days, as also at numerous other points along the line, but has been checked by the employees. The night before last the village of Kirkfield had a narrow escape from being totally consumed. As it was a house and a large quantity of slabs belonging to the Mackenzie Bros. was consumed, and only for the extraordinary exertions put forward by the inhabitants, their large mills would have taken fire. Had such been the case, nothing could have saved the village.

The great want is rain, and unless it comes before long, or the wind keeps a dead calm, the whole country will be in flames.

Another despatch says:—McBain's saw-mill about six miles from here, is burnt. The smoke to-night is very dense. No rain has fallen here for five weeks.

**PARRY SOUND.**—For the past two weeks, in every direction, we have seen the glare of fire made by the conflagrations. The settlers have been working night and day to save their little all, and still the progress of the devouring element is not stayed. The efforts of those who have been fighting the flames have met with considerable success, and a large number of houses and barns have been saved, but thousands of dollars worth of valuable pine has been burnt. Nearly every farmer has lost more or less by the burning of fences, the fire running over his meadows, or burning some portion of his crop. In the immediate vicinity of the village the fire has been raging with great violence. On Wednesday Parry Harbor was threatened with destruction, and it required a determined fight to prevent the fire creeping up over the hill and catching in the Ontario Bank mill yard. The wind favored the efforts of the workmen in fighting the flames. On Tuesday and Wednesday the residences of Messrs. I. McEowan, S. J. Peako and W. A. Scott were in great danger, but were eventually saved. Yesterday the whole country was enshrouded in a dense smoke, and it is feared that if rain does not soon come the destruction of property will be very much

greater. On Wednesday a fire broke out in the woods near Mr. William Beatty's residence, caused by a fire started by some small boys who had a shanty built there. A large number of men were engaged all night in putting it out, and it is now nearly under control.

## OVERHEAD HEATING.

The system of overhead heating in manufactories and mills by means of steam pipes is being very generally adopted in New England, and is recommended by the insurance companies. The first objection usually made is that heat rises, but in point of fact the connection of heat from pipes is by radiation, and does not follow special direction either upward or downward under the usual conditions of a factory. It is simply a question of diffusion, and the best place for the pipe is where the radiation or diffusion is effected in the best manner. One of the greatest dangers to which factory buildings are exposed, and one of the heaviest causes of loss, is the collection of combustible matter on steam pipes, where they are ordinarily placed at the sides of the rooms under the windows. Mr. Edward Atkinson, president of the Boston Manufacturers' Mutual Fire Insurance Company, recently addressed a circular to the managers of fifty-two mills where this system is employed asking a number of questions, to draw from them the results of their experience with the overhead pipes, and received forty-two answers. Out of the forty-two replies two were unfavorable; two were unfavorable, but were qualified by statements that showed their apparatus to be poor; one was favorable with exceptions, and thirty-seven were absolutely favorable. In respect to economy in heating the answers varied from nothing to twenty-five per cent. saved, and the greatest saving was shown where the pipes were away from the wood and brickwork, and therefore lost nothing by having the heat conducted away. Among the mills which sent favorable answers are many of the largest in the country, and that they do not speak until they have thoroughly tested the system. The coils of pipe are generally placed about two feet from the ceiling on hanging brackets from the beams, and one and one-fourth inch pipe is the best adapted for the purpose. In addition to the safety from fire, there is the economy of space, and every inch of floor space is available. The system is one that should commend itself to those who are engaged in the manufacture of inflammable articles.

## New Forests.

A writer in a West Virginia paper says that the Shenandoah valley, when first settled, 160 years ago, was an open, prairie-like region, covered with tall grass, on which herds of deer, buffalo and elk fed, and devoid of timber except on occasional ridges; but that after it became settled trees sprang up almost as thickly and regularly as if seed had been planted. These forests, having been preserved by the farmers, cover now a large part of the surface of the valley with hardwood trees of superior excellence. The explanation of this change is that previous to the settlement of the valley annual fires, negligently started by the Indians, burned up the young trees and prevented the formation of forests, but with the arrival of settlers these fires were prevented; and the opinion is asserted that the treeless character of the western prairie is owing to the Indian practice of annually burning the grass. Were it not for that, dense forests would have covered these vast plains for centuries.

## How to Give Pine an Oak Color.

Wash the wood carefully in a solution of copperas dissolved in strong lye in proportion of a pound of copperas to a gallon of lye. When the wood is dry, after having been thoroughly saturated with this wash, oil it, when it can be stained and again oiled. Often, when not subjected to hard usage, the color will remain undimmed for several years, only requiring to be oiled occasionally. The color may be put on with a short brush, or the hands being protected with thick buckskin gloves, the wash may be applied with a cloth, which will saturate the wood more evenly. It will blister the hands if they are not well protected.

## KOUMISS.

The Tartars and some other equestrian tribes, from time immemorial it is said, have practiced the art of brewing a sort of beer from mare's milk; and in later times they have learned how to distill this beer and procure from it a very potent brandy. Koumiss is the native name of the mare's milk beer, and rack or racky of the koumiss brandy. This koumiss has at times become celebrated among enlightened people as a health reviver—a fact, by the way, not at all extraordinary, and not necessarily dependent upon any good quality of the koumiss. The regular doctors and the standard medicines fail us so often that we must not be too averse on the afflicted, who, in their despair, resort to quacks and the outlandish devices of the barbarians.

The following account of the preparation of koumiss by the Tartars is on the authority of a memoir by Dr. Griove, in 1788, to the Royal Society of Edinburgh. Take any quantity of mare's milk, dilute it with a sixth of water, pour it into a wooden vessel, and add as a ferment about one-eighth of very sour milk, or better, of old koumiss; cover the vessel with a thick cloth and keep it at a moderate temperature. After standing twenty-four hours, a thick coagulum rises to the top, which must be well mixed in by beating and clarning. After reposing for another day, it is again stirred till it becomes quite homogeneous, and in this state it forms the new koumiss, which has an agreeable sweetish acerb taste. Koumiss keeps well, and, like other beers and wines, with proper care, improves with age in taste and becomes more alcoholic.

It is often preserved and transported in bottles made from horse skin; a complete bottle is made from the skin of the hind quarter, the leg part forming the neck of the bottle. We understand that it is the practice of some of the tribes to prepare koumiss in the skin bottles by simply filling up the bottle with fresh milk as fast as the koumiss is consumed. If the rate of using and filling up be properly regulated, a pretty uniform product would be secured, but of course it would be a sort of "alf and 'alf."

It is to be understood that mare's milk is the basis of the genuine koumiss, and no doubt genuine koumiss has a taste and odor peculiar to and characteristic of mare's milk. But as to chemical constitution, there is very little difference between mare's milk and that of other large mammals, and any kind of milk will produce koumiss closely resembling the genuine; perhaps cow's milk will produce a koumiss which will surpass the genuine. The Tartars use mare's milk because of the abundance of horses in comparison with other milk-giving animals. Horses and Tartars have been constant companions for ages, and thus it has come about that Tartars became experts in the difficult art of milking mares and then invented koumiss. The ancient Scotch made a fermented drink out of milk, but not mare's milk, which is proper to allude to here. The basis of the Scotch drink was whey, which was prepared by keeping it in the ground, undisturbed, for at least a year.

A drink under the name of koumiss has been on sale in some of the saloons of this city, which is prepared from a receipt substantially as follows: To one quart of milk add one tablespoonful of sugar and the same of brewer's yeast; when sufficiently fermented, preserve in strong bottles.

Wine whey, and innumerable punches, and Tom-and-Jerries, which contain milk as an essential ingredient, also are related to koumiss. And there are those, constantly increasing in number, who do not allow that milk can be improved for any useful purpose by the addition of alcohol.

A few days since the news was flashed over the country that koumiss had been recommended in President Garfield's case, and that a supply of it had been forwarded for his use. Koumiss has accordingly become a subject of extensive inquiry, and thus has originated the present article.—*Scientific American.*

THEY ALL DO IT.—Everybody uses "TRABERRY" for the teeth and breath, the newest, brightest, coolest little toilet gem extant. Try a 6 cent sample.

DR. FOWLER'S EXTRACT OF WILD STRAWBERRY cures canker of the stomach and bowels, dysentery, cholera-morbus, and all summer complaints.

## THE ELECTRIC LIGHT IN SAW MILLS.

The lighting of saw mills with the electric light is now being tried in various parts of the country, under different conditions, and its utility and economy will be fully tested. That the light in itself is adapted to the purpose there can be no doubt, and when it shall be fairly demonstrated that the machinery for its production can be run by the mill machinery and produce a steady light at less cost than is involved in the use of other means of lighting, or that the reduction in the fire risk or the amount of additional work accomplished shall be sufficient to offset any increase in the expense, the electric light will eventually come into general use. The light is used in the McGaw mill, in this city, and in some of the larger mills in the west and Canada, with fairly satisfactory results.

The experiment of running the generator by the mill machinery is being tried at Alpena, in the bay shore mill of Fletcher, Pack & Co., which was lighted for the first time on the 13th instant. The light is furnished by a Maxim generator, run by the mill machinery. The mill is one of the best saw mills in the State, and contains the latest improvements—steam feed for the circular saws, cant turners, rollers, patent edgers and every modern appliance. The upper story of the mill has three electric lights, which, it is said by the local papers, illuminate the large room almost equal to the light of day. Each lamp has an illuminating power equal to that of two hundred candles. The *Argus* says: "There is a slight flicker to the lights, which is caused by the mill machinery running a little faster at some times than at others. When the saws are cutting logs there is a slight check on the motion of the engine, and the machinery works somewhat slower than when the saws are not cutting. As the same power that drives the mill machinery also drives the electrical machine—the result is that the electric machine is run at different velocities, and thus occasions a slight flicker of the light." The running of the electric generator by water power is also to be tried at Alpena. The *Argus* says: "Negotiations are being made for lighting up the mills, opera house, business places, streets and dwelling houses by the electric light. The motive power will be at the dam, and wires will lead from there to various parts of the city. The cost of putting in such works will not be very expensive, and the light can be furnished cheaper than gas. It is a better, clearer and stronger light than gas, and there is no danger from fire. The lamps with which it is proposed to supply private houses are of thirty candle power, and are said to be almost indestructible—the danger of breaking by fair usage being but little. The dam promises to be of much benefit to the city. It runs a saw mill, furnishes large booming facilities for logs, supplies the power that furnishes the city with water, and now it is proposed to make it furnish light for the mill, streets, stores and houses." At the McGaw mill in this city some difficulty is experienced in keeping the lamps in order. When the lamps are in order the light is satisfactory.—*Lumberman's Gazette.*

## The Strength of Small Spruce Beams.

F. E. Kidder performed a series of experiments at the Massachusetts Institute of Technology, their object being the determination of the moduli of elasticity and of rupture in small beams of white spruce (*Abies alba*), and such other information as might be derived from the data obtained. The results of these researches are embodied in a paper read before the American Academy of Arts and Sciences, and printed in the current number of the *Journal of the Franklin Institute*. The conclusions drawn from the results of the experiments are as follows:—The modulus of elasticity depends not only upon the elasticity of the material, but also upon the length of time that the load is applied. When subjected to loads not exceeding one-sixth of the breaking weight, spruce beams do not take a permanent set; but even under very small loads, if applied for any length of time, there will be a temporary set. Knots and gnarls in beams loaded at the center, when not within one-eighth of the span of the centre of the beam, do not materially affect the elasticity under small loads.

**NEW GLASGOW.**

**Messrs. I. Matheson & Co's Foundry and Boiler Works.**—In the fall of 1867 Mr. Matheson started a foundry and boiler works in this place, and, owing to his extensive advertising in the daily papers, has become one of the best known manufacturers in the Province. His enterprise, after many years of struggle, was well established, and he was just beginning to realize the return of prosperity when, with a number of heavy orders on his hands, and a workshop full of partially built boilers and engines, a disastrous fire destroyed his principal workshops and machinery. The loss was a heavy one to Mr. Matheson, who, unfortunately, had no insurance. But nothing discouraged Mr. Matheson set to work to rebuild, and although less than three months has elapsed since the fire, a new building three times as large as the one destroyed by fire has been erected, and operations have recommenced with renewed vigor and energy. The new building, 175 x 140, is roofed with galvanized iron, and contains the machine, boiler and smith shops. Adjoining is the brick moulding shop, 135 x 36, and several other buildings. A siding from the Eastern Extension and Intercolonial railways runs through the main building. Forty mechanics are steadily employed, to whom as good wages are paid as are to be obtained in any part of Canada. These and other orders will keep the works running on full time for the next four months. Messrs. Matheson's specialty is the manufacture of boilers, bridges, steam hammers, windlasses, and all kinds of iron ship works, shears, and hydraulic presses for knee-bending. They also import saws, belting and pipe. Five of their boilers are now in use at the Drummond and Vale Collieries; two at Hon. Senator Muirhead's saw-mills at Chatham; also boilers and engines at the Oxford Manufacturing Co., Oxford; Reed's furniture factory, Bridge-town; Carmichael & Co.'s saw-mill, New Glasgow; the saw-mills at Scots Bay, King's County; and the steamers *Wellington*, *Antigonish*; *Lion*, *Georgetown*, *P. E. I.*; *Bertha*, *Halifax*; and *Alpha*, *Georgetown*, *P. E. I.* Most of the steam hammers now in use in this Province were built by this firm. They have also rollers made by themselves capable of rolling plate one inch thick and eight feet wide.

We direct the attention of our readers to the advertisement of Messrs. Matheson & Co. in this issue of the CANADA LUMBERMAN.

**OUR QUEBEC LETTER.**

**END OF THE EXCITEMENT IN WHITE PINE.—INCREASED DEMAND FOR OAK.—PRICES CURRENT, &c.**

QUEBEC, Aug. 26.—There has been some little excitement in white pine since the date of my last letter, but a calm has followed, and there is not presently any particular reason to apprehend that it will be seriously disturbed for some little time to come. A few choice rafts of Kippewa and Michigan timber changed hands some ten days ago at prices which have rarely been reached here before. A raft of Michigan waney pine of 21 inches sold as high as 40 cents. Two other rafts of the same timber of 19 inches sold one for 36 cents, the other for 38 cents. An Ottawa raft of 48 feet changed hands at 24 cents, and one of 42 feet at 19 cents, with red pine 29 feet at about 13 cents. About the same time bright pine deals, which were not in very great demand, were sold at \$102, \$65 and \$34, and spruce deals at \$38, \$26 and \$22. During the past week the feeling has been quieter, the only sales made being as follows:—Three good rafts of white pine, 53½ feet average, at 30 cents, 53 feet average at 29 cents, and 47 feet average at 27 cents per foot.

Advices from England are to the effect that the demand is not very great; still it must be remembered that the stocks held here in first hands are very light.

It is perhaps fortunate for lumbermen that the prices obtained a fortnight ago are not likely to be maintained. As stocks are so light, very few of those in the trade would have gained by their continuance, while a score or two of inexperienced firms or individuals would probably have rushed into the manufacture of timber this fall, and brought ruin upon themselves and disaster to the trade. The opinion of those com-

petent to form each here is that every precaution must be used this year in the production of stocks, or with the vast quantity of logs remaining in the water from last year, another glut will be certain to occur.

Waney board pine, first class wood, 19-inch average, in shipping order, is now offered at 39 cents per foot.

Red pine is in excess of the demand, and only choice wood of large average is asked for. A primo raft of 42 feet average has been sold at 20 cents, and two rafts of fair average quality, 37 feet average, at 17 cents, and 32 feet average at 15½ cents per foot.

Oak is, as predicted some weeks ago, maintaining its price and in much greater demand. The movement to bear it has fallen through, and shippers having run low in stock, have now to buy. A lot of about 55,000 feet, 60 feet average, and only medium quality, has changed hands at 45½ cents.

Elm is not much sought after. Spruce deals remain as quoted above. Spruce deals are being bought in small quantities by shippers who have run short. Prices remain at \$38, \$27 and \$22.

Freights are just now remarkably low, ships having been chartered this week at 19s. to the Clyde for timber, and 59s. 6d. to London for deals. The figures will not long remain so low, however.

A new era in the trade is marked by the shipment of the first cargo last week of a consignment of Kippewa timber from above Ottawa to Quebec by the G. M. O. & U. railway. The price per car has not transpired. The timber belongs to Allan Grant, and is shipped here to order of Cook Bros. & Co., whose agent rafts it alongside the Commissioners' wharf, where it is thrown into the pond from the cars direct, and tows it to his cove. The facilities here for these shipments are very good.

Nothing has yet been settled here with reference to the Supervisors'hip. The trade is united on one point, namely, that none but a duly qualified party must be appointed.

The following is the latest comparative statement of timber, masts, bowsprits, spars, staves, &c., measured and culled to date:—

Waney White Pine	1,000,814	1,880,102	1,374,887
White Pine	2,105,623	2,050,470	4,230,802
Red Pine	530,555	656,097	1,187,392
Oak	110,739	1,104,079	1,021,774
Elm	274,650	790,303	921,003
Ash	47,133	215,643	329,543
Basewood	290	206	3,356
Butternut	70	683	1,050
Tamarac	6,654	20,871	22,635
Birch and Maple	190,003	655,634	133,942
Masts & Bowsprits	50 pcs	.....	.....
Spars	3 pcs	21 pcs	.....
Std. Staves	76,908	10,433.15	256,73.10
W. I. Staves	117,13.27	260,0.0.22	301,0.0.25
Bri. Staves	.....	.....	.....

**The New Mill.**

A few days after Mr. Gilmour's return from the American side, whither he had gone on a tour of inspection among the saw mills of that country, some rumor busied herself with the propagation of many idle stories. One man had it that Mr. Gilmour had sold out to Rathbun & Son; another that the business was about to be removed to Belleville. Soon this bit of information was supplemented by the sayings of some one deeply in the secrets of the Gilmour, affirming with an ominous look that there was a "split in the firm," that the old country member of the firm was opposed to rebuilding. Thus it might be expected that for a short time the nervous would be disposed to believe that Tronton was about to meet with a great loss. However, the fears implanted in the breasts of the timid ones were soon dispelled, as within an incredible short space of time Mr. Gilmour showed that not only was it the intention of the firm to rebuild, but indeed, to rebuild as fine a mill as could be found in the Province. If for a few days the mill was run with fewer hands what did it matter? The people could not have known the intention of Mr. Gilmour. To-day the mill is running day and night, and the hands paid \$1.25 per day. The trouble in this world is that people take rumors as facts—entirely forgetting that secrecy is one of the pillars upholding the business fabric. We do not pretend to be in Mr. Gilmour's confidence, but we predict that 1882 will be a most prosperous year for Tronton, and that such prosperity will be largely induced by the new mill and its six or seven hundred men.—*Trenton Advocate.*

**FOR SALE.**

The Dexter & Whitwam Manufacturing Company, offer for Sale the Entire Real Estate Plant and Machinery OF THEIR EXTENSIVE BENDING & TURNING FACTORY

Situated in the City of St. Thomas, in the County of Elgin, Ontario. For full particulars apply to H. BROWN, Manager, or E. MOORE, President. 12011

**AUCTION SALE OF VALUABLE LIMITS,**

Situate on the Gatineau River and Lake Keepawa, 387½ Square Miles.

The following valuable limits owned by Messrs. Ross & Co., of Quebec, will be sold at Public Auction at the Grand Union Hotel, in the city of Ottawa, on

Tuesday, the 20th Day of September

NEXT, at half past two o'clock, p. m., viz:—

Lake Keepawa, Berth No. 48	Sq. Miles	60
" " " " " 49	"	30
" " " " " 64	"	30
" " " " " 65	"	60
Total		180
Gatineau River, License No. 189	Sq. Miles	50
" " " " " 100	"	50
" " " " " 101	"	50
" " " " " 192	"	50
" " " " " 193	"	27½
Total		227½

The Keepawa limits are in a good pine country, and adjoin limits owned by David Moore, J. R. Booth, John Ross, of Quebec, and the British American Lumbering and Timber Company.

The Gatineau License front on the river, and adjoin valuable limits owned by Gilmour & Co., and Hamilton Bros.

These limits are admirably situated for lumbering purposes, and well worthy the attention of the trade or speculators.

Terms and conditions of sale, which will be liberal, will be announced at the time of sale, or can be had from the Vendors, Messrs. Ross & Co., Quebec, or from O'CONNOR & HOGG, of Ottawa, Solicitors for Ross & Co. 2221

**KERR BROTHERS**

PRACTICAL Founders, Machinists, And Millwrights.

Manufacturers of Marine and Horizontal and Portable

**Engines, Boilers**

Grain Elevators & Steam Hoists, Saw and Flour Mill Machinery.

With Latest Improvements A SPECIALTY.

The ABEL EDWARDS CENTENNIAL TURBINE WATER WHEEL.

RODEBAUGH'S SAW FRAME, MILL DOGS and SAW GUIDES.

WATER WORKS, THE LATEST AND MOST IMPROVED, MADE TO ORDER.

LIGHT and HEAVY BRASS and IRON CASTINGS.

Plans and Specifications on application.

**The Walkerville Foundry**

AND MACHINE WORKS.

Walkerville, Ont., June 1881. 12116

**AUCTION SALE OF VALUABLE**

**Timber Limits,**

Situated Near Lake Nipissing.

Notice is hereby given that (if not previously disposed of by private bargain) the following Valuable Timber Limits will be offered for sale at Public Auction at the Grand Union Hotel, in the

**CITY OF OTTAWA,**

ON Tuesday, the 20th Day of September Next,

AT 2.30 P.M., VIZ:—

Berth No. 23, on the River Beuve, near Lake Nipissing, comprising	Sq. Miles	30
Berth No. 43, on the River Wannapitac, near Lake Nipissing, comprising	"	30
Berth No. 61, on the River Wannapitac, near Lake Nipissing, comprising	"	30
In all		180

These limits contain, in the aggregate, a large quantity of magnificent pine timber.

Berth No. 23 is estimated—as the result of a recent exploration—to contain a quantity of trees sufficient to produce at least half a million cubic feet of square timber, besides two hundred and fifty thousand standard saw logs. The river is available for driving to Lake Nipissing.

There is a good mill site on the Beuve river, about three miles from Lake Nipissing.

Lumber could be transferred thence by water to the Challenger station of the Canada Central Railway, the line of which is projected to pass directly through this limit.

Lumbermen and others desirous of acquiring limits are invited to examine these berths in the interval preceding the day of sale.

The owners reserve the right to dispose of either or all of them by private bargain in the meantime, and will be ready to consider any offers that may be made. Terms of purchase will be liberal, and will be made known before the sale, the place and hour of which will be duly advertised.

Persons desiring further particulars are invited to communicate with the undersigned.

STEWART, CHRYSLER & GORMULLY, Solicitors, Ottawa.

J. R. TACKAL, RRY, Auctioneer. Ottawa, 25th July, 1881. 3120

**A RARE CHANCE.**

AUCTION SALE OF

**Valuable Timber Limits**

—AT— OTTAWA, On the 20th of September.

On Lake Nipissing.

License No. 455, Sixty Square Miles Area, situated on the head waters of the Mattawa and South Rivers. This limit is wooded with Pine of the very best growth and quality. Timber cut thereon can be taken out either via the Mattawan to the Ottawa River, or by Lake Nipissing and French River to Georgian Bay via the greatest convenience.

In connection with this limit is a well improved farm of about 200 acres, doled property, 100 acres cleared, with buildings, stock and crop, all of which will be sold at valuation.

There are also Six Timber Births numbered 12, 20, 30, 37, 39 and 31, situated on the River Beuve and Western Arm Bay, each 36 miles square. These limits have never been worked, and abound with the very finest quality of white Pine. Access from Georgian Bay via French River is quite easy. The Canada Pacific Railway passes in the neighborhood of these limits.

On the Georgian Bay.

License 169, on the Missisquoi River, consisting of 30 square miles area, and License No. 200, situated on the Thessalon River, consisting also of 36 square miles area. These limits have never been worked and are covered with an abundance of the best Pine Timber.

The above limits will be sold on the 20th September at the Grand Union Hotel, Ottawa. Conditions made known on day of sale. For particulars apply to H. NAGLE, Ottawa; JOHN SCULLY, commission merchant, Toronto, or to J. T. LAMBERT, 62 Wellington Street, Ottawa. 2121

**J. T. LAMBERT,**

Lumber and Commission Agent.

**FOR SALE.**

150 Mils. White Pine	1 x 10 Stock
175 " do	1 x 12 "
11 " do	2 x 10 "
20 " do	2 x 12 "
140 " do	1 1/2 inch Sliding
20 " do	1 "
40 " do	2 x 10 Joists
18 " do	Cedar, 3 x 6 "
19 " do	Basewood, 1 1/2 inch

APPLY AT THE OFFICE, 120

WELLINGTON STREET, OTTAWA.

Market Reports.

TORONTO.

Table listing lumber prices in Toronto, including Mill cull boards, Shipping cull boards, Scantling and joist, and various types of lumber like Pine, Spruce, Hemlock, and Ash.

MONTREAL.

From Our Own Correspondent.

SEPTEMBER 9.—The shipping business has been pretty active since the date of our last report, and August orders are now nearly all filled, and there is only one vessel loading now for South America.

The total lumber trade for building purposes has been quite active, and some large transactions are taking place, and, although we do not make any change in quotations, prices continue firm as under:—

Table listing lumber prices in Montreal, including Pine, Spruce, Hemlock, Ash, Oak, Birch, Hard Maple, Lath, and Shingles.

CORDBOARD.—The demand for cordwood is poor, and likely to be so as long as the present very warm weather continues.

Table listing prices for Cordboard, including Red Tanbark, Hard Maple, White Birch and Soft Maple, and Red Birch.

LONDON, ONT.

From Our Own Correspondent.

SEPTEMBER 9.—Among the many vicissitudes of a commercial life the crowning one is a collapse; and it is my painful duty to record in this letter the cessation of the firm of G. E. Hargreaves, lumbermerchant, of this city.

The bush fires on the W. G. & B. and L. H. & B. railways in the vicinity of Wingham, Blith, Bluevale, &c., are creating great devastation, and less lumber is coming into this market in consequence, some parts of the road at times being blocked by barriers of flame.

The principal lumber men in this city may be classified as follows:—Wm Willis, James H. Belton, Ferguson Bowe, H. C. Green, G. E. Hargreaves, and W. H. Winnett.

purchased yesterday three million feet of pine lumber on the line of the L. H. & B. railway.

The market, as predicted, has greatly improved since my last letter, and I may safely assert that there will be no let up until we have the first precursor of King Frost.

In conversation with a Goderich lumber merchant this morning he informs me that his firm and another one conjointly have brought into that town twenty-five million feet of lumber during the past year, and nearly all from the Georgian Bay district.

QUOTATIONS.

Table listing various lumber quotations in Toronto, including Mill cull boards, Shipping cull boards, Common boards, and various types of lumber.

OTTAWA.

From Our Own Correspondent.

SEPTEMBER 10.—The lowness of water and consequent limited supply of logs is affecting materially the cut of lumber at the mills of this locality. There is very little lumber left to be sold, the producers declining to sell before stock is in hand.

Present quotations are as follows:—10-inch stocks, with shipping culls and better per M. \$14 00 @ 15 00

There is a great demand for lath, and the price has increased to \$1 per thousand. Montreal and American buyers have bought largely this season.

The last raft of square timber by water is on its way to Quebec, having left this point some days ago. The price for timber this season is much higher than for a great many years past.

Shipping of lumber is somewhat slack at present. The rates remain unchanged, but if the water remains low and the cut of lumber continues small, they will shortly rise.

The final sweep of the Gattineau log drive is within eight miles of the city, but it will take about ten days to have it completed.

The drive on the Upper Ottawa is progressing slowly, owing to the large number of logs which have become stuck in the rapids.

Word has been received that the timber limit of Mr. J. R. Booth, on the Teniscomingue, has been badly swept by fire. It is not known that the limits of any other Ottawa lumberman have been damaged to any extent by fire.

OSWEGO, N.Y.

Table listing lumber prices in Oswego, N.Y., including Three uppers, Pickings, Fine, common, Culls, Mill run lots, and various types of lumber.

ST. JOHN, N. B.

From Our Own Correspondent.

GENERAL REMARKS.—We have arrived at that stage of the season's business when for a longer or shorter period there is usually very little calling for special remark with reference to the lumber trade; the rush of the spring and summer shipments being over, with a sort of intermission before fully entering upon the fall operations.

FREIGHTS.—The freight market continues firm, rates running about the same as last reported, viz., 57. 6d. for principal English ports, at which rate several vessels have been fixed.

VESSELS IN PORT.—The following is a list of the vessels in port, with their tonnage and destination:—

Table listing vessels in port at St. John, N.B., including John Murphy, Vestfold, Huron, Wm. A. Campbell, Industrial, Carlew, Talavera, Eurydice, W. N. H. Clements, Belle O'Brien, Thor, Freeman Dennis, Crown Jewell, Artizan, Seaward, Antwerp, Ella, Nettle Murphy, Minnie Burrill, Herbert Beech, Annie Burrill, St. Julien, Anna P. Odell, Rothemay, Maggie M., Arklow, Mary A. Kerston, and W. E. Hoard.

SHIPMENTS.—The shipments of deals and other sawn lumber are as follows:—For Europe, 7,604,000 Sup. feet. United States, 3,500,000 St. John, N.B., Sept. 6, 1881.

From Another Correspondent.

SHIPMENTS OF LUMBER.—The following is a statement of the clearances of lumber at St. John, N. B., for transatlantic ports for August, 1881:—

Table listing lumber shipments from St. John, N.B., including Deals, battens and ends, Boards and scantling, Pallets, and Birch timber.

The English market continues to remain fairly firm and satisfactory to shippers. We learn of one cargo sold to arrive at Garston dock at £6 16s. c. i. f., which would be about equal to a sale at £7. 2s. 6d. in Liverpool in the usual way.

THE AMERICAN MARKET.—In New York laths have shown an upward tendency, and recent lots have sold as high as \$2.26, but this price will hardly hold long, for shippers will forward laths as fast as possible.

while the most of the chartered vessels in port have obtained 57s. 6d., we know of two recent charters at 55s., one for Liverpool and one for Bristol Channel.

Coastwise freights are firm at \$2.25 for New York, \$3 for Sound ports, and \$2.50 for Boston. Logs are held at \$7 to \$8, and deals are worth about \$3.50 per M., with few outside arrivals to report.

Fire has been busy lately among the mill owners. On the 6th instant a mill belonging to E. D. Jowitt & Co. was burned on which there was no insurance. The loss is estimated at from \$15,000 to \$20,000.

Hilyard Bros., the loss of whose mill by fire you reported in your last issue, have decided to rebuild, and are busy clearing away the ruins. St. John, N.B., Sept. 9, 1881.

CHICAGO.

SEPTEMBER 7.—Prices remain unchanged, practically, although during the week sales were made at quite a reduction from the regular market prices. The following are the quotations:—

CARGO QUOTATIONS.

Table listing cargo quotations in Chicago, including Joist and scantling, Joliet and scantling, Mill run, choico green, Mill run, medium, green, Mill run, common, Shingles, standard, and Shingles, extra A.

LAKE FREIGHTS.

Table listing lake freights, including Manistowish, Muskegon, Ludington, Grand Haven, Menominee, Sturgeon Bay, White Lake, and Ford River.

Receipts and shipments of lumber and shingles for the week ending September 6:

Table showing receipts and shipments of lumber and shingles for the week ending September 6, including Lumber, Shingles, and other items.

BUFFALO.

SEPTEMBER 12.—The following are the latest quotations for cargo lots:—Uppers, Common, Culls, Dressing stocks, and Dressing sidings.

TONAWANDA.

Table listing lumber prices in Tonawanda, including Three uppers, Common, and Culls.

LONDON.

The Timber Trades Journal, of August 27th, says:—All things taken together seem to point to a considerable firmness in the position of the wood trade in both the London and provincial markets, and though the improvement is slow, unless interrupted in the manner described, it is likely to be steady, and that says a great deal. We take it as rather a good sign that the trade are feeling their way so cautiously, and not jumping to any hasty conclusions.

THE GREAT TRIUMPH of the 19th century is the great medical climax Burdock Blood Bitters, cures all diseases of the blood, liver and kidneys, nervous and general debility, and is the purest and best tonic in the world.

## LIVERPOOL.

The *Timber Trades Journal*, of August 27th, says:—The importation during the past week has shown a slight increase over the average of the preceding ones, but not to any extent.

Everything points towards the continuance of a moderate import for the year, and this, together with the firm attitude held by sellers in the various shipping ports, has had the effect of steadily raising prices. So far as North American spruce deals are concerned, prices are yet below an average value, and with the increased price abroad a still further advance is looked for, and will doubtless be obtained during the coming week.

Latest advices from Quebec show that no reduction from the high rates already paid there for pine timber is at all likely to take place—in fact, the appearances are all the other way; and as the stock on hand there is short, the highest prices ever known have been paid for some rafts of good quality. This will make the cost of importation heavy, and consumers who are in want of this description will not mend their position by waiting for later arrivals.

## GLASGOW.

The *Timber Trades Journal*, of August 27th, says:—Imports of foreign timber to the Clyde during the past week have been to the extent of about 5,000 loads, consisting of two cargoes teak, one of Quebec timber and deals, and several parcels of wainscot billets, American and Italian walnut, &c. The tonnage employed for the conveyance of teak imported to Clyde since the beginning of the year aggregates 7,819 tons, being rather more than for the corresponding period of 1880; last arrivals this year were in March. There has been a falling off in the imports of birch this year, the arrivals from Quebec and lower ports amounting to 5,000 logs, as against 8,000 last year at corresponding date.

A public sale was held here on the 23rd inst., Messrs. Singleton, Dunn & Co., brokers, the goods offered consisting chiefly of New Brunswick spruce deals and Pictou, N.S., birch timber. The attendance was good, and a fair portion of the catalogue was disposed of at the following rates:—Pictou birch timber, about 500 logs sold, one parcel of 20 logs, average 17½ inch square (some logs figured) at 1s. 7½d. per cubic foot, string measure, the remainder, say from 15-inch to 16-inch average square, at from 1s. 2½d. to 1s. 4d. per cubic foot. A parcel of 39 logs American black walnut (round), from 10 to 19-inch girth, sold at from 2s. 7d. to 4s. 11½d. per cubic foot, string measure, average 3s. 5½d.

For lower port deals suitable for stage planks, box-making, &c., a fair demand still continues.

## Lumber Growth on the Pacific.

The *Oregonian* has this to say of the Puget Sound lumber forests:—"The forests of the great Pacific north-west are as yet virtually untouched, and they now offer the most considerable source of supply remaining on the continent. Development of our railway system will, in a few years, give us an immense lumber trade. This interest will be more important than our fisheries, and it may for a time take precedent over our wheat. The railroads will make our vast forests accessible to the great treeless region of the interior, and as lumber is now carried from Michigan to Maine, so it can be carried from Oregon and Washington to Montana and Dakota, and even to Chicago. The rapid settlement of the country to follow railroad construction will create a mighty demand for lumber over half a million square miles of territory. Within a few years our mountains, where the chief supply is, will be penetrated in all directions and at all points, and the lumber will be run out on tramways or driven down the streams. Ten years from now it will be an immense business. Nothing can be more sure, for the demand in the open country, from the Cascade range to the Missouri river, will certainly be met by the supply from these western forests."

**ZEPESA.**—A healthy man never thinks of his stomach. The dyspeptic thinks of nothing else. Indigestion is a constant reminder. The wise man who finds himself suffering will spend a few cents for a bottle of Zepesa, from Brazil, the new and remarkable compound for cleansing and toning the system, for assisting the Digestive apparatus and the Liver to properly perform their duties in assimilating food. Get a 10 cent sample of Zepesa, the new remedy, of your druggist. A few doses will surprise you.

## SALE OF TIMBER LIMITS.

The *Ottawa Citizen* says that on Thursday afternoon, September 3, at the Grand Union Hotel, there were offered for sale by Mr. James Brower, auctioneer, the following valuable timber limits situated on the Black river, in the Province of Quebec, which were part of the estate of the late Mr. Michael O'Meara, of Pembroke:—License No. 92, of 1878-9, comprising 50 square miles; license No. 91, of the same year, also comprising about 50 square miles; and license No. 90, of the same year, comprising about 8 square miles. The sale was made in order to wind up the affairs of the estate by order of the executors, Messrs. W. O'Meara, W. Howe and J. Doran. Besides the limits above specified, there was also a farm of about 100 acres of good land on license No. 91, and a considerable quantity of stores, including about 50 tons of good hay. It had at first been intended to put the property up in lots to suit purchasers, but at the time of the sale it was determined to put it up *en bloc*, the purchaser to take the stores on the farm at valuation. The terms of the payment were 10 per cent. cash, the balance in fifteen days, or 50 per cent. of the balance in fifteen days, and the remainder in six months, with interest at 6 per cent. added. The attendance was large, and for a time the competition keen. The auctioneer announced that no bids under \$500 would be taken. Mr. McCormick, of Pembroke, started them at \$10,000, which bid was doubled by Mr. Alexander Fraser. Five hundred dollars was added to this; then came a bid of \$22,000, and from that the figures rapidly ran up \$1,000 at a time until \$36,000 was reached. Here there was a short pause, and they were then slowly \$500 at a time until knocked down to Mr. T. W. Murray, of Pembroke, at \$38,000.

## Spontaneous Combustion.

A French scientist has lately experimented with greasy rags to ascertain the degree of their inflammability under certain conditions. He took for this purpose a quantity of cotton rags, saturated them with boiled linseed oil, wrung them out, and placed them, together with dry cotton, in a box about eighteen inches long, eight inches wide, and two feet high, in which he put a thermometer in order to watch the increase of temperature. The room in which the experiment was made was kept under a temperature of 170° Fahrenheit. The mercury soon began to rise, and showed within an hour and a quarter 310°; smoke commenced to come through the fissures, and as soon as air was let in, the flames burst out. In another experiment, made under the same temperature, cotton, saturated with linseed oil, ignited within five or six hours. Rapeseed oil caused ignition after ten hours. In another room, where the temperature was left at 120° Fahrenheit, cotton, mixed with a little olive oil, and put in a paper, burnt after six hours; castor oil required more than twenty-four hours; whale oil only four hours, and fish oil two hours. Spermaceti oil, free of glycerine, did not ignite at all, neither did heavy tar, coal tar, or slate oils. These experiments show very clearly the necessity for scrupulous watching of oily rags, which are often too carelessly left around after cleaning machinery.

## Walnut Burls.

A Chicago hardware buyer recently struck a bonanza in the way of a walnut burl on the Spoon river, in this state. It is fifteen feet long, seven feet, eight inches in diameter at the butt, and six feet, nine inches at the top, not including the sap. The modest sum of \$7 was paid for the tree, and in addition it cost \$2.50 to hire the burl cut out. It was rolled into the river, but it sunk like a piece of lead. When it was discovered that it wouldn't float, it was pulled upon the bank again by three yokes of oxen and a span of mules, and will be shipped to a veneer mill by rail. The owner considers the log worth \$150, but he probably would not sell it for twice that amount. This recalls to mind a burl that was bought in Indiana some fifteen years ago for \$10. It was sent to Sandusky by rail, thence by water to New York, where it was cut into veneers. The veneers were brought back to Buffalo and sold, the lucky operator clearing over \$3,000 on his \$10 investment.—*Northwestern Lumberman*.

## MILL SUPPLIES.

Extra Stretched and Patent Smooth Surface

RUBBER BELTING—in Stock, 2, 3, 4, 5, and 6 Plies.  
HOY'S CELEBRATED LEATHER BELTING.  
COTTON BELTING, for Fleur Mills. &c., Superior Quality.

## DISSTON'S CELEBRATED MILL SAWS.

Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. Quotations furnished for any part of Canada. 21

ESTEY, ALLWOOD & CO., SAINT JOHN, NEW BRUNSWICK.

## A PLANING MILL BURNED.

LONDON, Sept. 11.—This afternoon a most disastrous fire occurred in this city. About four o'clock flames were noticed issuing from a shed at Green's planing mill, and although the fire brigade were quickly on the spot the flames had obtained such a hold that the whole of the sheds, brick planing mill, and brick cottages adjoining were razed to the ground. The whole of the valuable machinery, the mill being the most complete and best equipped west of Toronto, is a total loss, and a number of workmen are also sufferers to the extent of their kits of tools, some of which were worth \$150. A quantity of finished stuff ready for use at the Masonic Temple, and other new buildings were destroyed. Mr. Green's loss is placed at \$25,000 on which there is an insurance of \$5,000. Many narrow escapes are reported. Several of the workmen, while attempting to save their tools, were forced by a sudden rush of flames to jump for their lives, and sustained painful injuries by falling upon odd tools which had been thrown out. The falling walls also made things lively for the firemen. The lumber in the adjoining lumber yard of Mr. H. C. Green ignited several times, and some piles were badly damaged. The office and buildings in the coal yard of Messrs. Bowman & Co., on the other side of the mill, were also scorched.

## NEW BRUNSWICK NOTES.

UPPER Province Canadians, in supplying New York and other large eastern markets, ship wide 10-inch and upwards. This the lower provinces cannot compete in with their narrow board lumber, the logs of the Provinces of New Brunswick and Nova Scotia being now comparatively small.

A city ordinance of New York requires that all spruce deals used be not less than 16 feet long by 10 to 15 inches wide. This size is regularly sorted out by New Brunswickers, and reserved for that market, and the balance, as mixed lots, sent to other points.

THERE had existed in southern New Brunswick a large industry to the consumption at times of 1,300,000, and now about extinct. Last year the amount was 300,000 only. There was a growth of rough, crooked trees on the right bank of the St. John river. This was utilized for the manufacture of boxes, each one containing 28 or 29 feet of lumber. These were shipped to the West Indies, and known as "shooks," where they were filled with sugars. They were worth here about 50 to 75 cents, and sold in Cuba for from 8 to 10 cents—equal to \$1.10 or so—the increased cost being the addition of a duty of 2½ cents imposed by the Cuban Government, and the freight. The firm of Fleuelling & Co., of Hampton, N. B., are at present manufacturing something similar, in the shape of small boxes, to be sent to the Bermudas for the onion trade. There will be used for this purpose 600,000 feet of spruce this season.

## Cement for Leather.

Equal parts of common glue and isinglass; soak ten hours in just enough water to barely cover, bring gradually to a boiling heat, and add pure tannin until the whole becomes rosy, or appears like the white of eggs. Buff off the surfaces to be joined, apply the cement, and clamp firmly.

## Beautifiers.

Ladies, you cannot make fair skin, rosy cheeks and sparkling eyes with all the cosmetics of France, or beautifiers of the world, while in poor health, and nothing will give you such good health, strength, buoyant spirits and beauty as Hop Bitters. A trial is certain proof.—*Telegraph*.

## THE TENURE OF LIFE.

An industrious German, Baron G. F. Kolb, has lately compiled a book of universal statistics which furnishes much food for thought. His figures show that every advance made by a people in morality, in profitable and healthy employment, and useful knowledge brings it nearer to the ideal—the greatest natural tenure of life. Domestic virtue also tells favourably on the health and wealth of a population. Thus in Bavaria, out of 1,000 children born alive there died, of legitimate children, 248 boys and 212 girls; of illegitimate, 361 boys and 342 girls. Out of 100 children suckled by their mothers, only 18.2 died during the first year; of those nursed by wet nurses, 29.33 died; of those artificially fed, 60 died; of those brought up in institutions, 80 died in the 100. The influence of prosperity or poverty on mortality is also shown by Baron Kolb. Taking 1,000 well-to-do persons and another 1,000 of poor persons—after five years there remained alive of the prosperous, 943; of the poor, only 655. After fifty years there remained of the prosperous, 557; of the poor, 283; at seventy years of age there remained 235 of the prosperous, and of the poor, 65. The average length of life among the well-to-do was 50 years, and among the poor 32 years.

One of the most potent shorteners of life is the anxiety of providing for bare subsistence. The lack of sanitary conditions also shortens men's years. Idleness, as compared to intense industry, outweighs—judicially outweighs—all the advantages of ease and abundance.

## Fall Planting.

The *Rural Canadian* says:—The question is often asked whether spring or fall is the better time to plant fruit and other trees. No answer of universal application can be given. It is undoubtedly an advantage to plant the smaller fruits in the fall. By these are meant raspberries, currants and gooseberries. Being of low-growing habit, they are not affected by the strong winds, and are more easily sheltered from the cold of winter. They will make a more vigorous growth next season, than if planted the following spring. Taller growths that catch the wind are swayed about more or less, and do not get firm hold of the ground. These are better planted in the spring. Evergreens rarely, if ever, do well when planted in the fall. Whether fall planting is practised or not, fall ordering is very desirable. It is better to get the young stock, and heel in it, than delay until spring. Heeling-in is temporarily planting a bundle of trees, so as to make a favourable time for spring planting. This has several advantages. Nurserymen are not so driven in the fall as in the spring; can make better selections of trees, in filling your order; pack them more carefully, and be more exact about names. With the trees on hand you can seize the opportune time for setting them out. You are not hurried, for the trees are in good state of preservation, and can be planted with care and deliberation.

By all means order in the fall, whether you plant in fall or spring. Let evergreens be the exception to this rule. They should not be lifted until spring.

Were man to conform more to the laws of health and of nature, and be less addicted to the gratification of his passions, it would not be necessary to advertise Fellows' Compound Syrup of Hypophosphites as a restorative for the power of the brain and nervous system, while the world's progress enlightenment would indeed be marvellous.

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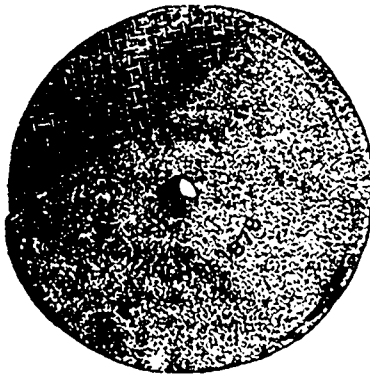
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## EMERY and CORUNDUM WHEELS

These Wheels are  
Wire Strengthened



And Specially Adapted  
For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

*They Surpass All Other Wheels for Free Cutting and Durability.*

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

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Best Cast Steel, Warranted.

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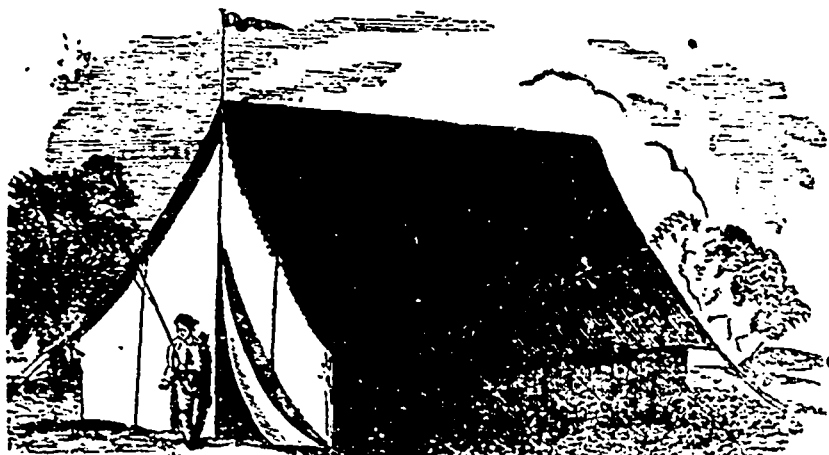
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Manufacturers of Tents for Lumbermen, Sportsmen, Camp Meetings, Photographers, Lawn and Military Encampments, with or without extra roofs, all sizes and styles, some fancy striped, kid proof or plain. Prices from \$5 upwards. Flags of all descriptions, (regulation sizes) made of the best of silk-finish hunting. CAMP BEDS (Bradley's Patent) the best bed ever invented; size when folded 2 x 6 in.; 3 feet long, weighing only 11 pounds, but strong enough to bear the weight of any man. Waterproof wagon and horse-covers, tarpaulin sheets, coats and leggings of every description made to order on the premises. Special rates to Lumbermen. Send for catalogue and price list to

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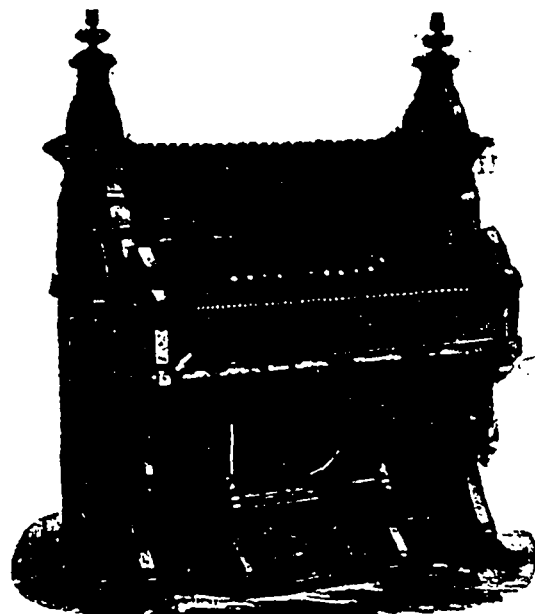
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THE BELL ORGANS LEAD THE WORLD.

WE RECEIVED  
Medal and Diploma ..... Provincial Exhibition 1871  
Medal and Diploma ..... Centennial Exhibition, 1876  
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WE RECEIVED  
Only Medal for Parlor Organ, Provincial Exhibition, 1878  
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And Gold Medal ..... at Sydney, Australia, 1880

The Bell Organ Manufactory is the Largest and Oldest in the British Empire, and the fact that we have sold nearly 15,000 proves that they are the best in the market. We GUARANTEE ALL OUR ORGANS for five years. Correspondence Invited. Illustrated Catalogue mailed free.

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### NOTE THE PRICES.

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- We give a Good Tweed Pants for..... 1 50
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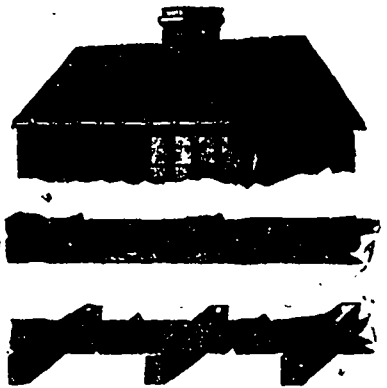
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## TOKER & CO.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

# LUMBERMEN

Will always find a Large Stock of

## Shanty Blankets

AND

## HORSE BLANKETS

At LOWEST Mill Price, at

# JNO. MACDONALD & CO'S TORONTO.

Send Sample Order for our **LINED SHAPED HORSE RUG**, a Specialty, highly recommended for *Wear and Warmth.*

6122

# Drake Brothers' Box Mill,

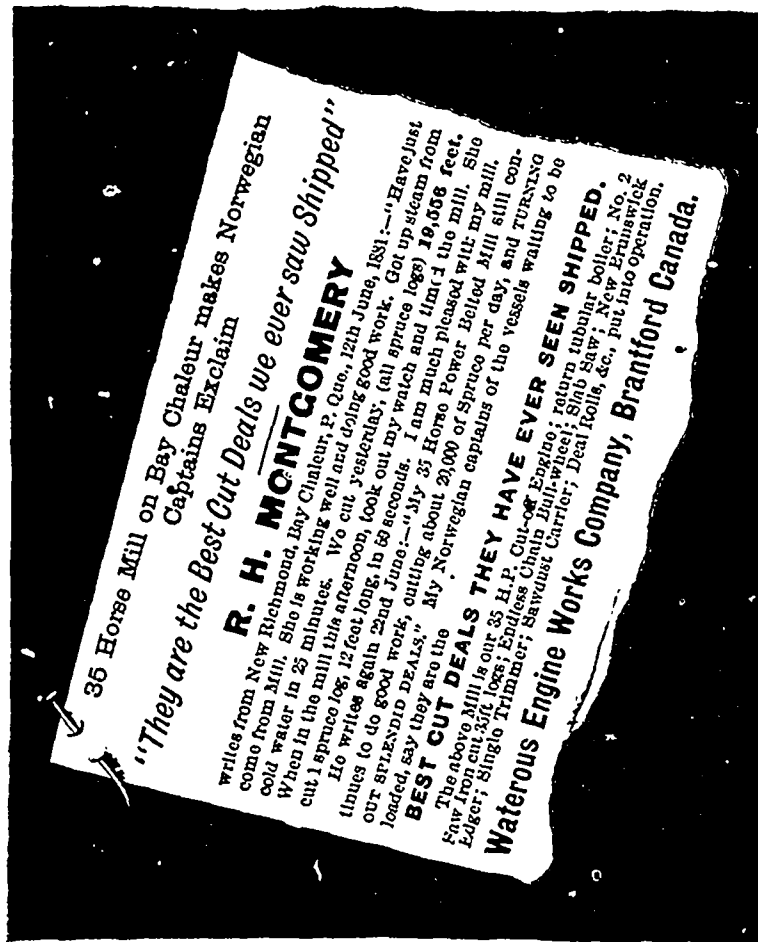
Provost Street Extension, New Glasgow, Pictou County, N. S.

## SPRUCE, PINE & HEMLOCK SHINGLES

F. H. DRAKE.

122-17

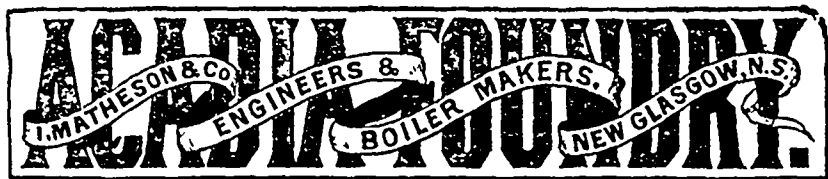
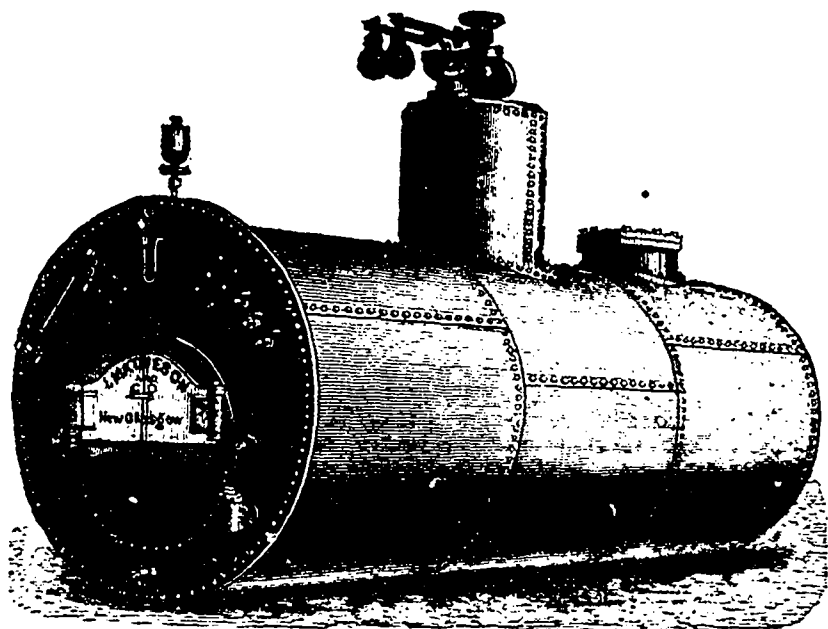
N. H. DRAKE.



35 Horse Mill on Bay Chaleur makes Norwegian  
Captains Exclaim  
"They are the Best Cut Deals we ever saw Shipped"

**R. H. MONTGOMERY**

writes from New Richmond, Bay Chaleur, P. Que., 12th June, 1891:—"Have just come from Mill. She is working well and doing good work. Got up steam from when in the mill this afternoon, look out my watch and time (1 the mill. She cut 1 spruce log, 12 feet long, in 60 seconds. I am much pleased with my mill. She times to do good work, cutting about 20,000 of Spruce per day, and turning out SPRAWL DEALS." My Norwegian captains of the vessels waiting to be loaded, say they are the **BEST CUT DEALS** they have ever seen shipped. The above Mill is our 35 H.P. Cut-off Engine; return tubular boiler; No. 2 Fly Iron cut 307 lbs; Shaftless Chain; Bull-wheel; Slab Saw; New Frumstick Edge; Singo Trimmer; Sawdust Carrier; Deal Rolls, etc., put into operation. **Waterous Engine Works Company, Brantford Canada.**



122-17

## D. McLACHLAN & SONS,

Manufacturers of all Descriptions of

# STEAM BOILERS.

SHIPS' WATER-TANKS. Repairing Punctually Attended to.

NORTH SLIP, ST. JOHN, NEW BRUNSWICK.

# Northey's Steam Pump Works

BOILER FEED PUMPS, MINING PUMPS,  
AIR AND CIRCULATING PUMPS, PUMPS SPECIALLY ADAPTED for  
STEAM FIRE PUMPS, and OIL PIPE LINES,  
WRECKING PUMPS. And CITY WATER WORKS.

No. 47 King William Street.

# HAMILTON, ONTARIO.

SEND FOR CIRCULAR.

117-17

# F. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

# LEATHER BELTING



First Prize, Provincial Exhibition ..... Ottawa, 1875  
First Prize, Provincial Exhibition ..... Hamilton, 1876  
First Prize, Provincial Exhibition ..... London, 1877  
First Prize, Industrial Exhibition ..... Toronto, 1879  
First Prize, Industrial Exhibition ..... Toronto, 1880  
International Medal, Centennial Ex... .. Philadelphia, 1876



None genuine unless with a STAR on the head of rivets. Send for Price Lists and discounts.

61-17

81 Colborne Street, Toronto.



# M. Covel's Latest Improved Automatic Saw Sharpener!

Is the Most Perfect Machine that has ever been Introduced into Mills for that purpose.

**CIRCULAR SAW  
STEAM FEED!**

I would also call special attention to my

**Heavy Circular Saw Mills**

and for STEAM MILLS, would recommend the Steam Feed, having put in several which are giving the best of satisfaction, as will be seen by the following testimonials:—

GRAVENHURST, August 20th, 1880.

WM. HAMILTON, Esq., Peterborough.

DEAR SIR—I have used your Steam Feed for near four months, and it has given me perfect satisfaction in every way; it is admitted by every person who has seen it work to be the best feed ever invented. Since I put it into my mill, I have not lost ten minutes time fixing anything belonging to it. I can cut 18 boards 13 ft. long in one minute. It can do much smoother and better work than the piston feed. It is easily governed and reverses the carriages instantly. I am thoroughly satisfied with it and can recommend it to any person who has a Circular Saw Mill for cutting long or short logs. I consider I have cut more lumber than will pay for the Steam Feed since I got it than I would have cut had I not put it in

Yours respectfully,

WILLIAM TAIT,  
Lumberman, Gravenhurst.

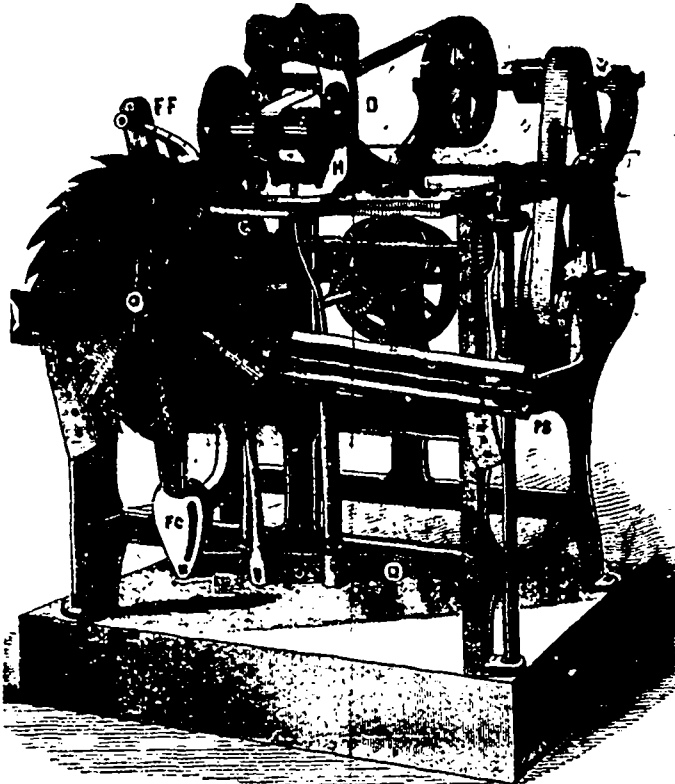
TORONTO, August 11th, 1880.

WM. HAMILTON, Peterborough, Ont.

DEAR SIR—The Steam Feed you put in is working splendidly.

Yours, &c.

THOMPSON, SMITH & SON.



**MILL MACHINERY!**

I am also manufacturing Saw Mill Machinery, for all sizes of Gang or Circular Mills, Span or Double Circulars for Slabbing Small Logs. My Patent Jack Chain for drawing logs into Saw Mills, acknowledged by all to be the Cheapest and best ever got up; also, my Patent Lumber Markers, different sizes of Edgors, Gang Lath Mills, Trimmers, Power Gummers, and all Machinery used in a first class Gang or Circular Saw Mill; also, small Hand Gummers for use in the woods, for Cross-cut Saws. Rotary Pumps of different sizes, for Fire Protection in Mills, &c.

**Horizontal Engines and Boilers**

CORLISS



ENGINES

Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woolen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Style, Workmanship and Finish on this Engine will be no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2½ pounds of coal per horse-power per hour.

**WILLIAM HAMILTON,  
PETERBOROUGH, ONT.**

# EMERY WHEELS FOR SAW GUMMING!



Solid Emery Wheels are now almost in universal use for the purpose of guilleting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing \$3 to \$4 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fickle, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of \$500 to \$750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x½	} ¾ in. hole.	10x½	} ¾ in. hole.	12x½	} Holes, ¾, ¾ and 1 inch.
8x¾		10x¾		12x¾	
8x1		10x1		12x1	
		10x¾	12x¾		
		10x1	12x1		

Probably more wheels 12x½, 12x¾ and 12x1 are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x1½. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth case hardened, in which condition the saw will cut about 33 per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw lightly a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

## A QUESTION OF QUALITY.

Thirteen years of experience as makers of, dealers in, and actual users of Emery Wheels, have led us to a decided opinion as to what quality is the best. We prefer for almost every use an "Extra Soft" wheel like the "Pocono." We believe that money lost through the rapid wear of the wheel is more than made up by the money saved on wages. As we cannot get every one to adopt our views, we make several qualities, so as to meet their views. We say to those who think they can only be satisfied with some other make of wheels (not Tanite), that we can furnish qualities to match any and every other make. If you have got used to some special quality of wheel, let us know what it is, and we can send you a Tanite Wheel of similar quality. Our regular classification of Saw Gumming Wheels is as follows:

**CLASS 2. MEDIUM-HARD.**—This Wheel is THE STANDARD Saw Gumming Wheel all over the world. Probably seven-eighths of all the Saw Gumming Wheels used are "Class 2." It cuts fast and keeps its shape well. Some think it too hard, some too soft. We prefer the "Pocono."

**CLASS 3. MEDIUM-SOFT.**—The same as to coarseness and fineness as "Class 2," but a softer, and therefore, freer cutting wheel.

**CLASS "POCONO" EXTRA SOFT.**—This Wheel we prefer to all others. It is both finer in grain and softer than either of the above. As a Saw Gumming Wheel, Class "Pocono" is specially suited to those practical and experienced Sawyers who know how to grind with a light touch, and who want a free cutting wheel that will not create much heat.

Illustrated Circulars and Catalogue, showing Cuts of Saw Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application.

**The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania**

CANADIAN TRADE SPECIALLY SOLICITED.