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NO. 5.

BAND AND SCROLL SAWS.

A VERY useful tool in a pattern shop is a good band saw. The more it is used the better it is liked, and one is continually being surprised by its capabilities. It will do nearly everything that a circular saw can do, and a great many things that can't be done by a circular saw. The band saw, if kept in good order will do nice work, but if the guides are allowed to get worn out of shape, leaving the edge of saw loose, the saw so badly set and filed that each and every tooth strikes it in a new place on the stuff being sawed, and then the hole through the table so large that you can stick your finger down through the table all around the saw, it won't be likely to do very nice work, and it wouldn't be safe to get very close to the line in sawing, because you never would be sure of where the saw was cutting on the bottom side of the stuff. With a saw that is set and filed accurately, you may safely cut right up to the line, when necessary, if it don't crowd the saw, but allow it time to cut free and clean.

In sawing short curves it is very easy to cramp the saw by feeding too fast, or in the wrong direction. It is hard to give any explicit directions in regard to feeding when sawing curves, but let the feeding be so done that all the power exerted will tend to force the saw against the collar or plate behind it. You should not twist the stuff so that the saw is pressed hard against the sides of the guide, as this causes great friction and consequently throws a great strain on the saw, also heating it. If you persist in doing this you will break a great many saws, besides wearing out the guides very fast. The rubber covering on the wheels will also come in for an excessive amount of wear.

When the saw needs setting or filing, before you take it off the wheels, brush the dirt and gum out of the teeth. A file card does this first rate; then joint the saw with an emery stone, taking care to hold the stone square across the saw. Take off the saw and if it needs setting, set it just as little as possible. Don't try to make a wide saw do the work for which you should use a narrow saw by setting it very wide, for it won't work nice, and it is hard on the wheel covering. In filing, it is customary to file all from one side and square across, although the saw would cut better if filed partly from each side.

After the saw is replaced on the wheels, and the guides adjusted to the saw, not the saw made to run in the guides, just as they are, because it runs so before filing, unless both the top and bottom guides are just right to fit and hold the saw. Make sure that they are just right. They should be exactly in line with the saw, and take in the whole width of saw except the teeth. Then adjust the upper wheel. This will usually, and I presume always, be provided with means for tilting it over toward the front or back as may be necessary so that the saw won't run off. It should run against the back of the guide very lightly when not doing any work. This saves the guides and also prevents any unnecessary heating of the saw.

Now joint off both sides of the saw in this way, use an emery stone having a flat surface, then holding the stone against the side of the saw touching the back edge, first keeping it in contact with the back edge, swing it around until it touches the sides of the teeth. This method will prevent any possibility of cutting off the front corners of teeth, and the saw will cut to its full width.

The saw should run straight and true when in motion and not squirm around like a snake, as I have seen some do. You can perhaps imagine how close to the line it would be advisable to get with a saw that runs back and forth sidewise, three or four times in each revolution. Of course this sidewise motion should be controlled by the guides, but the same saw that has the most need of the controlling influence of the guides doesn't get it, because the guides are in no better shape than the saw itself.

A saw that has been broken and mended a number of times is very apt to run crooked, not only on account of the joints, but because the soft places, which the brazing of the joints make, are very apt to get bent. When your saw gets broken and you wish to mend it, begin by filing down the ends you wish to join. Make the joint from one-half to one inch long, taking care to file the ends to a straight taper, so that the joint will fit closely together without springing and also to be of the same thickness as the rest of the saw. This is important, as you will find that if you have to spring the joint together when you braze it, you will spring the saw on each side of the joint. Then when you are ready to braze the joint, take care to clamp it down straight, and don't get more thickness of brass, silver or whatever solder you use than there will be of steel after the joint is finished. Put the saw on the machine, adjust the guides and try it. If the edge runs in a straight line, and the new joint passes the guide without being heard, you have done a good job, and you will be repaid for all your troubles by the quality of work turned off.

If I should try to tell all that might be done by a band saw I should wear out the patience of the reader, and perhaps not tell him anything new after all. The best job I ever heard of as being accomplished on a band saw was the sawing of gear teeth, right to the line, so that they only required sandpapering to complete them. I didn't see the gear teeth, but I always thought they must have been finished before the sandpaper touched them. Seriously, about the only thing in the line of sawing that can't be done on a band saw is making holes. This is where the band saw has to yield to the jig saw, its older relative. This machine (the jig saw) as in use in most shops, makes more noise than all the rest of the machinery together, and does comparatively little work. It is just the opposite with the band saw, which makes very little noise, but does a great deal of work.

There are, of course, some exceptions to the kind of jig saw noted, but even the best of them require constant care and a good deal of it. The saw wants filing very often, and why shouldn't it when you remember that about five inches in length of it does all the work, and consequently gets dull very quickly? Then the guides for the cross heads—perhaps there are two cross heads—must be kept snug, and the connecting rod or pitman mustn't be allowed to get loose, and there is usually trouble in keeping the machine oiled, as the sawdust, more or less of it (generally more) falls directly on the crosshead and pitman, and soon absorbs the oil from these parts and from the guides. But we must put up with all their faults, because we can't saw holes with a band saw, until some genius (?) makes a band saw with a joint in it.

One great difficulty in the way of a smooth running jig saw is a little too much speed; they run too fast. If the pitman and crosshead are very heavy, and are not well balanced, you

can easily see what a little too much speed will do. Then there are jig saws that are not provided with any appliance to ease the shock of reversing the motion at the end of stroke. The spring commonly used at the top to strain the saw helps the reversing at the lower end of the stroke, but hinders it at the upper end. Another point where the jig saw has the advantage of band saw is in the size of work which may be done. On the band saw the size is limited to the diameter of the wheels which carry the saw, but with the jig saw the only limit to size of stuff sawed is the size of room where the saw is located.

A good jig saw should have as crosshead and pitman as light as is consistent with the necessary strength, and well balanced, with good tension for saw at the top end. This is a sure method of holding the saw, and one that can be operated quickly. The pitman must not be too short; neither should it be too long, as this will add unnecessary weight to the reciprocating parts. Not less than three, or more than five times the length of stroke will put the length within reasonable limits. The tension spring helps the reversing at lower end of stroke. Then if the blower for removing the sawdust could be located at the top end of stroke; but the difficulty in the way of this is the pipe necessary to convey the compressed air from the blower to the upper surface of work. Still an air cushion might be utilized to keep the sawdust off the crossheads and guides, and it would certainly make the saw run steadier. Then, to bring out the good points, and make them show to the best advantage, the saw should stand on a good foundation.

It is not a good plan to use much oil on the saw, or the saw guides, because the sawdust sticks to it, and the oil gets on your work, and it makes things dirty and disagreeable. This applies equally as well to the band saw. It is much better to keep the saw in such good order that it will need no oiling at these.

I recollect reading in the *American Machinist* about the influence poor tools, dirty machines, and the poor work resulting therefrom, had upon the character of the workman. Where these things are chronic, the men's work will soon become like the shop, poor and dirty in looks, and whoever saw a dirty machine do a good job?

Take, for example, a band saw that hasn't had the oil and dirt wiped off in six months, and this too, where it has been the rule to oil the saw and saw guide as often as any one thought necessary. The oil will collect all the sawdust that will stick to it: the saw itself I should expect to find in keeping with the machine, every tooth set to a different width, and filed to a length of its own. This saw won't do good work, and the man who has the care of it won't be apt to lose much sleep on this account.—*F. W. Barrows in American Machinist.*

A new lumber tariff has been published by the C. P. R. which fixes rates from Shuswap and all shipping points east of Shuswap to all points from Banff to Emerson. On the longer distances the rates in comparison with those in force are slightly lower, but on shorter hauls rates are doubled. The new tariff is regarded with great displeasure by dealers in Calgary and by null men in the neighborhood of Donald as calculated to destroy their trade. Calgary and Banff are deprived of all advantages from their proximity to timber, and will have to pay as much for lumber brought 150 miles as they would have to pay if it was 600 miles distant.

NOTES FROM THE MILLS.

ONTARIO.

—The Rathbun Co. has established an agency at Smith's Falls.

—Sringeour Bros., sash and door manufacturers, Stratford, have admitted Jas. Benneck a partner.

—The firm of Hastings & Peterkin, planing mill, Toronto, has dissolved, Wm. Hastings retiring.

—Mauder's sash, door and shingle factory at Little Britain, Ont., is being overhauled and improved.

—Mr. Ed. Bradley has been repairing his saw-mill at Kilgorie, Ont., and has put in a new engine.

—Mr. Wm. Hall, late of Stanton, has leased the Shelburne planing mills, and has commenced operations.

—Messrs. Hamilton & McGowan, of Laurel, Ont., have moved their saw-mill to lot 26, con. 5, Amaranth.

—Messrs. John and Thomas Cross, of Chesley, Ont., have purchased Gardner's saw mill at Dobbington, Ont.

—One million feet of oak lumber on Walpole Island has been purchased by the St. Clair steamship company.

—The estimated cut of logs for Mr. J. R. Booth, in the Nipissing District this season is put down at 174,000.

—Lewis and Hiram Vanest have purchased from W. Estis one half interest in the saw and feed crushing mills at Parkham, Ont.

—Pocock & Haynes, sawmakers, recently of Hamilton, have been voted a bonus of \$5,000 to establish their works at Oshawa.

—Work on the new steamer to be constructed at the Rathbun Company shipyard will be commenced in the course of a few weeks.

—Mr. John N. Stewart, an old resident of Ashton, Ont., has removed to Eastman's Springs, where he has purchased a valuable mill.

—The bulkheads and booms at the Chaudiere, protecting the saw mills and slides, have been completely repaired in anticipation of the spring floods.

Messrs. Gilmour & Co., in addition to other improvements, have built a fine new saw mill at Chelsy, and will soon be ready to begin the season's sawing.

—A gang of 28 shantymen were recently sent to the Georgian Bay lumbering district by the Grand Trunk railway to work on the drive and in the mills.

The Kingston and Pembroke Iron and Mining company, with a capital of \$5,000,000, has been formed to develop the iron ore district along the K. & P. Ry.

—Messrs. J. R. Booth & Co., of Canada, shipped in one week recently over one hundred and fifty car loads of lumber to various points in the Eastern States.

—The Terra Cotta Lumber Company are making preparations for the erection of extensive buildings, &c., in the so-called hospital field in the east end of Deseronto.

—Messrs. Perley & Pattee, lumber merchants of Ottawa, have extended their docks around Byth's Point on the Ottawa river. The extension entailed great labor and expense.

—Mr. D. McLeod, of Marsden, Ont., got out about 20,000 ties and a large quantity of birch this year. Morrison & Co., of the same place, expect to have their saw mill running soon.

—The Ontario Lumber Company are making extensive shipments of lumber from Burk's Falls this spring. They have hundreds of thousands of feet piled in the station yard awaiting cars.

—Says the Orillia Packet, lumbermen agree that the shanties will yield a very good average cut this spring as the result of the winter's work, notwithstanding the prolonged and severely bad weather.

—The new Paper Pulp Company, at Ottawa, have a large gang of men employed in fixing up the old Thompson mill on the Chaudiere. The old driving water-wheels are being removed and heavy iron ones put in their place.

—Mr. John Ellison, of Port Stanley, has been granted a bonus of \$6,000 by that town on account of the wood bending and turning works which he is erecting there. It is expected that these works will be in operation about April 1st.

—Mr. James, of Pickering, Ont., is opening a large lumber yard in Toronto. He has 25 men at work near Cambridge, Ont., getting out cedar for fence posts, paving blocks, etc., for shipment via the Midland railway to this city.

—One of the largest turbine wheels ever imported into Canada passed through Ottawa last month. It was purchased in Holyoke, Mass., by the Du Lievre Milling and Manufacturing Co., and will be utilized in increasing the power of their phosphate crushing mill at the Du Lievre Basin.

—Mr. J. Dovey has arranged to at once build at Lindsay a large shingle mill. The site selected is on the east side of the river, where the Thurston mill stood some years ago. The mill is expected to be in operation by the end of May.

—A consignment of sixteen car loads of laths was shipped the other day to the New England states by Messrs. Bronson, Weston and Dunham, lumbermen of the Chaudiere. The shipments of laths to the other side this spring have been large.

—Messrs. Fox & Co., Toronto, manufacturers and dealers in lumber, sash, doors, blinds, etc., inform us that an unusual amount of building in Toronto is in contemplation for the coming season, and that nothing short of an earthquake or strike among the building trades, which terms are synonymous, can retard or prevent the boom.

—The splendid new iron tug which the Upper Ottawa Towing Company is building at Pembroke is fast nearing completion and will be ready for launching when the ice goes off the river. After the engine and boilers are placed she will be taken to the Lower Allumette Lake by way of the Culbute canal, to engage in the season's towing.

—Mr. W. P. Sweatman, for many years manager of the lumber firm of Messrs. A. & P. White, at Pembroke, is leaving with his family to enter the service of the celebrated Massey Mfg. company at Winnipeg. He was presented recently with a handsome silver tea service and a most feeling address by the congregation of Holy Trinity Church at that place. The workmen also presented him with an address and a gold chain and locket, also a case of silver dinner knives. A deputation of clergymen waited upon him, presenting a beautiful address and valuable present of books as a recognition of their appreciation of his untiring and faithful labors in all good works.

—Messrs. Train & Son are thoroughly overhauling the saw mill at Burk's Falls. The building is being enlarged by the addition of 30 ft. in length, and 10 ft. in width along the whole structure, making the mill to cover 40x100 ft., thus affording an increased power of 1 ft. head, and bringing the two Leffel Wheels nearer their work. They are also putting in a new saw rig and carriage, independent rope feed, trimmers, burner, slush chains and live rolls. This is being supplied by the well known firm of The William Hamilton Manufacturing Company, of Peterborough. The drag saw, shingle machine and lath cutter have been removed to the mill floor for convenience of the workmen and oversight. This mill when completed will cut 30,000 ft. per diem of lumber, and about 25,000 shingles. The firm have now about two and a half million feet to cut, and are arranging for an additional amount. Cutting will begin about the 15th of May, when 25 or 30 hands will be employed. Mr. W. H. Train has the general management of the work at Burk's Falls.

QUEBEC.

—A gentleman, who has recently arrived from River Desert on the Gatineau, states that the roads to the lumber shanties are now impassable by teams, and that it is impossible to take provisions to the shanties.

—An immense iron gang for cutting lumber, with a 54 inch sash, and taking saws 3 feet 8 inches long, weighing in all about 25 tons, was loaded the other day for shipment to the Charlemagne Lumber Co., below Montreal. This monster machine, was made at the Wm. Hamilton Manufacturing Company's Works, at Peterboro' Ont., whose invention it is.

—Messrs. James MacLaren, of Buckingham, lumber manufacturer; Albrecht T. Pagenstetter, of the city of New York, merchant; Warren Curtis, of Corinth, state of New York, paper manufacturer; John Edward Doyle, and John Forman, of Montreal, merchants; will apply to the Quebec Legislature to be incorporated as the Laurentides Pulp Company (Limited), with a capital of \$200,000. A factory is proposed to be built in Montreal.

—L'Electeur defends the Mercier Government's action in increasing from two dollars to five dollars the ground rent payable by lumber merchants on their timber limits. It does so on the ground:—1. That the Government requires \$125,000 a year additional revenue to put an end to deficits and meet the interest on the new loan. 2. That for twenty years owing to the low rent, the lumber merchants have been gradually getting into their hands all the best timber lands to the detriment of the settlers, and holding them, not so much to work them as to sell them on the first chance at enormous profits, paying little or no stumpage, and thus robbing the Province of the revenue which it has a right to expect from its forest resources. 3. That it is desirable to protect these resources against speculation; and 4. That it is time the lumber merchants should contribute their proper share of the revenue, and that all the public burdens should not fall on the people. L'Electeur adds that there are actually 4,000 square miles under license, and that the increase from \$2 to \$5 per acre will yield an additional revenue of about \$138,000.

—Commencing this date the extensive lumbering and manufacturing business so long conducted by Mr. E. B. Eddy, with headquarters at Hill, becomes merged into and will be conducted as a company. Mr. Eddy remains at the head of the concern, with Mr. S. S. Cushman (long connected with the establishment) as vice-president, and Mr. W. H. Rowley, formerly manager of the Merchants' Bank, as secretary treasurer. The company is incorporated by Act of Parliament, and starts out with a capital of a million and a half. The business, which has now assumed very extensive proportions, was established in 1854, just thirty-three years ago. The house has always enjoyed a first-class reputation for business enterprise and integrity, and in its new relationship will doubtless hold the valuable connections already established throughout Canada, the United States and abroad.—Ottawa Journal.

NEW BRUNSWICK.

—Spruce logs are worth \$9.25 for American, \$8 for Canadian.

—Freights to New York by water are \$3 to load above Suspension Bridge, \$2.75 below.

—Miller & Woodman's and A. Cushing & Co's mills commenced sawing on the 21st March.

—The ice in the St. John River and lakes is not heavy and there is every prospect of good driving.

—Operations in the woods are done. The cut is probably one fifth short, as the great depth of snow prevented anything like good work.

—Mr. Jordan foreman for Hayford & Stetson will build a shingle and rotary mill on the site of the Warner mill destroyed by fire in December last.

—Hayford & Stetson have built during the winter seven lime kilns close to their Indian Town saw mill, which they propose to fire with their refuse.

The annual meeting of the St. John River Log Driving Company will be held in the city of Fredericton on the 20th April. The driving rights and duties will be sold at public auction the same day to the lowest bidder.

—The St. Croix, (N.B.) Courier says the authorities of the United States have sent men to the upper waters of the St. Croix and Saint John rivers to take account of marks and the quantity of logs got out on American soil with a view of stopping the alleged smuggling of Canadian lumber into Maine ports.

—Advices from St. John's, N.B. states that the cut of logs on the St. Croix river the past winter, was intended to be about 50,000,000 feet, but in reality it will not amount to more than 30,000,000 feet, or less than half of last year's cut. An early break-up of the ice in the streams is anticipated, and driving operations are likely to be very successful.

—A Springfield correspondent of the St. John, N. B., Sun writes: "Chas. Perkins, of Norton, has given employment to quite a large number of men. He has now under his employ some 22 men. During the winter he has got out some 150 cords of pulp, which is now at Norton station ready to ship to the contractors in the United States. He is now getting lath wood, and expects to ship some 100,000. He says the winter in our country has been very favorable for his business."

MANITOBA AND THE NORTH-WEST.

—The Minnesota & Ontario Lumber Co., of Rat Portage, have sent men to the mountains to examine the timber limit which the company purchased there recently.

—The contract for supplying tamarac poles for the telegraph line between Battleford and Clarke's Crossing has been awarded to Mr. Tupper, of Victoria; and for the line between Clarke's Crossing and Humboldt to Baptiste Boyer.

—Winnipeg Free Press: The winter's cut in the lumber regions of Lake of the Woods will amount to about 32,000,000 feet. The Keewatin Lumber and Manufacturing Co. have had five camps established all winter, and will get out twelve million feet saw logs and 150,000 ties. Some 30 million feet of logs are reported. Immense quantities of ties have been taken out this winter. A Selkirk estimate of the lumber which will be brought in from Lake Winnipeg during the coming summer is:—Wood & Co., one million feet; Brown, Rutherford and Neilson, fifteen hundred thousand feet; Selkirk Lumber Company, four million; Captain Robinson, two million; Drake & Rutherford, two million; Jonasson, Frederickson and Walkley, fifteen hundred thousand; J. Woods, one million, an aggregate of fifteen millions. Apart from this J. Woods will bring in fifteen hundred thousand shingles, and Messrs. Howell & Scarry about 50,000 railway ties. This would make the total lumber output for the winter about 45,000,000 feet—probably an outside estimate. There is, however, no doubt but that the output this year is considerably in advance of previous years, and the prospects for the summer business are fairly bright.

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A STANDARD GANG SAW MILL.

As noted in our last issue that the Wm. Hamilton Mfg. Co. of Peterborough, Ont., had just made arrangements with Wm. M. Wilkin, of Erie, Pa., to manufacture his improved patent Compensating Balance Gang, and now give description and cut which very clearly shows its general construction and operation. The radical departure in this machine from previous practice consists in the device adopted for preventing the excessive vibrations to which the ordinary gang mill has been subject. The immense weight of a heavy sash full of saws, reciprocating at the rate of 200 to 300 strokes a minute required an absolutely stable foundation; and even then many gangs tore themselves to pieces.

The shaft of the compensating gang here illustrated is provided with three cranks, the centre one operating the main pitman and the sash. The other two carry inverted pitmans attached to a counterweight sliding in vertical ways. The counterweight is exactly equal to the sash and its saws. The three cranks have the same throw, the two inverted pitmans are of the same weight as the driving pitman, and as the motions of the sash and the counterweight are in exactly opposite directions, it will be seen that the reciprocating parts are self-balanced, the opposing shocks and vibrations will thoroughly neutralize each other, and the machine will run at any speed without jar. Such are, in brief, the claims of its makers. Moreover, it will be seen that the vertical throw of the mechanism being absorbed within itself, the journal boxes are required to bear only the uniform weight of the sash, rods and counterweight.

The sash is made of one casting of steel, and is oscillated by long inverted pendulums pivoted at the bottom, and oscillated near the top by means of an eccentric rod and rock-shaft, so timed with reference to the stroke that the saws enter the cut without shock, leave it when stroke is complete and rise clear of the log, being again thrown into action near the top of the down stroke. The feed is continuous, and variable at the will of the operator.

In the machine shown the rolls open high enough to take in a 14 inch cant 32 inches wide, or the rolls may be filled with several smaller cants or "fitches," piled in tiers, so that flooring may be rapidly made. The ordinary feed carried is $\frac{1}{4}$ inch per revolution of shaft, and the number of revolutions per minute is 300. The saws are held by tabs and buckles keyed at the top. They may be placed any distance apart for making lumber of any desired thickness by the insertion of gauge blocks between the buckles. The capacity claimed for this gang is about 40,000 feet of inch boards a day, with but one attendant aside from the saw filer.

LATEST NEWS NOTES.

Messrs. Sherwin & Kelly, Allanwick, have started a shingle mill at that place.

Winnipeg, Manitoba, done a business in lumber last year amounting to \$1,342,000.

The Rat Portage News reports that the Keewatin Lumber Co. will open a yard at Winnipeg.

Carswell, Thistle & Mackay, Calabogie, expect to cut 8,000,000 feet of lumber this season.

Alpena, Mich., parties are reported to have recently sold 1,000,000 feet of lumber to Buffalo parties at \$8.50, \$17 and \$37.

Mr. H. T. Pierce, of Martinville, is now associated with the management of the Fifth Saw Mills at Three Lakes, Quebec. This concern will now manufacture bobbins and spools in the rough for Messrs. Thompson & Co., Sherbrooke.

The Eliza Cook, lumber laden, from Halifax, N. S., for Bermuda, encountered bad weather April 2nd, in which she lost her deck load of lumber, and subsequently became a total wreck. The crew were rescued by the steamer Concordia, of Glasgow, the hulk and cargo being abandoned.

Messrs. McLachlin Bros, of Annapolis, are said to be contemplating the erection of a railway from their Pettewawa limits to the Madawaska, in order that they may have more rapid carriage of their lumber, under their own control, and free from the annoying delay of towing down the Ottawa.

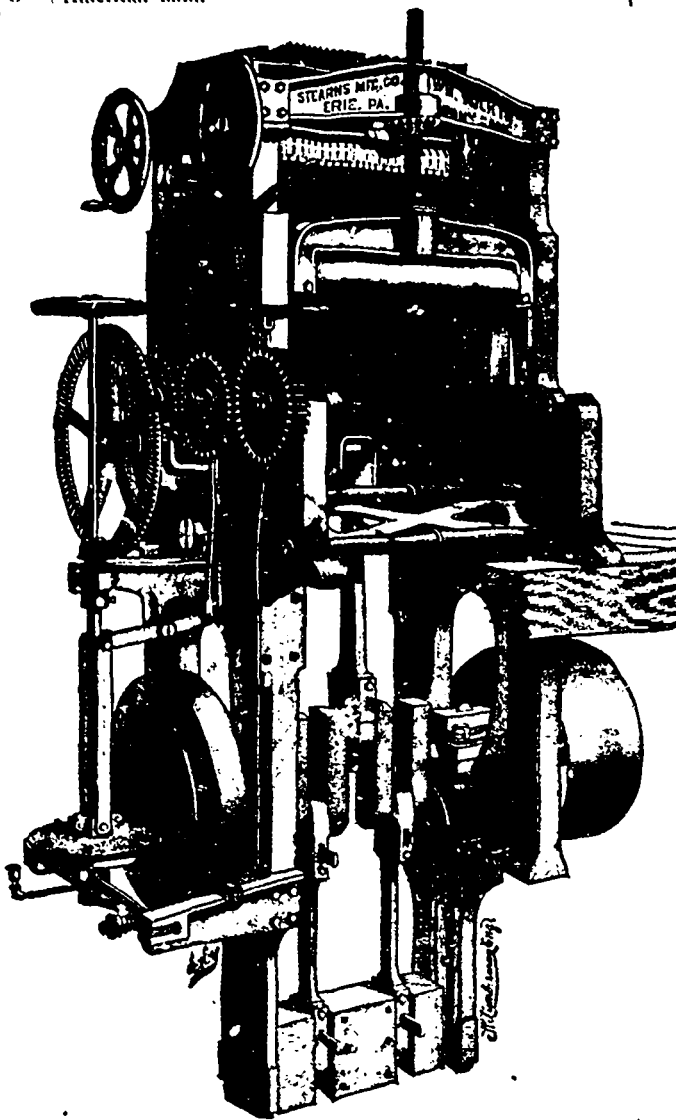
When the south extension of the Algoma branch of the Canadian Pacific railway is finished, it will be easier than now for Michigan lumbermen to reach the pine forests on the Serpent, Spanish and French rivers, for then they can go by the way of Mackinaw and the Sault instead of Toronto.

According to the Halifax Herald quite an extensive business has been done at Minudie and River Hebert, N.S., in lumbering and piling. The vessels at both places are putting on their summer robes and preparing for loading, but the depression occasioned by St. John failures has seriously affected the trade.

The following tariff of tolls to be charged by the Rouge Boom Company during the season of 1887 has been approved. Pine logs 3 cts. each, spruce logs, 2 cts., long, round or flat timber 5 cts., square timber 10 cts. Railway ties 1 cent. A duty of 10 per cent. *ad valorem* has been imposed upon molded celluloid balls and cylinders, coated with tin foil or not, but not finished or further manufactured.

The lumbermen at the Chaudiere state that no difficulty will be experienced by them in securing the required number of hands to work in the mills during the summer. The wages will be the same as last summer from \$1.20 to \$2.75 per day. Most of the firms regulate the pay of their hands according to the success of the season. If a season is unusually good the pay of the men is raised 25 or 50 cents a day as the case may be.

Chaudiere lumbermen have been apprized of the fact that two or three wealthy Michigan lumber companies which own large quantities of Pine in Ontario will import a considerable quantity during this year, notwithstanding the Canadian export duty. A single raft of 3,000,000 feet was put together in Georgian Bay last autumn, and will be started for Saginaw on the opening of navigation. The Dominion tax will, it is said, be removed whenever lumber is put on the free list of the American tariff.



THE STANDARD GANG SAW MILL.

The projectors and builders of the great Joggins log raft that came to such an ignominious end last summer are again at work rebuilding the monster, and instead of curtailing its dimensions are making it 200 feet longer. Mr. Robinson, the designer and constructor is confident of success at the next trial, and as the unsuccessful past will give experience for the future, it is thought not unlikely the next launch will have a successful termination. The saving of freight on the immense mass of log and timber will be very considerable, in fact it amounts to a moderate fortune.

Messrs. Smith & Sawell, of Thornbury, Ont., have for some time past been negotiating with Mr. J. Ferguson and the Ontario Government, to secure a site for a saw and planing mill, sash and door factory at North Bay, and arrangements are about completed satisfactorily. They will also open a local market for all the hardwood lumber such as birch and maple that can be furnished, as the quantity of pine which they will secure from the Government will be limited, and in order to keep the mills going the whole season a larger quantity of hardwood would be required than the settlers at present in the township of Shadowfield can furnish.

The New Brunswick Trading Co., says the Miramichi *Admiral*, is removing its head office to Black Brook, but will also continue to occupy a town office. The company has added a fine new building to its already large share of Black Brook village, which is fitted up as a counting-room, store, etc. Preparations are being made at the mill for the coming season's sawing, and the indications are that the company intend to push business as usual notwithstanding the reverses of firms lately connected with it in an indirect way.

Lumber operations at Fisher River, Man., are thus noted by a correspondent:—The lumber camps are breaking up for this season. C. W. Bubar finished last Saturday and started for Selkirk on last Monday morning to bring in supplies and men for the summer. He has had a successful winter's work. Messrs. Brown, Rutherford & Neilson's teams will start for Winnipeg on Monday, the 10th inst. They have taken out an excellent stock of logs this season. They are the largest average I have ever seen in any camp during any season on this lake. The Selkirk Lumber Company have still five teams at work, but will soon be breaking camp also. They have the largest cut of any on the lake, having about 60,000 logs.

The lumbering interests of Gilmour & Co. at Trenton, are extensive and the equipment is complete. Their "big mill," which has both circular and gang saws, has a capacity of 350,000 feet of lumber every ten hours, and is driven by an engine of 1,500 horse power, with sixteen boilers. The timber mill turns out 50,000 feet of ordered stuff for builders, and the shingle mill equipped with the best machinery, cuts 125,000 shingles per day, by means of a 250 horse engine. Five hundred men are employed in these mills. A line of railway runs the entire length of the firm's property, through its lumber yard. These yards have storage capacity for 40,000,000 feet of lumber. The planing mill is run by water power. At present it has four modern planers and there is room in the building for five more. The mill has a capacity for planing 80,000 feet of lumber per day. Connected with the mills is a complete fire system. A commodious brick fire shed has been erected at the water's edge, between the two largest mills, with stables, engine room and quarters for the 25 men who constitute the fire company. They have charge of an Amoskeag steam fire engine. Then there is a force pump in the engine house connected with a 12 inch pipe which leads around the different mills and through the yards. This pump can throw 15,000 gallons per minute. There are 10 hydrants outside the mills and 18 inside. An electric fire system, 16 bells connects the several principal parts of the yard with the fire department. At the head waters of the Moira and Otomabee rivers there are extensive timber limits. The Central Ontario Railway also taps one of Gilmour & Company's limits.

HOW TO CLEAT LUMBER.

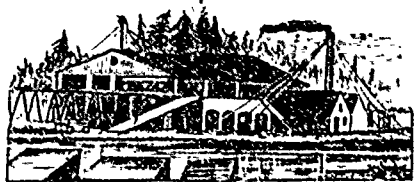
Something may be said as to the advisability of cleating hardwood lumber, especially ash, oak and hickory, when sawed rough edged.

Cleating is beneficial if done at the proper time, *i. e.*, when the plank comes from the saw and before it has been split by handling. After a split has opened a plank two or three feet, a cleat cannot be put on securely enough to prevent the split from extending the first time the plank is handled or "dumped" by a truck. The proper way is for the mill hands or foreman to select the plank, generally the ones coming from the center of the log, that indicate by their appearance a tendency, by small checks or free, straight grain, to be liable to split perhaps the whole length of the plank, and at once nail on a cleat of some tough, strong wood. Oak or elm is best.

Care should be taken that the cleat does not extend beyond the edges of the plank or lap over the sides so as to be easily pulled off in handling, or take up extra room in stowing or shipped where freight is charged by the cubic foot instead of board measure. Plenty of nails should be used. For two inch plank, the cleats should be $\frac{1}{4}$ inch thick and 6d or 8d nails used. Nailing on strips of laths is only a waste of time and material.

Ash splits more readily than any other plank, and the better the quality and the freer from defects, the easier it splits.

Inspectors usually take this fact into consideration; and if a plank is otherwise perfect, will measure down in width one or two inches, and grade it as first when it would be classed as seconds if ordinary square edged plank. Most of the best ash, oak and hickory is used for carriage material, and consequently cut into small and short pieces, and the quality is more important than the width and length. In such kinds of lumber, knots are a much more serious defect than splits. Cleats will help much to prevent the latter if put on as suggested.—*New York Lumber Trade Journal.*



The Canada Lumberman

DEVOTED TO THE LUMBER AND WOOD WORKING INTERESTS OF THE DOMINION.

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PETERBOROUGH, ONT., MAY, 1887.

NEW MARKETS.

THE passage of the Retaliation Bill by the United States, makes it possible, though not very probable, that the chief foreign market for our lumber may be closed against us. This possibly, makes additionally necessary what was already highly expedient, that we should extend or open new markets. This as a matter concerning our commerce is especially with the jurisdiction of the Dominion authorities. As the Parliament of Canada is now in session the Government should be urged to take such steps as may assist in bringing about the desired result.

Among the markets which force themselves upon attention as being easily accessible, important and capable of receiving far more largely from us, the foremost in all these respects is the West Indies. We already export to them the products of our forests but the amount is by no means what it ought to be, or what it might be made. The great share of this trade is enjoyed by our neighbors of the United States, though Canada is as well situated for conducting it and is as well endowed with the supplies required by the islanders. Indeed it is certain that much of the export to the West Indies from the ports of the United States consists of Canadian lumber. There is no reason why we should allow our neighbors to be middlemen and to deprive us of much of the profit of a commerce which we could quite as well conduct at first hand. We ought to be able to extend our supplies to the West Indies by replacing to a considerable extent the lumber sent there from the Northwestern States. It must be remembered also that a large proportion of the exports to this market consist of goods in a more highly manufactured condition than mere lumber, such as sashes, doors, &c. Thus the extension of this trade is a matter of importance, not only to our owners of timber limits and sawmills, but also to our numerous planing mills and kindred industries. One circumstance that facilitates the extension of this trade is the fact that Canada is receiving large quantities of raw sugar from the islands, and the vessels bringing it are seeking return cargoes. Why should they not be afforded by the products of our forests, the freights for which would thus be made reasonable?

Another important market which is attracting more attention of late is that of the Australian colonies. They have an abundance of excellent hardwoods, but are deficient in pine and kindred timber. Their imports in this line are consequently large and are mainly drawn from the United States and Europe, much from England having been first imported by that country from Norway or Russia. Now British Columbia should be able to compete advantageously for this trade with the Pacific Coast of the United States, and other parts of Canada must be at least as well situated for it as England or other European countries. The proposed great Australian exhibition would afford an opportunity for making a display of the produce of our Canadian forest, which should not be neglected.

There are other available markets which either have not been tried at all or have not been adequately tested.

The Canadian authorities should be urged to make renewed and greater efforts to open these markets. But they can only aid, and it is upon the exertions of enterprising men of the trade that the chief dependance must be placed.

A LUMBER ORGANIZATION.

We have on several previous occasions referred to the necessity existing for the formation of some organization calculated to benefit the lumbermen, and from which both the large and small operators would be equally benefitted. In the past organization among lumbermen has received but little attention. Even among the largest dealers the opinion seemed to exist that mutual assistance was not required. Every man wanted to lay out his own plans, and keep his system as much as possible from his neighbors. This feeling of independence, however, is giving way, and today there are lumber exchanges, or similar organizations, in most of the prominent markets. At a meeting held in Toronto during the past month, at which many of the representative lumbermen were in attendance, the question of forming a trade branch or lumber section of the Toronto Board of Trade was discussed. The chair was occupied by Mr. A. H. Campbell of Toronto. By invitation Mr. Henry W. Darling, Ex-President of the Board of Trade, and Mr. Willis, Secretary, were present. Mr. Darling explained the method of organization, and also set forth the advantages to be gained by connection with the Board. The meeting resulted in a unanimous expression in favor of taking advantage of the facilities offered by the Board. Messrs. A. H. Campbell, of Toronto; David Gilmour, Trenton; J. L. Barton, Barrie, and Jas. M. Irwin, Peterborough, were appointed a committee to prepare an address to the Council for permission to organize and also to prepare the necessary by laws.

It is indeed satisfactory to know that at last there is a prospect of bringing the lumbermen into closer business (and social) relations with each other, a step which must undoubtedly have a tendency towards bettering the condition of this extensive industry, but the question may arise in the minds of some of our readers, as it has to us, whether or not an alliance with the Board of Trade is going to have the beneficial results that most of those who are taking the initiative in this matter imagine. By introducing this question we have no intention of casting a reflection on the workings of the Toronto Board of Trade. On the contrary we believe it is a very necessary institution and is doing a good work, but we think it possible to overlook almost everything, and on these grounds we are of the opinion that an entirely separate organization would result in more work and far more satisfactory results. While possessing a large amount of influence, which if properly used in the interest of any branch of trade, this Board could be of incalculable service, but when its interests are so varied, intricacies arise which often tend to injure one or other of the industries represented. This has been the experience of other representative industries, and we much fear that should the lumbermen ally themselves to this body that in the no distant future our forecast may be found to be true. To more fully explain our argument we mean that the Toronto Board of Trade has already assumed more work than it can successfully carry out, and in consequence some one must suffer. The man who attempts to carry on a dozen different branches of trade usually goes to the wall, but he who centers his mind on one object is the man who, generally speaking, winds up with a good bank account and reputation. What is good for an individual, applies also to the largest industry of the country, therefore we say let the lumbermen have a separate organization, look after their own interests without depending upon disinterested parties to do it for them, and with the extensive influence they can bring to bear, the organization will be a success and they can claim credit to themselves alone.

OUR TIMBER LANDS.

THE suggestion that a map should be prepared by the Ontario Department of Crown Lands showing not only the timber limits now under license, but also those still unappropriated, is one that should not be lightly rejected, for the adoption of it gives promise of great usefulness. The Ontario Administration would do well to consider whether the objections it saw to complying with this request are of sufficient moment to be prohibitory. On second thought they may probably admit that their main objection, namely the expense, is hardly sufficient. Even if it were to cost \$10,000, a hasty estimate which is probably largely excessive, that sum would be well expended in affording such valuable information. It could hardly fail to bring into the Provincial treasury an amount of money that would far more than compensate for the expenditure, besides its other advantages.

To the lumbermen it would be very useful to have such an authoritative indication, not only of the extent of timber limits that are already appropriated, but also of that area that remains available, with the localities in which it is situated. This information could hardly fail to stimulate their biddings and to produce an effect in augmented receipts at the next sale of timber limits that would be most satisfactory to the Provincial Treasurer.

It would obviously be most useful, nay it is indispensable,

that the Province should know as nearly as possible what amount of this class of property it possesses. By such means it would be better able to form an idea of the extent of its resources and their probable duration, while it would at the same time be enabled more intelligently to turn them to advantage. It would be well, too, that the whole community should be better informed as to the quantity of timbered lands still remaining.

The Province of Quebec could, without much difficulty, be induced to follow the good example. The other Provinces of Canada, and the Dominion authorities for Manitoba and the Territories, might be expected to fall into line, and then there would be presented at least an approximate idea of our existing forest wealth, and the period within which it would be exhausted. These maps might by degree be rendered more complete as information was obtained as to the quantity and kinds of timber on the different areas. Already there must be much of such material available in the field notes of the Provincial Land Surveyors who have been engaged in laying out townships, &c. Such information, even though imperfect, would be of immense assistance to lumbermen wishing to extend their operations. Of course it would not supersede that personal inspection which must always precede a purchase, but it would at least indicate the likely locality in which to institute the search. The knowledge also of the limited amount of timber left in certain localities would have a beneficial tendency in promoting economy in the operations of the lumbermen. Even the best informed are apt to exaggerate an imperfectly known quantity and to assume without sufficient reflection that large resources are practically inexhaustible.

There would be another advantage in such maps, that they would encourage the adoption of the system of not opening forest areas for settlement, while better lands for agricultural purposes are available. It is no kindness to the agricultural settler to see him to grow wheat on land far better fitted to produce timber, while it has an prejudicial effect upon lumbering operations. Oftentimes a lumberman is hurried on to cut in some portions of his limits through fear of the consequences of settlement, when otherwise he would not have been so hasty in his operations.

By all means let us have these maps, for they will well repay the cost and trouble of producing them.

EDITORIAL COMMENTS.

THE Government has decided to reimpose, for the coming season, on the St. Lawrence canals, the same tolls that prevailed in 1835 and 1836, viz., two cents per ton.

ATTENTION is directed to the new advertisement of Mr. Peter Hay, of the Galt Machine Knife Works, which will be found on another page of this issue. Those of our readers who are at any time in need of machine knives should remember that no better article is turned out than that furnished from the Galt works.

THE *Official Gazette* of a fortnight since, contained an order in-council to the effect that clause No. 2 of the timber regulations of 1868, for the Province of Quebec, which established a uniform ground rent of \$2 per square mile for each mile under license for cutting timber is modified, and the imposition of a fixed rent of \$5 per square mile for cutting timber is substituted therefor.

THE PATENT REVIEW, a neat and tidy little paper, devoted exclusively to matters affecting patents, has recently made its appearance in Ottawa. Mr. A. Harvey, C. E., is the publisher, and from the amount of energy he has already shown in its arrangement we have good reason to believe that the venture will be a success. The public at large are more or less interested in a journal of this description and should extend it a liberal support.

MATTER for publication in THE LUMBERMAN to be in time for any specified issue, should reach us not later than the 20th of the month. If something of importance is to reach us later than that date we should have notice of it, so as to make our calculations accordingly. We trust our correspondents will make a note of this. Changes of advertisements must be in by the 22nd of the month to insure attention, and new advertisements not later than the 24th.

WE have to thank our contemporaries throughout Canada and the United States for the many kindly greetings extended the LUMBERMAN during the past few months, as also the kind words of encouragement which daily reach us from subscribers from all over the country. We are not so far above flattery that we can fail to appreciate such expressions of good-will, and shall continue to do all in our power to merit a continuance of the good opinions of our readers.

SAULT STE. MARIE people are delighted in the anticipation of an unusual boom this year. Two great American trunk railroads are to be built to that point from the west, and two from the Canadian side. The Hay lake channel is to be deepened, and the canal enlarged for vessels of heavy tonnage. Building operations will be carried on with great vigor and real estate is going up rapidly. From present indications the "Soo" is likely to become a place of no mean importance.

An unusual amount of changes and improvements are going on this spring among the saw mills, which of itself indicates that the lumber trade is prospering. New mills are being erected in different parts of the country, while many others are being overhauled and the latest improved machinery added. In this, as in all other branches of trade, operators are continually tearing down and building, in order to keep pace with the demands of the trade, and as a consequence manufacturers of the latest style of machinery are reaping a harvest.

One evil effect of the proposed enormous ground rents of Quebec timber limits is that it would drive the limit owners to strip them as speedily as possible, so as to free themselves quickly from the heavy rent. This would for the moment help to fill the Quebec treasury through an artificial influx of anticipated income, but this would be no gain as it will only be robbing the revenue of future years of the receipts that would naturally accrue then. It would be equivalent to the case of a tenant for life, or for a term "wasting" the timber on the property.

NOTWITHSTANDING the very sensational reports concerning the financial crisis in New Brunswick, which have been published in Canadian and American papers, it is now evident that the state of affairs is not by any means as serious as was at first generally supposed. The after results of the failure of the Maritime Bank, the private bank of McLennan & Co., the lumber firms of Stewart Bros. and Geo. McLeod, while certainly affecting to a greater or less extent the operations of other firms, did not result nearly as disastrous as the public at first imagined. Confidence is now being restored, and it is not probable that further failures of any importance will occur.

FROM the Trade and Navigation returns for the last fiscal year we learn that the amount of export duties collected on saw logs &c., was \$20,726.07. Of this \$2,869.46 was on pine logs, \$17,585.11 on spruce logs, and \$271.50 on shingle bolts. This is an improvement on preceding years, but it can hardly be supposed that the duty was very closely collected especially on pine logs or the sum would be larger. This was before the increase of the duty, which will make an increase for the current year. Every effort should be made to collect these duties in all cases, so as to protect our lumbermen and mill owners from the unfair competition of our neighbors.

THE pine forests of Michigan are getting played out. Although lumbering is carried on to a large extent there is not nearly as much timber exported as ten years ago. Indiscriminate chopping has done its work. The men would cut a sapling down rather than run a log around it. No thought was given to the future, and now the lumbermen have to be content with timber that a few years ago they would not have thought worth cutting. The result of the havoc which the men played among the young trees is that the State Legislature is being petitioned to pass a Forestry Act making it unlawful to cut down trees under a certain thickness.

WE take pleasure in drawing attention to the full page display in this issue of the Canadian Rubber Co., of Montreal and Toronto. This extensive company recently made large additions to their factory, and are about increasing their already large capital of \$1,000,000 to double that sum, in order to more fully keep pace with their rapidly growing trade from every point throughout the Dominion. The many friends of Mr. Walker, manager of the Toronto branch, will be pleased to learn that he has fully recovered from his recent severe illness, and is again in his old quarters, better than ever prepared to attend to the wants of his customers.

AN idea of the magnitude and relative importance of the timber trade industries of Canada may be obtained from the Trade and Navigation tables for the last financial year. The exports of "Produce of the Forest" amounted to the enormous sum of \$22,865,087. This ranks in almost the foremost place, "Animals and their Products" coming first with \$23,077,513, "Agricultural Products" being next with \$21,441,817. And in the amount thus given for forest products is not included carts and carriages \$25,992, ships \$266,363, furniture, doors, sashes and other manufactures of wood \$685,466, besides other items. Thus it will be seen that as regards the value of their export, the timber trade stand first among the industries of the Dominion.

THERE are expressions of discontent in British Columbia and a portion of the Northwest Territories in regard to the freights charged for the carriage of lumber by the C. P. R. Hitherto the C. P. R. has earned a favorable reputation for reasonable freights, and it should take care not to forfeit its good character in this respect. Its monopoly of transportation can only be endured through its acting fairly and even liberally in such matters. It is also for its own permanent advantage that it should aid in building up the country from which it must seek its customers if such a gigantic undertaking is to profit lastingly and progressively remunerative. The C. P. R. should carefully revise its rates for lumber, so as to remove any occasion for discontent. By a liberal policy it will best serve its own interests as well as those of the trade and of the public.

But few names in Canada are more familiar to the general public than that of Mr. E. B. Eddy, the great match man—who first established himself at Hull, Que., in 1854. He has of late years been among the heaviest lumber operators in Canada, in addition to which his extensive wood-working establishment is acknowledged to be one of the largest on the continent. During the past month we have been made acquainted with a change in name, Mr. Eddy having associated with himself a number of other gentlemen of capital and standing, who have formed themselves into what will hereafter be known as the "E. B. Eddy Manufacturing Co., Limited, a body corporate duly incorporated by an Act of Parliament, with a capital of one and a half million dollars. Mr. Eddy has been elected President of the company and also Managing Director; Mr. S. S. Cushman is the Vice-President, and Mr. W. H. Rowley, Secretary-Treasurer.

FROM the official report of the Commissioner of Crown Lands of the Province of Quebec, for the twelve months ending 30th June, 1886, we find that the total revenue for that period was \$630,475.82, made up as follows. Of the lands specially designated Crown Lands, there were 9,019 acres sold for the price of \$45,051.27; and the sum of \$52,450.35 was collected on account of these sales, and those of previous years, \$46,252.10 being derived from sales of land for agricultural purposes, and \$6,198.25 from those of mineral lands. The revenue derived from timber dues, ground rents, bonus, etc., is given as \$528,574.80. The result of the transactions of the Department of Crown Lands for the twelve months as stated above, is almost the same as that obtained in the preceding fiscal year. The figures show a slight decrease, but this is attributed to the fact that during this last period no extraordinary sale of either timber limits or mining locations took place, while in the year 1884-5, a sum of \$68,145.41 was derived from a very important sale of timber limits.

WE have before us parts VI and VII of "Architectural Studies," just issued by Wm. T. Comstock, of New York. The first of these is devoted to small and low-priced country houses, giving among them a number of designs that can be executed for \$1,000 or less. One is impressed, in looking over these designs, at seeing how much a little good taste can do for the improvement of houses where only a small sum of money is to be expended. The second of the two, part VII, is devoted to the interiors of moderate-cost houses, giving a large number of examples of window finish, wainscoting, window seats, staircases, hall and library finish, book shelves, china closets, mantels, bath room fittings, with full working details drawn to large scale, carrying out the idea of good, tasteful, but moderate-cost interior fittings, as part VI does that of good planning and well proportioned exteriors, the whole scheme being to furnish suggestions for building a good comfortable home, after a well thought out plan and within the limits of a moderate purse. They are published in paper portfolio, at the cost of \$1 each.

THE *Southern Lumberman* being asked its sentiment regarding the admission of Canadian lumber into the United States, says:—"We favor a tariff on all lumber or timber brought into our ports, except such woods as do not grow in the United States. When we say tariff, we don't mean a tariff for revenue only, but a protective, or if you please a prohibitory tariff. We don't want any money sent from our country to pay for any kind of timber or lumber that we have for sale ourselves." Our contemporary very courteously acknowledges its selfishness, and when we reflect on the amount of grumbling that is going on among the trade across the lines because the Canadian Government has seen fit to protect our people against the slaughter of our forests in favor of the Americans, we cannot help but think that the average Yankee is indeed very selfish. Canadians don't grumble because the Americans choose to adopt a prohibitory tariff, on the other hand we rather like it, and consider that what's sauce for the goose is sauce for the gander. We propose to make our cousins pay for the woods that do not grow in the United States. We hold the trump card.

rails have to be shifted. Treasured elm and birch did well, and are to be recommended. Chestnut was unfortunately not included in the experiment, although it is considered one of the best woods for ties. The behavior of the catalpa was one of the most resting features of the case, all the ties of this wood being sound, except just under the rails, where they are crushed nearly to a pulp.

THE intention of the new Administration of Quebec to increase the provincial revenue at the expense of the lumbermen is one of most serious consequence for the trade in Quebec. Hitherto that Province has been disposed to foster rather than to discourage its greatest industry, so that the new policy is as startling as it is ill advised. Even as an expedient for augmenting the revenue, Mr. Mercier may find that he has made a false calculation in adopting this step. For the moment it may raise the receipts, but in the long run the effect may be the very contrary. Such an enormous increase in the ground rents as that from \$2 to \$5, must have a crushing effect upon the industry. If so it would be the old story of killing the goose that laid the golden eggs. If the business is rendered stagnant the receipts of rents, &c., may fall off instead of increase. Limits placed in the market would find bidders shy of property depreciated not only by heavy additional burden imposed upon it, but also by the uncertainty whether there might not be another sudden turn of the screw. And the depression and impoverishment of a great industry cannot have its baleful effects confined to those who have their capital invested in it. The vast army of men employed would also share in the loss and indeed its influence would pervade the whole community. It is to be hoped that the Quebec Ministry will yet reconsider a decision which must be so injurious if carried out.

As has been previously stated in THE LUMBERMAN it is quite probable that a still higher export duty on Canadian logs will be imposed during the present session of the Dominion Parliament. The lumbermen are asking for the change, in order to more fully diminish the shipments of forest produce in its unmanufactured state. It is to the interest of not only the lumber trade but the public in general, that whatever of our forest products finds a market in the United States, or any other country, should be sent in the shape of sawn lumber, thus securing additional employment for Canadians. Our American contemporary, the *Northwestern Lumberman*, thinks that the policy of the Dominion Government in regard to the export duty is of doubtful wisdom, for the reason, as it says, that it has the effect of checking the movement of Canadian logs to Lake Huron mills, on the American side, that had begun to assume important proportions. We are also called upon to reflect that "but for American enterprise and capital the lumber industry of Algoma and Muskoka would be of slow growth." We would remind our contemporary that Canadians are not as anxious to have their forest wealth slaughtered as it seems to imagine. Our objects to protect our forests as much as possible, so that in future years we will, unlike our cousins across the border, have something to fall back on. No attempt has been made to prevent Americans from cutting timber in this country, but when this privilege has been allowed we claim that it should be manufactured here also, or the alternative of a high export duty. Canadian lumbermen are sufficiently wide awake and have the capital necessary to do full justice to the lumber trade of Canada, but at the same time a welcome is extended to any outsider to open out operations here, provided they will comply with the just demands laid down by our government. It may fairly be open to question whether even it is advisable that we should export considerable quantities of saw logs or lumber to the States, seeing that in a very few years we may need all that we can produce for our own use. If Americans complain so bitterly now about the duty on saw logs, what would be the result were our government to further restrict the output of forest productions, by putting an export duty on sawn lumber also? In consideration of the fact that Americans are so eager for our fish, forests, minerals, coal and other natural products we would suggest that they forsake that God-forsaken country, emigrate to Canada, and take the oath "For Queen and Country."

magnificent stations of the Grand Trunk and Canadian Pacific Railway.

The following are the quotations of the yards here:—

Pine, 1st quality, 2 1/2 M 800 00@10 00	B. es, r. (1 log cul's)	\$18 00@20 00
Pine 2nd " " " " " " " "	cut, 2 1/2 M	40 00@60 00
Pine, shipping culls, 2 1/2 M	Oak, 2 1/2 M	60 00 100 00
" " " " " " " "	Walnut 2 1/2 M	80 00 100 00
Pine 4th quality deals	Cherry, 2 1/2 M	35 00@40 00
" " " " " " " "	Butternut, 2 1/2 M	20 00@25 00
Pine, mill culls, 2 1/2 M	Birch, 2 1/2 M	25 00@30 00
Spruce, 2 1/2 M	Hard Map. c, 2 1/2 M	1 50@2 00
Hemlock, 2 1/2 M	Lath, 2 1/2 M	2 00@3 00
Ash, run of log culls	Shing. c, 2 1/2 M	2 00@3 00
out, 2 1/2 M	Shing. c, 2 1/2 M	2 00@3 00

CHICAGO.

RECEIPTS FOR WEEK ENDING APRIL 21.

1887.....	Lumber, Shingles.	7,598,000 135,000
1888.....	" " "	25,811,000 2,874,000

RECEIPTS FROM JAN. 1, TO APRIL 21, INCLUSIVE.

1887.....	Lumber.	130,837,000	8,841,000
1888.....	" " "	122,570,000	21,204,000

STOCK ON HAND APRIL 1, INCLUDING BOTH CHICAGO.

Lumber.....	295,703,082	420,050,022	454,053,007
Shingles.....	203,953,250	3,387,250	242,044,250
Lath.....	20,101,190	47,709,453	30,555,615
Pickets.....	1,406,273	1,975,950	1,977,411
Cedar posts.....	101,394	238,511	178,241

FINISHING LUMBER ROUGH.

1st and 2d clear, 1 in.	\$40 00	A select, 2 in.	\$11 00
1st and 2d clear, 1 1/2 in.	47 00	B select, 1 1/2 in.	31 00
1st and 2d clear, 2 in.	47 00	B select, 1 in.	30 00
1st and 2d clear, 3 in.	48 00	Clear and select 2x4.	27 00
3d clear, 1 1/2 and 2 in.	44 00	2x6	34 00
4d clear, 1 1/2 in.	44 00	2x8	36 00
A so ect, 1 in.	38 00	All one length 3 1/2 extra.	
A so ect, 1 1/2 in.	39 00		

STOCK BOARDS.

12 in. A, 12 to 16 ft	\$42 00	12 in. 20 ft.	23 00
12 in. B	37 00	10 in. A	37 00
12 in. C	33 00	10 in. B	33 00
12 in. D, 12, 14 and 16	20 00	10 in. C	20 00
12 in. D, 18 ft.	23 00		

FLOORING—DRESSED AND MATCHED.

A flooring	\$24 00	B flooring 4 in.	25 00
B flooring	31 00	C flooring 4 in.	22 00
C flooring	24 00	Norway clear and A.	22 00
Fench g flooring	15 50	B, 4 or 6 in.	20 00
Clear and A, 4 in.	82 00		

SIDING—TIED.

1st and 2d clear, 12 ft.	\$21 00	B siding	17 50
1st and 2d clear, 14 and 16 ft	22 00	C	15 50
A	19 50	Fencing	10 50

BEADED CEILING—TIRD.

Clear, 1x4@6 in.	\$22 00	C c h g, 2x6 in.	14 50
A, 2x6 in.	20 00	Clear and A, 2 or 3x6.	32 00
B, 2x6 in.	19 00	B, 2 or 3x6 in.	29 00

COMMON BOARDS—ROUGH.

Com boards, 1 in. 18 to 20 ft	\$13 00	12, 14, 16 and 18 ft.	13 00
10, 12 to 16 ft	13 00	1 1/2 and 1 3/4 common	13 50

FENCING—DRY.

No. 1 all lengths	\$14 50	4 in. common	13 00
No. 2, 12, 14, 16 & 18 ft	11 50	Norway	13 00

TIMBER AND DIMENSION—DRY.

Joist and scantling, 2x4, 12, 14 and 16 ft.	\$13 00	12, 14 and 16 ft	\$13 00
14 and 16 ft.	\$12 00	2x4, to 8x8, 18 ft.	13 00
2x6, 2x8 2x10, 12, 14 and 16 ft	12 00	2x4, 4x4, 20 ft	14 00

ALBANY.

Pine, clear, 2 1/2 M	855 00@90 00	Black walnut, good,	\$100 @120 00
Pine, fourths.....	50 00@57 00	" " " "	200 @220 00
Pine, select.....	42 00@44 00	Black walnut, 2 in.	80 00@90 00
Pine, good box.....	22 00@33 00	Black walnut, 3 in.	90 00@95 00
Pine, common box.....	13 00@15 00	Seymore, 1-in.	28 00@30 00
Pine 10-in. plank, each 00	45@50 47	Seymore, 2-in.	21 00@23 00
Pine, 10-in. plank,		White wood, 1-in.	
culls, each.....	00 25@00 27	and thicker.....	38 00@40 00
Pine boards, 10-in.....	00 30@00 32	White wood, 2-in.	28 00@30 00
Pine, 10-in. boards, culls 00	16@00 20	Ash, good, 2 1/2 M	40 00@43 00
Pine, 10-in. boards, 16		Ash, second quality,	
ft., 2 1/2 M.....	25 00@32 00	" " " "	25 00@30 00
Pine, 12-in. boards, 16ft	28 00@32 00	Cherry, good, 2 1/2 M	1 00@1 25 00
Pine, 12-in. boards, 13ft	28 00@32 00	Cherry, common, 2 1/2 M	25 00@30 00
Pine, 1 1/2 in. siding, select	40 00@43 00	Oak, good, 2 1/2 M	40 00@43 00
Pine, 1 1/2 in. siding,		Oak, second quality,	
common.....	15 00@18 00	" " " "	20 00@25 00
Pine, 1-in. siding, select	40 00@42 00	Basswood, 2 1/2 M.....	25 00@30 00
Pine, 1-in. siding,		Hickory, 2 1/2 M.....	00 00@40 00
common.....	13 00@15 00	Maple, Canada, 2 1/2 M	25 00@30 00
Spruce, boards, each	60 00@60 16	Maple American, per 31	20 00@28 00
Spruce, plank, 1 1/2 in.,		Chestnut, 2 1/2 M	38 00@40 00
each.....	00 00@00 20	Shingles, shaved, pine,	
Spruce, plank, 2-in.,		" " " "	0 00@0 50
each.....	00 00@00 30	shingles 2nd quality,	
Spruce, wall strips,		extra, sawed,	
each.....	00 00@00 12	pine.....	4 39@4 00
Hemlock, boards, each	00 00@00 14	shing c's clear, sawed.	0 00@0 3 00
Hemlock, joist, 4x6,		" cedar, m'x'd	0 00@0 2 13
each.....	00 00@00 32	" hemlock.....	2 25@0 2 37
Hemlock, joist, 2 1/2 x4,		Lath, hemlock.....	0 00@0 2 53
each.....	00 00@00 14	Lath, spruce.....	0 00@0 2 30
Hemlock, wall strips,			
2x4, each.....	00 00@00 11		

DETROIT, MICH.

Uppers 4x4.....	\$45 00	Siding, clear.....	21 50
5" 6x4 & 8x4.....	45 00	A.....	20 50
3 & 4 in.....	50 00	B.....	18 50
Selects, 4x4.....	37 00	C.....	13 50
6x4, 6x4 & 8x4.....	30 00	Bill-stuff ordinary sizes:	
Shop, 4x4.....	22 00	12 to 6 ft.....	11 00
5x4x 6x4 & 8x4.....	25 00	18 to 20 ft.....	12 00
Pine common, 4x4.....	31 00	22 to 24 ft.....	13 00
5x4, 6x4 & 8x4.....	33 00	26 to 28 ft.....	14 00
Stocks, 1x12 & 1x10, No. 1	10 00	30 to 34 ft.....	10 00
1x12 & 1x10, No. 2	13 00	Ship culls.....	12 00
1x12 & 1x10, No. 3	13 00	Mill Culls.....	10 00
Flooring, select common.....	22 00	Shingles clear, 18 in.	3 25
No. 1 common.....	18 00	10 in. clear, 18 in. Ex.	2 50
No. 1 fench g.....	18 00	0 in. clear, 18 in.	2 20
Celling, select common.....	25 00	0 in stocks clear, Ex.	4 00
No. 1 common.....	22 00	5 in.....	4 80
No. 1 fencing.....	29 00	Lath, per M pcs.....	2 50
Roofing, D. & M.....	16 00	Add for S. 1 or 2.....	\$1 25

NEW YORK CITY.

SPECIAL CONTRACTS.

Pine, very, choico and	805 00@70 00	Pine, strip plank, de	10 23 00@35
ex. drv.....	65 00@60 00	clear.....	00 25@00 28
Pine, good.....	21 00@22 00	Spruce boards dressed	00 25@00 30
Pine, shipping box.....	18 00@21 00	Spruce, plank, 1 1/2 in.	00 28@0 30
Pine, common box.....	10 00@18 00	" " " "	00 35@00 40
Pine common box 1/2	00 44@00 60	Spruce plank 2 in. each	00 25@00 30
Pine, tally plank 1 1/2	00 44@00 60	Spruce park 1 1/2 in.	00 25@00 30
10 in.....	00 44@00 60	dressed	00 25@00 30
Pine, tally plank 1 1/2	00 35@00 38	Spruce plank 2 in.	00 43@00 45
2nd quality.....	00 35@00 38	dressed.....	00 16@00 18
Pine, tally plank 1 1/2	00 30@00 32	Spruce wall st lps.....	00 16@00 18
cut in.....	00 30@00 32	Spruce timber.....	00 16@00 18
Pine, tally boards dressed	00 32@00 35	Hemlock boards each	00 18@00 20
good.....	00 32@00 35	Hemlock joist, 2 1/2 x4	00 18@00 20
Pine, tally boards	00 23@00 30	Hemlock joist 3x4	00 18@00 20
dressed common.....	00 23@00 30	Hemlock joist 4x6	00 18@00 20
Pine, str p boards culls	0 18@00 20	Ash, good.....	45 00@50 00
Pine, strip boards	0 20@00 22	Oak.....	50 00@60 00
merchable.....	0 20@00 22	Maple cull.....	20 00@25 00
Pine, strip boards clear	0 25@00 28	Cargo rates 10 per cent. off.	

EXTRA SELECTIONS.

Maple good.....	40 00@48 00	Whitewood 1/2 in.	35 00@40 00
Chestnut.....	40 00@50 00	Whitewood 3/4 in.	45 00@50 00
Cypress, 1, 1 1/2, 2 and	35 00@40 00	Shingles, cypress, shaved	8 00@0 10
2 1/2 in.....	35 00@40 00	pl c 18 in.	5 75@0 6 00
Black "slut good to	140 00@100 00	Shingles, ex. shaved	5 75@0 6 00
choico.....	140 00@100 00	pl c 18 in.	5 75@0 6 00
Black Walnut 1/2 in.	85 00@100 00	Shingles clear sawed	4 50@0 5 00
Black Walnut select	150 00@175 00	pl c 10 in.	22 00@24 00
and seasoned.....	150 00@175 00	Shingles cypress 2 1/2 x4	00 00@0 14 00
Black Walnut cut 1/2 in.	160 00@170 00	Shing cypress 3x4	00 00@0 14 00
Black Walnut 5x6	160 00@170 00	Yellow pine dressed	80 00@80 00
Black Walnut 6x8	175 00@180 00	flooring.....	20 00@25 00
Black Walnut 7x7	175 00@180 00	Yellow pine girder.....	20 00@25 00
Black Walnut 8x8	175 00@180 00	Locust posts, 8 ft.....	00 24@00 25
Cherry wide.....	100 00@120 00	do 10 ft.....	00 24@00 25
Cherry, ordinary	70 00@80 00	do 12 ft.....	00 24@00 25
Whitewood inch.....	45 00@50 00	Chestnut posts.....	00 03@00 34

OSWEGO, N. Y.

Three uppers.....	\$46 00@47 00	No. 2, 5-4.....	\$ 1 00
Pickings.....	38 00@37 00	No. 1, 4-4.....	1 50
Cutting up, No. 1.....	28 00@27 00	Cedar, 4-4.....	1 70
Cutting up, No. 2.....	18 00@17 00	Pickets, 6 1/2 x 5-1x4,	
Dressed g.....	10 00@10 00	No. 1.....	10 00@15 00
No. 1 Culls.....	10 00@17 00	1x3x4, No. 1.....	18 00@20 00
No. 2 Culls.....	13 00@14 00	1x3x4, No. 2.....	10 00
Sidings, selected, 1 in	30 00@38 00	1st a 2nd back ash,	
1 1/2 in	33 00@41 00	1 in.....	23 00@25 00
18 ft.....	19 00@22 00	6-4 and thicker.....	24 00@26 00
Dressing and better.....	24 00@27 00	Culls.....	10 00
1 x 10 shipping cull 8	16 00@17 00	Basswood, selected 4-4	
Mill run, 1 1/2 in. strips	15 00@18 00	and 5-4.....	20 00@22 00
Selected.....	32 00@34 00	Strips selected 4-4 and	
1x6 selected for clap-		6-4.....	16 00@18 00
boards.....	32 00@34 00	Culls, 4-4 and 6-4.....	10 00@12 00
Clear butt cedar shin-		Birch and maple 1st	
gles, 18 in.....	2 00@2 70	and 2d.....	23 00@25 00
Shingles, XXX, 18 in		Making strips.....	\$ 1 25
plano.....	3 40@3 60	60 per M. pieces	
XXX 18 in Cedar.....	3 40@3 60	D. or 1 and 1/2 in., 1 1/2 c p r doo s	
XX 18 in cedar.....	2 50@2 30	7 in h do 10c	
Lath No 1, 5-4.....	2 10	Blind s ntr, 1 1/2 x4, 6c per M. piece	

TONAWANDA.

Three uppers.....	\$42 00@44 00	Culls.....	10 00@13 00
Common.....	18 00@24 00		

CARGO LOTS—MICHIGAN INSPECTION.

Three uppers.....	\$42 00@44 00	Culls.....	10 00@13 00
Common.....	18 00@24 00		

YARD PRICES—CAR LOTS.

3 uppers, inch.....	\$44 00@46 00	Dressing stocks	17 00@20 00
3 uppers, plank.....	45 00@50 00	Dressing sidings.....	19 00@22 00
Pickings, inch.....	38 00@39 00	Common stocks.....	14 00@15 00
Pickings, 1 1/2 in. to 2		Common stock gs.....	15 00@17 00
inch.....	38 00@42 00	Common box.....	12 00@13 00
Pine Common.....	32 00@34 00	Shingles, XXX, 18 in.	
Pine Common, thicker		sawed.....	3 40@3 50
Cutting up.....	25 00@30 00	Do. c ear b tgs, sawed	2 20@2 20
Shelving, 12 in. and		Shing c's, XXX 10 in.	
up.....	27 00@30 00	cut 2 1/2 x4.....	@ 3 00
Cottin boards, 12 in.		Do. XX do.....	@ 2 75
and up.....	10 00@18 00	Lath.....	1 00

MARITIME NOTES.

The leading topic of conversation in mercantile circles is, of course, the Stewart failure, and the Maritime Bank suspension; the failure of Mr. S. Schofield, before, and the assignment of Mr. Geo. MacLeod, after the Bank break up, have been allowed to, as it were, drop out of sight. When compared with the overshadowing proportions of the smash up which has, I am afraid brought sorrow to many homes.

It is all very well, this lending money to one large house, but I cannot help thinking it savors too much of the plan of having all one's eggs in one basket, which is not good policy; of course it is all right as long as things go smoothly but let a pressure come, and then where are you? Report is very busy about some of the proceedings between the bankrupt firm and the closed bank, and at the meeting of the shareholders of the institution to be held shortly, some highly interesting developments will probably be reached.

Our great business is, of course, lumber, and as everybody knows, lumber has been an unprofitable article to handle for the last five years, and the reports so far from the English markets are not encouraging, although the stock there is light, and the cut here, not within thirty per cent. of that of last year: still this does not seem to have the effect of raising the prices in the trans-atlantic markets.

A number of our people have tried to make out that our local government charges too much stumpage on lumber cut on Crown Land, and that that is the main reason why our shipments have decreased in quantity and our returns therefrom become so unremunerative. I cannot agree with this idea, for while I am of the opinion that our Government stumpage (\$1.25 per thousand feet) is very high, still the opponents of this charge do not go far enough away and consequently do not see the real obstacle to our obtaining good prices for our lumber. They forget that the Baltic ports are very much nearer the English and Continental markets than we are, that their wood answers for all ordinary purposes, equally well with our spruce, and that there is a difference in freight alone of more than one pound sterling per standard or nearly two dollars and a half per thousand feet in favor of the Baltic ports, without taking into account the fact that labor is much cheaper with them than with us.

The American market is opening up very well this spring, and if the carpenters and other laborers can be induced to settle their little difficulties with their employers without having recourse to the lamentable strike, there seems to be a fair prospect for remunerative returns on wood goods shipped this season to United States ports.

There is one very important factor in the success or failure of our American shipments this season, and that is the action of the Dominion Government towards the American fishermen. So much has been said and written about this matter that it is not worth while for me to go into the question—I can give my opinion in a very few words. Canada is right to insist on the recognition of the three mile limit, but she is decidedly wrong to harass the American fishermen in the numberless petty ways that we see used last season. The result of such conduct will be that the Retaliation Bill will be put in force, which will simply mean almost ruin to these lower provinces, and will do more to further the fast growing feeling of secession, not to say annexation, that is spreading over the Atlantic portion of this country than anything else that could possibly happen. The interests of the Lower Provinces are very closely interwoven, much more so than with Upper Canada, despite our political union, and we, in this part of the country, cannot afford to quarrel with the United States no matter what the magnates at Ottawa may think.

CUR.

OTTAWA LETTER.

OTTAWA, April 25th, 1887.

[From our own Correspondent.]

THE month is fast emerging towards a close, and yet comparatively speaking everything wears a wintry aspect as far as the mill work at the Chaudiere is concerned. Everything to be sure is in preparation for opening the season's campaign, but the ice on the Ottawa is firm and as yet shows no signs of making a move. From all appearances this spring is going to be a repetition of the year 1876, the year so late in opening and so well remembered for its remarkable high water in the Grand River. This winter just past has been one exceptionally severe, and its effects on the log cut has been more or less marked. The great depth of the snow in many localities was remarkable, and jobbers who had signed contracts were put to a great deal of extra expense on this account. The main roads could readily enough be kept in order, but in the bush and on the roads to the railways the snow was of such prodigious depth and fell so frequently that in many cases as many as five shovellers were detailed to each team to make a passage for the logs out to the main road. Of course this meant very

large expense, so that the output of logs was not only attended with difficulty, but also with a heavy outlay in the matter of labor. Horse labor was high and men's wages were on the whole good, and many more were employed than had the winter been of the ordinary kind. One effect the heavy snowfall had, however, and that was that the logs got out this year are of a better quality than those of the previous year. They were so hard to be got out that the log makers got directions to make none but those of the best quality. In many quarters in the Ottawa region drawing is yet in full blast, notably on the Upper Dumoine and Gatineau where Hamilton Bros. men are still drawing logs to the ice and those engaged say the sleighing is of an excellent kind.

RIVER IMPROVEMENTS.

The Government have been active in making all due repairs to slides, booms and piers on the Ottawa and its tributaries. The south slide at the Chaudiere has been repaired and a new apron put in. The booms, slides and piers at the Petewawa, Dumoine, Madawaska, Magnisippi, Bonnechere, Black, Coloungue, and Gatineau rivers have been strengthened as well as the slides at Des Joachim, Portage-du-Fort and Calumet. The Upper Ottawa Towing Company have issued their tariff. They have built a splendid new iron tug at Pembroke for towing operations on the lower Allumette lake, which was a want badly felt, and will greatly facilitate the transit of logs from the Upper Ottawa region. The tow will be managed between Des Joachim rapids and the head of Allumette rapids by the tugs "Hiram Robinson" and "Bronson" and the powerful steamer "C. O'Kelly."

THE CUT.

The sawlog cut is variously estimated between 600,000,000 and 700,000,000 feet, but the best informed say the former. The square timber cut is away down low, white pine 530,000 feet, waney white pine 355,000 feet, red pine 485,000 feet. This does not include some 14,000 pieces made and drawn to French River on the Georgian Bay. Besides the above Mr. R. White has 170,000 feet of white pine on Black River, stuck since last year, which he confidently expects to get to the market this season. He confined his operations this year to saw logs.

The Americans who have penetrated to the Nipissing and Georgian Bay districts, have not been idle this winter. With an eye to the main chance they have secured some of the finest limits in the localities named, and it is computed that 75,000 standards of logs will cross the lakes to the American mills—Canadian logs to be manufactured by American saws. Many of the Canadian dealers think that the export duty on logs leaving Canadian territory should be increased. Canadian shippers have to pay full rates to the United States government when shipping manufactured lumber, whereas these American saw log shippers get off comparatively scot free. This is claimed to be an injustice to the Canadian dealers as the competition is not equalized.

A HIGHER GROUND RENT.

The Mercer Government in the Province of Quebec propose raising the ground rents on timber limits in the Province of Quebec from \$2 to \$5 per square mile, and the limit holders in this locality feel quite wrathful over the proposal. The Quebec treasury is dry and a shift is made to fill the empty chest in this way. As there is some 27,000 square miles of limits taken up the revenue would be considerably augmented by the proposed increase. The lumbermen held a meeting here a few days ago and discussed the matter in all its moods and tenses. They think a great injustice is contemplated, and they propose making their grievances known to Mr. Mercer at an early date. A meeting will be held in Montreal in a few days when the protest will be formulated.

Bradstreet's, the weekly financial and commercial newspaper published by The Bradstreet Company, is now in its fifteenth volume, and is surpassed by none of the financial and commercial periodicals of this country or in Europe. In the fourteen volumes already issued can be found a greater diversity of original and carefully prepared matter—facts and figures—relating to business topics than in any other periodical during the same period. Nor is it surprising that it has reached and maintains this position, for it is owned and published by a large corporation—with its cash capital and assets of over \$1,400,000, its nearly 100 branch offices, and its small army of over 1,600 salaried employes and 65,000 regular correspondents. This organization makes extensive investigations into industrial and other matters, gathers full reports of the condition and prospects of the leading crops, and reports regularly each week the condition of trade throughout the country, thus practically making *Bradstreet's* an authority as to the condition and prospects of the commercial world. It needs but a glance at the newspaper to satisfy any one that its publishers have been ambitious rather than avaricious. Files of *Bradstreet's* have become an acceptable and almost indispensable journal for progressive business men.

THE SPANISH BAY TIMBER.

A LANDLOOKER who has lately been examining some of the Spanish river timber, in the Georgian Bay region of Ontario, reports, on his return, that the pine he saw there is not of a very high average grade. It will run but a low percentage to upper, but makes common of excellent quality, free from black knots and shakes. The country he describes as well drained, but with streams that are ill adapted to the driving of logs. In consequence, logging is much more expensive than the average of such work in Michigan and Wisconsin. There are but few improvements for facilitating the work as yet, and though they will come after a while, it will be some time before they are available. Considerable purchases of timber have been made in that district by lumber manufacturers on this side, but it is not determined yet whether they are going to be immediately profitable. The way the pine supply on this side is shrinking, there is hardly any question but that anything in the way of a tree belonging to this species that will make a saw log will be worth a proportionate part of its weight in gold within a very few years. Those who have dipped into Georgian Bay timber and the impression that they were buying Cass river pine, if there are any such, have doubtless some disappointing truths to learn regarding the quality of their purchases; but even they, and probably all others who have bought there, will be likely to see their money with good interest out of the property. The imposition of extra duty on unmanufactured timber has been a drawback to the owners of Canadian pine, and the possible retaliatory measures on the part of the United States against the Dominion government may prove another, though the latter is not likely to amount to anything serious. The business relations of the two countries are too close and intimate to admit of much official foolishness, or of a little long continuing.—*Chicago Lumberman.*

MR. MEREDITH'S REQUEST.

THE Toronto *World* editorially remarks: The request recently made by Mr. Meredith of the Commissioner of Crown Lands that the Government would prepare a map showing, in colors, the timber limits now under license and the area remaining undisposed of, was a reasonable one. The information would be extremely useful as a guide to legislators, lumbermen, and all others interested in knowing the condition and extent of our available timber resources. The Government ought to have the facts at hand or readily accessible, and the public have the right to the information. We cannot but think that Mr. Pardee's estimate of the cost of preparing such a map at \$10,000 is a considerable over-statement, but even if it were approximately correct it might be worth the money to give the law makers and the public a correct idea of how much of the resources on which the Province depends for future revenue is still intact. Our forest wealth should be husbanded with the greatest care. As has often been said, in using the revenue derived from timber sales to pay the current expenses of government, we are really living on our capital. When the forests are exhausted we shall be forced to resort to direct taxation. It is time that the whole question of provincial finances was reconsidered, with the object of ascertaining how long we can depend upon the crown lands as our main source of revenue, and whether some steps cannot be taken to capitalize at least a portion of our receipts from this source, so as to secure a permanent income when the timber is exhausted.

London, Eng. Timber.—We are glad to be able to report that the trade at last shows some signs of returning animation after the long spell of dullness and inactivity which has characterized it for so many months past. We have reported for a few months past a somewhat improved tone in the public sales, with more briskness and confidence on the bidding, which has kept prices very firm. This improvement appears to gain strength as the spring advances, and the sales held this week have shown not only continued firmness, but in some instances an advance in prices. By general consent the demand since the commencement of the month has shown a gratifying increase, which is confirmed by the very satisfactory dock deliveries for the week, which it will be seen total up to 4,513 stds. of deals, battens and boards, against 3,942 last year. These deliveries are all the more satisfactory as the dock stock is small, and they have not been unduly stimulated by heavy public sales without reserve, but represent an ordinary quiet week's consumption, and judged by this standard must be of good omen for the future. The deliveries may fluctuate week by week, but we think the tendency will be to an improvement over last year. It is to be hoped that the shipments next season may again be on a reduced scale as, even taking a favorable view, our market will be hardly in a position to absorb an excessive quantity of stuff. It will take some time for the trade to recover from the weakening it has experienced during the past few years.

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SEALED TENDERS, marked "For Mounted Police Provisions and Light Supplies," and addressed to the Honourable the President of the Privy Council, Ottawa, will be received up to noon on Monday, May 30th, 1887. Printed forms of tenders, containing full information as to the articles and approximate quantities required, may be had on application at any of the Mounted Police Posts in the North-West, or at the office of the undersigned. No tender will be received unless made on such printed forms. The lowest or any tender not necessarily accepted. Each tender must be accompanied by an accepted Canadian bank cheque for an amount equal to 10 per cent. of the total value of the articles tendered for, which will be forfeited if the party declines to enter into a contract when called upon to do so, or if he fails to complete the work contracted for. If the tender be not accepted the cheque will be returned. No payment will be made to newspapers inserting this advertisement without authority having been first obtained.

FRED WHITE,
 Comptroller N. W. M. Police.
 Ottawa, March 25th, 1887.

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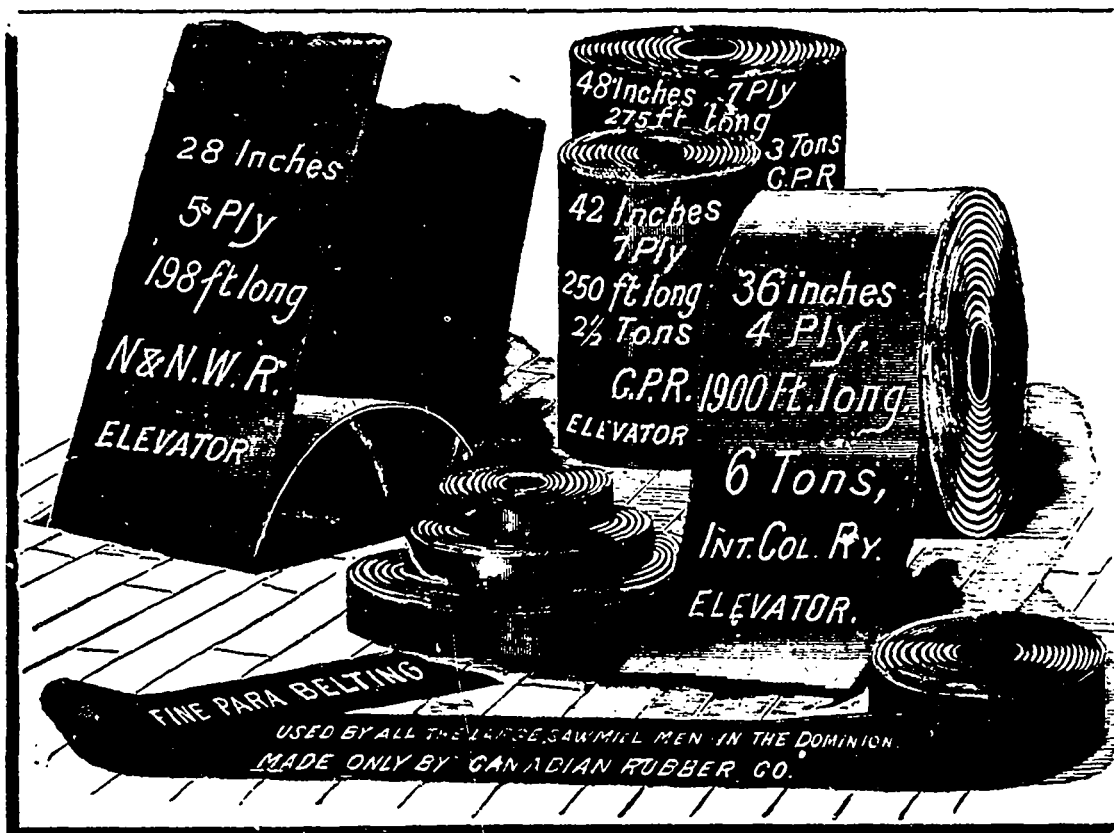
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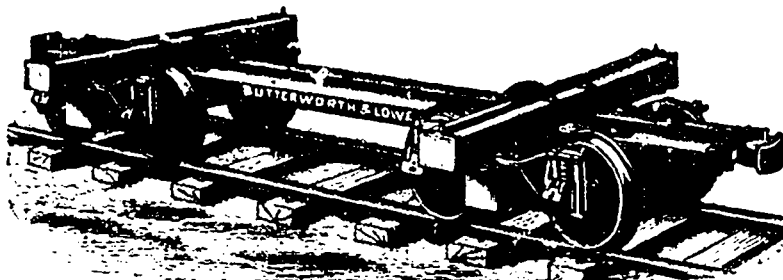
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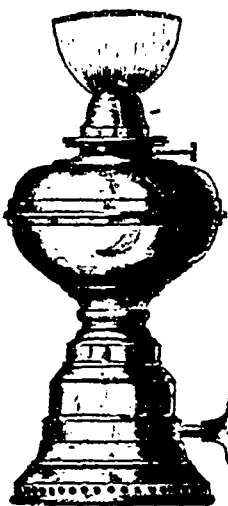


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BY STRAIGHT MEASURE OR INSPECTION.

THIS is just now a live question in the lumber trade, and especially a certain portion of it whose operations are mainly carried on in the producing regions, and at the distributing markets, of the lower lakes. There it has become a declared issue between a majority of the buyers and a certain proportion of the sellers, and if present indications may be relied upon, there is likely to be a lively and interesting struggle between the two when the season is fairly opened.

Concerning the merits of the controversy, there ought to be less dispute than as to its practical result. Presented merely as an abstract question, the answer to it is easy, simple, and measurably conclusive. The buyer of lumber, in common with the buyer of any other bulk commodity, the quality and value of which is uncertain and impossible of accurate determination by a mere casual examination, is entitled to some other and adequate means of knowing what he is to get for his money. The basis of any wholesale trade in lumber is the quality of the stock handled. It is this which establishes the price, and determines the sale, if a sale is made. Without knowledge of this factor of the transaction, no man can buy intelligently. It is an essential feature of a purchase from both sides. If the owner of stock should fail to acquaint himself with its actual merits or defects before he went into market with it, how long could he expect to do business successfully? It is beyond question equally necessary for the other party to a trade to know what he is buying.

Granting that this knowledge is a thing the purchaser is entitled to, it becomes merely a question of how he is to obtain it. Obviously the simplest, and perhaps the best way, is for him to examine what he proposes to buy himself. This is the method of small transactions, the first crude plan of determining values that suggested itself when trading between men began. So long as the business done is confined to transactions of a small magnitude, it is satisfactory, because the buyer only invests in what his judgment approves, and even if he fails to get the worth of his money, may not realize the fact. But it will be admitted without argument that the same plan cannot be applied to business done on a larger scale, and give equally satisfactory results. A man buying a wagon-load, or even a car-load, of lumber may examine it for himself and decide upon the evidence of his own eyesight and judgment as to what it is worth; when he buys a million feet, this becomes to all intents and purposes physically impossible. What can he do? Clearly he must be allowed some way of ascertaining what the stuff is, and practically but two remain open to him: he may accept the representations of the seller, or he may buy it subject to an examination by a competent, disinterested man—that is, inspection.

The necessity for inspection arose just as soon as men began to deal upon a large scale in bulk commodities, and in the process of commercial development it has come to be a part of the machinery of business in every line in which the nature of the merchandise handled makes expert examination necessary.

Lumber is certainly such an article. It is handled in bulk, and it is subject to wide variations in quality and worth. Any average lot of log run lumber will range in quality from mill culls to first clear, and hardly any two piles will show precisely the same proportion of the respective kinds and grades into which it is ordinarily assorted. One board furnishes no definite guide as to what the next one in the pile will prove to be; indeed, one cannot tell from it what will be the quality of the succeeding cut from the same log. As a matter of absolute fact, no two piles of lumber, or two logs, or even two boards, are exactly alike. The difference may be so slight as to be of no commercial account, or they may be so great as to make one piece of lumber valueless, and the other worth the highest price the market shows between the two extremes the variations are infinite in number. An average of these differences may be obtained by assorting the lumber into grades; according to a definite system, and from such an average it is easy to determine the value of the whole. This is merely what inspection is for, and what, honestly made, it does.

Inspection, pure and simple, means nothing more or less than an examination of the stock to see what it really is. It is or should be, within the right of the buyer to have this knowledge, without which he must be compelled to take all the chances in a trade, while the seller takes none. It is to be presumed, in all cases, that the seller knows what he is offering. If he does not, it is his own fault. But the buyer cannot know unless he is allowed to ascertain, and this privilege the straight measure advocates seem disposed to deny him. Men may prefer to buy on their own judgment of lumber, because they think their own judgment may be better than any inspector's, which very likely it is; but this does not furnish a reason why another buyer should not have his lumber inspected. Fairness would dictate that manufacturers should give their customers the same opportunity to test the value of what they sell, as they require in buying the raw material they manufac-

ture. They, or some of them—insist that a buyer shall judge of the quality of a pile of lumber by looking at the top and sides, with no chance to plunge into the middle of it, and to find out of what stuff it is really made; but where is the maker of boards who would think of buying his timber in the same uncertain, haphazard way? Would one of the Saginaw mill men, for example, consent to skirt around the edges of a thousand-acre tract of pine, and then buy it 'straight measure'? No; when he buys timber, he must have it inspected, and inspected, not by a disinterested man, but by a land looker of his own selection and employment, who is instructed to carefully examine every acre, to scale the trees, and to ascertain beyond a doubt just what the timber is that he is asked to purchase. If there is any good and sufficient reason why a principle that is obviously just when applied to timber standing in the tree, is not similarly fair and righteous when applied to the same timber after it is cut into lumber, the discussion of inspection and straight measure has so far failed to bring it out.

The exceptions of the manufacturers to a one sided and unfair inspection by interested parties are well taken. Equally with the buyers, are they entitled to a competent and unbiased judgment of their stock; and it is manifestly to the interest of buyers that they should have it. But there should be a remedy for an evil of this kind short of abolishing inspection altogether. It is not to be assumed that buyers will insist upon inspectors of their own choosing. Indeed, they have distinctly expressed the desire that manufacturers should "organize and appoint a corps of qualified and reliable inspectors," and should themselves establish a just and fair system of inspection. This places the matter wholly in the seller's hands, and affords them the opportunity of giving inspection a trial upon an equitable basis, if they are disposed to do so.

The actual outcome of the inspection dispute, depends of course, upon other circumstances than the mere principle involved. For the time being, the condition of the market will probably have more to do with it than a strict right or wrong. With a strong, active demand and firm prices, the manufacturers will be likely to dictate the manner in which they will sell their lumber; with a sluggish, weak market, probably buyers can have all the inspection they want. This is not right, but perhaps it is 'business.'—Chicago Timberman.

THE LUMBER TARIFF.

WE have been shown a copy of the C.P.R. special lumber tariff from Rogers' Pass to all points east as far as Winnipeg. The following are some samples of the rates:—

MILES	TO	RATE	RATE
		per 100 lbs.	per car
136	Banff	32c	\$ 96
216	Calgary	39c	1 17
270	Gleichen	40c	1 20
377	Moose Jaw	40c	1 20
69	Regina	42c	1 26
92	Brandon	44c	1 32
1055	Winnipeg	45c	1 35

The first fact that will be recognized in scanning these figures is that the rates are a practical preventative of any business in lumber between the prairie towns and the mountain saw mills. It is therefore useless to get into an analysis of the unfairness of the figures as between one point and another, because the tariff is evidently not intended to foster freights but to check and prohibit them for the time being altogether. To say that a railway is seeking to discourage business over its own line appears on the face of it to be absurd, but a little scrutiny of the situation will show that there are reasons. Under the comparatively low tariff allowed last year the lumber mills in the mountains west of Rogers Pass were able to do a prosperous business, and in view of a continuation of that tariff, they greatly increased their capacity for manufacturing. The railway was fostering their enterprise, but, as the sequel shows, they were fostering it with a view to make food for their own capacity. The company foresaw that they would require vast quantities of lumber and sawn timber for their snow sheds and other works in the mountains. The mills have been put in, the railway puts on a freight tariff that prevents them entering the markets, and so once the C.P.R. is master of the situation. They can dictate to the mill owners in the mountains the price and terms on which they must supply the lumber and timber the railway needs, and that price and those terms will just squeeze the mill owners hard enough to get all that can be got out of them without actually killing them.

The practical shutting out of these mountain mills from competition with Maj. Walker, at Kananaskis, and the Calgary Lumber company, at Cochrane will be a good thing for those mills temporarily, but what assurance is there that the C.P.R. will not some time require to use them just as the mountain mills are now being used? The effect is to demoralize business, to destroy confidence, and check and prostrate enterprise.—Calgary Tribune.

CHARCOAL.

AN exchange desires to know why charcoal is not more largely used for fuel in Ontario. In France it is in general use for cooking and even, in some cases, for warming, though wood is very much dearer than in Canada. But in that and in some other European countries, every scrap of waste wood is converted into charcoal.

In Canada we have hardly begun to realize the value of our forests. A few years only have passed since the finest forest trees were regarded as cumberers of the ground, and the one object was to cut them down and burn them. Now we realize the value of most trees fit for lumber; but even with these the waste is enormous. The limbs are worse than useless, for they are left to dry upon the ground where the trees are cut, and when fire gets among them it spreads rapidly and works incalculable damage. Most industrial operations are conducted with such economy that the waste products constitute in themselves a large source of profit. It might be so in our lumbering camps. The waste wood might be turned into charcoal for fuel, and in the process the pyroligneous acid and other products might be saved, so that the charcoal would be had for nothing. Mineral coal is raised from great depths, and is carried great distances. Charcoal might be had in almost inexhaustible quantities much nearer the Canadian cities, and would prove a source of great wealth. A pound of charcoal will produce more heat than a pound of the best mineral coal. A table which we found in the Encyclopedia Britannica says that one pound of mineral coal will evaporate water as follows:

COAL.	WATER, LBS.
South Wales (average)	9.05
North of England	8.37
Lancashire	7.94
Scotland	7.70
Derbyshire	7.58

One pound of charcoal will evaporate 12.75 pounds of water. In all cases the evaporation is that of water already raised to the boiling point. It will be seen that charcoal has one-third more heating power than the best Welsh coal, and 65 per cent. more than Scotch coal.

Doubtless difficulty would be experienced in using charcoal for heating; but we cannot doubt that Canadian ingenuity would soon find means to employ it with comfort and safety. For cooking, especially in summer time, charcoal has many advantages.

The sawdust, which not only goes to waste at saw mills, but which gives so much trouble, is to be used for a good purpose. The Journal of Commerce says:

It is understood that a company is about to be formed in Ottawa with a large capital for the purpose of purchasing a water power on the Chaudiere and erecting extensive mills for the manufacture of pulp from the sawdust, which has for so long been a nuisance to both lumbermen and forwarders in the Ottawa river. Mr. Bronson, M.P.P., is one of the principal promoters of the scheme.

If the sawdust can be made of economic value, surely the limbs of trees should not be permitted to go wholly to waste, and that at a time when mineral coal is getting more and more expensive. At present Ontario is wholly dependent upon foreign countries for coal. If her own forests were turned to the best account, employment would be found for many laborers, freights would be supplied to Canadian railways, and large sums of money now sent abroad would be retained at home.—Exchange

TIMBER AND LUMBER NOTES.

At Beaverston, on the north shore of the Georgian Bay, Burton Bros. are getting out some seventy five or eighty thousand feet of board timber and five or six million feet in saw logs. At Collins Inlet the Collins Inlet Lumbering Company will have out five and a half million feet in saw logs. All along the North Shore there will be an unusually large out-put of logs this year, so says the Espositor.

The Port Perry Standard says: Last Tuesday we beheld one of the largest saw logs that has ever been seen in this part of the country. The tree from which it was taken grew on Mr. John T. Pound's farm just north of this village, and was blown down about three years ago during a heavy wind storm. The first two logs cut from the tree measured fifteen feet each in circumference and were composed of good, solid, clean timber. They were taken to Antica to be cut into shingles.

According to a despatch from Ottawa, the lumbermen of that neighborhood have met to discuss the bill introduced by Mr. Murray, M.P.P., before the Ontario Legislature. They almost all pronounce against the clause providing that in case of a jam of timber or logs on any stream where a number of lumbermen's logs are congregated, the firm or individual who breaks the jam may take a lien on the logs so liberated until paid for the expense of freeing them. The lumbermen object that this provision, if adopted, would result in endless litigation.

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We are now prepared to furnish all classes with employment at home the whole of the time, or for their spare moments. Business new, light and profitable. Persons of either sex easily earn from 60 cents to \$5.00 per evening, and a proportional sum by devoting all their time to the business. Boys and girls earn nearly as much as men. That a 1 who sees this may send their address, and test the business, we make this offer. To such as are not well satisfied we will send one dollar to pay for the trouble of writing. Full particulars and outfit free. Address GEORGE STINSON & Co., Portland, Maine.

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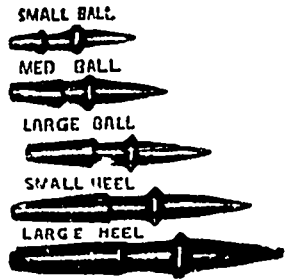
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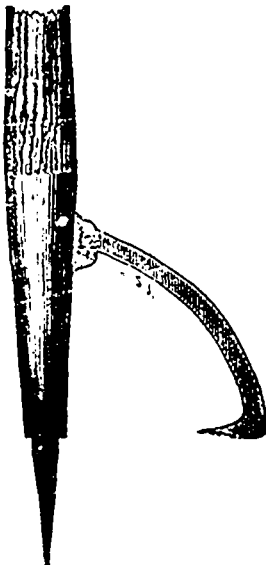
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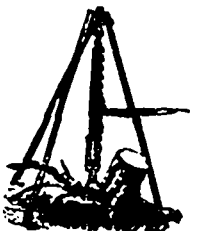
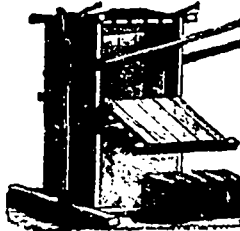
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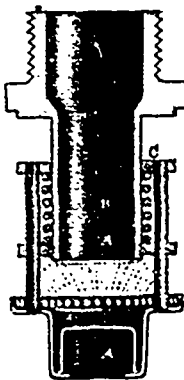
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