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PUBLISHED MONTHLY
By A. G. MORTIMER.

The only Newspaper devoted to the Lumber and Woodworking Industries of the Dominion.

SUBSCRIPTION
\$1.00 PER ANNUM.

VOL. 7.

PETERBOROUGH, ONT., FEBRUARY, 1887.

NO. 2.

CANADA'S LUMBER SHIPMENTS TO ENGLAND.

CHURCHILL & SIM report the following consignments of lumber, etc. from Canada during the year 1886:—

SAWN WOOD.—Pine, deals &c., from the St. Lawrence, for 1884, 1,714,000 pieces; 1885, 1,663,000 pieces; 1886, 2,072,000 pieces. Spruce Deals, &c., from the St. Lawrence, for 1884, 1,971,000 pieces; 1885, 1,968,000 pieces; 1886, 1,858,000 pieces. Spruce Deals, &c. from New Brunswick, for 1884, 355,000 pieces; 1885, 510,000 pieces; 1886, 593,000 pieces.

TIMBER.—Yellow Pine from Quebec, for 1884, 3,841 loads; 1885, 6,247 loads; 1886, 2,681 loads. Red Pine from Quebec, for 1884, 1,135 loads; 1885, 797 loads; 1886, 289 loads. Elm from Quebec, for 1884, 1,999 loads; 1885, 2,713 loads; 1886, 622 loads. Ash from Quebec, for 1884, 4,495 loads; 1885, 2,123 loads; 1886, 1,632 loads. Hickory from Quebec, for 1884, 144 loads; 1885, 223 loads; 1886, 41 loads. Oak from Quebec, for 1884, 2,936 loads; 1885, 3,557 loads; 1886, 3,076 loads. Birch from Quebec, for 1884, 2,066 loads; 1885, 5,475 loads; 1886, 966 loads. Birch, Nova Scotian, &c., for 1884, 3,982 loads; 1885, 3,327 loads; 1886, 1,654 loads.

PINE DEALS, the most important supply from the Canadian ports, have varied little during the year. They have arrived in larger quantities than required; but, owing to firm holding, there has been no appreciable fall in value except for first quality. A favourable turn in the demand is wanted to save the market from the dangers of too large an accumulation of stock. Spruce have fallen so low that it is difficult to believe that they will be much cheaper, or that any reduction could increase the consumption.

In Timber, shipbuilding woods have been very difficult to sell, and exceedingly unprofitable; furniture woods, with the one exception of Birch, are better, the cabinet makers' trade having been far more prosperous than the builders'. A large falling off in the supply is noticeable.

FARNWORTH & JARDINE report:

YELLOW PINE TIMBER.—The import has consisted of 4 cargoes, chiefly waney pine on contract, as compared with no arrivals in the corresponding month during the past two years; the deliveries have been fair, and stocks are now lower than ever previously recorded, nevertheless quite ample for the demand, and there is improvement in values. St. John pine: Several parcels of prime quality and large average have arrived, but the demand is limited, and the bulk has gone into stock. Red pine has come forward more freely; the demand is moderate, and prices rule very low. Oak logs: The import has consisted of 16,000 feet, against nil during the same month last year; the stock is light, viz., 151,000 feet, against 288,000 same month last year, and 239,000 for the year before; and although there is rather more inquiry, prices have not improved. Oak planks have been imported more freely, viz., 61,000 feet, against 31,000 feet last year; the demand continues fair, and the stock, though ample (128,000 feet), is not excessive. This article is quite taking the place of oak in the log, and as shipments are now both more carefully culled and manufactured, and the cost comparatively low, it will probably still further grow in favour with our wagon builders. Elm has been more inquired for, and as the stock is light, the prices are firmer. Ash: The import has consisted of two parcels of medium quality, which have been sold at fair rates from the quay; the stock is very moderate. Pine deals: The import has consisted of 746 standards, against 456 standards same month last

year; the deliveries have been unsatisfactory, viz., 1,166 standards, against 1,579 standards last year, and the stocks remaining over are excessive, viz., 9,180 standards, against 6,638 standards; sales are most difficult to effect, and prices for all qualities are lower. Quebec staves are seldom inquired for, and prices rule low.

NEW BRUNSWICK, &c., SPRUCE AND PINE DEALS.—Spruce deals have come forward much too freely, viz., 7,105 standards, against 5,630 standards same month last year; the demand, though fair, has not kept pace with the import, and the stock has accumulated and is now almost equal to same time last year, viz., 19,344 standards, against 21,231 in 1885; this has checked any improvement that might have been expected at this season of the year, and the prospects during the winter months is not encouraging. Pine deals are dull of sale, and prices are unchanged. Birch has been imported freely, viz., 12,000 feet, against 2,000 feet same month last year; the demand has fallen off, and late sales show a sharp decline in value; the stock remaining over is excessive, viz., 165,000 feet, against 144,000 same month last year, and 73,000 feet in 1885. Birch planks have been imported moderately and are in fair request, but more care must be taken in the manufacture to bring this article into favour with our buyers.

PITCH PINE.—The arrivals during the month have been 1 vessel 627 tons, against 3 vessels 2,295 tons during the like time last year. The consumption, as usual at this time of the year, has been small, but it is very satisfactory to see the stock reduced to such a small compass—smaller, indeed than for several years past; this has naturally had a beneficial effect on the market, and improved prices have been paid for the season's wood. Freight is still high, and with a scarcity of tonnage shippers look for still further improvements in prices, though at present this is not very freely responded to on the part of importers.

A. F. & D. MACKAY, report:

PINE TIMBER.—Import from Quebec during the month, waney 79,000 cubic feet, and square 28,000 cubic feet, consumption 116,000 cubic feet, total, against 76,000 during December last year, stock remaining 110,000 cubic feet square, 194,000 feet waney, against 226,000 and 389,000 cubic feet respectively at this time last year. St. John and other ports pine, import 32,000 cubic feet, consumption 4,000 feet, against 30,000 feet, stock 73,000 cubic feet, against 82,000 feet last year. No sales to report, arrivals having been wholly on local merchants' account.

RED PINE.—Stock reduced by 1,000 cubic feet.

OAK.—We have to report a still more reduced stock, namely, 151,000 cubic feet, against 238,000 cubic feet at end of December, 1885, consumption although scarcely an average one is double the import, being 32,000 cubic feet, against 45,000 feet last year, and only 16,000 cubic feet arrived. No doubt prices slightly advanced, but very little inquiry.

OAK PLANKS.—The stock of these is still somewhat reduced, being 128,000 cubic feet, against 160,000 twelve months ago. The import which was a large one for the time of the year, was 61,000 cubic feet, against 31,000 cubic feet, and consumption 57,000 cubic feet, against 75,000 cubic feet in December, 1885, and 35,000 cubic feet for same period in 1884.

ELM.—There has been 10,000 cubic feet imported during the month, and 5,000 cubic feet gone into consumption, leaving the stock 12,000 cubic feet, against 35,000 cubic feet twelve months ago.

ASH.—A parcel of 10,000 cubic feet arrived during the month, and has gone in consumption direct. Stock 7,000 cubic feet.

BIRCH.—This wood has arrived largely, totalling 122,000 cubic feet, and this fact coupled with a consumption of 37,000 cubic feet has increased the stock to 165,000 cubic feet, which has had a bad effect on prices which had been advancing during October and November. Sales have been as follows:—1,180 logs, ex Tobique from St. John, N.B., 14½ inches average at 15½ pence per cubic foot, and 118 logs 13½ inches average, at 15 pence, 1,004 logs ex Dora from St. John N.B., nearly 14 inches average at 16½ pence. 751 logs ex Kildonan from Pictou, 16 inches average at 14½ pence per cubic foot. The latter parcel being offered at auction on account of buyer, was nearly wholly withdrawn, very few bids being produced.

N. B. & N. S. SPRUCE & PINE DEALS.—The import has been large for the time of the year, namely, 7,105 standards against 2,630 standards during December, 1885. Consumption 5,500 standards against 3,150 standards, and stock 19,344 standards against 21,331 standards twelve months ago, and 26,310 standards on 31st December, 1884. No alteration in values, the demand being slow. Several cargoes offered at auction, but only a few lots sold, balance being disposed of privately.

QUEBEC DEALS.—The stock still stands at high figures, viz.: 9,116 standards against 9,638 last year at this time. The arrivals during the past month although greatly reduced as compared with November, are larger than an average, being 746 standards against 456 in December 1885. Consumption 1,166 standards against 1,579 standards.

PITCH PINE.—The stock has now been reduced to a very healthy limit, consisting of 95,000 cubic feet hewn timber, 161,000 cubic feet sawn and 55,000 cubic feet planks, totalling 311,000 cubic feet against a like total of 1,048,000 cubic feet at this time last year. The import has been 34,000 cubic feet of all kinds, and the consumption 140,000 cubic feet.

SKETCHES OF THE TRADE.

THE Toronto *Globe* of a recent date published a write-up of some of the leading industries located along the line of the Northern railway, in which we find the following references concerning the lumber trade:

WM. CANE & SONS' MFG. CO. (LIMITED).

The town of Newmarket owes much to her manufacturers, of whom Mr. Cane was one of the first. Mr. Cane had been the owner of a sawmill in the township of East Gwillimbury, but in 1875 he moved into Newmarket, and commenced the manufacture of lumber, lath, shingles, sash, blinds, moldings, door, and in fact all kinds and descriptions of housebuilding materials, in addition to ordinary lumber. This business grew to large proportions, and with it grew Mr. Cane's capital, and he commenced the manufacture of all kinds of wooden ware, such as pails, tubs, washboards, and clothes pins. This business has grown also, and there are now made at the works no less than forty-two different kinds of ordinary pails. At the late Industrial Exhibition many of these were shown and a silver medal was granted for the general excellence of the exhibit. But the articles in that exhibit which attracted the most attention were the impervious wooden packages made by the firm, such as oil cans, pickle packages, etc. To such perfection has the manufacture of these goods been brought by this firm, that they can make wooden packages convenient to handle which will hold any substance, no matter how volatile

or penetrating, and their oil can will hold gasoline as safely as any tank. The extent of the business may be gathered from the fact that the company employs 120 men the year round, besides woodmen, and use over two million feet of lumber, and two thousand cords of stavebolts in the factory in the manufacture of their various products. In 1885, after ten years' successful operation, the firm was changed into an incorporated company, under the style of Wm. Cane & Sons' Mfg. Co. (Limited). The citizens of Nowmarket have since they have been incorporated as a town, had but one Mayor, Mr. Wm. Cane, the head of the firm, and are not likely soon to change. This one fact is sufficient to show that Mr. Cane is not only a large employer of labor, but also an extremely popular and public-spirited man.

PHILPSTON'S INDUSTRY.

Where the thriving village of Philpston now stands, seventy years ago was nothing but an unbroken wilderness. About that time the firm of N. & O. J. Phelps, of St. Catharines, who had purchased a timber limit at this point, erected what is now the best and most complete circular sawmill in Northern Ontario. The building of the mill brought, of course, a large number of men who were employed by the firm, and a little village sprang up around the property. This village has become each year more and more thriving, and at the present time there are located there a number of handsome stores and spacious grain warehouses, from the latter of which an immense quantity of grain, purchased from the farmers in the neighborhood, is annually shipped to Toronto. Philpston is not on the direct line of railway to the North-west, but all its shipments have to be sent through Allandale, where the great junction of the Northern & North-western system is situated. Although the mill will have to be removed in about two years, owing to the supply of lumber being nearly exhausted, the prosperity of the village will still go on. The business enterprise of N. & O. J. Phelps has made the place, and the firm has always been deservedly popular. The sawmill has a capacity of from forty to fifty thousand feet of lumber per day, and is one of the features of the northern district of Ontario. Mr. O. J. Phelps has served one term in the Local Legislature, with credit to himself and satisfaction to his constituents, by whom he is universally esteemed. Among the benefits which have been derived from Mr. O. J. Phelps, connection with municipal matters the township of Flos, of which he was Reeve for fourteen years, has to thank him for the railway which now passes through her borders.

THE LONGFORD LUMBER COMPANY AND RAMA TIMBER TRANSPORT COMPANY.

The most important industry at Longford Mills, Township of Rama, is carried on by The Longford Lumber Company, who have two fine large steam sawmills, with a capacity of eighteen to nineteen million feet in six months. This company have very extensive limits in the townships of Rama, Digby, Dalton, Carden, and Anson, and they are also sole owners of the township of Longford, which has an extensive and abundant supply of pine, hemlock, and other valuable woods sufficient for their mills for many years to come. The output of their mill this season was eighteen and a half million feet and two million bbls and about ten million of shingles. Their manufactured goods are shipped over the N. & N. W. Railway, principally to Toronto and thence by vessel to Ogdonsburg, Oswego, and other lake ports. In addition to their large saw mill interest they have a fine herd of Shorthorn cattle, South-down sheep, and Berkshire pigs. This company employ in the cutting season at the mills about 150 men and in the winter season from 300 to 400 men. The next business of importance is conducted by the Rama Timber Transport Company, under the same management. It was formed for the purpose of taking logs through the canal from Black River into Lake St. John, and from Lake St. John to Lake Couchiching by machinery composed of a trainway about 90 rods long, operated by a large engine and boiler driving a multitude of short shafts and cog wheels with rollers attached, where logs are put on and propelled at the rate of about 1,500 to 2,000 pieces per day. About forty men have been employed at the work for about four months in the year. There is also on their premises a large shingle mill, with a capacity of eight million in the six months, and the company also operate a magnificent farm in connection. This company has done a large business for the past few years.

North of this are the small post villages of Washago and Severn River, and then the village of Gravenhurst is reached. The description of that place and of those to the north, will, however, appear at a future date.

E. U. WHIFFEN'S MILLS.

Among the best known, and most enterprising of the residents of Orillia, Mr. E. U. Whiffen deserves a prominent place. Mr. Whiffen was superintendent of Hooper & Sullivan's mills, at Bell Ewart, for many years, until in 1880, the mill was burnt down, when he moved north, and the British Canadian Lumber Co's mill, at Midland, under contract for one year, and in the year following he purchased a mill at Feaserton, the point where the Midland Railway first strikes the Georgian Bay. The mill has a capacity of from three to four million feet of lumber per annum, and is a complete circular mill with ample power. Around the mill are some of the best

tiling grounds in the country, well laid out, and with plenty of railway switches running through. Parry Island in the Georgian Bay, is this year furnishing the mill with its stock of lumber. A general assortment of lumber is sawn, including pine, oak, ash, spruce, tamarac, and birch. This is sold chiefly in the Canadian market, and handled chiefly by Toronto firms but some of the choicest finds a market in Oswego. The mill is about sixteen miles from Orillia, on the Midland Railway, and as it has good dockage on the Georgian Bay, there are ample facilities for shipping the products of the mill at reasonable rates. Mr. Whiffen is a native of Utica, N. Y., but has for several years past lived on Peter street in the town of Orillia.

NEW ADVERTISERS.

THE current issue of THE LUMBERMAN contains several new advertisements, to which attention is directed. The prime, first, last, and all the time object of the advertiser is to draw custom, and patrons of this journal are no exception. The firms below referred to take a place among the most reliable business men of the Dominion, and are well and favorably known by a large majority of LUMBERMAN readers:—

JOHN C. McLAUREN—BELTING.

292 and 294 St. James Street, Montreal, manufacturer of Oak Leather Belting and Textile Supplies, occupies a space on page 16 of this issue. A special engraving is now being made by our engravers and will be ready by the next issue. Mr. McLaren is so well known by the manufacturers of Canada that a further introduction is unnecessary. This business has been in successful operation since 1856, and is increasing in importance every year. The oak leather belting, as manufactured by this house, stands second to none in the market, and has an extensive sale in every Province of the Dominion. Every variety of textile supplies, such as card clothing, loom reeds, etc., are also manufactured in large quantities.

MONTREAL SAW WORKS.

After an absence of over a year, Mr. Chas. M. Whitlaw, manager of the above works, has returned to his old love, and contracted for a space on back of cover. When THE LUMBERMAN called on this gentleman, a fortnight since, the thermometer ranging 20° below zero, we found him in close proximity to a red-hot stove and apparently enjoying all the comforts that man could desire. Business, he informed us, was fairly good, notwithstanding the fact that during the present season trade is generally very quiet among saw men. This firm manufacture all kinds and sizes of circular and cross-cut saws, and have done a large share of the trade of the country for many years past. Saw mill men and wood-workers in general who contemplate adding to their present supply of saws will find it to their advantage to correspond with this firm.

ROBIN & SADLER—BELTING.

But few firms in Montreal are better known among manufacturers than Robin & Sadler, manufacturers of Leather Belting. Having been established for many years, they have won for themselves a reputation of which they have every reason to feel proud. The belting of this firm's manufacture may be found in almost every city and town in Canada, and has given universal satisfaction. A contract was made during the past month for all the belting required in Ogilvie's new flour mill in Montreal, the cost of which will be in the neighborhood of \$10,000. This, we understand, is the fifth contract made with the same firm. During a visit to these works we were shown through the large premises from cellar to attic, and found each department of the business under control of a competent head foreman, while the machinery employed is of the latest improved design. Mr. Sadler informs us that not a single article of American machinery is used in these works that can be purchased in Canada. He is a strong protectionist, and believes that the only way to encourage Canadian manufacture is to stick to home production. A good example indeed, and one which should be imitated by every Canadian who desires to see his country prosper. We have pleasure in directing attention to this firm's advertisement on another page.

TEES & CO.—DESKS.

An office desk is a commodity which but few men, either in business or private life, care to do without. As in all other branches of trade, desk makers have sought to bring their manufacture as near perfection as possible, and in this they have succeeded. Through the courtesy of Mr. Tees we were permitted to visit the show room of the above firm in Montreal, where is presented for view every variety of office, school, lodge and other kinds of desk, from the cheapest to the most elaborately finished. Messrs. Tees & Co. have been established in this business for so many years that they now control the bulk of the trade of eastern Canada, and a fair share of the western trade also. Almost every reader of THE LUMBERMAN requires, at one time or another, one of these essential articles, and they will be consulting their own interests by writing for one of the firm's new illustrated catalogues now in press, and at the same time keep their eye on the advertisement now appearing in this journal.

GEORGE BRUSH—MACHINERY.

The name of the "Eagle Foundry," of which Mr. George Brush is the proprietor, is so well known that an extended notice is quite unnecessary. This business is among the

oldest in the city of Montreal, having been established so far back as the year 1820. The manufacture consists of steam engines, steam boilers, hoisting engines, steam pumps, bark mills, circular saw mills, shingle mills, ore crushers, mill gearing, hand and power hoists for warehouses, etc. Mr. Brush has gained a reputation from one end of the Dominion to the other for the excellence of the machinery manufactured. The extensive works are located at 14 to 34 King and Queen streets. Read advertisement on page 15 of this issue, and watch this space for the handsome illustrated announcement which will appear in our next issue.

THE RATHBUN CO.—HULLERS' SUPPLIES.

This extensive firm has two announcements in this issue of THE LUMBERMAN. One will be found on page 16, and another on the third page of cover. The Rathbun Co., of Deseronto, Ont., is now classed as among the most extensive corporations doing business in Canada. The diversity of manufacture is such that it is a difficult matter to arrange a concise list. The principal production, however, is lumber, railway ties, telegraph poles; such doors, blinds, mouldings and, in fact everything in the way of building material. The company, in addition to their Mammoth works at Deseronto, has branches in Kingston, Nanawau, Ottawa, Peterborough, Toronto and many other places.

NAPANEE CEMENT CO.

The advertisement of this company appears for the first time in this issue. The hydraulic cement manufactured by them is used for a variety of purposes, and is particularly adapted for dams, erection of chimneys, foundations, culverts, cists, cellars, etc. Full information will be furnished by the manufacturers, the Napanee Cement Co., Napanee, Ont.

BUTTERWORTH & LOWE—SAW MILL MACHINERY.

We would direct attention of saw mill owners and others to the announcement of the above firm on third page of cover. This is an American firm of long standing, with extensive works at Grand Rapids, Mich. They manufacture almost everything used in Canadian saw mills, and desire to do a share of the trade of this country. Our readers will find something fresh from month to month in the space allotted them, and we hope that THE LUMBERMAN may be the means of introducing the manufacture of this firm to the favorable consideration of Canadian buyers of saw mill machinery.

ROBT. MITCHELL & CO.—FIRE EXTINGUISHERS.

Fire protection by automatic fire extinguishers is a simple method of getting out of trouble, and a good preventative against loss by the devouring element. Messrs. R. Mitchell & Co., have a handy and inexpensive device for this purpose, and illustrate the same on page 14 of this issue. To lessen one's insurance by utilizing a device of this kind, saves money, and as this is something which everyone desires to do, we would advise readers of THE LUMBERMAN to equip their mills and factories with the latest improvements in automatic sprinklers.

H. S. KIMBALL—SAFES, ETC.

The class of manufacture carried on by Mr. Kimball, 577 Craig Street, Montreal, consists of Champion Stump and Stone Extractors, Safes, Cultivators, Hay Presses, etc. The safes manufactured here are among the best turned out in Canada, the leading features of some of the best American safes being brought into use. Mr. Kimball is a thoroughly practical machinist, and the best indication of his success is the rapid increase in his business. Lumbermen and others requiring safes will find this establishment equal to any in Canada, while the prices are at least 25 per cent. lower.

Prizes for Mechanics.

With the view of diffusing mechanical knowledge in Canada, the Dominion Mechanical and Milling News is giving a cash prize of \$10 every month for the best essay on a mechanical subject selected by the editor. The subjects, which relate to all branches of mechanical knowledge, are announced in the D. M. & M. News a month ahead. Some of our clever, thinking mechanics in this locality should compete for these prizes. Full particulars may be obtained by addressing Publisher Dominion Mechanical and Milling News, 31 King Street West, Toronto.

When opening correspondence with advertisers always mention that you saw their advertisement in the "Canada Lumberman."

McLaughlin Brothers, lumbermen of Ottawa, have sold their entire season's cut to the New York Exportation Company for a price close on to \$500,000.

James Chase's saw mill at Clachan was found to be on fire at 5:30 on Friday morning by some of the neighbors, who succeeded in quelling the flames, after property to the value of about \$500 was damaged. There had been no fire in the mill for over a week, as it was undergoing repairs. Traces of coal oil were found.

The Ottawa forwarding firms are busily engaged in making contracts with the lumber dealers for the freight of lumber from the Chaudiere to Montreal and Quebec. Several large contracts have been made and there is every prospect of a good trade this summer. The prices for good lumber promise to be slightly higher than last season and culls somewhat lower.

OUR LETTER BOX.

SOMETHING ABOUT SHINGLES.

KINGSTON, Jan. 14, 1887.

To the Editor of the Canada Lumberman.

DEAR SIR—Among the many kinds of material now used by architects there is none subjected to so many different opinions as shingles. One man says: 'give me shaved shingles for durability,' and as proof of his opinion he will say, "there is that old barn yonder, I and my father cut the bolts out of trees which grow on such a hill, drew them to the shanty on an Ox sled, and shaved them evenings by the light of a fat pine knot when Jim was the baby, (that is over 30 years ago) and this roof is not altogether worthless yet and we left the sap on top. If I could get them I would have shaved pine shingles sure!"

Next observer says, "I don't like sap. I shingled my house, or barns, and the sap is all defective while the heart-wood is good. I believe like my friend No 1 that shaved pine shingles are best but take the sap off for me."

No. 3 says, "I like cedar shingles, (shaved of course). There is such and such a roof made of it of shaved cedar, which my father made long ago. They were 2 feet long and 7/8 in. thick. They are worn very thin where the sap comes but will last a while yet. I prefer cedar."

No. 4 says, "I have not much experience in shaved shingles but in 1882 I shingled my house with X X X pine sawed shingles and it is a good roof yet. The sap was all taken off. I believe it will last 8 or 10 years yet."

No. 5 says, "I shingled my house with sawed pine shingles, sap all off, and I got my shingles from the same mill and the same man made mine that made No 4's. He said mine were as good as he could make, and my roof lasted about 12 years, and I had to put on another roof. I took cedar the last time. I don't like sawed pine shingles. There is a fuzz on them that holds dampness and soon rots."

No. 6 says, "I like sawed cedar; they lay more flat and don't split and curl up so much as pine does."

And more of these kind of theories could be brought forward if space would permit.

Now the question is, which is the best and how can we harmonize the different views expressed? for they are all true and are repeating themselves every day.

In the first place, let me say, it is not the sawing or shaving of a shingle that makes them stand the weather best or last longest. I know the roof well that No 1 mentions, it has lasted over 30 years and No 4's roof will also last 30 years.

The former was cut green, bark taken off, split and shaved; the turpentine dried in the timber and made the sap hard. It lasted almost as well as the heart wood.

No 4's roof was cut and split green, drew to the shingle factory 1/2 lengths, sawed early in the spring before the gum or turpentine had been run out. It was not put in the water. When it was sawed the gum and pitch collected at the bottom of the saw teeth. When the sawyer filed his saw he took his jack knife and cleaned the gum off his saw teeth so as not to stick up the teeth of his file. Then they were packed up in bunches and kept under cover dry until laid on the roof. They were cut across the grain, not slab fashion. They won't curl nor split any more than No. 6's cedar did.

No. 2's shingles had black sap on them when they were nailed on the roof. The sap might have been green and bright when bunched up but they were not kept covered and lay exposed to wet before used. Sap is not very good under any circumstances, but unless the gum dries in the wood it is almost worthless.

No. 5's shingles were sawed by the same man that cut No. 4's. These shingles were made of nice pine saw-logs 12 to 15 inches in diameter, had laid in the water three years when the sawyer sawed them. All the gum spots on the side of the saw and the saw teeth became clean and bright. There was nothing in the wood to preserve the shingles; the sap was taken off but still they rotted in 12 years. Had they been cut before the gum had left the wood they would also have lasted 30 years.

No 3's roof lasted well because they were 7/8 in. thick. Cedar makes good shingles but they require to be thicker than pine. They don't rot but wear out. The nails rust and become loose in the wood more than in pine.

Hemlock makes a good shingle if not too wide and laid 1/2 inches to the weather. I don't know the durability of hemlock shingles, I have made and sold hemlock, ash and tamarac shingles and they have given good satisfaction.

I had one man say to me once, "Hoppins, your theory about the durability of shingles, depending on the way that the timber is handled before manufactured, is all wrong. My father and I made the shingles on our buildings and we made some of them out of pine that lay on the ground until the moss and vines had grown over top of the logs and it made good shingles and they have lasted as long as those that you say were cut green."

"Yes sir," said I, "there were no worm holes in that moss-covered tree neither were there?" "No," said he. Now this proves my theory true more than not true. There is a kind of

pine, which in this part of Ontario we call yellow pine or cork pine. It is not the common pine generally growing in our pineries, the sap is not over 1/4 inch thick. This kind of pine does not rot easily and it is very scarce. Not much of this kind of pine gets manufactured into shingles. As proof of that it is different from our common pine. The worms do not work in it. My long and watchful experience in shingles convinces me that shingles cut out of good large pine and kept out of water are best, the durability 30 years; cedar not much difference, whether kept out of water or not durability 20 years. Pine left in water for a couple of years 12 to 18 years; hemlock, tamarac and ash I have not tested but I believe they will last 20 years. I erected two dwelling houses last year and put hemlock shingles on them, I intend to erect two more this year and will put hemlock shingles on them also.

A. HOPPINS.

A FEW POINTS WORTH CONSIDERING.

TORONTO, Jan. 27th, 1887.

To the Editor of the Canada Lumberman.

SIR.—As your journal is the only one devoted to the interests of the Lumber business of Ontario, I desire a short space in your columns in order to ventilate a few of the many grievances that for years past the lumbermen of Ontario have been enduring.

First of all I take up the Insurance Question. As a rule a saw mill is shut down for five months every year. The danger from fire, not only to the mill but also to the lumber piled in the yard, is very small, but notwithstanding this the Insurance Companies charge the same exorbitant rates as when the mill is running, and the risk from fire correspondingly large, declining in all cases to make any rebate.

Secondly, why should lumbermen have to furnish car stakes? Should not the Railway Companies be compelled to stake every car before it is loaded? If not, why do they invariably provide lumber for raiiling up the doors of grain cars? To ship one million feet of lumber requires an expenditure of at least seventy-five dollars for car stakes. Should the shipper or the Railway Company bear this expense?

These two questions and the vexed one of weighing lumber have long been of interest to the trade in general. There is in my opinion, only one way by which justice and fair play can be obtained. It is by the lumbermen of Ontario forming a union and taking united action to avoid the heavy losses they have sustained in the past. The lumber section of the Toronto Board of Trade has proved itself to be a distinct failure. Now is the time for action. Will not those who have millions invested in lumber limits, saw mills and lumber, take the initiative.

Yours truly,
A LUMBER MANUFACTURER.

THE MAGUIRE FAILURE.

FURTHER particulars, which have come to hand since our last issue, so to show that there has been something crooked in the matter of the Maguire failure, which took place in Montreal in December. At a meeting of the creditors of this firm recently held, the Messrs. Maguire presented a statement which lumps the liabilities at about \$327,000, and the assets at \$300,000 and undertakes to account for their suspension by the fact that eight of their vessels are locked up at Buenos Ayres in consequence of the cholera outbreak there. The statement and figures submitted were regarded as unsatisfactory by the chairman, Mr. R. R. Dobell, and others, in consequence of the absence of a proper set of books and of ordinary business entries with details of some of the firm's transactions. After an adjournment of some hours the insolvents produced the books which had been kept by them from which it appeared that the last entry in the day book was made in the early part of October. The creditors who had objected to the firm's system of book-keeping pointed to the fact in justification of their complaints. The insolvents thereupon surrendered their estate to the creditors, and the meeting proceeded to appoint three trustees to take charge of it. The first two named were the Hon. James G. Ross and Mr. Kennedy, from the office of Messrs. R. R. Dobell & Co. and the third was appointed by the Bank of Montreal, in the person of Mr. Meredith, of Montreal. The trustees will make a full investigation into the affairs of the firm, and will report as to the best means of realizing upon the estate. Meanwhile Mr. James Maguire continues to manage the estate under instructions from the trustees. Since the date of the meeting above referred to, however, a new phase has occurred in this matter, caused by the entry of an action in the Superior Court at Quebec. The action, we understand, is for \$100,000, and is taken by Messrs. Kidder, Peabody & Co., of Boston, against Messrs. D. & J. Maguire, the Hon. James G. Ross, and the three trustees of the insolvent estate. Hon. James G. Ross has mortgages amounting to \$44,000 on nine of the Maguire ships. The action seeks to set aside these mortgages on the ground that they give Mr. Ross an undue preference as a creditor. It also applies for a writ of injunction to restrain Mr. Ross and the trustees of the estate from controlling the ships belonging to the firm, on the ground that the plaintiffs had no part in the appointment of the said trustees. Messrs. Kidder, Peabody & Co., who are the American agents of the Baring's, have a claim against the estate of about \$90,000.

PERSONAL MENTION.

(Contributions from or concerning our friends and patrons are freely welcome to this column. The name of the sender must always accompany such notices.)

Mr. E. B. Eddy, lumberman, has been elected Mayor of Hull, Que.

The Ottawa Board of Trade have elected Mr. G. B. Pattee, lumberman president for 1887.

Mr. G. C. Pattee, of Perley & Pattee, lumber merchants of Ottawa, will make a trip to California, where he has an orange plantation.

THE LUMBERMAN was favored by a call a few days ago from Mr. Geo. Corinack, lumber merchant, of Whitby. He reports a prosperous business.

News has been received of the death of the well known lumberman of the Mattawa, Mr. Noah Timmins, which sad event took place January 12th. Mr. Timmins was obliged to go down to Montreal some time ago to have an operation performed. His system was considerably run down by the trying affliction and he succumbed. Mr. Timmins has been identified with the Upper Ottawa country for the last thirty years, residing at Mattawa when he carried on a large lumbering and mercantile business. His many friends in the business will miss him as he was one of the landmarks of the Upper Ottawa. The deceased gentleman was about 65 years of age and leaves a numerous family.

It is probable that Mr. George Humphrey, lumber merchant, who ran Mr. McGreevy so closely in Quebec West at the last general election, will again be his opponent in the Liberal interest.

Hon. H. W. Pratt, a Parry Sound, Ont., lumberman, recently received the nomination for a seat in the Ontario parliament, but it was found that through some informality in his naturalization papers, he is still a citizen of the United States, and therefore incapable of holding office in the Dominion. He is a partner of A. N. Spratt, of Alpena, Mich.

Mr. F. E. Bushwell, of Grand Haven, Mich., has returned home from a several weeks' trip to the Spanish river, Georgian Bay, Ont., where his firm is putting in a large sawmill plant.

The Ottawa Evening Journal thus compliments a well-known lumberman: It is a pity that Mr. J. R. Booth will not stand for South Renfrew. Such men as Mr. Booth are needed in Parliament by the country.

The serious loss by fire which fell to the lot of Mr. J. M. Irwin, of Peterborough, on the 27th ult., is to be regretted. His fine residence was completely destroyed, as well as a considerable amount of valuable household effects.

Mr. J. T. Lambert, lumber broker of Ottawa, has recently returned from a trip up the Colonge River. He reports the lumber trade in that district to be brisk, and states that the great quantity of snow up there has not effected operations in the least. The lakes are beginning to flood, however, owing to the large body of snow on them, and as a result traffic is difficult.

Mr. Alex Calley, at one time engaged in the lumber business in Western Ontario, has opened out business as general merchant and commission agent under the style of Calley & Co., at 15 Merton Chambers, Stanley street, Liverpool Eng.

THE TIMBER LICENSES IN THE DISPUTED TERRITORY.

The Minister of the Interior has issued a fly sheet, containing a statement regarding the timber limits in the disputed territory. Licenses to cut this timber were first granted by Mr. Mackenzie's government. The form of lease was sanctioned by Mr. David Laird, then Minister of the Interior, Mr. R. W. Scott, Secretary of State, and Mr. Edward Blake, Minister of Justice. In the case of the first lease a bonus of \$20 a square mile was given, and in the case of others issued under that government, \$15. But the leases were for twenty-one years, and the bonus spread over the term of the lease, would be about \$3 a mile per annum. Under the present government the system was continued, but it was modified by substituting an annual for a twenty one year's lease, and making the rental \$5 instead of \$2 with \$15 spread over twenty-one years. Under the modified policy 121 orders in council were passed, but only twenty two licenses were issued. Of twenty one licenses issued timber was cut only under one. The last of the licenses expired on the 31st December, 1885, and the government has persistently refused to renew them. Of the twenty-one years' license four are still in existence, three of which were issued by the late government; and the holders of these licenses are the only persons now cutting timber in the disputed territory. Six persons in whose favor orders in council were issued never received licenses. Permits for cutting cordwood, telegraph poles and railway stuff were issued, but they have all lapsed, and none of them has been renewed. It is very desirable that some arrangement should be made by which timber could be cut in the disputed territory.

Send in your subscription for 1887.

POWER AND ITS TRANSMISSION.

IN order to save considerable time and trouble in searching for information with regard to the transmission of power, says the *Millers' Journal*, the following data have been collected from a mass of irrovalent matter. The reader will be able to find at a glance what he wants to know in order to be able to make accurate calculations.

BELTING.

Belting is daily coming more and more into use, and it is safe to say that at least 95 per cent. of the power is transmitted by it, while in Europe the greater part of the power is transmitted by cog-wheels.

THE POWER OF BELT

is derived from the friction between the surface of the belt and the pulley, and is governed by the same laws as in friction between flat surfaces. The friction increases regularly with the pressure, and the more elastic the surface the greater the friction. The only fault to be found with the system of belting is that a portion of the revolutions of the motor are lost. The number of revolutions lost vary with the load as it changes. Ordinary belts will safely sustain a working tension of 45 pounds per inch in width.

WIDTH OF BELT, ETC.

The rule to determine the width of belt and size of pulley required to transmit a given horse-power is easily found. Since a horse-power is 33,000 pounds raised one foot high per minute, we must adjust the width and velocity of belts so as to effect the required result. Thus, if a belt moves with a velocity of 733 feet per minute, a belt five inches in width will transmit five horse power, provided the effective tension is 45 pounds per inch. If the velocity be increased up to 1 466 feet per minute the same belt with the same tension will transmit ten horse-power, so that a five inch belt applied to a five foot pulley making 120 revolutions per minute would transmit ten horse-power when the effective tension is 225 pounds.

By taking the actual tension of the belt and multiplying it by the actual velocity, we get what may be called the indicated horse power of the belt, which corresponds to the indicated horse-power of the engine. By measuring the actual power transmitted, by a dynamometer, rules may be based upon the amount of belt surface in contact with the pulley.

For practical purposes, velocity and power to resist tension are the only available elements of calculation.

Actual tension, adhesion, friction, &c., can all be varied at will and form no certain dependence for calculation. It may, however, be adopted as a rule that the adhesion and capability of belts to transmit power is in the ratio of their relative lengths and breadths. A belt double the length or breadth of another under the same circumstances will transmit more than double the power, and for this reason it is desirable to use long belts. By doubling the velocity of the same belt its effective capability for transmitting power is also doubled.

Belts which run vertically should always be drawn tight, or the weight may prevent its adhering closely to the lower pulley, but in all other cases they should be moderately slack.

In order to obtain the greatest amount of power from belts the pulleys should be covered with leather, and more power can be obtained from the grain or hair side to the pulley than the flesh side, as the belt adheres more closely.

The most effectual remedy for preventing belts from running to one side of the pulley, would be to find out first if the face of the pulley is straight, if not to straighten it. In some cases the shafts may not be in line. The remedy in this case would be to slacken up the hanger bolts and drive the hangers out or in, as the case may be, until both ends of the shaft become parallel. This can be determined by getting the centres of the shafts at both ends by means of a long strip of board.

TIGHTENERS

should be placed as close to the large or driving pulley as circumstances will permit, as the loss of power in the use of a tightener is equal to that required to bend the belt and carry the tightening pulley; therefore, there is a greater loss of power by placing it near the small pulley, as the belt will be bent more than near the large one.

Belts always run to the highest side of the pulley, because of centrifugal force, and that part of the belt nearest to the highest part of the rounded pulley is more rapidly drawn, because the circumference of the pulley is greater at that point.

LENGTH OF BELTS

The rule for finding the length of a belt desired is to add the diameter of the pulleys together, divide the sum by 2, and multiply the quotient by 3 1/2, add the product to twice the distance between the centres of the shafts, and the sum will be the length required.

WIDTH OF BELT

The rule for finding the width of belt to transmit a given horse-power is to multiply 36,000 by the number of horse power; multiply the speed of the belt in feet per minute by one-half the length in inches of belt in contact with smaller pulley; divide the first product by the second, the quotient will be the required width in inches.

HORSE-POWER OF A BELT.

Following is the rule for calculating the number of horse-power a belt will transmit, its velocity and number of inches in contact with the small pulley being given. Divide the number of square inches in contact with the pulley by 2, multiply

this quotient by the velocity of the belt in feet per minute, divide this amount by 32 000 and the quotient will be the number of horse-power the belt will transmit.

To ascertain the horse-power which belts will transmit, multiply the width of the belt by the diameter of the pulley (in inches), by revolutions of the pulley (per minute), by the number in the following table corresponding to the pull the belt can exert per inch of width. Example: 10 inch single horizontal belt, 36-inch pulley, 200 revolutions, pull taken at 60 lbs.

10"x36"x200x0 000 = 28.8 horse-power

The pulls which belts 1 inch will transmit are as follows:

Single horizontal belts	50 lbs.
Double	100 "
Single vertical	40 "
Double	80 "
Quarter-twist single belts	25 "
" double	40 "

Pull exerted by belt 1 inch wide, in pounds.	Horse-power—Pulley 1 inch diameter, one revolution per minute, belt 1 inch wide.
10	.00008
15	.00012
20	.00016
25	.00020
30	.00024
35	.00028
40	.00032
45	.00036
50	.00040
55	.00044
60	.00048
65	.00052
70	.00056
75	.00060
80	.00064
85	.00068
90	.00072
95	.00076
100	.00080

HOW TO PUT ON A BELT.

Never try to put on a belt on the pulley in motion. Always place it first on the loose pulley, or the pulley at rest, and then run it on the pulley in motion.

ADHESION.

Adhesion of the belt with the pulley is found to exist most perfectly between surfaces that are coated with some semi-liquid. Castor oil has been found to have an excellent effect, and it is claimed that a belt three inches wide impregnated with it will transmit as much power as a 4 inch belt without it, and, besides this, rats will avoid castor oil, hence they will not touch a belt with it on.

Printer's ink has been recommended as a means of preventing belts from slipping. Neatsfoot oil, with a little resin, has been found very useful when a belt becomes hard and dry, but castor oil and glycerine are the best for this purpose.

The power required to bend the belt from a straight line and cause it to lap tightly around the pulley would not at first sight appear to be worth considering, but it will be found that where the belts are thick and rigid this item becomes an important one, and it becomes advisable to lessen it. The thicker the belt the more difficult it is to bend it. It is therefore more economical to use broad, thin belts than narrow, thick ones, as it has been found that the resistance of the belt to bending is inversely as the diameter of the pulley, large pulleys being more economical in this respect.

LACING A BELT.

There are many ways of making a lace joint or sewing a belt. The following has been recommended: Suppose the belt to be 8 inches wide, punch holes not larger than 3/16th, beginning at 1/8 inch from the edge and one half inch from the end, making the holes 1/2 of an inch apart from centre to centre. This will give eleven holes. Let the holes in either end of the belt be exactly opposite to each other. Now place the belt in position with a lace thong, not to exceed in width the diameter of the holes cut from a thin side of lace leather. Begin at one edge to sew your belt exactly in the same manner as you would lace your shoe, drawing the ends well together at each stitch. Having worked across the belt, secure the last edge with one end of the thong by sewing over and over, and repeat the operation to the place of beginning, securing the ends of your thong by inserting them in leading holes made by an awl.

POWER OF BELTS.

The smoother the surface of the belt and the pulley, the more friction is obtained. The following ingredients when mixed can be put on the inside of a belt, when the inside is put next to the pulley. They will be found to have a very good effect, as they will keep the surfaces cool, smooth and moist: 5 lbs of common tallow, 1 lb of yellow wax, 2 lbs of common chalk, 1 lb of blacklead and 1 lb of resin. Dissolve together by gentle heat; put upon the belt when slightly warm. Keep well stirred while applying it; use a little at a time and frequently. It is better, however, to put the hair side next the pulley for power and grip, but the belt will not last so long.

THE COST OF SUPPLYING ELECTRIC POWER.

THERE is nothing in the electrical business that is exciting more interest at the present time than the transmission of power over electrical wires. In the city of Boston there are over a dozen elevators now using this system, to say nothing of the different places where power is used to run printing

presses, and for all kinds of manufacturing purposes. The power is now in practical use, not only in this city, but in Providence, Woonsocket, Pawtucket, Worcester, Portland and other places. Who can see the end of the advantages to be derived from this great improvement in transmitting power? Every floor of high buildings in cities can have power of the most economical kind. We publish below an estimate by the Sprague Railway and Electric Motor Company, of the cost of supplying this system using the Sprague motors run from electric light or power stations. The figures are of interest to any one interested in the cost of power.

Estimate of the Cost of supplying Electric power from a Station already Established, and the profits Therefrom.

We will assume the station to be already in running order, and furnishing lights for both day and night service, and to be of the capacity of one hundred and fifty-horse power.

Owing to the intermittent use of power by consumers, so we know to steam power producers, if the power delivered to any one consumer be limited to say, ten-horse power, at least double the output of the engine, or three hundred-horse power, could be sold from this plant, were it transmitted by the ordinary methods, and as the loss in transmission by wire is not nearly as great as by belting and shafting, especially where the distance exceeds one hundred feet, the same law of general average is true in the case of electric power than in that of steam,—we therefore could base our calculations upon the well known practice of all power producers,—but to avoid any possibility of dispute, we will assume that only fifty per cent. above the actual output of the engine can be sold.

INVESTMENT.

Additional wires, structures and switches.....	\$2,500 00
RUNNING EXPENSES.	
Coal, (cheap fuel, three tons screenings to one ton Cumberland) four pounds per horse power per hour, ten hours per day	\$2,200 00
Oil, additional	100 00
Motor inspector (can also attend to lamp inspection) ..	500 00
Water, incidentals, etc.....	200 00
Other expenses which cannot be specified.....	500 00
Total	\$3,500 00

PROFITS.

Income from 225-horse power at \$125.00 per horse power per annum.....	\$28 125 00
Less expenses per annum.....	3,500 00
Profits.....	\$24,625 00
Income from 225-horse power at \$100.00 per annum.....	\$22,500 00
Less expenses per annum.....	3,500 00
Profits.....	\$19,000 00

Where the station is only running during the night, the profits are the same as above, after first deducting the additional expense for engineer and fireman for day service, but as all incandescent plants to be a complete success must be run during the day, and as such has been the experience of so many plants, it hardly needs mention, and the additional profit from the day lighting will, in almost every instance, more than cover the extra expense.

SMALLER PLANTS.

In small cities and towns where not more than 100-horse power can be sold within a reasonable time, it is often considered advisable for the company to own the motors, and as the intermittent use in such small plants will not be so great, we will assume that only the output of the engine can be sold; the investments and profits therefrom, would be as follows:—

INVESTMENT.

Motors, various sizes, up to 10-horse power and aggregating 100 horse power.....	\$10,000 00
Wires, structures and switches.....	1,000 00
Total investment	\$11,000 00

RUNNING EXPENSES.

Coal (as above)	\$1,550 00
Oil (additional)	50 00
Inspector (lamp inspector for small plant can attend to motor inspection).....	500 00
Water incidentals, etc	150 00
Other expenses which cannot be specified.....	500 00
Total expences.....	\$2,750 00

PROFITS.

Income from 100-horse power at \$125.00 per horse power per annum.....	\$12,500 00
Less expenses.....	2,750 00
Net profit.....	\$9,750 00
Income from 100 horse power at \$100.00 per horse power per annum.....	\$10,000 00
Less expenses.....	2 750 00
Net profit.....	\$7,250 00

The figures as given above for expenses are not theoretical but are founded upon the actual expenses of running electric light and motor stations, using Armington and Sims engines and the Jarvis setting for boilers.—*Boston Journal of Commerce.*

CHICAGO AND THE WEST.

REVIEW of the lumber traffic of the West for 1886 presents some new features of interest, and shows an average business compared with the preceding years. During the winter months a good demand for lumber gave promise of increased business, and a full stock of logs was provided, and mills in all sections, with the exception of the Saginaw Valley, were fully stocked. When the sawing season opened in April the hours of labour were generally reduced from eleven to ten per day. During 1886 fully 75 per cent of the saw mills of the West were operated eleven hours per day, and hereafter the hours will be uniform in the States of Michigan, Wisconsin and Minnesota. Few new mills were built during 1886, but those in commission have manufactured an average quantity of lumber, estimated at over 7,000,000,000 of feet. Two notable features relating to the manufacturing interest are worthy of mention. First, the large demand for standing pine timber and an advance in value of 20 per cent. in the lumber States on the lakes. The other feature was the steady and rapid growth in the amount of lumber distributed by railways from the mills direct, whereby the large expense of handling so bulky an article in the costly markets of cities is avoided. All important lumber manufacturing towns are now connected by railroads with the markets of the entire country, and Saginaw, Muskegon, Manistee, Grand Haven, Oconto, Menominee, Eau Claire, Wausaw, and Minneapolis are each to-day a better distribution point than any city to which lumber must be first shipped by lake and then pass through the expensive system of distribution which rents, towage, city taxes, insurance, and more expensive labor always involves.

During 1886 greater progress has been made in the direction of direct shipment from saw mills by rail than in any former year. This increase is largely due to the fact that trunk lines of railway have pushed their branches into the lumber-producing sections to obtain business. The St. Paul system by its connections extends throughout Wisconsin and the Chicago and Northwestern Company, together with its Omaha division, reaches every important lumber town in Wisconsin and Minnesota. Following their example, the Chicago, Burlington and Quincy, by constructing its Chicago, Burlington and Northern division and its connections, is enabled to reach all the best lumber-producing points. By these three lines of railway alone more than 15,000 miles of the best lumber-consuming territory is made directly tributary to the points of manufacture.

With all its advantages of a large local business and the immense capital employed and its unequalled facilities for a general distribution of lumber, Chicago can not long retain its present position as the best lumber market in the West in all respects. While no other city can hope to become a larger market, the combined shipments by railway from mills will materially reduce the lumber business of Chicago. Receipts of lumber in Chicago have declined 20 per cent. since 1881, and the decline in 1886 compared to 1885 is 5 per cent. and if any change occurs hereafter, it is likely to be a gradual reduction annually.

The prospect of a larger yard business for 1886 was dispelled by the general labor troubles in Chicago, which not only closed the lumber yards for eighteen days in May, but checked building operations generally. The sale and shipment of lumber has gradually increased, but the average sales of lumber for the year will show no important gain over 1885. The value of lumber has increased full 10 per cent. during twelve months past. This increase was divided between the manufacturers and yard dealers. Stocks at the mills for spring shipments are less than at the opening of navigation, and at Chicago, Memphis, and Saginaw the principal distributing points the stocks for sale are 10 per cent. less than one year ago. Eastern buyers have taken more than 6 per cent. of the lumber manufactured at the mills of Lake Superior and Lake Michigan during 1886, and will exceed that quantity in 1887. Five years ago such sales were not expected and seldom made beyond a few 3 inch deals for export.

Saginaw shows a reduced manufacture of nearly 20 per cent. compared to 1885, which accounts for the large purchases West for Buffalo and the East. Capital is ample to absorb all the desirable pine timber that is offered for sale in Michigan, Wisconsin, and Minnesota, and an increasing demand is likely to advance the price of lumber during 1887, and from present indications all engaged in conducting the lumber trade of the West may safely look forward to a satisfactory business during the coming year.

The cargo business at the exchange docks, taken as a whole, was slightly better than in 1885, in spite of the fact that the month of May was practically lost, as the labor troubles prevented manufacturers from shipping to this market. The cargo sales for the season of 1886 were 260,731,592 feet of lumber, 441,474,250 shingles, 395,527,450 lath, and 31,502 cedar posts. Compared with 1885, there was a decrease of 8,445,091 feet of lumber, 9,992,975 lath, and 20,454 cedar posts, but an increase of 117,465,750 shingles; reducing this excess of shingles to feet and the aggregate sales were 325,247,553 feet, an increase of 3,732,040 feet over 1885.

The hardwood dealers have had a good average year, and compared with the two preceding ones sales show a slight gain. The over-production the past three years has been disposed of,

and supplies throughout the country are considerably lighter. There is, however, no scarcity of any grade of stock. The furniture manufacturers have chiefly run on a cheaper grade of wood that will stain red and pass for cherry. In the last half of the year the makers of fine furniture turned their attention to oak which was also used extensively for the interior of fine residences and office buildings. The coming year promises a big "boom" in this wood, but as it is not expensive, it is not expected to have the run that cherry and walnut did. Gums not a large sale and were freely offered from the South at moderate prices. The labor troubles in the spring greatly interrupted trade during May, but well informed dealers say the time lost was a benefit to them, for they were forced to hold cherry, walnut, oak and poplar, and that has advanced 5 per cent. the past six months, from which they have reaped a practical benefit.

CANADIAN SOCIETY OF CIVIL ENGINEERS.

THE committee authorized by the Civil Engineers who met in Montreal last Autumn to prepare a constitution and rules for a Canadian Association of Civil Engineers, have completed their work and a meeting of the members was held on January 11th to adopt them. The constitution as drafted, provides that the society shall be called "The Canadian Society of Civil Engineers" and be designated by the letters "C. Soc. C. E." The objects are set forth as being to facilitate the acquirement and interchange of professional knowledge among its members, and to encourage original investigation. The term "Civil Engineer," as used in this Society shall mean all who are engaged in the designing or construction of railways, canals, harbors, light houses, bridges, roads, river improvements and other hydraulic work; sanitary, electrical, mining, mechanical or military works; navigation by water or air, or in directing the great sources of power in nature for the use and convenience of man.

The society shall consist of, honorary members, members, associate members, associates, and students. Honorary members shall not be subject to fees or dues, nor be entitled to vote. Associates and students shall possess all the rights and privileges of members or associate members, except the right to vote or hold office. Honorary members must be men who, from their position are enabled to further the objects of the society or who are eminent in the sciences connected with the profession of civil engineer, but who are not engaged in the practice of the profession in Canada. Every check is provided to prevent undesirable members being admitted. It is provided that every candidate eligible for election as member, must have been engaged in some branch of engineering for at least 10 years which period may include apprenticeship, or pupilage in a qualified engineer's office, or term of instruction in some school of engineering recognized by the Council. Two years will be allowed for any graduate who has passed with honors in his engineering course. The candidate must have had responsible charge of work as a Resident or Superintending Engineer, or a position of equivalent professional responsibility, for at least five years.

Every candidate eligible for Associate Member must have been engaged in some branch of engineering for at least five years, which period shall include apprenticeship or pupilage in a qualified engineer's office or school of engineering.

Associates must be persons not Civil Engineers by profession, but whose pursuits, scientific acquirement, or practical experience qualify them to co-operate with engineers in the advancement of professional knowledge.

It is proposed to make of the society a widely ramified institution, and a clause is inserted in the constitution providing for the establishment of local branches of not less than ten members and not less than 100 away from the headquarters of the society or any existing branch.

NEW BRUNSWICK STUMPAGE.

New York Correspondent St. Johns Globe.

The people of New Brunswick are only just now (when it has been so largely cut) beginning to discover that land covered by a growth of timber is of real value—the imposition of a decent stumpage has led them to see this matter in its true light. When \$4 per mile was the upset price charged for the cutting of timber on crown land for the period of one year, and when lumbermen are allowed to make such combinations that competition was virtually forbidden among them, and when the man that dared to bid against his neighbor was boycotted, it would be against reason that one should think that that which brought us so low a sum could possibly be worth anything. Now when he is told that he must pay \$1.25 for the right to cut from six to eight trees he looks at the matter in a different light. It has been claimed by some that this rate is too high when in reality it is lower than the stumpage on private lands. The crown land stumpage on cedar is certainly too low, only 80 cents per M feet board measure. Now a thousand feet b. m., of cedar will make eight thousand of shingles; the stumpage therefore on a thousand of shingles made out of the log will be but 10 per thousand. This rate of 80 cents per M feet b. m. on cedar cannot under the conditions of the crown land leases be raised until ten years from the date of their issuing be expired. So far from leaseholders on the Miramichi having anything to complain of, they have on

the contrary, very valuable properties since, to say nothing of spruce and pine. I know from personal experience that they have vast quantities of cedar on very many of their leases, and as there will soon be a railway bridge over the St. John, they can then run the products of their forest direct to Bangor or other shipping ports. I may mention in conclusion that Messrs. Jas. Murdoch & Sons are cutting spruce boards and deals in their mill at Edmundston from logs got on the Madawaska, and shipping the same by rail to St. Stephen. I presume that so able and intelligent a firm would not do this if they were losing money by the transaction. From this one can learn what may be done by those who thoroughly understand the lumber business.

HOW TO SELECT GOOD TIMBER.

PROFESSOR HANKINS says: There are certain appearances which are characteristic of strong and durable timber, to whatever class it belongs. 1. In the same species of timber that specimen will in general be the strongest and the most durable which has grown the slowest, as shown by the narrowness of the annual rings. 2. The cellular tissue, as seen in the medullary rays (when visible), should be hard and compact. 3. The vascular or fibrous tissue should adhere firmly together and should show no wooliness at a freshly cut surface, nor should it clog the teeth of the saw with loose fibers. 4. If the wood is colored, darkness of color is in general a sign of strength and durability. 5. The freshly-cut surface of the wood should be firm and shining and should have somewhat of a translucent appearance. A dull chalky appearance is a sign of bad timber. 6. In wood of a given species the heaviest specimens are in general the stronger and the more lasting. 7. Among resinous woods, those which have least resin in their pores, and among non-resinous woods, those which have least sap or gum in them, are in general the strongest and most lasting. 8. It is stated by some authors that in fir wood that which has most sap wood, and in hard wood that which has the least, is the most durable; but the universality of this law is doubtful. Timber should be free from such blemishes as knots or cracks radiating from the center; "cup-shakes" or cracks which partially separate one annual layer from another; "upsets," where the fibers have been crippled by compression; "ring-galls," or wounds in a layer of the wood which have been covered and concealed by the growth of subsequent layers over them and hollows or spongy places, in the center or elsewhere, indicating the commencement of decay.

RAT PORTAGE AND KEEWATIN CUT.

The stock of logs and lumber on hand at Rat Portage and Keewatin, Ont., on the 1st of January will amount approximately to the following:

ONTARIO LUMBER CO. (McCauley & Ryan.)	
Logs	12,000,000
Lumber	9,000,000
RAINEY LAKE LUMBER CO.	
Logs	1,600,000
Lumber	7,000,000
KEEWATIN LUMBER CO.	
Logs	5,000,000
Lumber	11,000,000
MORRISNEY & CO.	
Logs	5,000,000
Lumber	8,000,000
Total	62,000,000

The sawing capacity of the mills aggregate 150,000,000 feet per season. This year one mill, belonging to the Toronto Lumber Co. (John Ross, Hamer, Ont.) was not operated.

All the stock sawed last year and what is being cut this winter is cut in Minnesota. There will probably be about 150,000,000 feet cut and run into Canada.

THEY DON'T LIKE IT.

The Grand Falls correspondent of the *Canadian Journal of Commerce*, writes as follows concerning the lumber business in Madawaska:—"The cut of lumber will be about nine or ten million in Madawaska and Victoria counties. Holmes & Hammond will have a saw shingle mill started in the spring, on the American side, to help the Vanluren mills in slaughtering our forests. No export duty is looked after in this section and it is not expected there will be before the Americans strip our lumber all off. Our mills are at a stand still. Men of capital, so far, prefer to build on the American side and slaughter the forests on the New Brunswick side to stock them; and it is hard to say how long the government are going to allow it. We cannot expect reciprocity in lumber so long as we are holding out a premium to manufacture our lumber out of the country, and allow our mills to remain idle. Mr. G. N. Hammond is driving trade. He has lately branched out in the lumbering of spruce logs which gives a market for hay, oats, beef and employment. If the law was enforced and our lumber stopped from being taken to the American side to be manufactured, he and others would soon start mills on this side of the line."



THE CANADA LUMBERMAN

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

PUBLISHED MONTHLY BY

A. G. MORTIMER, PETERBOROUGH, ONT.

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Advertisements intended for insertion in any particular issue should reach the office of publication at least six clear days before the day of publication, to insure insertion.

The CANADA LUMBERMAN is filed at the Office of Messrs SIMON DEACON & CO., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

Our Readers who write to Advertisers in this Journal, will oblige both the advertiser and Publisher by mentioning the "Canada Lumberman."

PETERBOROUGH, ONT., FEBRUARY, 1887.

THE experiment has been tried with success in England of painting the ends of logs and timber with glue to prevent them from checking while they are drying.

THE *Southern Lumberman* remarks that there is just a little too much of the 'boom' business in the central Southern States at present for healthy business trade.

THE business transacted in the patent branch (Department of Agriculture), Ottawa, during the past twelve months, shows an enormous increase over preceding years. The revenue derived from patents was somewhat over \$74,000.

It has been decided by the authorities at Ottawa, that material and apparatus required in the construction of the St. Clair tunnel will be entitled to come in duty free. These will include hoisting, elevating and pumping machinery. The work is international, and will be of equal advantage to the two countries which it will unite by means of a railway under the waters of Saint Clair River.

A GENTLEMAN whose time is devoted to the handling of Michigan pine, is reported to have said: "The Canada pine does not possess those fine qualities that are found in the Michigan product. A black knot and a fine shake—a hair shake I call it—are characteristics of the Canada stock from the northern shore or Georgian Bay country. However, what comes to this market is mostly select stock, and finds ready sale."

Mr. W. W. Johnson, local manager for Messrs. Dunn, Wyman & Co., has forwarded the annual circular from which the following figures are gleaned: The total failures in the United States for 1886 were 9,334; for Canada in 1886 there were 1,252. In 1885 the failures in the United States were 10,637; in Canada 1,256. The liabilities of the Canadian failures for 1885 were \$8,861,609; for 1886, \$10,386,584. The failures in the United States were, in 1881, 5,582; in 1882, 6,738; in 1883, 9,184; in 1884, 10,968. In Canada in 1881 the failures numbered 635; in 1882, 787; in 1883, 1,334; in 1884, 1,327.

We know of no publication that is worth of greater praise by lovers of the beautiful in art and floriculture than *Vick's Floral Guide*, the 1887 edition of which is just to hand. We have been favored with the *Guide* for some years, but the last production seems to excel all others in general beauty, number and elegance of floral and vegetable illustrations, and the large variety of subjects treated. The work is invaluable not only for its handsome chromo sketches, but also for the valuable practical articles intended both for amateur and practical gardeners. Mr. Vick has won for himself a world-wide reputation as a florist, and his immense business at Rochester, N.Y., is an indication of his success.

ABOUT the most elaborate thing in the way of trade publications that we have yet seen, came to hand a few days ago, in the shape of an extra holiday edition of the *North-Western Lumberman*. In looking over its contents we find 79 pages (9x13 inches) of advertisements, 39 pages of lumber and logging railroad statistics, and 2 pages of general matter, making 120 pages in all. Its typographical appearance and general make up is in every way creditable, and its list of contents will doubtless prove of considerable value to the trade.

CANADIANS have heard considerable of late concerning the crop-destroying rabbit of Australia, but this does not appear to be the only animal plague of that country. The decay of the forests is traced by Rev. P. Macpherson, of the Royal Society of New South Wales, to the opossum. After much investigation it was ascertained that a single animal would devour about 200 leaves of the eucalyptus or blue gum tree, in a night; proving that the 18,000 opossums killed annually in one county of Victoria were sufficient to destroy upward of 3,600,000 trees and lay bare a space of 700 acres, or more than a square mile.

ONE great mistake, says an exchange, which inexperienced advertisers almost invariably make, is to expect too much from an advertisement immediately after its insertion. A new advertiser almost always thinks that large numbers of orders ought to follow the insertion of his advertisement for, say, three or four months. He overlooks the fact that many readers do not at first feel acquainted with him and his wares. They want to see his name in print for a good while before they are willing to forward an order. This is not the case with every one, but it is with a great many. The shrewdest advertisers keep their name and goods prominently before the trade all the time, so that when a man for instance, wants to order any particular article, he will immediately think of them, and referring to the paper for their address, will write for catalogue and prices.

We have been favored by the publishers of *The Office*, New York City, with a copy of "Dutton's Analytical Book-Keeping Chart." This work is unique, and because of its pointed brevity and simple analysis, will be specially valuable to a numerous class, who may be designated as self-made book-keepers, and who have neither the time nor patience to unravel the long and intricate course of instruction given in most of the text books. The work shows the reasons for the laws of book-keeping by discovering the wants and requirements of business. It also shows the relation of every transaction to the required record and the relations of accounts to each other. The chart, which is inserted in the form of a folding plate, is complete in itself without the accompanying text, but the latter serves to increase its usefulness and to explain many points which might possibly be overlooked without such assistance. This little book is neatly bound in cloth with gilt side title, and is of convenient size and shape for the pocket. Price \$1.00, post paid.

WEATHER prognostications are not so common now as they used to be, owing to a scarcity of "prophets." Mr. Vennor, who caused quite a stir in this line for some years, has passed to the silent majority, leaving Professor Wiggins almost alone in the field. To make matters still worse (?) the Dominion Government is reported to have informed the last named "weather indicator" that he must either give up weather prophesying or lose his position as a government employee, and as he has not been heard from of late it is to be presumed that he chose the wiser course. Evidently the government in taking such a step wished to relieve itself of any responsibility which might arise should any difficulty be experienced through the non-fulfillment of the Professor's prophesies. In addition to this the government is wise in selecting for civil servants men only possessing fair common sense. But if Professor Wiggins has been silent others have aspired to the position, and freely stated that the present winter would be a mild one. If the weather since Christmas has not been sufficient to disprove what they imagined to be their weather foresight, then we don't know what a severe winter is. They might, however, verify their assertions by visiting the lumber camps just now, where they would very likely get a "warm" reception.

THE LUMBERMAN made a call a few days ago on the William Hamilton Manufacturing Company, Peterborough and found the works running to their fullest capacity. Extensive additions were made to these works during the past summer, and the facilities so far increased that to-day this company can boast of being as large, if not the largest, manufacturers of saw mill machinery in Canada. From the high encomiums passed upon the machinery turned out of these works by some of the leading saw mill men of the country, we are safe in saying that no firm has a better reputation among the trade than the one here referred to. In addition to saw mill machinery, this company also manufactures engines and boilers of different kinds, etc. We understand that orders have recently come in from British Columbia, for two boilers, 5 feet in diameter, 14 feet long, and with 58 four inch tubes; for a tubular heater; a smokestack 75 feet in height; and for an engine. This ma-

chinery is for the Royal City Planing Mills, New Westminster. From Fairhead, Toronto an order for an upright boiler and two hoisting engines has been received. A large marine boiler, containing 128 three-inch tubes, is to be put under construction soon for one of the lake vessels. Added to this is a large amount of miscellaneous work, in which is a large contract for the supply of the iron work to be used at the Trent Valley Canal Works at Burleigh and Lovesick.

In the course of an editorial article on the inertia of British manufacturers, the *Engineer* says—"We have on previous occasions spoken of the loss to Britain which results from inertia amongst our bridge builders. Some of this is due to the out-of-date regulations of our Board of Trade; but so far has the British bridge-building trade become wedded to old methods of manufacture and terms of business, that American and Canadian Bridges are now being bought by English civil engineers for railways in course of construction, though not in either of those countries; but we need not say in which. The orders going to those countries because really satisfactory bridges can be obtained to carry a given load, and with a guarantee for ten years, for a sum which is not more than 60 per cent. of the price demanded by English builders. The American and Canadian bridges are well designed, pin structures, in every way satisfying the engineers of the railway; and the builder's price is for the bridges placed upon the piers and finished, the engineers having very little more trouble in the matter than to order them and test them; while for the bridges for the same places, if ordered in England, the engineers would have to provide designs and specifications, follow the structures throughout their whole history to completion, and then pay about 40 per cent. more for them. In railway matters, again, the trans-atlantic constructors will provide rolling stock for prices and terms which afford facilities that probably not more than one English firm gives."

THE Harbor and Ferry Committee of the Belleville City Council, held a meeting on January 20th, for the purpose of discussing the terms of a new agreement with the lumbermen with reference to tolls collected on logs passing through the harbor. Mr. David Gilmour, Trenton, Mr. W. R. Aylsworth, representing the Rathbun Company, and Mr. John Bell, Q.C., were present on behalf of the lumbermen. The old contract which was made in 1879 expired last September. Under that agreement the lumbermen furnished all the booms and piers necessary, and assumed all responsibility for the same. The city had to bear the expense of building any new booms required at a cost not to exceed \$1,000, but the corporation having already spent \$668 in that direction the city only had to pay a balance of \$332. There was also a clause which provided that the city should pay ten per cent. of the amount of tolls collected for necessary repairs to the booms, and in the seven years that amounted to \$214. But the city was relieved of all responsibility against breakage of the booms. The present tariff, the lumbermen complain, is excessive, but they propose that if the city will assume all responsibility, they will pay the tolls in the old schedule. If the corporation will not do this the lumbermen will ask a reduction in the tariff. After discussing the question for some time the committee asked Mr. Bell to put the proposition of the lumbermen in writing and submit it to the committee. The committee, however, is opposed to the city assuming any responsibility in the new contract.

THE recent change in the attitude of the *Toronto Mail* has caused such a stir in Conservative ranks that the question of starting a new daily paper in Toronto, as the chief organ of the Macdonald Government, has been mooted for some weeks, and at last the project has assumed tangible shape by the appearance, on Monday, January 24th, of the daily *Standard*, with Mr. Louis P. Kribbs, better known as "Pica," at the helm. The new paper aspires to step into the *Mail's* shoes, and promises to give the Conservative party an undivided support. The proprietors of several other journals, notably the *Hamilton Spectator* and the *Toronto World*, have sought to win the confidence of the party, but to all appearance Mr. Kribbs has got the inside track. THE LUMBERMAN heartily congratulates "Henry Pica, Esq." on his step in advance, not because he is a Conservative, for we have nothing to do with politics, but because he is an old lumberman. Mr. Kribbs spent most of his younger days in and around a saw mill, and it was only through his becoming connected with a country debating club that his natural literary ability showed itself. Finding that practice enabled him to write a tolerably good "essay," he gradually got tired of handling logs, and aspired to literary pursuits. THE LUMBERMAN first met him as the "white-haired" young man of the *Toronto News*, and with many others soon became favorably impressed. After two or three years connection with this journal as city editor, he was offered the position of Ottawa correspondent of the *Mail*, which position he has filled with credit for some months, but during the present crisis he has taken a step higher, and it is to be hoped that his ambition may be handsomely rewarded.

When opening correspondence with advertisers always mention that you saw their advertisement in the "Canada Lumberman."

EXCHANGE ECHOES.

Timber Trades Journal, London, Eng.

Several sellers express the opinion that whitewood batten is likely in some cases to be dearer than redwood, but we scarcely understand the grounds on which this opinion is based. It is doubtless the fact that many buyers in Scotland have a much larger trade in whitewood than in redwood, but in the southern districts we have little doubt that, prices being equal, redwood will always command a readier sale than whitewood.

Timber, London, Eng.

It was generally thought that the consumption, which had been failing for the past several years, had reached its lowest in 1893, but the year which has just closed has again experienced a serious decrease. An idea of this shortage may be clearly obtained from the fact that the consumption of deals, battens, and boards in 1893 was 166,333 standards; from this total it has declined to 146,801 standards in 1894. The statistics published by the Surrey Commercial Dock Company of their deliveries show 200,358 standards drawn from their yards in 1893, as against 177,431 in 1892—each succeeding year the quantities growing smaller. These figures tell their own expressive tale without comment.

Du'ath Herald.

Although Duluth has suffered such severe losses of saw mill property by fire during the past few years, it is gratifying to be able to note a decided increase in the amount of lumber cut during the past year, when compared with the cut of 1893. In 1895 the total amount of lumber sawed in the Duluth district was 81,000,000 feet; last year the total sawed was over 171,000,000 feet. Of this amount more than 94,000,000 was sawed in the Duluth mills, 63,000,000 in the mills at Cloquet, about 4,000,000 at Tower and Two Harbors and about 9,000,000 at the Junction and Thompson. The stock carried over to this season does not exceed 18,000,000 feet. The cut for the season of '96-7 is estimated at \$4,000,000, of which 70,000,000 is credited to Cloquet, 45,000,000 to Duluth, 13,000,000 to the Junction 4,000,000 to Tower and 2,000,000 to Two Harbors.

Northwestern Lumberman.

The view is frequently expressed that price lists, sanctioned by lumber associations, are made by the wrong men. The proprietors of wholesale yards get together in wise conclave and formulate lists. Generally these proprietors are the money bags of the concerns they represent, but know very little about the details of yard business. They do not sell the lumber, or meet competition in city or country. The men who handle the business are generally junior partners or salaried men. These know something about prices and the state of trade. As a general thing the salaried men in the yards know more about stocks, the actual supply and demand, and real selling values, than the proprietors themselves. There are a few exceptions to this rule, but it will commonly apply. The men who do the talking by telephone from yard to yard are the individuals best informed about prices. So it will be seen that these men should formulate price lists. In order to make list prices approximate selling values, a committee for the purpose should be composed of salesmen, shipping clerks and superintendents, with a few proprietors sprinkled in to advise and keep the boys steady. In that way a fairly intelligent conclusion could be reached.

Ottawa Evening Journal.

The results of the elections for the Local Legislature indicate plainly how the contest for the Dominion is likely to end. Mr. Bronson scored a victory, not because he was a Government candidate, but by reason of his personal qualifications for public life. As a prominent, enterprising citizen, who had proved himself a faithful steward in every position which the public had called him to fill, he won the support and sympathy of all classes of the community. The city, though a recognized Conservative stronghold, demanded an intelligent, public spirited representative at Toronto, and made its selection accordingly, irrespective of party considerations. * * * In the Dominion contest on which we are now entering, party lines will, no doubt, be more clearly drawn. * * * Apart altogether from the grave issues presented to the people in this contest, there can be little doubt that their votes will be cast for the Conservative candidates. It is no reflection upon Mr. McIntyre's character to say that Mr. Perley is his superior in every way as a representative citizen. Every claim which was put forward by the Liberal party on behalf of Mr. Bronson for the Local Legislature applies with equal force to Mr. Perley for the Dominion House, with this additional one, which should not be overlooked for a moment, that the Conservative candidate is, besides, largely connected with the railway interest, which, next to the lumber trade, has done most to place the prosperity of Ottawa upon a safe and permanent basis. To Mr. Perley and the enterprising men associated with him in the Canada Atlantic Railway project we are indebted for the splendid facilities for travel and traffic which we possess. One by one the other roads have dropped into the hands of the Pacific Railway Co., leaving the Canada Atlantic Railway as the only competing route to and from the Capital. His enterprise and public spirit in connection with this one project alone entitle him to the gratitude of the public.

Northwestern Lumberman.

At the beginning of the year, having ascertained from his books how he stands, it is proper for every business man to spend a little time in carefully considering what improvements in his ways of doing business he can make in 1897. It is probable that the majority of retail dealers will discover that they have too many accounts on their books. Some of these accounts are perfectly good and will be paid promptly, others will be paid to suit the own sweet will of the men against whom they are charged, still others, in all probability, will never be paid. The average retail dealer will feel after looking over these accounts that he has given too much credit; that he has been too good to his customers; that in his efforts to roll up sales he has been unfaithful to his own interests. Every large business house has its credit man whose duty it is to investigate the financial standing of all who apply for goods on time. Honor is a jewel, and there are poor men whose word can be depended on every time so far as it is in their power to make it good, but no large concern gives but little credit where it does not think that collections can be forced if necessary. Thousands of retailers go on another principle entirely. The impression seems to prevail with too many that the great point is to sell goods regardless of whether they will ever be paid for. Right at this point is where the retail dealer of moderate means can begin to reform his methods. He ought to learn that it is better to have lumber in pile than to sell it where there is a doubt regarding the liability of the buyer, and even if the buyer is reliable, to sell for cash every time he possibly can.

The Bay City Lumberman Gazette.

Notwithstanding the \$2 duty on lumber imported into the United States from the Dominion of Canada, the amount is not insignificant by any means, and this leads to the query, what would be the effect if this duty were removed? It would obviously result in flooding the American market with Canadian lumber, and to that extent result disadvantageously not only to our own manufacturers, but to the labor element engaged in that industry of this side of the line. There is nothing in the list which demonstrates more clearly the disastrous results which would accrue to labor, as well as to industrial pursuits in the United States as the lumber business as at present conducted, under a free trade policy; and it requires very little foresight to understand that if the duty on lumber were removed, our lumbering establishments which have been built up under a governmental policy of protection, would soon begin to languish and exhibit signs of decay; in fact it must inevitably prove a blight on the business, and necessitate at once the reduction of the wages of the operatives in order to meet the competition of Canadian cheap labor. It seems incomprehensible that there should be any considerable element among the people who would desire such a result. Ottawa is the center of the Canadian industry. More lumber was sold and exported from Ottawa to the United States during the first quarter of the past year than ever during the same period in history. The cut this season will be fully up to, if not in excess of the average. The total amount of lumber manufactured by the Ottawa mills during the past season is placed at 268,000,000 feet. The principal destinations of the consignments sent from Ottawa to the United States were Burlington, Albany, New York and Boston. The Timberman, Chicago.

Some genius about a planing mill, has invented a device for unloading the wagons on which the lumber is hauled for dressing, which is so simple and practical that it is a wonder, as it usually is in such cases, that it was not thought of before. The platform on which the lumber is ordinarily piled as it comes into the mill, is raised to just about the height of a wagon, so that, as the load is backed up, the rear end projects over it. A slight depression in the roadway, just in front of the platform, permits the wagon to drop a few inches, and allows the weight of the load to rest upon the edge of the platform. Close to this edge, a live roll is placed, which is given a positive motion by a link belt connection, and behind it are put ordinary dead rolls at suitable distances. The operation of the device will be apparent without further explanation. As soon as the load of lumber rests upon the live roll, it begins moving into the mill, seemingly of its own accord, and sooner than a half dozen boards could be removed from the load by hand, the entire jag is quietly rolled into the mill without handling. It is best to place rollers on the wagon also, in order to make the load move easily and promptly as soon as it rests upon the live roll. To a planing mill operator doing a large business and who is compelled to employ a number of men and teams to handle the lumber that comes to be dressed, the value of this little device will be perceived at a glance. The saving in time makes it possible to do the same amount of work with a less number of teams, and with a notable economy of labor for the teamster. It has been applied to the new mill of the Ludington, Wells & Van Schaick Company, at Menominee, Mich., where an ordinary six inch wrought iron pipe, polished, is used for the live roll, being connected with the line shaft with suitable belts and pulleys to secure the proper speed. The beauty of the arrangement is that it is not patented, and may be used by any one. It is said to have been invented by a man at Eau Claire, who certainly deserves the thanks of the planing-mill fraternity for his ingenuity.

THE MIRAMICHI WOOD TRADE.

WE are in receipt of Mr. J. B. Snowball's Miramichi Wood Trade Circular for the year 1886, dated Chatham, Miramichi, January 3rd, 1887. It reads as follows:

The business of the past year has been on as restricted a scale as predicted, but although the export from the principal Spruce Ports has been curtailed, still it is worthy of note that from Nova Scotia, as well as from the smaller ports in New Brunswick (places not having our heavy stumpage tax to contend with) the export has been increased. This has brought the total export nearly up to that of last year. The business however, has not been profitable, and although freights ruled lower than in any previous season, the consumer and not the producer, received the benefit; and it may be said that a feeling of depression still hangs over the trade here.

The freight market opened at from 40/ to 45/ Miramichi to United Kingdom ports—according to port—and closed at about 42/ to U. K., being a strong contrast to the rates paid in 1873, which ranged from 90/ to 120/. The shipments from this port were, this year, less than half what they were in 1877, 1880 or 1883, and the smallest since 1870. We do not, however, expect a further decrease in view of the fact that the sawing power has been doubled since the latter date and half that power has been idle during the past season.

Last year I referred to the heavy tax imposed by the Province of New Brunswick on all wood cut from Provincial or Crown lands. No reduction has so far been made, although individually, members of the Local Government promised a rebate previous to the last general election. To show the inequality of this tax I may state that in Nova Scotia there is no direct stumpage charge levied by the government. The timber lands there are largely owned by the operators; any lands owned by the Government are sold to the first applicant for forty cents, or one and eight pence (1/8) stg., per acre, giving an absolute title. The Province sold in 1882—35,000 acres, 1884—37,000 acres, 1885—13,700 acres.

In the Province of Quebec there is a lease charge of two dollars per square mile for each mile of timber limits held by the operator, and a stumpage tax, in addition, of six cents on each spruce log cut down. A log is computed to be 13½ feet long; this brings the tax to about 70 cents per thousand super. feet, or 4/ stg. per standard.

In the Province of Ontario, timber lands are leased the same as in Quebec, at two dollars, or 8/ stg. per mile, the holder having a continuous lease—as in Quebec—without fear of molestation as long as the annual fees are paid. The stumpage in Ontario is ten cents per 200 feet board measure, or 50 cents per thousand super. feet, the same as in the Province of Quebec.

In New Brunswick, timber lands are leased at eight dollars per square mile and four dollars per square mile for subsequent annual renewals, and these renewals are limited to ten years from date of lease. The first cost is thus four times, and renewals double the rates of the highest of the other provinces, and a stumpage tax of \$1.25 per thousand super. foot is collected, against 50 cents, the highest for the other provinces.

In Quebec and Ontario the quantities on which dues are payable are ascertained at the place of sale, while in this Province, the scaling is done in the woods, thus subjecting the operator to all losses contingent upon transit. The operator in New Brunswick has, also, to lodge and board the Government scalers and their assistants free of charge—an imposition unknown elsewhere in Canada; and while payment of timber dues is required in New Brunswick on 1st August each year, the time of such payment in the other provinces is 30th Nov., a difference of four months.

The Trade justly complains of the inequality of the government charges on this staple industry of the province, and the severity of the timber regulations in other respects—the main features above stated indicating the disadvantages resulting therefrom to New Brunswick operators—conditions which there is reason to believe will be somewhat modified in the near future.

The stocks of both manufactured and unmanufactured woods on hand are estimated at 25 million superficial feet, against 17 millions last year, 26 millions in 1884 and 40 millions in 1883. This winter's operations in the forest are on quite as restricted a scale as those of last year. Last winter and spring were very favorable, both for logging and brook-driving, and all the stock got out came to market. Unless this season it equally favorable we will have a smaller output.

The Montreal Star.

THE MONTREAL STAR is making a name as one of the newspaper successes of the day, both in its daily and weekly issues. The circulation of the Daily last year averaged over 25,000 copies and during the North-West rebellion reached close on 35,000, while the circulation of the weekly has reached the enormous figure of 120,000. THE STAR claims to have attained this success through its merits as a first class family newspaper, as distinguished from a mere political or local organ, but although not pretending to be a political paper in any extreme sense of the term, its political news is second to none, and its circulation has given it a marked influence in national as well as local affairs. Its progress has been extraordinary, as ten or 12 years ago it had only a very limited circulation.

CHIPS AND SAWDUST.

The saw mill at Ompah, Ont., has lately changed hands.

Tait Bros. are rebuilding Salmon Lake dam which broke away last spring.

British Columbia cedar shingles are being shipped eastward to Puget Sound.

Mr. Simmons has his new planing mill at Newcastle almost ready to be put in operation.

A cooper shop and heating factory is to be established by Mr. John Matthews at Kendall, Ont.

There was more lumber turned out this year by the Ottawa mills than any previous year.

The township of Ryde, Muskoka district, boasts of six saw-mills. Five of them are steam mills.

The mill-owners of Turtle Creek, N. B., commenced stream-driving and sawing since the recent rains.

The Windsor cotton factory, Windsor, N. S., is working overtime until 9 o'clock at night filling orders.

Mr. Kyle of Brockville, and J. E. Brown, of Delta, Ont., have started an iron pump factory at the latter place.

The Enterprise, Ont., milling company is putting in a new water wheel. It intends to saw shingles and lumber.

Messrs. A. W. Parkin & Son, of Lindsay are at work getting timbers ready to rebuild their saw and shingle mill.

John Heard & Co., Amherstburg, want \$6,000 as a condition of removing their spoke and wheel works to St. Thomas.

W. B. Phelps & Son, of Philippsville, Ont., are putting up a shanty and getting ready to take out ties and shingle wood.

The engine and boiler house of Woodward & Ishister, Petrolia, Ont., was totally destroyed by fire recently. Loss \$1,000; partially insured.

A Kippewa correspondent says: "Owing to the lack of encouragement for square timber, none is being taken out this winter in this vicinity.

A load of lumber sleighs was shipped a few days ago from Gravenhurst to Lakefield, the first manufactured goods except lumber ever shipped from that point.

The Battleford Herald says the Prince Brothers have removed their saw mill machinery to the banks of the Saskatchewan, to save the haulage of logs from their rafts.

Mr. H. R. Archer, of Newbury, Ont., is reported to have sold two hundred acres of timber lands, concession one, Moss, to saw mill men of Chatham, for eight thousand dollars.

Mr. Menno Bechtel's saw mill, planing mill, bolt heading and cheese factory at Wellesley, Ont., was recently moved from its original site to a new one near the edge of the mill dam.

B. Caldwell & Sons saw mill at Wilbur Station, Ont., has been shut down for a few weeks for the purpose of having some repairs made before starting the shingle mill for the winter.

H. McCrae & Son, foundrymen and machinists, Tilsonburg, Ont., have received a large order from the London Pottery Co. for machinery for the pottery the Company is erecting in London.

One hundred and seventy vessels loaded with deals in Miramichi this season, of which sixty were British, fifty-seven were Norwegian, and the balance were distributed among various nationalities.

Messrs. Lord & Hurdman, lumber merchants, of Ottawa, shipped to their shanties on the Kippewa a few days ago two car loads of shanty teams, which will be used in finishing up the season's work.

The Rathbun company having completed the work of surveying the Nanapanee and Tamworth Railway, Mr. Butler, the engineer, will at once commence the survey of the Gananoque and Perth railway.

Messrs. John Bertram & Sons, Dundas, lately cast a bed-plate thirty-six feet long for a planing machine which is designed to take in work six feet square. Between eight and nine tons of iron were required for the casting.

Alex. Fair's saw and shingle mill, at Omameo, with a lot of shingles and lumber, was destroyed by fire recently. It was by sharp fighting that the flour mill near by was saved. The cause of the fire is unknown. Loss about \$5,000; no insurance.

The greatest portion of last season's cut, at Ottawa, has been disposed of. Stocks are about the same as during the same period last year. Prices, if anything, are a little stiffer and the sales to English dealers have somewhat increased. The outlook is regarded as favorable.

A lumber mill owned by Warner, Purves & Smeaser, located at Pleasant Point, N. B., above the falls, has been burned with about 5,000 feet of lumber. The mill was valued at \$20,000 and there was an insurance of \$10,000 upon it. A lamp upset in the engine room and set fire to some shavings. Burns the watchman was cut off from all communication and was rescued in a senseless condition. The mill was partly destroyed in 1872.

It is reported that a local syndicate has sold to an English syndicate the Hastings mill property at Burrard Inlet, B. C., for \$300,000. The property was three years ago purchased from Heateley & Co., of San Francisco, for \$265,000, and now includes a large portion of the Vancouver town site.

A correspondent writes from Folger's Switch, Ont.: There is a good opening here for a steam saw mill, it being close to the railway with a large section of country lying north and west of this place, full of pine and cedar, that could be hauled to the switch in the winter if there was a mill there to cut it.

In a discussion of the Port Arthur Board of Trade upon the best means of saving the pine timber burned over in forest fires this year, it was stated by a large lumber operator that one hundred million feet of pine had been so burned over and if not cut down the present winter, would be ruined by worms next summer.

Mr. George H. Bailey late of the firm of J. R. Booth, lumber merchants, of Ottawa, and Mr. V. Holbrooke, son of Mr. G. M. Holbrooke, of the same place, have opened extensive lumber yards in LeSueur, Minnesota, and are doing well. The many friends of Messrs. Holbrooke & Bailey will be pleased to hear of their success.

A gentleman down from the lumbering districts of the Upper Ottawa says everything is rushing in the log-making and drawing line. The only complaint seems to be that the ice on the smaller lakes is anything but good. This is attributed to the heavy fall of snow which took place immediately after the lakes were frozen over.

A veteran saw mill man remarks that the more work you can put on a small piece of wood the more money you make. The man who cuts and hauls logs by wagon to the mill hardly earns feed for himself and team. The man who saws the log into rough lumber barely makes wages for the hands. The men who work the lumber up into finished stuff can have a pretty good chance to make a profit.

Permits to take out ties and wood in Ontario along the C. P. R. have been granted by Crown timber agent Margach, of Port Arthur, to the following Winnipeg parties: Dennison Bros., whose permit covers the district from the Manitoba line east to Eagle River; Egan Bros., to cut 125,000 ties in the district extending from English River to Savanne. The H. B. Co. are also applying for a permit to take out a large number of ties.

A Calgary, N. W. T., dispatch says: The Eau Lumber Company have given a contract for a million feet of logs to be cut on their limits by the proprietors of the Kanauaskis lime kilns. The company's saw mill at this point is nearing completion, but they will not likely begin sawing for the market till the spring comes in. Those who have visited the mill recently have been struck with the solid manner in which the structure has been put up. The large engine room is of sandstone on a granite foundation, and is built to last no end of time. It gives accommodation for a large 120 horse power engine and three huge boilers. It is improbable the company will keep as many as fifty hands about the mill when active operations begin.

Messrs. Duncan McArthur, W. R. Allan, F. A. Fairchild, R. D. Bathgate, Archibald Wright and C. W. Betts all of Winnipeg, apply to the Governor-in-Council for letters patent incorporating them, a body corporate and politic under the corporate name of "The Rocky Mountain Mining and Lumber Company (Limited)," for the purpose of carrying on a mining and lumbering business within the Dominion of Canada, also for the purpose of the said company, to build, equip and operate tramways, sailing and steam vessels for the carriage of lumber, timber, minerals or mineral ores or any other production by said company; to purchase build and erect stamp mills, saw and planing mills, or any one or more thereof. The head office of the company will be at Winnipeg.

A Point Wolf, N. B., correspondent of the *Albert Maple Leaf* writes: Perhaps a few items in reference to the lumbering operations carried on here by C. M. Botwick & Co., of St. John, would be acceptable. I would say that their mill commenced sawing May 15 and shut down Dec. 3. In that time 5,000,000 feet of deals and boards were sawn and 4,000,000 lath cut. The deals have all been shipped to St. John for re-shipment to Europe except 500,000 feet which are snugly piled in the lumber yard. The boards, scantling and lath were sold in Boston and New York. There are about 1,000,000 feet of old logs in the pond and streams, which would have been cut also if there had been good river driving in the early autumn. This mill, which is said to turn out as good lumber as any on the Bay shore, is driven during spring and autumn by water, and during the dry season by steam, having a 50-horse power engine for that purpose. The following are some of the efficient men employed: James Campbell, general manager; W. Rattray, engineer; A. H. Nash, millwright; Nathan Cleveland, filer, and William Hubbard surveyor. The company has a large store here in connection with the business, over which W. M. Fowler has charge. Good wages are paid the millmen for which they can take goods out of the store or receive cash. Robert Connely has the contract for putting all the logs into the stream and he intends getting out 5,000,000 this winter for next summer's sawing.

Mr. Campbell, manager of Tilly's saw mill at Kingston, had one of his fingers cut off a few days since.

The Rathbun Co., of Deseronto, intend lighting the steamer barge Resolute with electric light next season.

It is rumoured that Conroy's mill at Deseronto will be worked again next spring. It only operated about two weeks of last season.

A man named Nomoonda, from New Brunswick, while engaged in felling a tree on the timber district of Booth and Gordon, on the Indian River, was seriously injured by a falling branch. He was taken to the Pembroke Hospital.

It is reported that several Tonawanda, N. Y., parties have purchased a large tract of pine in Pennsylvania, with a view of railroading the logs to Tonawanda for sawing. They think they can save money on the cost of Michigan lumber.

A number of teams recently left Ottawa for the shanties to engage in drawing, the ruling price being \$1.50 per day. They went to work for Messrs. Bronson, and Purley & Patten, the teams for the latter going to the Montreal River.

Messrs. Grier & Co's new saw mill at the Chaudiere is progressing very favorably. The stone work is almost completed and work on the body of the building will shortly be commenced. The mill will be finished for the spring and ready for work.

A terrible accident occurred on Lake St. John, Jan'y 18th, Saguenay County. A large gang of lumberers were crossing the ice, when some twenty of them broke through. All were saved but two men named Whitton and Ryan, who were drowned.

The lumbermen in northern New York say that this is the best season for logging they have known for years. It began in November, and there had, up to recent date, been no interruption by bad weather. Some loggers will have their jobs complete by February 1st.

John M. Holliday, well known in the Chicago lumber trade, died very suddenly in New York on Wednesday, 19th Jan. He was connected with the firm of Cutler, White & Boice, and had been with that concern and its predecessors, Ferry & Brother, for the last ten years.

A car-load of grist mill machinery was shipped, some little time ago, by Mr. W. H. Petrie, of Brantford, to Soda Creek, British Columbia. He is now about to fill an order for saw-mill machinery for the same neighborhood. This machinery is transported overland in waggons some 400 miles after it leaves the C. P. R.

It is understood that the prices paid for Messrs. W. G. Ross and Son's spruce deals by Messrs. Dobell, Beckett & Co. are, \$40 for 1st, \$22 for 2nd, and \$20 for 3rd; it is not known whether charges and insurance are to be added. However, as these prices are net 1st May there would seem to be no charge for insurance on the buyers.

A Bay City firm is getting out oak timber in Huron county, which is being delivered at Kind station, and is destined for the Quebec market, and some of the pieces are of mammoth proportions. One stick recently delivered says the local paper, scaled 3,500 feet, and required five yoke of cattle to draw it. Very few people supposed that there was any oak timber in Huron county, which was worthy of mention.

It is understood that Messrs. J. R. Booth & Co. of Ottawa, have petitioned the Government to locate a light house in South East Bay, Lake Nipissing, claiming that it would prove of great advantage to lumbermen. No action in the matter has yet been taken. The Marine Department proposed to erect two lighthouses in South Bay, on the same lake in accordance with the report of the Chief Engineer of the Department.

A Deseronto despatch says:—Continued cold weather since the first of December put the swamps in good condition for seven inches of snow which fell in this section about December 20, and 10 inches more on January 1. Help is plentiful, and wages range from \$11 to 16. Hay and grain are very cheap, and logs should be put in at low figures this season. About the average amount of logs will be got in. Dry lumber is scarce and prices firm for all grades.

A dispatch from St. John, N. B., under date, Jan'y 18th, says:—A number of disasters to St. John vessels are reported to-day. The Schooner Speedwell ashore at Moosepeckie is full of water. She was bound from St. John to New York with a cargo of 109,000 feet of boards, shipped by Messrs. Driscoll Bros. The schooner Alton, from St. John to Portland, Me., went ashore during a storm at Cranberry Island, but there is a probability of her coming off again. Her cargo consists of 40,000 spruce boards. The barque Guanilo, Capt. Oretto, which cleared at St. John, Nov. 13, for Penarth Roads, is supposed to have been lost. The Guanilo had on board 332,749 feet of deals, 33,562 feet ends and 47,096 scantling, shipped by Messrs. Stewart. Capt. Stuart, of the ship John McLeod, relates a terrible experience of his vessel in the China Sea in a typhoon for three days. The ship lost all her spars and nearly all her rigging. Although a new ship and perfectly tight there were four feet of water in her hold when the storm ceased.

RAILWAY LINKS.

GRAND TRUNK NEW SCHEMES.

THE tunnelling of the St. Clair River and the building of the Sault Branch are two such important schemes in connection with the Grand Trunk Railway that the following extract from Sir Henry Teler's address at the last half-yearly meeting, referring to these subjects, will be read with interest:—

"There is another item of expenditure which I ought to mention, and which I have already told you of, and that is the tunnel under the St. Clair River. You are aware that we have a ferry at the foot of Lake Huron between Point Edward and Fort Gratiot, near Sarnia, which works very well, where we have very large steamers and where we carry the trains over, but of course it would be better if we could carry them through a tunnel for many reasons and it would save a very large amount every year. I told you we had found a point on the St. Clair River with Chicago and Lake Huron on one side, and opposite the Sarnia branch of the Great Western section on the other side, and it is comparatively a small work to join those two lines by a tunnel under the river. The river is only 36 feet deep, and according to boring the rock is 90 feet below the surface of the water. The distance under water is only half a mile, and the tunnel will only be a mile long altogether, including approaches on both sides and the piece of line, including the tunnel for connecting the Chicago and Grand Trunk with the Great Western section, will be only 2½ miles long. By making that line we shall save six miles in distance, and we shall save £10,000 a year, even if the tunnel cost as much as £400,000 to make it. It is, therefore, a very desirable thing to do. We have taken borings at an expense of four or five hundred pounds upon it, but we now propose to thoroughly test it before any expense is incurred, and to make a driftway six feet in diameter under the river; and an American contractor, General Suez Smith, has seen Mr. Hickson, and he is ready to undertake that work for \$59,000, assuring its completion, because he is perfectly satisfied—having examined the spot, and being accustomed to work of that description—he is perfectly satisfied that he can do all we want in making the driftway and completing it in eight months for \$59,000—something under £12,000—and we propose to expend that, but that will not make much of the three millions up. Now, there is another matter which I ought to mention to you, although it does not involve any immediate expenditure. I should mention that as far as that tunnel under the St. Clair River is concerned that we shall not come to ask you for the money for that. That is to say, it will not require to be taken out of the Grand Trunk resources, because if the tunnel is made it will be a very valuable property. It will have its own traffic to depend upon, and, like the International Bridge, it will have its own revenue, and there will be no difficulty in raising the money to make that tunnel without going upon the resources of the Grand Trunk Company. The next thing is the line which has been proposed for some years to connect our Midland system with Sault Ste. Marie. Sault Ste. Marie is a very interesting spot. The falls of Sts. Marie are those which take the waters from Lake Superior to Lake Huron. At the Sault there is a lock to avoid the rapids, by which steamers from Lake Superior go to Lake Huron and vice versa. There has been a Canadian charter for making a bridge at the Sault for some years, and a charter for making the line of the Midland system up to that place, and both charters are in the hands and under the control of the Grand Trunk Railway. There are also indications of lines being made to connect the Northern Pacific with the Sault Ste. Marie. Mr. McMillan, who is a friend of ours—a wealthy man in Detroit—had the line in his control there for a length of time, and by connecting the line with the Canadian Pacific, and having Ashland at the other end, that will complete the communication between Sault and the Northern Pacific. You will understand that a line connecting the Northern Pacific with the Grand Trunk will be a line of very great importance. Here you have, on the one side, the Northern Pacific, with 2,000 miles of lines, connected with 1,500 miles of the Grand Trunk on the other side. Any connection between those systems must be a very important connection. You will be very glad to hear that the Northern Pacific looks upon it with greater favor than we do. They say that the Northern Pacific and the Grand Trunk are natural allies, and that before long we must manage to get communications made between them somehow or other. Do not suppose I am contemplating this in opposition to the Canadian Pacific. This is a matter which has been contemplated by us for years. We have not been able to stir it in times of depression, but we have gone so far that surveys were made years ago. It is an old project, and a very important one, and I am not prepared to go further in it than to say that we are negotiating with the Northern Pacific, and they are considering the question of making a line on their side, and we shall have to consider the question of how to make a line on the other side. I do hope we shall be able, the line being such a very important one, to make it with its own resources and without troubling the Grand Trunk with any guarantee. I am not prepared to say anything more at present."

The vote in Guelph on the by-law to grant \$175,000 to the Guelph Junction Railway, which will afford the Royal City competition, was carried by a vote of 745 to 144.

The *Manitoban* thinks that sufficient evidence, that the Hudson's Bay Railway is to be built is seen in the fact that several new freight cars have arrived at Winnipeg from Montreal, lettered "Winnipeg & Hudson's Bay Railway" and loaded with steel rails for the company.

The *Railway Age*, an American journal, says:—"The Canadian Pacific management has completed arrangements with the Boston and Lowell road, by which its cars will run to Boston, making that city, it is stated, its principal water terminus. Next summer it will probably reach down the coast into Florida, and perhaps throw a bridge across from Key West to Caracas, from whence the occupation of South America will be easily accomplished."

The Maskinonge and Nipissing is chartered to build 360 miles from Louisville, Que., on the Canada Pacific Railway, westerly to a point on the shore road, at or near Lake Nipissing. This, it is said, will shorten the distance for North-West traffic to Quebec about 300 miles. The country through which the road will pass, in a large measure, heavily timbered, and iron, plumbago and building stone are reported at various places in large quantities. The incorporators are Messrs. Thos. W. Ferry, Grand Haven, Mich.; James J. White, Ottawa; John H. Verrall, and E. H. Talbot, Chicago.

Judging by the number of applications for new charters and extensions of old ones, the Dominion Parliament will have a great deal of railway legislation to attend to at its next session. The Railway Committee of the House of Commons, to which is committed the work of examining the bills in detail and checking, where necessary, legislation calculated to interfere with existing rights, is one of the largest and most important of all the Standing Committees of the House. It is made up of the best representatives of all sections, and probably meets oftener and works harder than any other committee—*Railway Life*.

The *Oshawa Reformer* says:—"The best railway project we have yet heard proposed in the interests of the town is that in which some of our citizens are now moving for the construction of a railway from the Oshawa harbor to Bobcaygeon, in the heart of the lumber region, with power of extension to Kinnouart and thence in a due line north to Calendar station on the C. P. R. at Lake Nipissing. This line will cross the ridges and the C. P. R. at a very favorable point, a little east of Raglan and will run south and east of Lake Scugog, through Cartwright and Manvers, along the wide and fertile valley of Pigeon creek to Omeroe and thence to Bobcaygeon. It will connect with the C. P. R. and Midland systems, and passing through good territory in the counties of Ontario, Durham, Victoria, Peterborough and Haliburton will enlist in its favor the parliamentary representatives of these counties and will receive municipal bonuses and command grants from both governments."

The *Montreal Star* says:—"The decision of the Supreme Court in favor of the Canadian Pacific Railway regarding its right to complete the extension between Port Moody and Vancouver has, according to the British Columbia papers, given a great impetus to the terminal city. The real estate market has gone up with a boom, and capitalists who were holding on until a decision was arrived at are now investing heavily. The company has already asked for tenders for the grading of the uncompleted portion between Port Moody and the terminus, and the early completion of the railway will doubtless increase the population and bring a large volume of trade, both transit and otherwise, to the terminal city."

WOOD-WORKING PATENTS.

The following list of patents relating to the wood-working interests, granted by the U. S. Patent Office, January 11th, 1887, is specially reported by Franklin H. Hough, Solicitor of American and Foreign Patents, 925 F. Street, N. W., Washington D. C., who will furnish copies of patents for 25 cents each:—

- 356,066,—Moulding and stave machine,—C. L. Goehring, Allegheny, Pa.
- 355,704,—Saw Coping,—C. Morrow, Kansas City, Mo.
- 355,708,—Saw-Drum,—D. M. Omwake and W. P. McGee, Manchester, Iowa.
- 356,082,—Saw-guide,—D. J. Murray, Wausau, Wis.
- 356,035,—Saw-mill Band,—M. Garland, Bay City, Mich.
- 355,692,—Saw-set,—C. C. Harris, Denver, Colorado.
- 355,912,—Saw-swinging machine—W. G. Baumgardner, Flier City, Michigan.
- 355,059,—Saws, device for dressing the teeth of,—G. W. Cutshaw, Bedford, Ky.
- 355,710,—Shingle-sawing machine,—W. J. Perkins, Grand Rapids, Mich.
- 356,098,—Boring wood or metal, machine for,—H. F. Bundy, Welcome, N. Y.
- 356,220,—Saw mills, Saw-catcher for band,—G. H. Zechech, Indianapolis, Indiana.
- 356,066,—Sawing-machine, Scroll,—H. L. Beach, Montrose, Pa.

- 356,280,—Sawing wooden gutters, Machine for,—E. B. Elder, Lynn, Mass.
- 356,286,—Wood Machine for cutting across the grain,—F. Mankey, Williamsport, Penn.
- 354,256,—Chuck, Lathe,—A. H. Stetson, Brookline, Mass.
- 354,266,—Log Roller,—L. G. Orme, Paducah, Ky.
- 354,325,—Saws,—F. R. Little and C. T. Stoddard, West Stewartstown, N. H.
- 354,407,—Saw-mill Band,—J. L. Gage, Chicago, Ill.
- 354,207,—Saw-mill dog,—J. C. Miller, Dunkirk, Ohio.
- 354,114,—Saw-awake,—J. E. Emerson, Beaver Falls, Pa.
- 354,167,—Saws, Device for setting,—C. Morrill, Jersey City, N. J.

HOW THEIR MONEY IS SPENT.

The *Paper Trade Journal* publishes the following illustrated table, showing how United States money is spent, as shown by the official statistics for 1885. We would be sorry to see such a record in Canada:—

Liquor, \$900,000,000
Tobacco, \$600,000,000
Bread, \$505,000,000
Meat \$303,000,000
Iron and Steel, \$230,000,000
Sawed Lumber, \$223,000,000
Cotton Goods, \$216,000,000
Boots and Shoes, \$190,000,000
Sugar and Molasses, \$155,000,000
Public Education, \$80,000,000
Home and Foreign Missions, \$5,500,000

In round numbers three billion four hundred and eighty-two million five hundred thousand dollars, (\$3,482,500,000,) divided as above.

The above figures show that our liquors cost nine hundred million dollars (\$900,000,000.)

- One-eighth more than all our meat and bread.
- Three times as much as our iron and steel.
- Ten times as much as our public education.
- Our tobacco costs six hundred million dollars (\$600,000,000,) or
- One-fifth more than our bread
- Twice as much as our meat and iron.
- Three times as much as our boots and shoes.
- Seven times as much as our public education.
- Our liquors and tobacco cost one billion five hundred million dollars (\$1,500,000,000,) or
- Three times as much as our bread.
- Five times as much as our meat and iron.
- Seven times as much as our meat and lumber.
- Seventeen times as much as our public education, and these two items alone cost more than four-fifths of all the rest.

OUTLOOK FOR THE LUMBER TRADE.

THE local lumber market in Ottawa at present is very quiet, and for the past two weeks there have been no shipments of any account. The amount of dry lumber here is small in proportion to the cut. Mill owners are very firm in prices, all asking an advance and in some cases a large advance in prices on last year's prices. On the other hand buyers are holding back and do not seem at all anxious to buy. The amount of lumber sold of the now cut up to the present date is very much less than that at same date of the previous year's cut. Buyers are not inclined to close at prices asked, and therefore shipments are slow. Another great hindrance is the scarcity of box cars.

OUTSIDE ADVICES.

The *Montreal Trade Review* says: "There is a better feeling in New York than has prevailed for some time past. Stocks are held firmly. Trade with the British West Indies is quiet, and with Africa and Australia it is dull. There is a marked improvement in the River Plate trade. There has been further charters. In White Pine the new year opened near the zero line, and Jack Frost holds a tight grip on boom stock. The demand is comparatively slight, but as the season advances a good trade is anticipated. Winter rail rates render it uncertain what the cost of transportation will be, for railroad companies have a happy faculty of weighing all the snow and ice which accumulates during a passage through several states; and, as this stock is necessarily shipped on open platform cars, the difference in weight is no inconsiderable factor. The arrivals of spruce have been light. There are but few cargoes on the way, and there are no orders; and will not be thrown upon the open market. Prices which remain unchanged are purely nominal, as there is little or nothing done. Laths show a decline of five cents since our last. The market for yellow pine is decidedly firm in tone. A better feeling prevails, and a further advance is not unlikely. For foreign shipment the inquiries continue to be large, and southern mills are stiff in their holdings. Many of the railroads are in the market with schedules of all sizes, some of them for large quantities."

WANTED.

The publisher of the CANADA LUMBERMAN desires thoroughly reliable and competent correspondents at the following named places:-

- Kingston, Ontario.
Quebec City, Quebec.
St. John, New Brunswick.
Halifax, Nova Scotia.
Winnipeg, Manitoba.
Victoria, British Columbia.

The duty of each correspondent will be to give a review of his local market for the month preceding the date of issue, and the ruling quotations for different kinds of lumber, &c. For terms and any other information, address

A. G. MORTIMER, Peterborough, Ont.

TRADE REVIEW.

TORONTO.

From Our Own Correspondent.

Toronto, Jan. 24th, 1887.

Regarding the Toronto market, trade has hardly begun for the year. The cold weather with so much snow has prevented anything like outdoor work and consequently building has been almost entirely suspended. The recent thaw has, however, given a start to some work, and the indications in all sections of the city are such that just as soon as the weather permits there will be a considerable amount of building done.

The class of buildings to be erected this year are very various. Dwelling houses, factories, warehouses, banks, churches, possibly a City Hall and certainly the Parliament Buildings, although the latter will not be completed for three or four years to come.

The feeling in prices is to firmness and possibly before very long an advance in some lines. Certainly bill stuff will be in demand, and in this connection hemlock should prove an important factor.

The N & N. W. R. R. has, during the past ten days, been in rather a demoralized state. What with the burning of their round-house and several engines at Allandale, the snow blockade, and the scarcity of coal, they have not been able to move much freight in the way of lumber. These are items even the C. P. R. could not say they are, or would be, proof against.

The following are the ruling quotations in this city at present:-

Table listing lumber prices for various types of wood, including Mill cull boards, Shipping cull boards, Scantling and joist, etc.

B. M.

Table listing lumber prices for various types of wood, including 1 1/2 inch flooring, 1 1/2 inch rough, etc.

MONTREAL LUMBER MARKET.

Montreal, Jan. 23th, 1887.

The year opened very satisfactorily for the lumber trade, and the distribution to date allows a considerable increase over the corresponding portion of last year. Country business in the middle of the month was very slow, owing to the heavy snow storms which blocked up the roads; however it has improved somewhat latterly, and there is a good demand at the yards, and for carloads also. Prices remain steady and unchanged.

The following is a statement showing the value of lumber, etc., exported from Montreal during the past year:-

Table showing export values for Logs, Deals, Planks & Square timber, Other Lumber, and Total.

Montreal has every reason to congratulate itself on the enormous proportions which its lumber business has assumed in comparison with past years. At the first meeting of the new Board of Trade held on the 12th January, the report of the Council recommended to the attention of their successors the necessity for an extension of wharf accommodation and wharf facilities. This, it was stated, would be greatly beneficial to traders in the lumber business, which was increasing so rapidly. As an example of the volume of this trade, it may be stated that the shipment of deals to Great Britain the past season was largely in excess of any previous year. During open water of 1886, 45,594, St. Petersburg standards were shipped, against 39,398 standards in 1885, and 23,368 standards in 1884. The shipments of sawn lumber which is principally to South America, was also very large, although not quite up to the year before in volume; the figures being 28,912-376 feet last year, against 37,162,100 feet in 1885. It appears that in 1877 only ten vessels left port with 3,400,000 feet; in 1884 there left, for South America alone, 47 vessels carrying 24,336,378 feet, and for Europe over 100 vessels carrying 76,873,578 feet; and in 1885 there were 84,282,275 feet exported to Europe. Hence the necessity for something substantial in the way of increased wharfage to be done at once.

Messrs. Dobell & Co., of Liverpool, in their monthly timber circular dated, Liverpool 1st January, say: "We have had a heavier import during December than last year, but considering the intervention of the holidays, the consumption may be regarded as satisfactory, and the stocks held, though ample for the trade doing, show a considerable reduction on previous years. If a satisfactory settlement of our home politics be arrived at without reverting to a general election, and the immediate future of the peace of Europe be established, we think we may look forward to the year we have just entered upon with confidence."

The following are the quotations of the yards here:-

Table listing lumber prices for various types of wood, including Pine, 1st quality, Pine 2nd, Pine, shipping culls, etc.

OSWEGO, N.Y.

From Our Own Correspondent.

Table listing lumber prices for various types of wood, including Three uppers, Picking, Cutting up, etc.

CORDWOOD.

Table listing prices for Cordwood, including Long Maple, Long Birch, Long Beech, Tamarack.

ALBANY.

Table listing lumber prices for various types of wood, including Pine, clear, Pine, fourths, Pine, select, etc.

CHICAGO.

JAN. 22nd.—The condition of the lumber trade at large is mainly indicated by a firm holding of stocks, and a confidence that the outlook is favorable for spring trade. Actual business in the way of sales and distribution is mostly confined to railway stuff from the mills, and car strips from the yards and mills. The wholesale dealers are now looking after stocks of logs and lumber at the mills—that is, such of them as do not depend on buying by the cargo after the sawing season opens.

The season thus far has been very favorable for logging, and from every point, where active operations are being carried on, some predictions that this season's input will be unusually large. There may be conditions hereafter adverse to the successful finish of the logging season, but the probabilities are that there will be no lack of food for the mills next season, and that the supply will be so large that it will induce the crowding of production.

Table listing lumber prices for various types of wood, including Piece stuff, short green, Piece stuff, short dry, etc.

RECEIPTS FOR WEEK ENDING JAN. 20.

Table showing receipts for week ending Jan. 20, including 1887, 1886, and 1885 data for Lumber, Shingles, and Increase.

STOCK ON HAND JAN. 1.

Table showing stock on hand for Jan. 1, including 1887, 1886, and 1885 data for Lumber, Shingles, Lath, Pickets, and Cedar posts.

EASTERN FREIGHT RATES.

Table listing freight rates for various destinations, including From Chicago and common points on car load lots of hard and soft lumber.

Table listing lumber prices for various types of wood, including Salamance, Black Rock, Dunkirk, Erie, Toronto, etc.

DETROIT, MICH.

Table listing lumber prices for various types of wood, including Uppers, 4x4, 5x4 & 8x4, etc.

SAGINAW VALLEY.

LUMBERMAN'S GAZETTE OFFICE, HAY CITY, Mich., Jan. 24, 1887.

Owing to the exceedingly heavy snowstorm, which impeded work in the woods, and was followed by three days of almost uninterrupted rain, the average lumberman in the Saginaw valley has endeavored to content himself by a tinge quietly back in his chair, and casting care to the dogs. He has not been annoyed by proposed purchasers, and in this has not been disappointed, for the reason that he did not expect to see any of them. He has therefore had plenty of time to "sum up the situation" as it were, and draw his own conclusions. The result has been that he finds himself in a very good-natured frame of mind; because as he sees fit to express himself, the outlook for business in 1887 is of the most assuring character. The business skies are full of promise, and there is almost a certainty of such a demand as will insure against any break in prices; but it is not at all improbable that there will be an advance. With such a prospect it is no wonder that the manufacturers feel sanguine, and are disposed to await the arrival of buyers with the utmost display of equanimity.

CASE QUOTATIONS.

Table listing case quotations for various types of wood, including Shipping culls, Common, 3-uppers, etc.

YARD TRADE.

Table listing yard trade prices for various types of wood, including 3 uppers wide and thick, Do. 1 in, etc.

DRAWING.

Table listing drawing prices for various types of wood, including Surfacing, Dress and machining, etc.

ADVERTISEMENTS

Those wishing to BUY or SELL TIMBERLANDS, LUMBER or SECOND HAND MACHINERY will find THE CANADA LUMBERMAN an excellent medium in which to make known their wants. Advertisements of this character will be inserted at the low rate of 1 CENT A WORD, cash to accompany the order in every case. Address.

A. G. MORTIMER, Publisher, Peterborough, Ont.

NEW YORK CITY.

SPECIAL CONTRACTS.

Table listing various lumber products and their prices, including Pine, Spruce, Hemlock, and other types.

EXTRA SELECTIONS.

Table listing extra selection lumber products and their prices, including Maple, Chestnut, and other types.

TONAWANDA.

CARGO LOTS—MICHIGAN INSPECTION.

Table listing cargo lots in Michigan inspection, including Three uppers, Common, and Culls.

YARD PRICES—CAR LOTS.

Table listing yard prices for car lots, including 3 uppers, Pickings, and other lumber types.

LIVERPOOL.

The new year of 1887 opens with a favorable stock sheet in all, except one or two items, and should there be any revival at all in trade the bulk of it must be right. Quebec pine timber is in a position never before experienced in this market; the total of waney and square being 307,000 against 615,000 last year, and this, with a consumption considerably in advance, viz: 116,000 against 76,000, means that any demand at all for this wood during the next few months must reduce the stock to a mere nothing before the next import commences. Really good prime pine is especially scarce, and waney has gone very freely during the last month.

The principal movement lately has been in waney pine, of which about 100,000 feet has gone into consumption during the last fortnight, I notice also that the Quebec birch lately landed has been sold to consumers and also that sawn pitch pine has been going pretty freely from the yard, so that by the time of the new arrivals of the latter wood there will be very little of the old stock left on hand.

Pitch pine presents very startling figures, particularly in sawn, viz., 216,000 against 684,000 last year, and this with a consumption of 86,000 last month bodes well for the fresh arrivals, one or two of which ought to be close at hand.

Pine deals appear rather heavy, and as it always the case at this time of the year, the demand is languid generally, reviving in February. I hear that 3rds for next season are very scarce in Canada.

The severity of the weather recently experienced in this part of the country in common with other districts has had the customary effect of limiting the amount of business to a very narrow compass. Under the most favorable circumstances little is done in the market until this month is well advanced; and, therefore, no great amount of disappointment can be felt if the demand still appears to be limited.

One thing is certain, and that is that the upland carriers' wharves seem to have but small quantities on the way to country buyers, though this may be materially altered within a short time from the present. Sellers of most descriptions of goods are firm holders, and do not any longer appear to have that anxiety to push sales which has been a marked feature in their transactions during the past year.

The public sales of whitewoods held by Messrs. Alfred Dobell & Co., on Friday last, the 7th inst., drew together a good company, many consumers from the country being present, and, taking the proceeding as a whole, the result must have proved satisfactory.

The cargo of sawn pitch pine, per Pegasus, from Darien, was firmly held, although some prejudices might be held against it on account of it being the cargo of a vessel wrecked on the coast, but the timber itself had not been in any way injured. The balance withdrawn from the auction sale was readily placed by private treaty.—Timber Trades Journal.

LONDON, ENGLAND.

Timber says:—Our forecast regarding London trade, regret to say, has proved to be only too correct, as in addition to the troubles that have come to light between the above date and the end of the year, we have now to chronicle three further suspensions of considerable magnitude. The first of these, that of Messrs. P. Wyndham & Co., became known on Monday; this was followed on Wednesday by that of Messrs. J. M. Ross & Co., and yesterday Messrs. Esdaile & Co. issued notice of a meeting of creditors. Of the two latter named firms one member of each is on the Council of the Timber Trades Association, one being the President, and the suspension of these firms naturally caused considerable excitement and comment in the Trade, the like of which has not been known since the suspension caused by the failure of Messrs. A. J. King & Co. some five years ago. It is, of course, more than probable that some minor suspensions may take place in connection with the three firms mentioned. This series of disasters naturally has a very prejudicial effect on the trade, and business in the meantime is well nigh at a standstill. In unsettled times like the present many wild rumors get freely bandied about; and although it is as well to treat all such gossip with the greatest circumspection yet we fear we can hardly expect that we have not seen the end of the present troubles. Some firms must have difficulty in maintaining their position, as financial facilities are certain to be greatly curtailed until the effect of the recent difficulties has had time to subside.

GLASGOW.

General trade has this week got under way again after the pause for the new year holidays. No auctions are yet announced by timber brokers here, and business is felt to be quiet.

Some large railway contracts for oak planks were lately fixed; these goods arrived in parcels per steamers, from New York, weekly, form an increasing part of the wood trade. Last year's import of sawn wood per steam liners from the States was much larger than that of 1885. The stock of spruce deals on hand at present is small, especially in Lower Port, and there have been inquiries lately for spruce; of some special sizes wanted there were none in stock.

Deliveries of American deals and planks from Yorkhill Yards, Glasgow, in December last were 100 038 pieces; in November, 89,128 pieces; and October, 93 420 pieces; the average monthly delivery over the whole year was 71,100 pieces, so that the foregoing figures show a marked increase during the last quarter of the year.

A computation has been made of the tonnage of vessels at present being built in Clyde shipyards, and the total is stated to be 114,753 tons. Some very important contracts were made within the last few weeks.

There have been no arrivals of wood goods to note at Greenock or Port Glasgow, and imports at Glasgow are only one cargo, consisting of 11alhouse pine deals, &c, besides various parcels of wood per steamers from New York.

When opening a correspondence with advertisers always mention that you saw their advertisement in the "Canada Lumberman."

THE CANADIAN NORTHWEST.

GEO. W. HOTCHKISS, Secretary of the Lumberman's Exchange, recently returned from a trip over the Canadian Pacific from Winnipeg to Vancouver, and makes a report regarding the same, which will create surprise among those who have been in the habit of looking upon the Northwest territories as arid, desolate plains—the home of the blizzard, and the manufactory of snow. Mr. H. speaks of populous cities lining the route of this road, backed by a fertile wheat belt, already containing a very large population of prosperous, contented farmers. There are at least a dozen towns and cities with populations of from one to five thousand located on the first 300 miles of road west of Winnipeg. West of Qu'Appelle, three hundred miles out from Winnipeg, the country is better adapted to herding, and is the region into which many thousand of Texas and Montana cattle have been driven during the last three or four months. The feed is rich and the climate is moderate. The temperature in this region is caused by a steady, warm breeze, known, locally, as the Chinook wind, which rises near the headwaters of the Peace River, and blows steadily from the Northwest, throughout the length and breadth of the provinces of Alberta and Assinobia, during the winter months.

The Canadian Pacific has been open to the public for about six months, and runs one passenger train daily each way. Each train is fitted with Pullman sleepers, dining room cars etc. The trip from Montreal to Vancouver is made in six days. The road does the bulk of tea carrying trade for the Canadas at very low rates, in order to divert the business in that direction. The management has been beset with, "it will never pay," "it is such folly," and such like encouragement that was provoked contemporaneous with the building of our own Union Pacific. Like our venture, this road, now that it is opened, promises from the start to be a monument to the enterprise of the syndicate who built it, and a gold mine to the stockholders.

Near Cochrane, seventy-five miles east of the Rocky Mountains, the Eau Claire Lumber Co. have just completed a circular saw-mill, gaining their supplies by Elbow river, from foot-hills south of the road. South of Casalis, twenty-five miles, is the mill of Louis Sande, of Manistee, which manufactured last year 2,000,000 feet of lumber.

From the Rocky Mountains to the coast, a distance of four hundred miles, there is little timber that is of value to lumbermen. The mountain sides are covered with a dense growth of fir. The line of road near the coast presents very little attraction to the lumber trade.

Vancouver island is covered with a dense forest of Douglas fir, similar to that of Washing-

ton Ter., and Oregon. This timber is interspersed with a small percentage of red cedar, of which Mr. Hotchkiss displays some beautiful samples.

All streams of the Western slope are gold-bearing, in connection with which will be remembered the Caribou mining excitement twenty years ago. This field being reached by the new road, is attracting a large number of gold hunters. Valuable quartz discoveries, both in gold and silver, are being daily announced. Vancouver, the Western terminus of the road, in January, 1886, was made up of the Hastings saw-mills and complement of shanties. June 12th it had a population of 2,000. June 13th it was totally destroyed by fire and thirteen lives lost, by December 1, 1886, the town was rebuilt, and contained a population of 5,000.

Mr. Hotchkiss states that the low temperature of the Winnipeg region is accompanied by a dryness of atmosphere, which renders a forty-degree temperature more endurable than a zero atmosphere. It is evident that the hitherto prevailing opinion regarding the British possessions of the Northwest has been erroneous, and that this region is destined to reach a greater degree of development than has heretofore been considered possible. The railroad company received a grant from the British government of a strip five miles wide on each side of the road. They think much of the future of the country, as is evidenced by holding this land out of the market. All the improved farms are outside of this five mile limit. Timber land is worth from two and one-half to ten dollars per acre. The homestead laws are similar to those of the United States.—Saw-mill Gazette

Esdaile & Co., extensive timber merchants and saw-mill proprietors, of London, Eng, have failed.

When the Hudson's Bay Railway is completed, it will reach latitude 59 degrees, making it the most northerly railway in America. At present the Manitoba & North-Western claims that distinction, reaching almost to latitude 51, with a promise of reaching higher than 53 in a short time when connection is made with Prince Albert.

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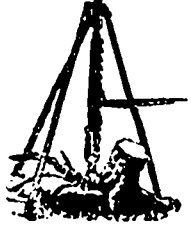
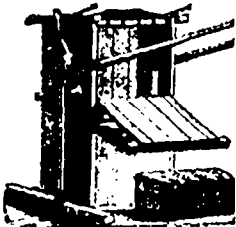
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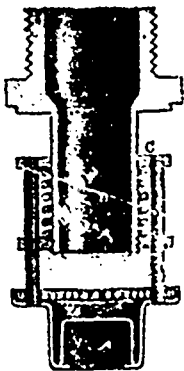
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Another important feature in connection with this department is, that subscribers depositing accounts for collection will, if requested, be furnished with a Form of Script, on which will be entered the name of each debtor, the amount owing, and a full report of the prospects of collection, and providing that the receipts thereof be paid to bearer only, thus enabling subscribers to realize on their outstanding accounts.

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Going East.

PETERBOROUGH DEPART.—11.31 a.m., 7.53 p.m.
10.56 p.m.

ARRIVE—5.31 a.m., 8.39 a.m.,
6.42 p.m.

Going West.

PETERBOROUGH DEPART.—8.39 a.m., 6.42 p.m.,
5.31 a.m.

ARRIVE—11.31 p.m., 7.53 p.m.,
10.56 a.m.

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Asst. General Sup't.

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General Pass't Agent.

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Vic. President.

GEO. CLUBB,

General Traffic Mgr.



MINING REGULATIONS

To Govern the Disposal of
MINERAL LANDS OTHER THAN COAL LANDS,
1886.

THESE REGULATIONS shall be applicable to all Dominion Lands containing gold, silver, cinnabar, lead, tin, copper, petroleum, iron, or other mineral deposits of economic value, with the exception of coal.

Any person may explore vacant Dominion Lands not appropriated or reserved by Government for other purposes, and may search therein, either by surface or subterranean prospecting, for mineral deposits, with a view to obtaining under the Regulations a mining location for the same, but no mining location or mining claim shall be granted until the discovery of the vein, lode, or deposit of mineral or metal within the limits of the location or claim.

QUARTZ MINING.

A location for mining, except for iron, on veins, lodes, or ledges of quartz or other rock in place, shall not exceed forty acres in area. Its length shall not be more than three times its breadth, and its surface boundary shall be four straight lines, the opposite sides of which shall be parallel, except where prior locations would prevent, in which case it may be of such a shape as may be approved of by the Superintendent of Mines.

Any person having discovered a mineral deposit may obtain a mining location therefor, in the manner set forth in the Regulations which provide for the character of the survey and the marks necessary to designate the location on the ground.

When the location has been marked conformably to the requirements of the Regulations, the claimant shall, within sixty days thereafter, file with the local agent in the Dominion Lands Office for the district, in which the location is situated, a declaration or oath setting forth the circumstances of his discovery, and describing, as nearly as may be, the locality and dimensions of the claim marked out by him as aforesaid; and shall, along with such declaration, pay to the said agent an entry fee of FIVE DOLLARS. The agent's receipt for such fee will be the claimant's authority to enter possession of the location applied for.

At any time before the expiration of FIVE years from the date of his obtaining the agent's receipt, it shall be open to the claimant to purchase the location on filing with the local agent proof that he has expended not less than FIVE HUNDRED DOLLARS in actual mining operation on the same; but the claimant is required before the expiration of each of the five years, to prove that he has performed not less than ONE HUNDRED DOLLARS' worth of labor during the year in the actual development of his claim, and at the same time obtain a renewal of his location receipt, for which he is required to pay a fee of FIVE DOLLARS.

The price to be paid for a mining location shall be at the rate of FIVE DOLLARS PER ACRE, cash, and the sum of FIFTY DOLLARS extra for the survey of same.

Not more than one mining location shall be granted to any individual claimant upon the same lode or vein.

IRON.—The Minister of the Interior may grant a location for the mining of iron, not exceeding 160 acres in area, which shall be bounded by north and south, and east and west lines astronomically, and its breadth shall equal its length. Provided, that should any person making an application purporting to be for the purpose of mining iron thus obtain, whether in good faith or fraudulently, possession of a valuable mineral deposit other than iron, his right in such deposit shall be restricted to the area prescribed by the Regulations for other minerals, and the rest of the location shall revert to the Crown for such disposition as the Minister may direct.

The Regulations also provide for the manner in which land may be acquired for milling purposes, reduction works, or other works incidental to mining operations.

Locations taken up prior to this date may, until the 1st of August, 1885, be re-marked and re-entered in conformity with the Regulations without payment of new fees, in cases where no existing interests would thereby be prejudicially affected.

PLACER MINING.

The Regulations laid down in respect of quartz mining shall be applicable to placer mining as far as they relate to entries, entry fees, assignments, marking of localities, agents' receipts, and generally where they can be applied.

The nature and size of placer mining claims are provided for in the Regulations, including bar, dry, bench, creek or hill diggings, and the RIGHTS AND DUTIES OF MINERS are fully set forth.

The regulations apply also to

RED-ROCK FLUMES, DRAINAGE OF MINES AND DITCHES.

The GENERAL PROVISIONS of the Regulations include the interpretation of expressions used therein; how disputes shall be heard and adjudicated upon; under what circumstances miners shall be entitled to absent themselves from their locations or diggings, etc., etc.

THE SCHEDULE OF MINING REGULATIONS.

Contain the forms to be observed in the drawing up of all documents, such as:—"Application and affidavit of discoverer of quartz mine." "Receipt for fee paid by applicant for mining location." "Receipt for fee on extension of time for purchase of a mining location." "Patent of a mining location." "Certificate of the assignment of a mining location." "Application for grant for placer mining and affidavit of applicant." "Grant for placer mining." "Certificate of the assignment of a placer mining claim." "Grant to a bed-rock Flume Company." "Grant for Drainage." "Grant of right to divert water and construct ditches."

Since the publication, in 1854, of the Mining Regulation to govern the disposal of Dominion Mineral Lands, the same have been carefully and thoroughly revised with a view to ensure ample protection to the public interests and at the same time to encourage the prospector and miner in order that the mineral resources may be made valuable by development.

COPIES OF THE REGULATIONS MAY BE OBTAINED UPON APPLICATION TO THE DEPARTMENT OF THE INTERIOR.

A. M. BURGESS,
Deputy Minister of the Interior.

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lessening the quantity of fuel used, and prolonging the life of the Boiler.

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The Dogs are made of the Best Cast Steel, by the drop forging process, which makes them very smooth, true and even. The point or hook is fashioned to a nice oval shape so as to catch all sizes of logs instantly, and enabling the operator easily to disengage. The picks are made also of Best Cast Steel and are of good length both inside and outside of the wood.

Our handles are made of best quality straight grained split and turned ROCK MAPLE, 5 to 6 feet in length, bored specially to suit the pick. Prices on application. See advertisement of Drivers Calks, manufactured by

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Notice to Contractors.

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for New Examining Warehouse, &c., Ottawa" will be received at this office until TUESDAY, 1st March, for the several works required in the erection and completion of the

New Examining Warehouse, &c.,

-AT-

—OTTAWA.—

Plans and specifications can be seen at the Department of Public Works, Ottawa, on and after MONDAY 14th February.

Intending contractors should personally visit the site and make themselves fully cognizant of the work to be done, so as to get the full plans and specifications, before putting in their tenders.

Persons tendering are further notified that tenders will not be considered unless made on the printed forms supplied, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque, made payable to the order of the Honorable the Minister of Public Works, equal to five per cent. of the amount of the tender, 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.

The Department does not bind itself to accept the lowest of any tender.

By order,

A. GOBEIL,
Secretary.

Department of Public Works,
Ottawa, January 27th, 1887.



Notice to Contractors

SEALED TENDERS addressed to the undersigned, and endorsed "Tender for Dredge Scaws," will be received until Monday, the 14th day of February next, inclusively, for the construction and delivery of

Two Side-Dumping Dredge Scaws,

in accordance with a plan and specification to be seen on and after Monday, the 31st day of January inst., at the following places, viz:—Office of Mr James Nelson, Montreal; Public Works Department, Ottawa; Customs House, Kingston; and at the Custom House St. Catharines, where printed forms of tender can be obtained.

Persons desirous of tendering are notified that tenders will not be considered unless made on the printed forms supplied, the blanks properly filled in, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque made payable to the order of the Honorable the Minister of Public Works, equal to five per cent. of the amount of the tender, 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.

The Department does not bind itself to accept the lowest of any tender.

By order,

A. GOBEIL,
Secretary.

Department of Public Works,
Ottawa, January 24th, 1887.

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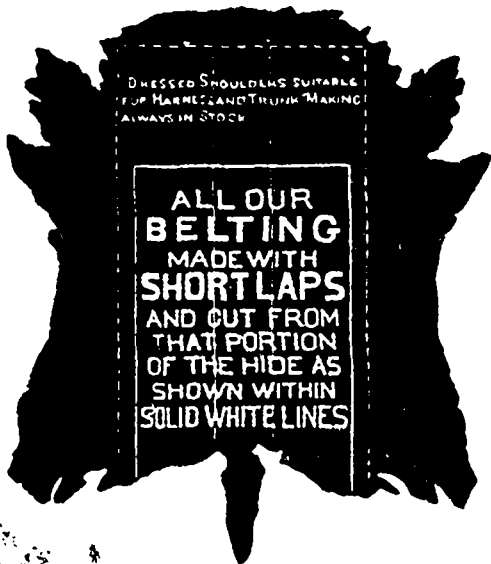
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