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VOL. 5.

PETERBOROUGH, ONT., JULY 1, 1885.

NO. 13.

DUTIES OF THE MILL FOREMAN.

I will endeavor to tell what ought to be the duties of a planing mill foreman, and in this connection say how he ought to be treated.

We should say in the first place that he ought to be a man of strictly temperate habits. You may say I am drawing the lines close here, but it is nevertheless true to the letter, and I emphasize it very emphatically. No man having charge of men or machines should ever step over the line of strictly temperance habits. Here is the base and foundation upon which they should stand solid and firm. One reason for this is, he wants a clear head at all times, no matter what the difficulty is; or, if there is no trouble, he wants his head always level and clear.

Granted that we have got that, the next thing we want is, that he should understand perfectly the mechanical part of his business. He should not only be able to do well every part of the work, but should be able intelligently to impart this knowledge to others in such a way that when he is not able to attend personally to any particular work he wants done, he will know that when he puts any of his men to work it will be done right. He should also know every part of his machine in detail, so that when any part is broken he shall be able to make a free hand sketch of it, and, instead of sending the broken part to the concern that made the machine, he can send the sketch of it, which will be all that is necessary.

Sometimes, of course, a new machine is introduced into the works, and for a time he may know only the general principles of it, but just as soon as possible he should post himself up on every identical piece and know its value and use. Here is where many a foreman is lacking, and I very much doubt if there is one foreman in five throughout the country who, if their machines were pulled to pieces and thrown into a pile promiscuously, could go to work and pick out each piece and tell what part of the machine it belonged to. A great many times, from this cause, a machine may run badly, and he, not knowing just where to locate the trouble, has to do as hundreds of our M. D.'s do, guess what the matter and try a dose of this and a dose of that, till, perhaps by accident, he hits the right place. This is a poor way to get along. The machine doctor should be able to diagnose the place at once and apply the proper remedy then and there, without delay. Oftimes a break-down occurs and by a quick foresight the foreman can fix it up for the time till the hurry is over, or perhaps run till shutting down time, when the broken parts can be repaired so you can start up on time the next morning.

We should not expect everything of a foreman. He may be a good manager and understand his work to a nicety, and yet not be able to go to the forge and weld and hammer iron or

make bolts or cutters, or run a lathe to turn up shafting, or fit up machinery. This is the blacksmith's part and every concern who have their own power should have an engineer who is a practical mechanic, and able to do all this kind of machine work. A foreman's time is generally more valuable about the mill keeping things in order and pushing the work along, than in acting the part of machinist and foreman too. When too many irons are in the fire some of them are pretty sure to get burned.

The main point is to keep things moving, and he should have the tact and energy, understanding and judgment to, as the saying is, "take the bull by the horns." It certainly is no objection to have a man who can go to the forge (and certainly no mill, however small it may be, should ever do without a forge and anvil, and a few pair of tongs) and do a good job, but, as I have remarked, it costs more than it comes to generally.

A foreman should be a first-class manager of men, and ought to understand human nature. My reasons for this are, that no two men can stand exactly the same treatment. One man has to stop every minute to tell a hard twisted yarn, another is stubborn as a mule. One man must be given to understand that it is "root hog or die," and another if you rub his ears a little and say "s't boy," will do anything you want him to and more too. So every man, to get along nicely and get a fair day's work out of them, must have a little stimulant that just fits their case, and every foreman should understand this to perfection.

He should know just how to keep things moving. When one job is out another should follow it immediately and with just as little delay as possible. These lost moments soon count up into hours, and hours make days, and the time lost can never be redeemed. Machines are not like horses, we can never apply the whip and spur to make them go faster. The whip and spur come in by keeping them cutting. If we let two inches, or four inches, or a foot between the end of every board as it is fed into the machine, we soon lose a thousand feet, and many thousand feet are lost during the year in this way.

It should be a foreman's place to see that no spaces are left, and that the end of every board butts against the end of the one going out. A good reason for keeping the stuff close together is that the ends are not near as likely to chip as when space comes between them.

One thing more. A foreman should give all the men the same general treatment. While, as I have said, each man has an individuality or something peculiar to himself which we have to look out for, and take advantage of, still, we must give them all the same general treatment. Don't let one come and fill your head about some one else—never allow that by any means. If you are not smart and sharp enough to detect

any irregularities, let them go, and never make a difference in your men by allowing them to tattle and act as detective.

Do not seek favors for selfish ends, and give a better job to one just because he will clean the snow from your walk. He should know exactly what each man is capable of doing and set each one to that part of the work that he can do best.

I have said one more thing, but have still another to call your attention to, and that is, never, by the smallest act or word, do or say anything that shall cause you to lose one iota of the respect of the men. Here is the main hold of a foreman. You may be ever so smart, and sharp as a thistle, but if you lose the esteem and respect of your men you have lost your best hold, and no matter how much sail you may carry, or how deep the keel is, you will drift to leeward in spite of everything. I will also add here. Don't lose respect for yourself. Never do a thing that you don't care for your men to see. Never dodge round a corner nor through a door till one of your men has gone past for fear he will see you have some suspicious bundle under your arm. Nor let them see you go into any place of doubtful reputation. Don't go there, for if you don't nobody can ever see you there. You may think I am hauling down the lines of morality pretty taut. If I do, it is for the good of one of the greatest industries in the country.

A foreman should always be in his place, the first one about the mill, and enforce strictly and firmly the rule that every man should be in his place ready to take hold when the wheel starts. I am, I see, lapsing down the rules for those who have charge of mills of considerable size, so that the foreman does not have to put on the overalls and jumpers and feed machines and grind knives, and do much of the drudgery about the mill. But the same principles should govern every case till you get down to just a single person. In a small mill a foreman must expect to do his share of the work, whether it is filing saws or grinding knives, or feeding machines, when necessary to keep work pushing along, but in no case should he be confined to the work that he cannot properly see to other parts of the work needing his oversight and care. Many times proprietors of mills put too much such work on him, and I am free to say, that more is lost than made when such a course is pursued.

I thought I should be able to tell how a foreman should be treated in this article, but shall have to wait till next time.—J. T. Langdon, in the Wood Worker.

THE loss of property by the late forest fires about Newberry, upper peninsula, Mich., was from \$8,000 to \$10,000. Among other property destroyed was wood to the amount of 5,000 cords, and several small houses.

PROTECTING WOODEN BUILDINGS

A very simple method of rendering wood factory buildings of greater resistance to fire consists in filling the spaces between the studding with a grout made of sand, lime, and a large proportion of sawdust, mixed with sufficient water to flow slowly; it becomes quite hard, is a poor conductor of heat, and will not ignite although it is charred by exposure to an intense fire. This applies to a building already constructed, where it would be a difficult task to remove the sheathing, or lath and plaster, already on the inside walls. Where the studding is already exposed on the inner side, the space is frequently filled with brick, masonry, or large tiles made for such purposes. A new material made for such purposes in America is called terra cotta lumber, and is composed of top clay, which overlies the firebrick clay, mixed with equal or double quantities of sawdust. Every vestige of the sawdust disappears in firing, leaving the tiles very porous. Its use is not limited to filling walls, but it is applied to other purposes of construction where refractory materials are desired, as for short joints between iron floor, beams roofs, covering to iron columns and beams, sheathings for internally fired boilers and steam pipes. Small cylinders of this material are arranged with suitable coverings, filled with petroleum, and used for torches. Nails and screws can be driven into it, and it can be cut to dimension with edge tools as desired.—Engineering.

An Important Lumber Case.

The following appeared in Toronto Mail of June 15th.—

"SCOTT v. BENEDICT.—The case of Scott v. Benedict was concluded on Friday night before the Court of Appeal and judgment was reserved. The action is brought to establish a vendor's lien on 110½ square miles of timber limits in the County of Peterborough, the amount of property involved being valued at about half a million dollars. At the trial and subsequently the decision in the case was adverse to the plaintiffs, and they appealed to the Court of Appeal. Mr. T. H. A. Scott, one of the plaintiffs, conducted his own case, arguing for seven hours, and at the conclusion of his address was complimented by Mr. Justice Burton, who told him that his arguments would reflect credit on an old counsel. Mr. W. Barwick appeared for the defendants."

DURING the months of January, February, March and April, there was a marked increase in rail shipments from Muskegon, Mich. Lumber to the amount of 33,541,881 feet, lath, 11,104,688 pieces, pickets, 137,851, and shingles, 6,850,250 were shipped. If this ratio is maintained throughout the year, the aggregate will be 108,000,000, or about one-sixth the cut of the mills at that point. The shipments by rail from Muskegon last year were 50,000,000 feet.

NEW ENGLAND SPRUCE.

There are but few of the lumber manufactur-ers in the West who have more than a vague idea of the spruce business, as it is carried on in the provinces and the eastern states...

The lumber used in the construction of a building in the eastern states, is totally different from that used in any other locality. To the Pennsylvania man there is no wood for framing purposes equal to Hemlock; the Michigan man is equally as firm in his opinion of white pine...

The most extensive spruce forests are in Maine and most of the lumber cut in that state is shipped by water to the various distributing points. The mills in New Hampshire and Vermont supply the interior points and deliver necessarily by rail...

Some idea of the spruce business of the Boston market can be obtained from the returns to the inspector general's office for the first three months of the present year. During that time there was inspected 848,294 feet of spruce boards, and 1,171,167 feet of plank and timber...

From present reports there is every prospect of a scarcity of spruce logs at the mills. The season so far has been unusually dry; very little rain has fallen and the melting of the snow upon the mountains has caused the streams to rise but slightly...

"She tried her pretence hand on man, And then she formed the lesson, O!" "What is woman's worth?" asked a fair damsel of a crusty old bachelor...

SOLID AND INSERTED TOOTH SAWS.

I have read with considerable interest the letters in the Saw Mill Gazette, concerning the fitting and running of circular saws. There are nearly as many different views on these questions as there men. This I have learned in my travels among nearly all the lumber sections of the United States...

Without meaning to disparage inserted tooth saws, I am satisfied that the greatest hindrance to their ability to do as much work as solid saws, is the wearing off of the edges of the gullets of inserted teeth...

Some of your writers seem to think that the gauge of a saw does not matter, as the tension must be put in with the hammer, no matter what the gauge. That is all true, but there is no getting around the fact, that the more steel in a saw, the more stiffness, and when backed up by sufficient power, the more ability to stand a heavy feed.

One word for the saw manufacturers. I think they require, and have indeed shown, more Christian forbearance than any other class of men. I will admit that have some preference among the different saws, but after using nearly every make, I can say that while from the best of makers I have had some saws that did not exactly suit, I have never yet had to condemn a saw because it would not make good lumber...

Utilizing Sawdust.

If sawdust can be used as fuel successfully—and it is done every day in saw-mills in the United States and Canada—there should be but little difficulty in using slack or pulverized coal on steamships. A patent has been secured by an Italian engineer which may work nothing short of a revolution in the steam coal trade...

The box factories of Oswego, N. Y., are cutting up nearly 300,000 feet of lumber a day.

A NEW MATCH MACHINE.

Two Troy men have invented a machine which, it is claimed, will practically revolutionize match making. It has been operated to make 24,000 perfect matches in a minute, and its capacity is expected to reach 15,000,000 in ten hours. The veneer of pine wood is fed upon a small platform and passes between rollers, which partly cut it crosswise the width of a match...

BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of May 1885, compared; and also for the 5 months ending May, 1884 and 1885, compared:

Table with columns: Timber (Heavn), Quantity, Loads, Value, £. Rows include Russia, Sweden and Norway, Germany, United States, British India, British North America, Other Countries, Total.

Table with columns: Timber (Sawn or Split, Planed or Dressed), Quantity, Loads, Value, £. Rows include Russia, Sweden and Norway, British North America, Other Countries, Total.

Table with columns: Staves (all sizes), Mahogany (tons), Total of Heavn and Sawn, Value, £. Rows include Staves, Mahogany, Total.

Table with columns: Timber (Heavn), Quantity, Loads, Value, £. Rows include Russia, Sweden and Norway, Germany, United States, British India, British North America, Other Countries, Total.

Table with columns: Timber (Sawn or Split, Planed or Dressed), Quantity, Loads, Value, £. Rows include Russia, Sweden and Norway, British North America, Other Countries, Total.

Table with columns: Staves (all sizes), Mahogany (tons), Total of Heavn and Sawn, Value, £. Rows include Staves, Mahogany, Total.

Subscribe for the CANADA LUMBERMAN.

BAND SAWS.

The Chatham Manufacturing Company have just completed and successfully started, a band saw mill for sawing large short logs. A band saw is simply an endless belt of very superior steel, one edge of which is serrated. The saws used in this new mill are about forty three feet long, five inches wide, and one-sixteenth of an inch thick...

The band saw machinery for this mill was built and supplied by Messrs. Sinker, Davis & Co., of Indianapolis, Ind., and to all appearances is perfect, and is very massive, weighing about 25,000 lbs. This mill will saw a stick of timber, five feet square, or side up or saw a log six feet in diameter. Its capacity is about 30,000 feet of soft, and 20,000 feet of hardwood lumber per day of ten hours...

We heartily congratulate Mr. Van Allen, the president and manager, on the success of this new departure in saw mills, introduced at his instance for the first time in Canada. If he who makes two blades of grass grow where only one grew before, is public benefactor, certainly Mr. Van Allen is entitled to that appellation; for, does he not make seven boards from what only made six before? Mr. Van Allen also enjoys the honor of first introducing in 1858, if not into all Canada, at least this part of it, the five feet and five and a half feet circular saws...

Advice to Mothers.

Are you disturbed at night and broken of your rest by a sick child suffering and crying with pain and cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething. Its value is incalculable. It will relieve the poor little sufferer immediately. Depend upon it, mothers, there is no mistake about it. It cures dysentery and diarrhoea, regulates the stomach and bowels, cures wind, colic, softens the gums, reduces inflammation, and gives tone and energy to the whole system. Mrs. Winslow's Soothing Syrup for children teething is pleasant to the taste, and is the best prescription of one of the oldest and best female nurses and physicians in the United States, and is for sale by all druggists throughout the world. Price 25 cents a bottle.

LIVERPOOL STOCKS.

We take from the Timber Trades Journal the following Comparative Table showing Stock of Timber and Deals in Liverpool on June 1st 1884 and 1885, and also the Consumption for the month of May 1884 and 1885:-

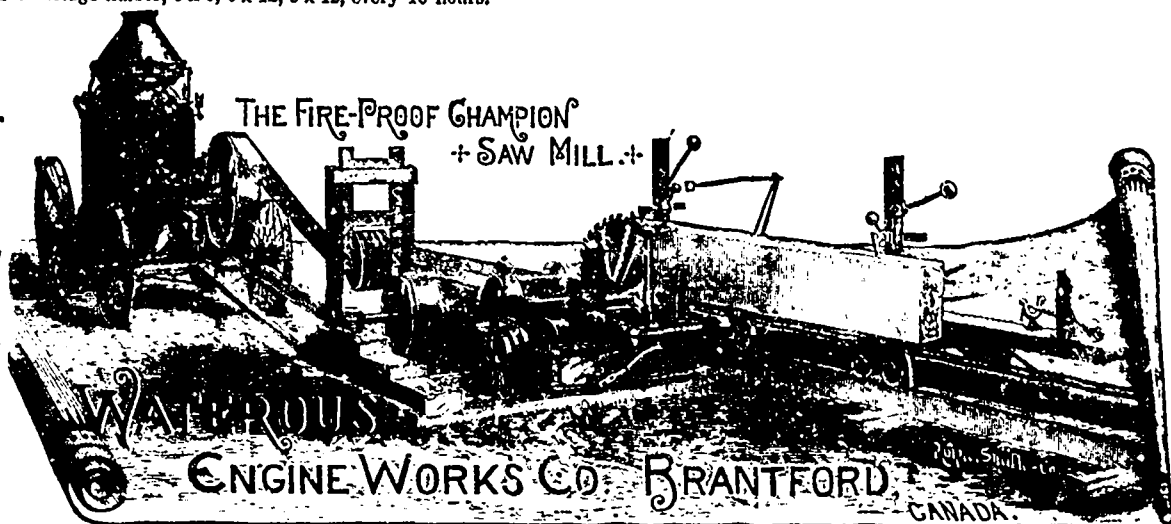
Table with columns: Stock, June 1st 1885, Stock, June 1st 1884, Consumption for the month of May 1885, Consumption for the month of May 1884. Rows include Quebec Square Pine, Wany Board, St. John Pine, Other Ports Pine, Red Pine, Pitch Pine, Planks, Dantzig, Sweden and Norway Fir, Oak, Canadian and American, Elm, Ash, Birch, East India Teak, Greenheart, N. B. & N. S. Spruce Deals, White Red Deals, Baltic Boards, prepared Flooring.

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W. L. STODDART, Contractor on C. P. R., writes from Dalton Station, Biscowising P.O., April 20th, 1895.—"I am now through with the 16 h. p. Champion Saw Mill machinery in as good condition as when received. The mill has given entire satisfaction, and since getting into better timber has gone far beyond my expectations, sawing 120,000 feet of bridge timber, 6 x 8, 6 x 12, 9 x 12, every 10 hours.

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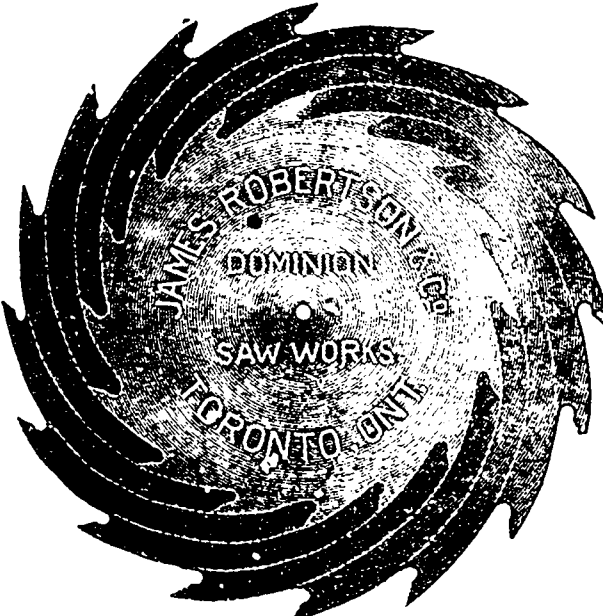
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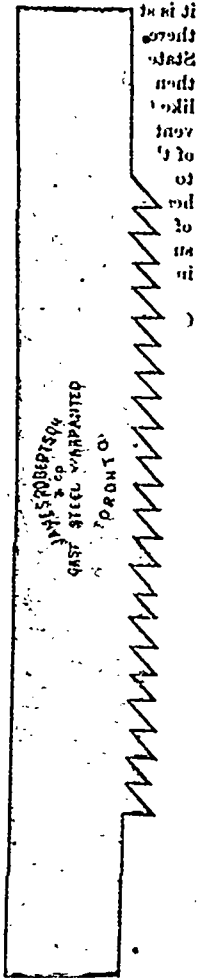
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THE FORESTS OF CANADA.

Dr. R. D. Lyons, M. P. for Dublin, of whom we have already made honorable mention in previous number as an investigator of the timber resources on which this country depends for its future supplies, has, under the authority of the Earl of Derby (as Secretary of the State for the Colonies) obtained a variety of reports from the various provinces of Canada as to the state of its forests and the future outlook, apparently with a view to ascertain the probable powers of production that may be reasonably counted on as available for the customary requirements in that kind which this country is in the habit of importing.

The result is a Blue Book which has just been presented to Parliament "by command of Her Majesty," from which a good deal of useful information may be gleaned, and which has a special interest for the trade of this country.

The reports are furnished by the heads of departments and lieutenant-governors, and contain the official experience of the forestal authorities. While generally admitting that there has been a great deal of wanton waste in the working of timber limits in the past, there is nowhere to be traced any despair of the future as to an absolute scarcity of timber, within any given number of years, and none of them seem to adopt in *extenso* the hypothesis of Mr. Little, whose predictions can only be explained as referring specially to the larger and choicer kinds of timber which are only to be come at now, with greater labor and expense than formerly, when they were not so far to seek. But Mr. Little put his own opinion on record in these columns eleven years ago, where it is stated that in thirty years from that date there would not be enough wood in the United States to make a fagot at the rate of consumption then going on. But from these reports nothing like that is to be apprehended, and none of them venture a prediction as to the possible extinction of the Canadian forests within a cycle of years to come. On the other hand, some do not hesitate even now to pronounce the resources of the Dominion and British Columbia, its supplement on the Pacific side, as absolutely inexhaustible.

On this point Mr. J. H. Austin, of the Crown Land Office, Halifax, states:—

"After having made inquiry of several gentlemen engaged in the lumbering business in this province (Nova Scotia), I find that in all probability all, or nearly all, the timber lands will have been cut over for the first time by, or perhaps before, the expiration of six years from this date; but it does not follow that the timber supply will then be exhausted. It is found that by carefully husbanding those trees that are too small for conversion into lumber, at the timber of the first cutting, after 15 or 20 years a second cut nearly equal to the first can, in many localities be obtained, consequently, if it were not for forest fires, those lands which are carefully looked after would never become denuded of their timber."

We learn from this paragraph, what has not been pointed out by those who inculcate the theory of forest extinction in the near future, viz., that the forests reforest themselves, under ordinary circumstances, for instance, if not utterly destroyed to make room for agriculture, and further on in the report we find the following:—

"Suppose 18 in. diameter to be the standard adopted by a lumberman in felling trees, that is, he will fell no tree of a less diameter, and that he cuts from his land every tree of that dimension and upwards (generally about 50 trees to the acre), let the forest then rest for 15 years, when the same quantity of that dimension and upwards may again be taken. If active measures were adopted to put a stop to the ravages of forest fires, and to prevent the felling of trees of a less size than say 16 in. diameter at 10 feet from the butt, I am sure that Nova Scotia will continue to be a timber producing and exporting country for all time to come, as our best timber lands can never be used for profitable agricultural purposes."

The writer also refers to the "marvellous productiveness" of the timber lands of Nova Scotia, by reference to a small section of 8 or

10 square miles through which the Sackville River flows, thus:—

"Up to the year 1840 every house in Halifax was built of timber from that section, and, as every one knows, it has produced an enormous quantity of cordwood, house-frames, boards, deals, wharf logs, shingles, etc., ever since. Within three years the writer has travelled through every part of the section referred to, and it appears as far from exhaustion now as it did 40 years ago."

In Nova Scotia it seems there are no forestry restrictions, but every man is allowed to cut as he pleases; consequently the destruction of young trees is enormous. But forest fires are more destructive to timber in this province than all the lumbering put together. "The axe makes sad havoc, but may be regulated; fires are terrible." He further says that "the annual timber production of Nova Scotia has never been correctly estimated, but from returns obtained I know it to be greater by several millions of feet than is generally supposed."

Appended to this report, signed Mr. W. A. Hendry, of Halifax, some singular phenomena appear, in a table setting forth the result of an experiment on the comparative age and size of ten trees, from which it would appear that size is no certain criterion of age, as two trees of the same size and in the same neighborhood may be of very different ages. Here are the particulars:—

Red Spruce	9	in. diam.	48	rings (years).
Black "	9½	" "	51	" "
" "	9¾	" "	54	" "
Red "	9½	" "	54	" "
" "	10	" "	58	" "
White Pine	9	" "	58	" "
" "	16	" "	72	" "
Red spruce	16	" "	43	" "
" "	13	" "	44	" "
" "	12	" "	47	" "

Red spruce is unknown in this country by that designation, if it comes here at all; but it appears to be a fast growing wood, achieving a size in 43 years which it took 72 years for white pine to accomplish. But in explanation it is stated that "the difference in growth could well be accounted for by the different degrees of shelter."

The writer also states that—

"There is no reason to anticipate any sudden or even defined period for the extermination of our forests, but that they are gradually being exhausted is true, and it is proper to look this fact fairly in the face."

The report of Ontario, furnished from Toronto, by Mr. R. W. Phipps, Clerk of Forest Preservation, is to much the same effect, and he tells us that—

"With regard to the timber supply of the Dominion of Canada no accurate calculation can be made—a general idea can be given by observing that altogether the area of timber lands in the Dominion is calculated to be about 280,000 square miles."

This space of land would be equal to about 179,200,000 English acres; to pursue the calculation say producing 50 merchantable timber trees to the acre, and renewable every 20 years, the imagination would be lost inextricably in a whirl of figures that it would baffle an actuary to apportion to generations yet to come, with a view to determine when these forests would finally give out. This writer, referring to the contrary opinions expressed by men of equal experience and authority as to the forest extinction theory, says:—"It is probable that over a great extent this territory many of the largest trees have been taken out. But it should be remembered that the forest has great reproductive power; that young trees continually replace the old, and that in 20 years' time trees, now but of medium size will furnish excellent timber;" and he further adds presently: "In my opinion there is no doubt that, if care be taken of the remaining forests of Canada, a very large portion of them will continue in a perpetually reproductive condition, capable of furnishing an annual yield equal to the present yearly cut." And he believes that when railroad and shipping facilities shall have given better access to markets, British Columbia will give timber of a size larger than most that has been heretofore exported. From this latter colony also we have a report, dated Government

House, Victoria, from the Lieut.-Governor, Mr. O. F. Cornwall. In this we are told that the southern and western portions of the territory are a densely wooded country, both mountains and plains being covered with thick and stately forests. It is in this region that the Douglas pine (A. Douglasii) abounds, of which it has been stated that "so closely do the trees stand, and withal so tall and straight, that the united navy yards of the world might draw thence their supplies for years without more than partially exhausting these spacious and majestic forests." The report is brief, but very much to the point, and was furnished by the Governor's Executive Council.

One more quotation, we may venture to make from it: "In refutation of the assertion that Canadian forests are within six years of exhaustion, so far as this province is concerned, an extract may be quoted from the Government prize essay of 1872, by the late A. O. Anderson: "The forests of British Columbia are productive of an inexhaustible supply of timber of the most serviceable kind."

The report from Quebec alone which is most voluminous of all, would be worthy of an exclusive notice, but what we are most interested in learning for the trade is not the distribution of the woods and forests, their revenues, taxes, and obligations, so much as their capacity of production and accessibility, as we can only refer to the main subject of a report to give a general idea of its value. The rest must be sought for in the pamphlet itself. Though Quebec is a household word among timber merchants, who suppose themselves to know all that is necessary about it for the purpose of their business, they will, perhaps, be surprised to learn that in the northern part of the province are thousands of square miles of forest as yet untouched by the woodman's axe. The whole area of the territory comprises about 117,800 square miles, a considerably larger space of land than England, Scotland and Ireland, with all the islands around them, and though the forests that adjoin the banks of the St. Lawrence have doubtless been denuded of their finest timber at various times, it would be a false conclusion to assume that they have been therefore annihilated. Of the 177,800 square miles of territory not one-fourth, it is stated, will ever be fit for agriculture, but must remain from its very nature forest, and devoted to the production of timber, by reason of its climate, soil and seclusion. The writer says: "On the southern tributaries of the Saguenay that interlace with those of the St. Maurice there is much good soil, and where the trees fit to make saw logs of have been cut away the small trees left, if not destroyed by fire, will soon be of a useful size. This remark is applicable to all timber regions, as I have had ample occasion to notice. In one case, where no error could occur, a small timber berth with well marked timber lines, which had been stripped of every tree fit to make a saw log, under an able manager, was cut over again by him eight years afterwards when by the increased size of the small trees formerly left as unfit a greater number of saw logs were made from them than was got by the first cut eight years before. On the Gatineau I passed through an extensive grove of young red pine trees of fine growth, that had been previously three times completely cut over since the commencement of lumbering there." Is not this the secret why the European forests have lasted through all ages, and are in great abundance still?

We cannot bring this brief notice to a close without referring to one important omission from Dr. Lyons' reports. While Ontario, Quebec, and Nova Scotia are done justice to, there is no mention whatever, good or bad, of the great timber-producing province of New Brunswick. An account of our North American forests, without any notice of New Brunswick is like the play of Hamlet with the part of Hamlet omitted by particular desire from the performance; for New Brunswick is perhaps as a timber-shipping province the most convenient and indispensable of all to this country, and its area is one-third larger than that of Nova Scotia. The port of St. John is the first to open in the spring, and the last to close in the autumn, as the waters of the Bay of Fundy are never frozen. That this omission is accidental,

from a parliamentary paper, seems very unlikely, but that it should be by design, and without a word of explanation seems still more unaccountable. At all events, the fact remains.

Dr. Lyons has added a *precis* of the regulations that govern settlements, occupation and purchase of lands, timber limits, &c., which will be found very useful to emigrants and others; and there is a map to show the proportion of forest land remaining in each townland or county of Ontario. The book contains 35 folio pages, is published by Messrs. Eyre & Spottiswoode, and may be had through any bookseller for the small price of sevenpence-halfpenny.—*Timber Trades Journal*.

ITEMS FOR RECORD.

Manufacturers who use large belts are often at a loss to decide which way of the leather will stand the greatest strain. Generally speaking, a belt will stretch much more evenly the long way of the hide, but for actual tension, across will stand the most; while to combine evenness of expansion and strength a hide cut diagonally, answers best. Besides imparting to large belts both these properties, a hide will cut with less waste when cut diagonally than any other method that will use the best parts of the same. Some persons, and we judge them more theoretical than practical, advocate the idea that large belts will wear longer and retain their strength better by running continuously in one direction; that is, when once used, the direction of running should never be reversed; but the closest examination fails to reveal any tendency to displacement of parts, providing the belt is not too heavily strained. This we find to be the principal source of dissatisfaction, and the cause of premature uselessness. One might as well expect to push an engine and boiler with an estimated power of four horses, as to do the work of one with a six horse capacity, as to drive the machinery requiring a medium sized belt with one light. There are certain limits of various strengths of all substances, and when we go beyond this limit, we have violated a physical law, the penalty being a displacement of particles, an overstrain which has wrought more injury than years of actual wear; and what is true regarding belts, applies with all its force to all motive power and machinery of whatever name or nature. In basing calculations it is always best to make provisions for at least one-third reserve power, it being a fact well known to nearly everyone, that rarely, if ever, less power is required than the estimate when the plant was built first on paper; but generally a little, sometimes considerable more is needed than the engineers calculated. Again, any power can be more economically transmitted with a liberal reserve than when run to the greatest capacity. Hence it is safe from a financial standpoint to have all belts and machinery at least twenty-five per cent. stronger than ever expected to use. We might carry the argument still farther, and mention the general cramped condition of buildings, warehouses, lots, and the like; for with an experience dating back no few years, we have yet to see an original plant built for the express purpose of any specific line of trade or manufacture, that was ever too large for the successful business that followed. With these as with machinery and means of transmitting power, it is safe, as a rule, to make liberal allowance for the increased demands for space when things are all in place and moving. Many an otherwise successful concern has had to sell goods in a poor market simply because they had no the necessary room in which to store their accumulations. Others have been made the subjects of extortion by grasping owners of adjoining properties simply because, in their haste to build and get to work, they neglected to make precautions to protect themselves against the rise of property so enhanced by their own success.—*Lumber Trade Journal*.

Especially, to Women.

"Sweet is revenge especially to women," said the gifted, but the naughty, Lord Byron. Surely he was in bad humor when he wrote such words. But there are complaints that only women suffer, that are carrying numbers of them down to early graves. There is hope for those who suffer, no matter how sorely, or severely, in Dr. R. V. Perce's "Favorite Prescription." safe in its action it is a blessing, especially to women and to men, too, for when women suffer, the household is askew.

A CHAT ABOUT PULLEYS.

How do you like wooden pulleys? Don't the belts seem to take hold better with wood than with iron face? We vote for the wooden pulley, but we don't like the wooden pulley hub. A pulley built upon a great big cast iron flange is rather an uncomfortable concern to deal with. You can't get hold of a big six inch wooden pulley. There are no arms to put a chain between, or to reach through while you are at work around it. We have got first-rate results from a wooden rim with iron arms. We used to run a planer. The feed belt kept slipping on a 24 inch iron pulley. We took a hammer and knocked the rim off. Care was taken not to break the arms or thing would be no good. Got out a lot of wooden segments. Made them not over 2-inch thick; nailed and glued up a pulley having half the width of face required and then laid on the old hub and arms. Cut the next layer of segment away 1/2 inch from the arms, and drove in a few nails to keep them from shifting out of place. The hub was centered before the nails was driven. Suppose you try it.

Put on the rest of the rim and then pour in melted brimstone around the edges of the arms. Don't be afraid that it will not hold, we have put up six-foot pulleys in this manner, turned them off true, balanced them, and they run ten years and are running to-day. Don't ever run one of these pulleys without balancing, and for that matter, don't ever run and pulley, or cutter head unless it has been balanced. Very often a machinist gets left when he balances pulleys. Supposing a pulley is thick at one edge, thin at the opposite edge, and on the opposite side there are thick and thin places, but the thick places are on opposite edges of the pulleys. Now when the machinist puts an arbor in this pulley, and hangs it on the levelling horses, the pulley balances exactly. There is a thick place and a thin one at opposite parts of the circumference and they offset each other. It was caused by the molding of the pulley. By some means the cope got moved. It offset a little on the drag when the mold was closed, so there are two thick and two thin places after the pulley is turned, for the machinist balances the error as much as possible. When this pulley is started up, it tries to turn around parallel with the shaft. In fact it "wobbles endwise." There is but one way to balance such a pulley. I must have two or more pieces of iron riveted to the rim. There is but one way of finding the exact spots where they should be put and that is by running the pulley while suspended upon a pivot or point which has a bearing exactly in the centre of the bore of the hub. This leaves the pulley free to turn in any direction laterally, and the part needing weight will move in a path some distance from a plane passing through the point of suspension. The wrought iron pulleys are good in this respect. They are uniform and so run very true. A wooden rim pulley can be balanced very easily by driving in nails until the needed weight is added, but when a half pound or so is needed, it will pay to bore a hole in the inside of the rim and drive in a chunk of round iron. Don't bore the hole from outside of the pulley, we have seen plugs of iron fly through window glass from this cause.

In fitting an iron arm with a wooden rim, we don't want to stand the pulley on edge to pour in the brimstone. We could only pour one arm at a time in this manner and would run the risk of moving the hub out of centre. We will bore a 3/4-inch hole down into each pocket and then fit a piece of cardboard around each arm, tack it in place and reinforce with putty. We can serve each arm in that manner and then pour them all one after another. A wooden pulley should be turned down nearly to size and balanced. If it is very badly out of truth it should be nearly balanced before turning at all. Before the finishing touch is put on the pulley must be put in good balance, for it is impossible to turn a pulley nicely when one side is 1/2 or 1 1/2 lbs. the heaviest. Heavy pieces of wood, knots, etc., prevent making a pulley that will not need balancing. Nails are not necessary in making a wooden pulley. The very best are made without them, and are put together entirely with glue. To do this in good shape a coil is necessary for heating the stock, and a big press

or a lot of clamps for squeezing out the glue. Don't try to glue up a big pulley out of cold stock. If you can't get the wood hot enough to keep the glue melted, then you must put in nails or you may have an exploded pulley, and segments of that rim will be "too numerous to mention." When we get one pulley in place, we find the belt will not run where we want it too. Something is wrong. Something is out of line or level, or our pulleys are not turned true. Perhaps one edge is larger than the other. No matter what the trouble is, hunt it up, and apply the remedy right where it belongs. Don't walk up to a belt which is running two inches off on one edge of a pulley, and look at it ten minutes and then feel too tired to fix it. The next time you see that belt it has bent one edge against a hangar. The sight of it makes you lazy again and you nail up one of Slipshod's guide rods which consists of a 2x3 edging. It runs so two weeks. It might have run until this time for all you cared if it had not cut the "guide rod" clean off and run off between two cisco pulleys, where it caught, broke in two, wound up and threshed itself all to pieces. Perhaps the belt pulls down ten or fifteen hundred pounds of pulleys, shafting and hangers, and you have a \$200 repair job to pay for, all through a little chronic "tired laziness." J. F. Hobart in *Lumber World*.

FOREST FIRES IN MAINE.

We find the following in *The Industrial Journal* of June 5th:—

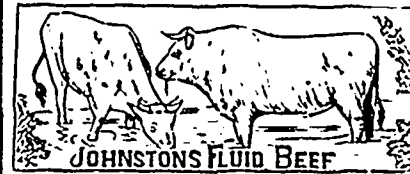
"The recent destruction to property in Maine by forest fires, which fortunately have been extinguished by the heavy rains of the past week, bring forcibly to mind a question which has never received half the attention, in this section at least, its importance demands. Every year in this state thousands, and in some years millions, of dollars' worth of property—standing timber, mills and farm buildings, and occasionally entire villages—is swept out of existence, industrial enterprises of various kinds bankrupted or seriously crippled, capitalists frightened away from contemplated investments, and the face of the landscape hideously defaced, through the agency of forest fires. Of what use is it to talk of the preservation and propagation of forests, and the waste of timber in cutting, as long as whole townships are being devastated by the fiery element every year? Clearly, while such conditions exist, the owner of timber lands have very little inducement to cull his growth instead of shipping it, or to leave young timber standing until it shall have acquired greater value by reason of increased age; the risk is too great. Rather will he be inclined to strip his tract of whatever may be of value upon it, while yet happily the fires have left it untouched.

"The exasperating feature of these forest fires is the fact that, in nearly every instance, the most simple and ordinary measures of caution on the part of whoever is responsible for starting them would have prevented their occurrence. In 99 cases out of a hundred their origin is directly traceable to gross carelessness or negligence, and in the hundredth case to wilfulness. The most prolific sources of forest fires, and the only ones which need be considered, are locomotives, brush burners, campers and sportsmen. As regards the railroads, modern science has provided appliances for arresting sparks and rendering them harmless, and the state should permit no train to be run without one wherever its authority extends. This danger, then, might be easily removed, as railroad managers are supposed to be men of at least average intelligence, and to have more or less respect for state laws. The other classes are more difficult to deal with, as many of them are ignorant and shiftless, and a still larger proportion care little for laws of any kind so long as they can violate them without fear of punishment. Nevertheless there should be laws, as in fact there are, holding the originator of fires strictly responsible for all damage caused by or resulting from his carelessness and stupidity. But these laws should be more strictly enforced by efforts on the part of the state to investigate the origin of each disastrous fire, fix the responsibility and bring the guilty party or parties to justice. A few noteworthy examples of t... ud, tending to show that the

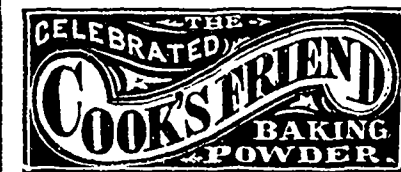
authorities mean to enforce the laws, will have a wholesome effect on reckless kindlers of bush or camp fires.

"Now that the camping out season is at hand, city sportsmen and rusticators should be made to understand the necessity of exercising the utmost caution in kindling fires for any purpose, and where one has been started to be sure the last spark is extinguished before leaving it. The laws of New Brunswick are clearer and better than ours in relation this matter, and although the rules laid down have, of course, no legal force in this state, they are sensible and simple enough to meet the approbation and be observed by every true sportsman and worthy citizen. They direct that whoever, between May 1st and December 1st, may start a fire in or near the forest, shall: First, select a locality in which there is the smallest quantity of vegetable matter, dead trees, branches, brushwood, and dry leaves or resinous trees; second, clear the place in which he is about to light the fire, by removing all vegetable matter, dead trees, branches, brushwood and dry leaves from the soil within a radius of five feet from the fire; third, exercise and observe every reasonable care and precaution to prevent such fire from spreading, and carefully extinguish the same before quitting the place. Another section provides that any person who shall throw or drop any burning match, ashes of a pipe lighted cigar or any other burning substance, or discharge any firearm, within any forest or wood lot or other place where there is vegetable matter, shall be subject to the penalties imposed by this act if he negligently omit wholly to extinguish, before leaving the spot, the fire of such match, ashes of a pipe, cigar, wadding of the firearm, or other burning substance. It is further provided that every person that may be in charge of a party requiring camp-fires for cooking or other purposes in the forest shall provide himself with a copy of the law and read and explain it to his companions."

Johnston's Fluid Beef



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Is the Best and Most Economical article in use for raising all kinds of Biscuit, Rolls, Pancakes, Johnny Cakes, &c. It is made from the BEST MATERIALS MONEY CAN BUY, and is perfectly pure and wholesome. Broad ready for the table can be prepared by its means in TWENTY MINUTES after wetting the flour. Next to salt it is the most useful adjunct to camp supplies.

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Building & Bridge Timber Sawn to Order. Pine, Spruce and Hemlock Lumber by the Cargo. Steam Saw Mills, Box Factory and Yards.—322 to 300 William St., and 150 St. Constant St., Montreal. Steam Saw Mills, L'Assomption, P.Q. P. O. Box 804. 1y121

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New and Second Hand. **BOILERS. ENGINES. PUMPS.** Wood and Iron Working Machinery

Tools and Plant for Mills and Factories, of every description. Engineers Supplies—Belting, Oils, Etc., Etc.

Machinery complete for Two Light Draft Steamers, taken from the Stra. "Milford" and "Huntley."

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DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

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

All communications, orders and remittances should be addressed and made payable to THE PETERBOROUGH REVIEW PRINTING AND PUBLISHING COMPANY (LIMITED), Peterborough, Ont.

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

The CANADA LUMBERMAN is filed at the Offices of Messrs. SYDNEY DRACON & Co., 164 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

PETERBOROUGH, Ont., JUNE 15, 1886.

A LOCAL paper says that the Grand Rapids furniture manufacturers saw 20,000,000 to 25,000,000 feet of hardwood a year.

The Port Discovery, W. T. Mill Company, has lately been buying logs on Samish islands, Puget sound, at \$5 a thousand.

It is stated that a Duluth lumber concern is figuring on shipping 4,000,000 feet of lumber to Buffalo, N. Y., at a freight rate \$2 thousand.

RATHBUN & Co.'s mill opposite Belleville broke the driving wheel on June 12th, and was compelled to shut down for some days. The mill employs 75 men.

The price of hemlock bark in Milwaukee dropped recently from \$7.50 to \$6.87½, and the Ludington, Mich., buyers, reduced their paying price from \$5 to \$4.50 a cord.

The first lot of lumber to arrive at Selkirk, Man., this season, from Lake Winnipeg, was towed in by the steamer Ogeina June 6th. It was destined for the Winnipeg market.

DURING the present season 800 car loads of square timber has been shipped from points on the Buffalo, Goderich & Lake Erie railroad, and the Grand Trunk west of Stratford, most of it going direct to Quebec direct.

FIRE in the forest between Bristol station and Tawas lake, in Michigan, consumed considerable pine, tamarac and cedar on a tract called the Dole pine lands.

The schooner O. M. Nelson, lumber laden, from Ludington, Mich., collided with an unknown sailing craft, in mid lake, off Sheboygan, on the night of June 16th. The jibboom, bowsprit and cutwater of the Nelson were carried away, with all her head gear. By rigging a temporary bowsprit the disabled vessel worked down toward Milwaukee, got a tug, and was towed into that port.

THE Big Mill at Deseronto cut 2,841 logs on Tuesday, the largest cut the mill ever made.

THE saw mill destroyed last year by fire at Parry Harbor, Ont., has been rebuilt and is once more running. It employs nearly 300 hands.

THE Parry Sound Lumber Company have transferred all their lumber interests in Conger and Cowper townships to the new Congor lumber company.

It is said that the standing timber greatly suffered by the recent forest fires in Michigan, and that in some instances saw logs, partly covered by water, lying with one end in a stream, were burned so that nothing remained above water but the charred end and a heap of ashes on shore.

A SAN FRANCISCO paper says that the claim of the Truchee Lumber Company that the altitude of their logging camp, 7,500 feet, is greater than that of any other in the world, is overshadowed by that of the Great Sierra Mining Company, which has a logging camp and mill on Leo Vining creek, Mono county, at an altitude of 10,500 feet.

THE Cheboygan Lumber Company, with mill at Cheboygan, Mich., is driving piles for increased booming ground at that point. This has become necessary to accommodate the Spanish river, Ont. logs which will soon begin to arrive. The company has purchased limits including 80,000,000 to 100,000,000 feet of pine in Spanish river district, and intends to tow the logs to Cheboygan for sawing, thus avoiding the duty on lumber.

NORMAN'S Electro Curative Belts are the finest remedy known to medical science for the permanent cure of neuralgia, sciatic and all diseases arising from nervous weakness. Testimonials of cures effected on residents of this vicinity can be obtained from Mr. A. Norman, medical electrician, No. 4 Queen street east, Toronto. He has lately invented a new and more perfect appliance than any yet produced, a description of which is given in the advertising columns. His electro curative truss is unequalled for rupture. Write him.

We have had a visit from Mr. Playfair, of Sturgeon Bay, who is using one of the twin engine steam feeds made by the Wm. Hamilton Manufacturing Company, of Peterborough, and he reports that it is giving complete satisfaction and is enabling him to cut 15 M more lumber per day than previously by the friction feed. He thinks it uses less steam, and, therefore, must be a great improvement on the old feed. A description of this machine and an illustration of it will be found in the last issue of the CANADA LUMBERMAN and is also advertised in the present issue.

A BIG BOILER.

The big boiler which was being built at the Wm. Hamilton Manufacturing Works last winter, previously referred to in this paper, is now completed and the parts put together. It stands on a railway track in the boiler shop in the same position as that when the drilling was done and is daily visited by numbers interested in this kind of work. It is eight feet in diameter, two corrugated furnaces, one hundred and forty-seven three-inch tubes and is twelve feet long. The furnaces are large enough to allow a person to pass through one and out of the other quite comfortably. While under construction it successfully passed the 100 pound pressure examination. This is the largest boiler ever turned out of these works and one of the largest ever built in Canada. It was made for the Georgian Bay Lumber Co.'s steamer Magnetawan and will cost approximately \$4,000. In building it a special drilling machine was built and the holes drilled, not punched, through the several thicknesses of iron composing the shell. It was built under the superintendence of Mr. Richard Reeves, foreman of the boiler shop, and speaks louder than words as to his ability as an architect in this line. It will remain in its present position for several days.

BELTING.

We would call the attention of proprietors of saw mills and other mills to the advertisement in another column of F. E. Dixon & Co., of Toronto, the well known manufacturers of leather belting. Ever since the establishment of this firm, in 1872, it has been their steady aim to furnish at a reasonable price at least as good belting as can be procured from any other makers, whether in the United States or elsewhere, and the steadily increasing demand for their famous Star Rivet Belting is a sure proof of the excellence of their goods. At the Provincial Exhibition held in Ottawa, in 1875, the first prize was awarded to goods of their manufacture, though placed in competition with belting manufactured by Messrs. J. B. Hoyt & Co., of New York, and other makers; and theirs is the only belt manufactured in Canada which obtained a diploma and medal at the Centennial Exposition, at Philadelphia, in 1876. They are specially noted for the good quality of their large double driving belts which cannot be surpassed for easy running or durability. There are several of these belts in one of the largest saw mills on the Ottawa river which have been doing steady work for nine seasons and are apparently good for at least as many more. They can also point to a fourteen inch double driving belt which has been in steady use in a large planing factory in Toronto since December, 1873, and seems good for several years yet, besides a large number of other belts of various sizes up to 36 inch, which have been in use for several years and are giving perfect satisfaction. Their recently patented Lap Joint, which entirely prevents the turning up of the ends of laps after having been in use a short time, particularly when running on small pulleys, is an improvement which will at once commend itself to all who use belting. The Messrs. Dixon & Co. are constantly adding to their plant and machinery, and are determined to spare no effort to keep abreast of the times in this particular line. They are at present engaged manufacturing a 36 inch double driving belt, 90 feet in length, for the Toronto Electric Light Company.

RAFTS ARRIVED.

The Quebec Chronicle says that the following rafts have been entered at the Supervisor of Cullers' Office, Quebec since June 1st:

June 6—Chas. Bertrand & Co., birch, Tanquay's wharf.

Timmons & Gorman, white pine, etc., Cap Rouge.

Stokes & Kelly, walnut, Hadlow cove.

D. D. Calvin & Co., oak, etc., sundry coves.

June 9—M. O'Shaughnessy, deals, Nicolet.

Price, Bros. & Co. deals, Windeor mills.

R. R. Dobell & Co. (Flatt & Bradley lot), elm, &c., Dobell's cove, Silery.

June 10—Allen Gilmour & Co., white pine, Indian cove east.

Cook & Oibbons, elm, etc., St. Michael's cove.

June 12—Cook & McGibbon, elm, etc., St. Michael's cove.

Allan Gilmour & Co., white pine, &c., Indian cove east.

June 16—Smith, Wade & Co., ash, etc., sundry coves.

June 17—Tardiff & Trudel, birch, Commissioners' wharf.

RAFTS ENTERED AT THE SUPERVISOR OF CULLERS' OFFICE.

June 18—T. Buck, white pine, oak, etc., Woodfield and Ottawa coves.

D. D. Calvin & Co., oak, pine, etc., sundry coves.

The Quebec Timber Company (Limited), birch, Commissioners wharf.

Rafting Timber.

This season there has been a large quantity of timber rafted at the dock, Belleville, and about fifty men are now employed there. One dram for Mr. Thompson will leave for Quebec as soon as one of Balvin's tugs arrive and the Collin's Bay Rafting Company with twenty men are making preparations to raft his drams of timber which is expected here from Georgian Bay on Saturday. Mr. Buck is also carrying on operations in this line as busily as ever.—*Intelligencer, June 25.*

LIVERPOOL.

The Timber Trades Journal of June 13th says: It might be assumed, the Whitauntide holidays having become a thing of the past, that business would have shown some signs of life and animation, but, so far from this being the case, it is doubtful whether it really is as good now as before the vacation. The Ministerial crisis may perhaps affect trade in some degree, but it is difficult to see how it could depress it to a lower depth than it now touches.

The late opening of the shipping season in the St. Lawrence ports, by delaying the arrival until late in the season, will give an opportunity of present stocks being worked down, but the deliveries are not what one would like to see going on, and do not make that marked impression which is so desirable. The local interest in the Manchester Ship Canal Bill keeps up its intensity in all the surrounding districts which hope to benefit by the scheme if it be carried out. One point that has always been made much of by the promoters is that vessels would demand little, if any, extra rate of freight for carrying the goods up to Manchester, thus saving all railway or other transit charges. Such an assumption carries with it little common sense in the view of practical men, and has just received a severe blow in a petition presented by the Liverpool Steamship Owners' Association, representing about one million tons of ocean going and coasting steamers. In the document the petitioners say, "This is a complete error," and then proceed to point out by the danger and delay consequent upon the journey through the canal, increases in rates of insurance would be demanded, and the loss of time, together with other contingences, would come to considerably above £100 per day per ship.

A strong committee of the House of Commons with Mr. Forster as chairman, will proceed to take evidence next week, and the opposition is likely to be quite as strong and more numerous than before.

LIVERPOOL TIMBER SALES.

On Friday last, the 6th inst., Messrs. Duncan Ewing, & Co. offered the fine cargo of Apalachi cola hewn pitch pine timber just landed ex Harold, and though there was little disposition to bid for it at the commencement of the sale, it was eventually cleared up.

Several parcels of East India teak planks were also offered, but did not elicit competition, and they were consequently withdrawn; but it is reported several lots were sold immediately afterwards by private treaty.

On the same day Messrs. Farnworth & Jardine offered two cargoes of St. John, N. B., spruce deals in store, of which a fair proportion was sold; but prices showed little variation from the recent quotations, the brokers holding these goods with a firm hand.

WINNIPEG.

The Commercial of June 16th says: There is no word as yet of the mills starting this season. Business is still very quiet and the season's trade is not likely to amount to anything, while dealers seem to be satisfied to look upon this summer as somewhat of a blank. No outrageous cutting is reported, but cash buyers can make good purchases, altogether this trade is not in a satisfactory state at present.

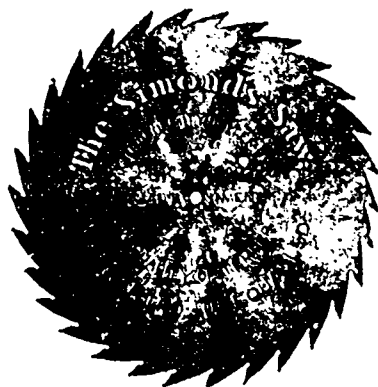
QUEBEC.

The Chronicle of June 20th says:—The timber market is quiet, but the sales reported during the past week are at fair prices, and should be satisfactory to the producers. In white pine some five or six rafts have changed hands. Old rafts of 41 to 43 feet, at 19 cents. A choice new raft of 55 to 57 feet at 29 cents. And one or two other rafts at prices which have not transpired.

DEALS.—Spruce—About 40,000 standard were disposed of as follows:—
\$45.00—1st quality, 3-inch and 2-inch spruce
\$27.00—2nd " " " "
\$23.00—3rd " " " "

D. K. RAMEY & Co.'s mill, at Ramey, Pa. was lately burned, with 200,000 lath, the 3,000,000 feet of lumber at the mill being saved. Loss, \$12,000; insurance, \$7,500.

ST. CATHARINES SAW WORKS!



R. H. SMITH & CO.,
MANUFACTURERS OF EVERY DESCRIPTION OF
SAWS.

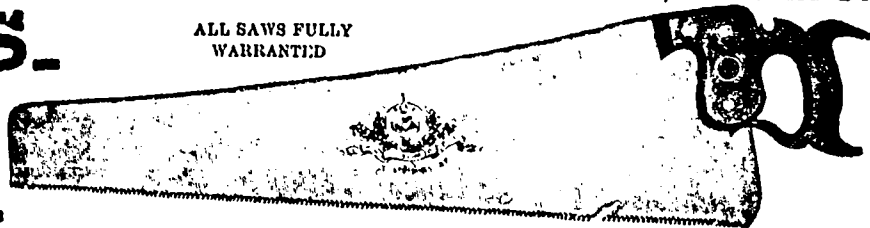
ST. CATHARINES, ONTARIO.

ALL SAWS FULLY
WARRANTED

Sole Manufacturers for the Dominion of
Canada of the

"SIMONDS" SAWS.

All Our SAWS are now made under the "SIMONDS" PATENT PROCESS.



F. E. DIXON & CO.

Manufacturers of
Patent Lap-Joint Star Rivet



LEATHER BELTING

70 KING ST. EAST, TORONTO.

To Mill Owners, Manufacturers & others requiring Leather Belting

Do not buy any Belting unless with DIXON'S PATENT LAP JOINT. It will last longer and do more service than any other. Please note the address, 70 KING ST. EAST, and send for Circulars and Latest Discounts.

RECENT PATENTS.

The following list of patents, relating to the lumbering interests, granted June 16th, 1885, are specially reported by Franklin H. Hough 925 F. street N. W. Washington, D. C. :-

- 220,217.—Log loader—J. Campbell, Muskegon, Mich.
- 320,039.—Saw drag—J. W. Anderson, Boscobel, Wis.
- 320,086.—Saw drag—J. A. Owens, McDonald, Ga.

ISSUED JUNE 23.

- 320,591.—Log turner—D. J. Saltsman, Brown, Ala.
- 320,681.—Saw, circular—W. J. Perkins, Grand Rapids, Michigan.
- 320,747.—Stave jointing machine—H. D. Barnes, New Haven, Conn.
- 320,574.—Wood grinder—E. J. Millard, Marinette, Wisconsin.

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c, measured and culled to date:—

	1883.	1884.	1885.
Waney white Pine..	732,705	434,342	193,164
White Pine.....	183,659	373,225	450,083
Red Pine.....	23,694	25,713	12,853
Oak.....	300,899	182,929	563,694
Elm.....	83,561	194,277	80,295
Ash.....	24,359	62,168	36,098
Basswood.....		205	
Butternut.....	99	811	70
Tamarac.....	56	1,851	30
Birch & Maple.....	128,016	177,051	251,730
Masts & Bowsprits...	—pcs	—pos	—pos
Spars.....	—pcs	82 pcs	—pcs
Std. Staves.....	67.1.3.10	16.0.2.22	39.0.3.23
W. I. Staves.....	18.9.2.2	69.2.1.17	61.2.1.17
Bri. Staves.....	21.4.0.4	2.7.2.10	

JAMES PATTON,
Supervisor of Cullers
Quebec, June 7.

ECONOMY IN RUNNING A BOILER.

About the most important element entering the economy of a boiler, says a contemporary, is the manner in which it is run. The matter of proper coal burning is vastly more difficult than the mere stopping, starting and oiling of an engine, and calls for some one of judgment and superior intelligence to do it properly. Many suppose that the one thing necessary is to heave the coal on to the grates, but this is a very great

**TIMBER LIMITS
WANTED**

On the North Shore of Lake Superior or Georgian Bay.

Send particulars to
THOS. MORAKEN,
Lumber and Commission Merchant,
2 Court St., Toronto.

error. Some men appear to be born firemen, others can never learn to fire properly. And it is not always that the best men get their deserts, which is unfortunate and discouraging. We have in mind now a man who fired, unaided, a battery of thirteen boilers, and the peculiar thing about it was the fact that he never seemed to be doing anything at all. He did this for several years, and took it as a matter of course. Finally he said to the superintendent of the concern that he could burn half screenings if he would hire another man, a laborer, to wheel them into the fire room. The was done, and resulting in a large saving in the cost of fuel; but the treasurer of the establishment happened around one day and found the extra man at work and immediately raised a row about the expense of the extra man, and insisted that they couldn't stand it. Very naturally the fireman couldn't stand that, and he put on his coat and went home. Not long afterward we visited the place and found four men were required to do the work. This was a clear case of waste.—*Boston Journal of Commerce.*

On June 22rd Robert Elliot, recently returned from the Nile, with two others, were passing up Rideau street and stopped in front of a peanut store kept by an Italian named Pennett. They bought some nuts from the Italian, but had some words with him as to the price and commenced to wrock his stand, when the Italian struck Elliot over the head with a club, knocking him unconscious to the ground, Elliot was taken to his father's hotel on the By ward market, where he died this afternoon from the effects of the blows. Pennett has been arrested

A FULL LINE of all Sizes
Single and Double Belting
constantly in stock.
ALL ORDERS
Filled same day
as received.



TORONTO

WAREROOMS

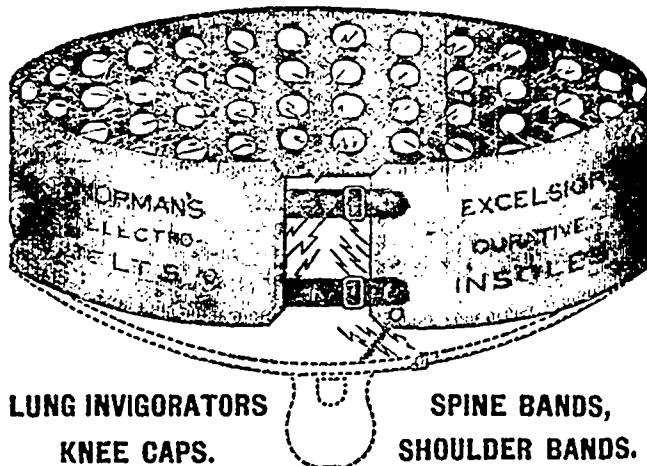
86 King Street East

Factory and Warerooms:—2518, 2520
and 2522, Notre Dame Street.

MONTREAL, QUE.

Norman's Electro-Curative Belt!

4 QUEEN ST., EAST, TORONTO.



This Belt is the last improvement and the best yet developed Curative Appliance in the world for

INDIGESTION,
NERVOUS DEBILITY,
RHEUMATISM,

and all diseases of men, and is a grand remedy for Female Complaints also. Circular and consultation free.

LUNG INVIGORATORS
KNEE CAPS.
SPINE BANDS,
SHOULDER BANDS.

A. NORMAN, Medical Electrician

4 QUEEN STREET EAST, TORONTO.

N. B.—Mr. Norman has had long experience in the Treatment of Diseases by Electricity, and will give his personal attention to every case, by letter or examination.

TENDENCY OF BUSINESS.

In order to give any reliable indications of the future of business, we must first review the past, and carefully consider the present. The whole business world seems at this time to stand dazed, as it turns from the magnificent realizations of the twenty odd years just ended to the contemplation of the circumstances that now surround it and endeavors to penetrate the obscurity that lies in the immediate future.

The business of the country during the 25 years previous to 1861, was conducted by a class of men who entertained very different views of its objects and ends and the purposes of life to be attained by its prosecution, from those who are now engaged in the strife of commercial affairs.

They embarked in it and looked upon it as an honorable vocation intended to meet the wants of the communities in which they lived, and as an honest calling by which to maintain themselves and those dependent upon them, and if by economy, judicious care and persistent application, at the end of twenty-five or thirty years they were found to have accumulated an estate of fifty or one hundred thousand dollars, they were counted among the rich men of the land. A clear yearly saving of three or five thousand dollars was looked upon as a rapid accumulation of wealth.

The same modesty of expectation provided their employees. A chief clerk, on a salary of four or five hundred dollars a year, attended to his business from early morning until late in the night, and managed by careful economy to lay by a good share of his earnings until able to join his employer, or embark in a business of his own. So with those in minor positions, salaries ranging from one to three hundred dollars per year enabled them to not only supply all their wants, but to lay by for the contingencies of the rainy day of the future.

And they all worked until the work of the day was all done, which was the only circumstance that limited the hours of labor. Few unnecessary wants existed to stimulate unfair methods of business to meet their demands. At least, this was the general condition of affairs, and men retired from active business conscious that they had acquired their competency in an honorable way, and in the possession of unimpaired morals and minds.

Some of this generation of business men are still living and still engaged in affairs, but most of them have departed, and the few who remain find themselves among a generation of merchants whose expectations in business and whose personal wants are widely different—being far more extensive and imperious than those that prevailed in their time.

The epoch we are now to consider, which was entered upon in 1861-62, and has been rapidly reaching its end in 1883-84, covering some 20 odd years, may be safely asserted to have been the most prosperous era of business that has ever fallen to the lot of a nation to enjoy, as far as history extends. There sprang up to meet it a new business Young America, who, seizing the reins of affairs, soon left the conservative fathers away back in the rear, straining their eyes to discover where and how the new departure in this wild race would end. But circumstances were all in their favor, and the headlong course went uninterrupted on. Vast fortunes were made in a year. Enterprises were undertaken involving millions, by men without a dollar, and millions were found to complete them; and when done millions more were made by stocking and selling them, and they were still found to pay. Great corporations were ashamed to declare dividends upon the actual cost of their schemes, but watered and watered and watered, to bring their profits down on their face to the comprehension of conservative men. All business was rushed in the same way. Manufacturers were unable to make goods as fast as they could be sold at their own price, and customers had to wait their turn to get them. The jobber could not find as many goods as he could find customers to take off his hands, and the consumption seemed to be without end. The more recklessly the dealer went in the more fortunately he seemed to come out, and steady going conservative minds found no place in the conduct of affairs. Young America had pushed them aside, and the "lightning express"

of this era had the exclusive right of way on the road.

In mercantile matters, salaries had steadily increased until one or five, or even ten thousand dollars, was no extraordinary thing, and there were very few employees who did not receive from \$500 to \$1,000 per annum in the lower grades of mercantile work.

The present generation of business men have contracted habits of personal expense that would entirely consume the profit of a first class business house forty years ago, and all their business education having been acquired during this period of inflation they are entirely unfitted to resume the ways of old. But the old ways are fast coming upon them—in fact, we may say, they are already here. The year 1884 was an anomaly in all its surroundings. Plenty absolutely burdened the land. There was no end to the supply of human food, or of anything else that contributed to meet the natural or acquired wants of mankind. Scores of millions of money were lying idle, for no one dared venture to move. Prices of food and all manufactures were never so low. Goods were offered in any quantity by the manufacturer and jobber at a mere margin, if indeed, with any profit at all, for of late the race has been to see who can do business with least possible percentage of gain. And all this time the expenses of business have remained as high as ever before. The exigency of the case seems to be an endeavor to continue a business which it costs eight or nine per cent. on all sales to run, at an average profit of six or eight per cent. and pay personal expenses besides.

Admitting that this cannot be done, the question arises what can. Can the expense of carrying on business be diminished? Can personal expenses be cut down? To answer these questions in the affirmative is to say that the present generation can at once go back to the ways of their fathers which they can not.

Experience is admitted to be both a dear and effectual teacher. Mankind, as a general statement learn little but what is burned into them by bitter experience. The gambler reforms when he is unable to borrow to stake on the pile; the speculator when he is so totally broken that he is unable to speculate more; and the business men of the country will learn economy and wisdom when their means fail them to continue on as heretofore. We have got to come down from the stilted past in some way or other—then why not at once do it like men?

We can see the large corporation of the country vainly attempting to pay dividends on treble the value of their plant, and the business men trying to increase their capital, while drawing out ten per cent. to meet its extravagant expenses, though their best endeavors can only make it earn five.

The business of the country is now in the hands of a generation who have been educated in the midst of inflation, and never knew what normal times were. Their expectations are wild and extravagant and their wants unnaturally large.

In this grave emergency there are but two ways of solving the problem. If we reduce the capital of all our undertakings to the actual value of the plant, and charge only such a tariff as will yield a fair dividend thereon—if we curtail our personal expenses in the same sensible manner, and reduce all taxation to the actual needs of the times, the grave question will be solved, and we can all go on living like honest and sensible men.

But will this wise course be taken? Let everyone answer for himself.

On the other hand, as indicated already in this paper, the question will solve itself. Let the "lightning express" go on until the fuel and steam are exhausted—until vast numbers of our business men reform their extravagance because they find themselves without the means to further compete in the race, and then—well, then, we will all have learned wisdom at the expense of dearly bought experience, and those who are left standing will move on.—*American Exchange.*

The schooner Maggie McRae loaded timber at the foot of 40th street for Kingston, Ontario, last week.

LUMBER TRADE IN AMERICA.

The American correspondent of the *Timber Trades Journal* gives his views on the trade on this side of the Atlantic in a recent issue of that paper as follows:—

The enormous cut of logs during the long cold, and favorable winter just passed promises to furnish us with a cheaper supply of lumber than we have had for several years. There is a good deal of talk about better prices and more active demand, about combination and restriction, but the better opinion of well informed lumber dealers here and elsewhere is that the supply is too far in excess of the season's probable requirements to reasonably expect any improvement in prices. The furniture manufacturing establishments, the saw and planing mill establishments, and the establishments running band saws and similar wood-working machinery are all quite busy, turning out for the most part cheap stuff to fill large orders growing out of the activity in building throughout the country.

The low prices for lumber are not discouraging investments in timber territory. In fact, some of the oldest lumber manufacturers have for the past year been given a good deal of quiet and careful attention to new lumber territory, particularly in the south and west. Throughout the greater part of the north the forests are practically exhausted. The restricted supplies are in the hands mostly of small operators. The opportunities that are to be secured are to be secured only in remote sections just coming into notice and within reach of the market under the railroad improvements in progress. Among these lands attracting a good deal of attention are the cypress lands of the south. Two companies have been formed to purchase sections of cypress territory and to establish markets for the manufacture of wood for shingles, for cooperage purposes, for furniture and interior decoration and finishing purposes, and also to supply cypress when wanted for more extended uses such as ship-building, if possible. Cypress has wonderful lasting properties. It is cheap and beautiful, it is easily worked and makes good sashes, doors and blinds. The disappearance of oak is directing attention to cypress. Oak, which a few years ago was comparatively abundant, is now getting scarce, much of which of late years has gone into lake crafts, for cars, houses, and a variety of purposes which have in a comparatively short time exhausted the never very extensive supply. There are oak districts here and there throughout the States, but the supply is limited, and, considering the competition which other kinds of wood are offering, it is less important than it was before the recent lumber developments.

Throughout the Northwest nearly all the mills are working full time, and it is now evident that an immense supply of lumber will be piled up in view of the heavy distribution in sight. Navigation has been fully opened throughout the lake regions, and a great deal of building activity is reported. The reports from Stillwater, Minneapolis, Chippewa, La Crosse, Saginaw, Eau Claire, and other prominent lumber centres of the Northwest are of a favorable character, and show that the supply of lumber will be exceedingly large. Heavy sales are being made. This season's distribution will be much larger than last year. Railroad requirements are not heavy. The Minneapolis supply of sawed lumber for this season will be 100,000,000 feet. Taking the twelve surrounding centres the supply will reach 625,000,000, or a little over 100,000,000 in excess of the supply for last year. A full representation of builders and manufacturers from every Mississippi river manufacturing point was present at the Minneapolis meeting held recently. The agreement was entered into to advance prices from 50 cents to \$1.50 per thousand feet according to grade. If this advance prove successful another advance will be attempted at the convention to be held at Eau Claire on the 21st inst. It is observable not only in the Northwest, but in Pennsylvania and along the Atlantic coast, that there is a disposition among lumber dealers and manufacturers to discontinue the cutting of prices, to advance prices, and to observe a higher code of ethics in business than has heretofore obtained recognition. It is certainly to be hoped that

the lumber interests throughout the States will be successful in their efforts to obtain better prices, but they have serious difficulties to contend with. In some portions of Pennsylvania the banks have exhausted all their available resources in carrying their customers, and the customers are now at their wit's end. The competition of the lumber trade has been excessive. It remains to be seen whether the existing combination will be of much benefit. It is probable that during the present season a good deal of railroad will be built into new lumber regions in order to be independent of the streams which have heretofore been depended upon to haul logs to mills. Owners of southern timber are endeavoring to induce manufacturers to establish mills where they can dispose of their lumber supplies. A good deal of capital is being attracted in that direction. The wholesale dealers in our large cities are complaining, and with good cause, of the custom of large contractors to deal with first hands. Builders of 25 or 100 houses find it cheaper to buy at wholesale in the South and Northwest than to depend upon local wholesalers.

At Chicago stocks of lumber and timber on hand April 1st were 438,000,000 feet, against 370,000,000 feet April 1st 1884. The receipts since January 1st to May 7th were only 100,000,000 feet, against 208,000,000 feet for the same time last year; a decrease of 108,000,000 feet. The supplies of shingles, lath, pickets, and cedar posts aggregate about the same.

The hemlock lumber interests are in session at the present time at Williamsport, and expect to succeed in perfecting an organization which will allow moderate margins. The Southern lumber manufacturers are complaining of low prices, but crowd northern markets with supplies. Several new mills have recently been contracted, and the woodworking machinery establishments are nearly all full of work, but, as in all branches of manufacturing, the iron and steel markets are dull. Railroad building is far below last year's. Prices of everything have receded to limits which forbid further reduction. The feeling in manufacturing and financial circles is that the bottom has been reached. The railroad companies have been quarreling over traffic all the spring, and have finally patched up their difficulties to result in hostilities again.

TRIALS OF A LUMBER FIRM.

In the Port Arthur *Herald* of a recent date there is an account of the difficulties encountered by the Duluth Lumber firm of Glass & McEwen in their attempt to dispose of the cargo of the schooner Erin. The Erin is a Canadian boat and was loaded by Glass & McEwen, at Heron Bay last fall, with lumber for the Port Arthur firm of Graham, Horne & Co. In attempting to cross the lake she ran aground on Keweenaw point, staving several holes in her bottom. But she was afterwards pulled off and taken to Lac la Belle where the holes were patched and she laid up for the winter. This spring her cargo was sold for delivery to Ashland parties, but the Erin being a Canadian craft the sale had to be abandoned, as "no foreign" bottoms are allowed to clear direct from one American port to another. Some other disposal of the cargo had to be made and this time it was sold to a Winnipeg firm to be delivered at Fort William for shipment by rail. The American wrecking tug, Kate Williams, was hired to tow the Erin over. But on arriving at Port Arthur the tug captain claimed that the water between there and Fort William was so shallow as to endanger the patches on the Erin's side and he refused to proceed further unless guaranteed that in case she should spring a leak she would be repaired and made as good as new at the expense of the consignees. It was suspected that under such circumstances the Erin would hardly fail to run aground and the proposition was refused. An attempt was then made to have a Canadian tug tow the Erin up to the fort, but the Captain of the Williams refused to consent unless the same guarantee was made, and so that project was also abandoned. As a final solution of the difficulty the lumber which had had so much difficulty in getting to market was dumped off on Mark's wharf at Port Arthur where it lies, still several miles from its destination.

Chips.

HEMLOCK bark is worth \$5 a cord at Ludington, Mich.

THE Canton, Mo., pulp mill consumes 1,500 cords of pulp a month.

THE Flat river Michigan, drive, will this year contain 60,000,000 feet of logs against 200,000,000 feet last year.

THE Eagle mill (Runbun & Co.), Prince Edward County, resumed operations on June 17th after being idle a week on account of a broken wheel.

LUMBER is being carried from Duncan City, Mich., to Tonawanda, N. Y., according to a Cheboygan paper, at \$1 a thousand. The distance is about 600 miles.

THE Hudson Lumber Company, of Hudson, Wis., recently purchased 100,000 feet of logs, of Donovan Brothers, at \$7 a thousand, delivered at Hudson.

MR. EATON's shingle mill, in Ottawa, was destroyed by fire early on June 18th. It was the work of an incendiary. The loss is about \$1,500.

THERE are now but one saw mill and five shingle mills within a radius of five miles of Edmore, Mich., whereas five years ago there were five times that number.

THE Minnesota & Ontario Lumber Company has about 20,000,000 feet of logs at Fort Francis, Lake of the Woods, Ont., which P. Nester has contracted to boom for the company's mill at Rat Portage. A raft of 7,000,000 has already been taken out.

A FRENCH technical journal states that one eighth of the entire German railway system is laid with metallic ties, and one-half of the new lines in that empire are supplied with them. In the future metallic ties will be used in Belgium. Thus, in Europe, iron is taking the place of wood in that important part of railroad construction that has always consumed a vast amount of forest growth.

THE Grand Rapids Furniture Association has 61 members; a capital aggregating \$8,525,000, and employs 5,728 men. The annual sales are nearly \$7,000,000, and 25,000,000 feet of hardwood lumber are cut up annually.

LOGGERS IN THE REDWOOD REGION.

Of the men engaged in logging it may be said that they are strong and hardy, but not so inured to hardship as their brothers of the Northern pineries. Here the work is done in summer time, beneath fair skies and in a bracing and salubrious atmosphere. The strong sea breeze penetrates the deepest forests and lowers the temperature, so that it is seldom uncomfortable, even at midday; while at night two or more blankets are always required. The life they lead affords but little variety. They are early risers, hence retire early, as there is nothing to keep them up but the recreation of a game of cards or the telling of threadbare stories. But on Sundays the majority go to the mill town and have a "good time," as they call it, which too often means a drunken orgie.

Many of them have been seafaring men, and retain the habits of their former calling, one of which is that their wages are perpetually mortgaged to some rum seller. Work in the redwoods is full of risk, and the accident insurance companies have agents who visit all logging camps to solicit patronage. Statistics show that the insurance companies are away behind on the redwoods, the annual losses paid being three or four times in excess of the premiums received.

But, although many of the woodsmen are improvident, there are instances where, by close economy and union of purpose, men who began life as "swampers" have grown to be mill owners. The opportunities for "making a stake" by speculation in timber lands have been numerous, the pre-emption and homestead laws of the United States having been liberally taken advantage of by woodsmen. Quarter-sections of land, costing the pre-emptor \$200, have been sold for \$3,000, \$4,000, or \$5,000, when available for or near a mill site.—*Mendicino Cor. New Orleans Times Democrat.*

"POET-TREE."

Oak, Caroline! fir yew I pine;
O willow, will you not be mine?
Thy hazel eyes, thy tulip lips,
Thy ways, all larch, have turned my head.
All linden shadows by the gate,
I cypress on my heart and wait;
Then gum I beech cherished, Caroline,
We'll fly for elms of bliss divine,
O, spruce young man! I cedar plan—
Catalpa's money if you can,
You're sumach ash, but not my heart;
You're evergreen so now depart;
You'd like to poplar—that I see—
Here's pa! you'll see hemlock the gate,
He maple lightly say "tis late!"
Mockst that lover, while he flew
From elm before that parents shoe,
He little thought a dogwood bite
Would make him balsam much that night,
Hawthorn path he travelled o'er.
And he was sick and sycamore.

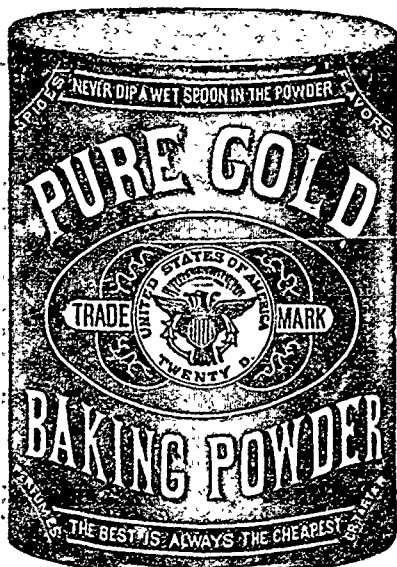
Catarrh—A New Treatment.

Perhaps the most extraordinary success that has been achieved in modern science has been attained by the Dixon treatment for Catarrh. Out of 2,000 patients treated during the past six months, fully ninety per cent. have been cured of this stubborn malady. This is none the less startling when it is remembered that not five per cent. of the patients presenting themselves to the regular practitioner are benefited, while the patent medicines and other advertised cures never record a cure at all. Starting with the claim now generally believed by the most scientific men that the disease is due to the presence of living parasites in the tissues, Mr. Dixon at once adapted his cure to their extermination; this accomplished the Catarrh is practically cured, and the permanency is unquestioned, as cures effected by him in four years ago are cures still. No one else has ever attempted to cure Catarrh in this manner, and no other treatment has ever cured Catarrh. The application of the remedy is simple and can be done at home, and the present season of the year is the most favorable for a speedy and permanent cure, the majority of cases being cured at one treatment. Sufferers should correspond with Messrs. A. H. DIXON & SON, 305 King street west, Toronto, Canada, and enclose a stamp for their treatise on Catarrh. Montreal Star. 1y12.

FILES—Now's the Time
Collect and Ship them to be

RE-CUT
BEFORE THE SPRING OPENS.
DO NOT WASTE
Your Money on Buying new, when the old ones will do. We pay Freight one way.

SHIP THEM TO-DAY
—TO THE—
ONTARIO FILE CO.
150 FRONT STREET, EAST, TORONTO.
Agents Wanted Everywhere. 13L6



For PURITY,
WHOLESOMENESS,
And STRENGTH
It stands without a Rival!
Pure Gold Manufacturing Co.
FAIRPORT, N.Y., and TORONTO, ONT. 1y12

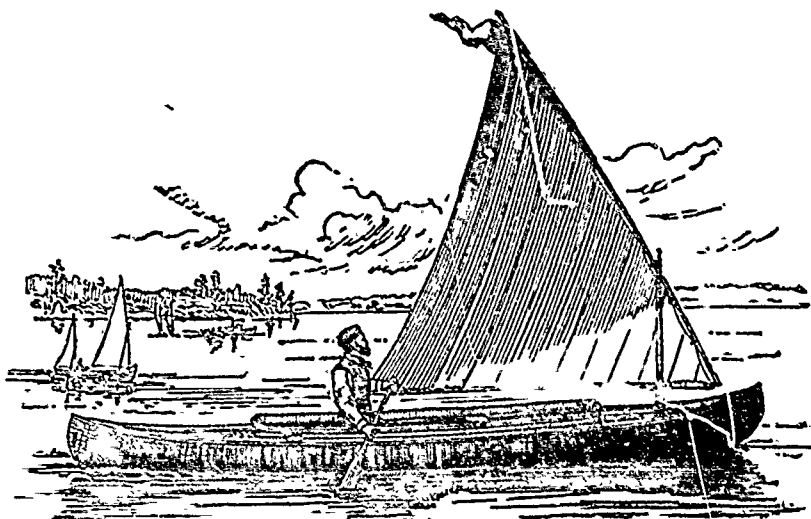
The Ontario Canoe Co., Limited

PETERBOROUGH, ONTARIO,

Manufacturers of all kinds of PLEASURE, FISHING and HUNTING



Patent Cedar Rib Canoes, Patent Longitudinal Rib Canoes, Basswood Canoes, Folding Canoes, Paddles, Oars, Tents, and all Canoe Fittings.



Gold Medal, London Fisheries Exhibition, 1883.

J. Z. ROGERS,

Send 3 cent Stamp for Illustrated Catalogue. President and Managing Director

Canoes for Lumbermen, designed to carry any amount of goods and chattels and strongly built, made to order on short notice.

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Manufacturers and Wholesale Dealers in
Machine and Illuminating Oils.

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Unexcelled by any other Machine Oil on the Market.

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By using "LARDINE." Wears equal to Caster Oil and ONLY COSTS HALF THE PRICE.

CYLINDER And other Oils, all of splendid quality always in Stock. Prices, etc., on application to

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SLATE & GRAVEL ROOFER

MANUFACTURER OF AND DEALER IN

Tarred Felt, Roofing Pitch, Sheathing and Building Papers, Carpet and Rosined Waterproof Paper, Ready Roofing, &c. All orders promptly attended to at LOW PRICES.

H. WILLIAMS,

4 Adelaide Street East, Toronto

Market Reports.

TORONTO.

From Our Own Correspondent.

JUNE 23.—Trade has again been completely paralyzed by the strike of the masons' laborers...

It is useless to attempt to quote you prices as trade is at present conducted, each man seems to have one of his own...

Over our docks up to the present time there has passed 9,427,000 feet, most of which went to Oswego...

Table with 2 columns: Item description and Price. Includes Mill cull boards, Scantling and joist, etc.

MONTREAL.

From Our Own Correspondent.

JUNE 23.—Trade for the past two weeks has been very dull and the weather much against business...

Table with 2 columns: Item description and Price. Includes Pine, 1st quality, Spruce, Hemlock, etc.

SHIPPING.

There is nothing doing in the way of shipping and shippers are now only filling old engagements...

CORDWOOD.

The market is quiet with almost no demand and stocks heavy. Prices for good long wood...

CHICAGO.

THE CARGO MARKET.

The Northwestern Lumberman of June 20th says.—The port list for the week ending Wednesday showed 207 arrivals...

The feeling this week is firmer than at any time since the opening of the season. This is particularly a fact as respects piece stuff...

While the green piece stuff is firmer, and an advance of 25 cents a thousand has in several cases been attained...

No. 2 dry stock is coming in less volume than a short time ago. Commission men have been cautioned moderation in shipping it...

A sale of stock from No. 1 logs is reported this week at \$15 a thousand, which was straight log run. This price indicates that good lumber is still well esteemed...

Ackeylo shingles at \$1.95 is noted.

Lath is worth \$1.20 green, and \$1.50 dry. Lake freights are weak on a basis of \$1, by steam, to dock from Muskegon...

Table with 2 columns: Item description and Price. Includes Dimension, sh. & green, No. 2 boards and strips, etc.

Table with 2 columns: Item description and Price. Includes From Grand Haven, dry, From Muskegon, by steam, etc.

AT THE YARDS.

The volume of shipment still lags behind the June business of last year. The dealers insist that trade is exceedingly dull...

In the present stagnant condition of trade not much can be said about prices. Dealers are getting as much as they can for lumber...

Receipts of lumber, shingles, etc., from Jan. 1st to June 15th as reported from the Lumberman's Exchange:—

Table with 2 columns: Year and Receipts. Includes 1885, 1884, 1883, etc.

BOSTON.

The Journal of Commerce of June 20th says: There is a moderate demand for supplies, with little change to note...

CANADA PINE.

Table with 2 columns: Item description and Price. Includes selects, Dressed, Shelving, Dressed, 1st, etc.

OSWEGO, N.Y.

Table with 2 columns: Item description and Price. Includes Three uppers, Picking, Cutting up, etc.

ALBANY.

Table with 2 columns: Item description and Price. Includes Pine, clear, #M, Pine, fourths, etc.

BUFFALO.

Table with 2 columns: Item description and Price. Includes Uppers, Common, Culls, etc.

TONAWANDA.

Table with 2 columns: Item description and Price. Includes Three uppers, Common, Culls, etc.

LONDON.

The Timber Trades Journal of June 15th says:—Prices at Wednesday's sale were not a whit better than those we have been recording lately...

dealers to secure the bargains going, and probably many of them are willing to wait, in the hopes of acquiring stock at even lower values than are now ruling. It is a very open question whether the market prices will revive or experience a still further subsidence. On the other hand we have the large stock in hand and the dull state of trade, whilst on the other there is the known shortage of deals, &c., on the Swedish as well as the Canadian side, to turn the scale in favor of an advance; but the want of confidence in a short supply predominates sufficiently to check speculation, and things go on at a dead level that is unsatisfactory to everybody.

The rapidity with which news is now transmitted doubtless assimilates the markets of the world, and hardly anyone dare reckon on a continuation of any shortage in the supply, as probably, while he is turning over in his mind how to take advantage of it, the wires have apprised the producers of the want, and the supply to satisfy it is already on its way.

Corn is as cheap as it is likely to be for many a year to come—we have many of the lands going out of cultivation in consequence of its unremunerative character—but the same uncertainty attaches itself to any investment in this direction that surrounds the timber trade. The source of all the stagnation is to be found in the alarming over-production. The whole world is apparently directing its attention towards supplying the markets of Great Britain, and that the strain can have been supported for such a length of time speaks volumes for the solidity of the country and its vast financial resources.

There are as many houses as can find inhabitants, and the building trade has been stimulated by the cheapening of railway rates and other modes of conveyance, which, together with the abundance of money in the country with very few other channels for its distribution, made the consumption of timber while the fever lasted equal to keeping pace with the supply, but now that building is overdone the supply goes on all the same, with, of course, a corresponding depression in prices.

That an enormous trade in building is doing, and will continue to be done, in this country, of a legitimate kind, there cannot be the slightest doubt about; but it has its limits, and when that point is reached the reaction is felt on wood values. It is something of the kind now that is operating so hardly against the timber market.

Things at Thursday's sale were rather brisker than the previous day. The attendance was hardly as numerous, but the bidding, though very feeble at the commencement, rallied considerably as the sale proceeded. Spruce, though still low, was in slightly better request, and prices for the Quebec and other parcels submitted may be said to have advanced on the prices of the day before fully 5s. a standard.

The Michigan pine ex Scotland, 1st quality 12 to 14 in., sold well at £26 10s. to £27 5s.; the same with the 2nd at £18 15s. to £19. These goods are nothing like equal to Quebec of similar quality and dimensions, and were not dry, being imported sometime last October, and if 1884 spring cutting it was as much as they were worth. The lower quality pine lots fetched their full value at the prices recorded. The Odessa wainscot and seasoned oak was cheap at the prices realized; but, though stocks are not overdone, we understand that shipments are expected to arrive shortly that will give a different complexion to the dock stocks. Oak generally was not very much inquired for; there were plenty of buyers for the Danzig and Stettin straight oak, but a great deal of it was only small stuff.

GLASGOW.

The *Timber Trades Journal* of June 13th says: During the past week the first imports of Canadian deals for the season have been received here, several steamers having arrived with small parcels, consisting of pine deals chiefly, and a lot of ash 3 in. deals and 1 in. boards.

The Canadian deals imported here are now brought mostly per steamer as filling up, this market being a good general depot for sawn stuff. No sailing ship from Quebec has yet appeared; the timber carriers generally begin to

arrive at Greenock about three weeks later than this.

There has not yet been a public sale of the new deals just landed, so that nothing can be said meantime as to how they have been received. This season opens with a favorable change for the storage of deals, Yorkhill Yard being set apart for deals and the log trade accommodated at the east end of Queen's Dock, which is a good arrangement, as more room was required, and the ground could not be so well utilized when logs were stored promiscuously in the same yard with deals. On the other hand, the berthing room at Yorkhill Wharf has been curtailed, owing to the extension of the cattle trade there.

The only import at Greenock to note for the week is one cargo-pitch pine. The total tonnage employed in conveyance of pitch pine to Clyde this year to date is 11,797 tons, against 18,872 tons for corresponding period 1884.

The public sale, particulars of which are noted below, was fairly attended, but only a moderate amount of business was done.

AUCTION SALE.

On 4th inst., at Greenock, Messrs. Singleton, Euan & Co., brokers:—

Quebec waney boardwood—	Per c. ft.
45 & 48 cub. ft. avg. per log	1s. 11d. & 1s. 9d.
Quebec yellow pine—	
40 cub. ft. avg. per log	1s. 1½d.
26 " "	1s.
Quebec red pine—	
88 cub. feet avg. per log	1s. 0½d.
Quebec oak—	
1 log msg. 51 c. ft.	2s. 4½d.
5 " " 60 "	2s. 4d.
5 " " 33½ "	1s. 7d.
Quebec birch—	
4 logs msg. 72 "	1s. 1d.
Hewn pitch pine—	
1 log msg. 53 c. ft.	1s. 1½d.
Quebec 3rd yellow pine deals—	
12 ft. 7/9x3	11½d.
Quebec 4th yellow pine deals—	
13 ft. 12/23x3	1s. 0½d.
12 " 11/15x3	11½d.
13 " 11x3	9½d.
9 to 13 " 11/22x3	9d. to 10½d.
Miramichi spruce deals—	
18 to 22 ft. 7x3	8½d.
10 " 14 " 7x3	8½d.
Miramichi pine deals—	
10 to 22 ft. 14/18x3	8d.
10 to 22 " 11/18x3	7½d. & 8d.
9 to 22 " 8/10x3	7½d. & 8d.
White dram battens—	Per lin. ft.
7 to 23 ft. 4x2	0½d.
3 to 23 " 6x2	0½d.
11 to 24 " 6½x2½	0 15-16d.
10 to 26 " 7x2½	1 1-10d.
Red dram battens—	
3 to 23 ft. 6x2	0½d.
18 to 22 " 6½x2½	1 7-10d.
13 to 22 " 7x2½	1 9-10d.
8 to 22 " 7x3	2d.
Red pine deals—	Per c. ft.
6 to 22 ft. 9x3	1s. 2d.
Pitch pine deals—	
3 & 4 in.	9d. to 10½d.

TYNE.

The *Timber Trades Journal* of June 13th says: The arrivals of the past seven days have been thirteen cargoes or parts of cargoes principally from the Baltic. Amongst them are three regular steamers from Christiana and Gothenburg, with cargoes of wood pulp, battens, boards, and pitwood. The various discharging places are all now fairly occupied, and the docks present a more lively appearance. So far the great bulk of the arrivals appear to be going into stock, there being but a small and feeble demand for wood goods on the whole. A few contracts are being rapidly pushed forward, and during the last few days some rather large contracts have been signed, but their number and amount are not sufficient to make much active demand. House building in one or two of the suburbs still is very brisk, but in the district generally there is not a great deal doing, and house property is at a discount. The ship building trade shows no signs of a revival, many of the yards remaining closed apparently for an indefinite period, and most of them working short time with a very much reduced staff. There are a few exceptions, but it is principally where Government contracts for war vessels are in progress.

Use the great specific for 'cold in head' and catarrh—Dr. Sage's Catarrh Remedy

MONTREAL SAWWORKS

CHAS. M. WHITFLAW, *Manager.* MONTREAL, P. O. BOX, 1167.

OFFICE: 452 St. Paul Street.

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CIRCULAR, GANG, SHINGLE, CONCAVE GROOVING,

TOP, DRAG, CROSS-CUT AND BILLET WEB, PIT,

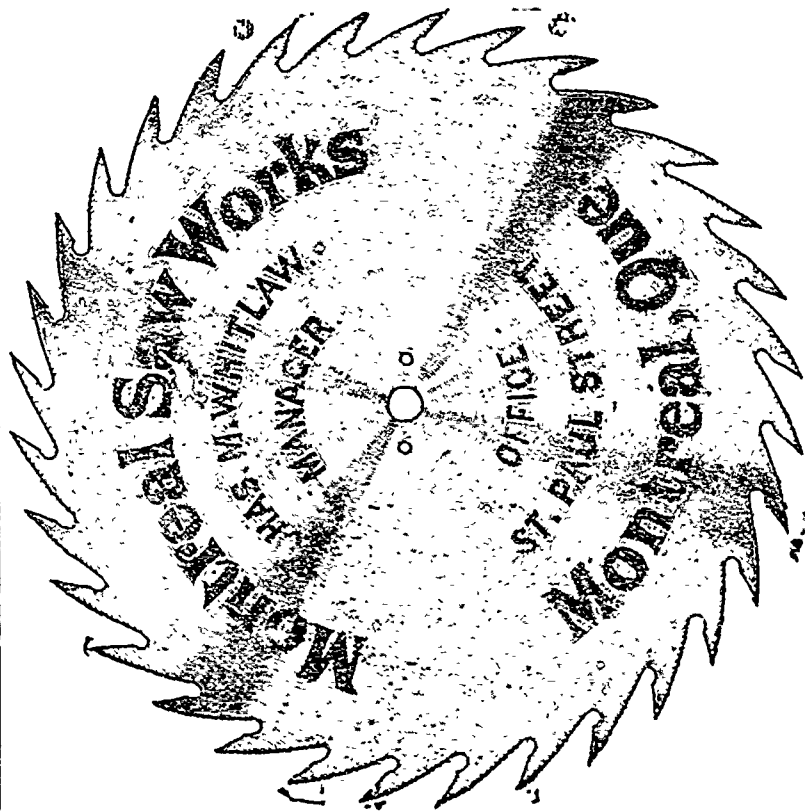
ICE, AND ONE MAN CROSS-CUT SAWS,

—AND DEALERS IN—

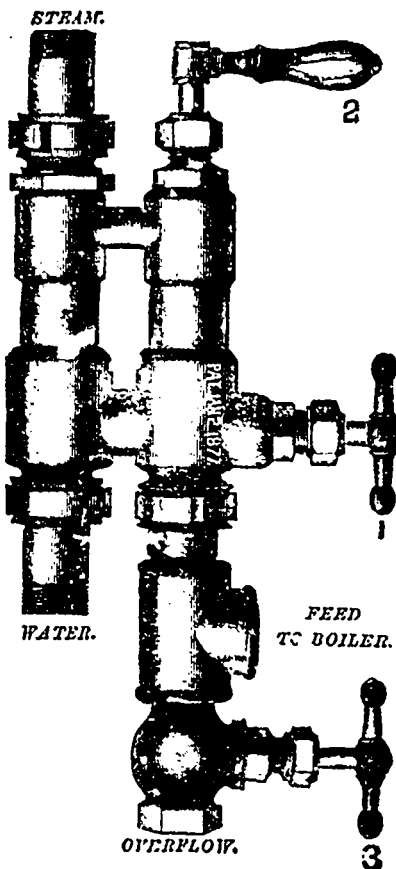
BAND SAWS, BARREL AND HEADING SAWS, EMERY

WHEELS, GUMMERS AND CUTTERS FILES,

RUBBER & LEATHER BELTING, SWAGES, SAW SETS.



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Best Feeder known for Stationary, Marine or Locomotive Boilers.

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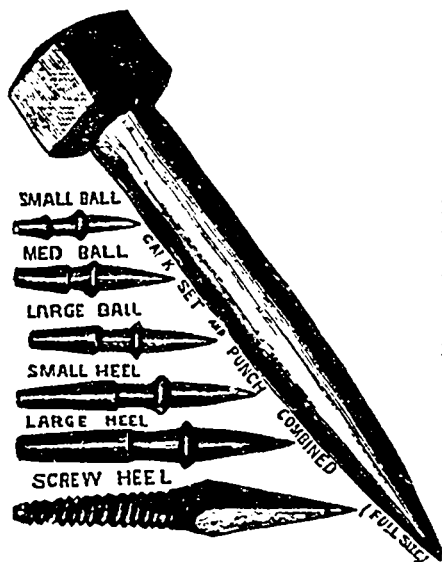
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Our CALKS are made with small trip hammers from the best quality of steel and tempered in oil. The quality and temper can be tested by driving them into a bar of wrought iron.

These calks are now used by all the principal Drivers in Maine and New Brunswick. Kept by dealers in Lumberman's Supplies.

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ST. JOHN, N.B.

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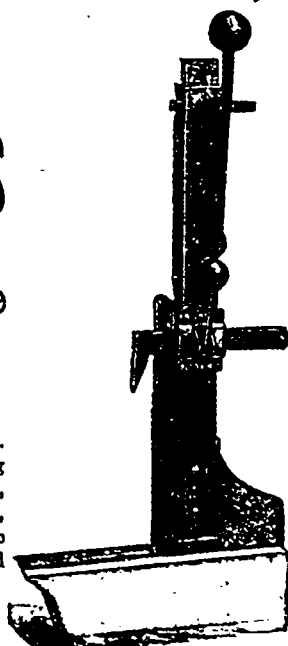
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The Sawyer's Favorite

For Holding Logs upon a Saw Mill Carriage while being Sawed into Lumber.

These Milldogs I guarantee to give satisfaction in every case. They will hold a frozen log as well as a soft one, for cutting Scantling, Square Timber, &c. These Dogs cannot be excelled, I sell them all on their own merits, give ten or fifteen days trial, and then, if not satisfactory, return them to my order, as I have no agents on the road this year, I will sell them at a reduced price. Send for Circular and price list.



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To Mill Owners, Lumbermen, Manufacturers

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Dixon's Patent Lap Joint Star Rivet Leather Belting

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LUMBERMANS' TOOLS!

Which took every honor awarded at the Centennial Exhibition.

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OAK TANNED BELTING

Acknowledged by all to be the

Best Belt ever offered

IN CANADA

EVERY BELT GUARANTEED

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QUALITY is what I aim at, the result being the Generous Support of all Manufacturers.

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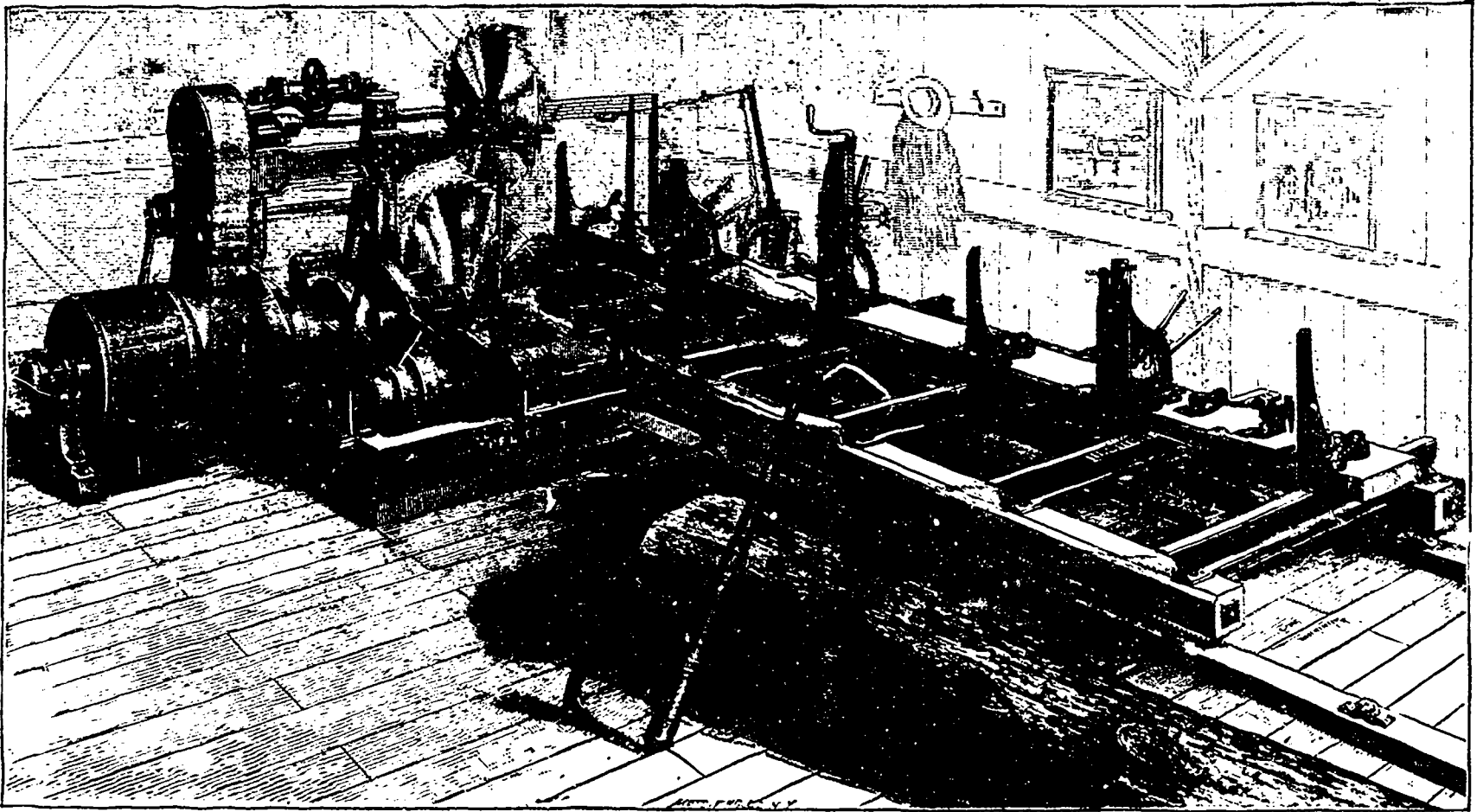
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Circular Saw Mills,
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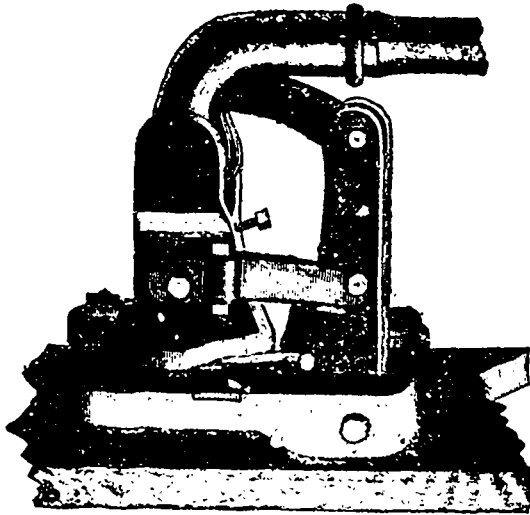
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THE WM. HAMILTON MANUFACTURING CO'Y LIMITED.

Peterborough, - Ontario

Manufacturers of Saw Mill and General Machinery.

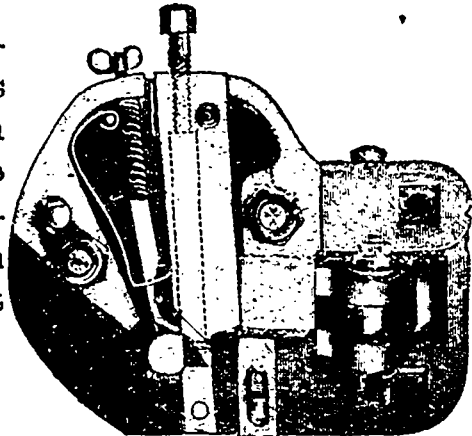


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IMPROVED PRESSURE SWAGE

This SWAGE has been constructed to fill any conceivable wish of those who are favourable to, and think it the only

kind that can be successfully used. There is no Swage of the kind on the market that will do as perfect and satisfactory work as this, and in so saying, I know what I am talking about.



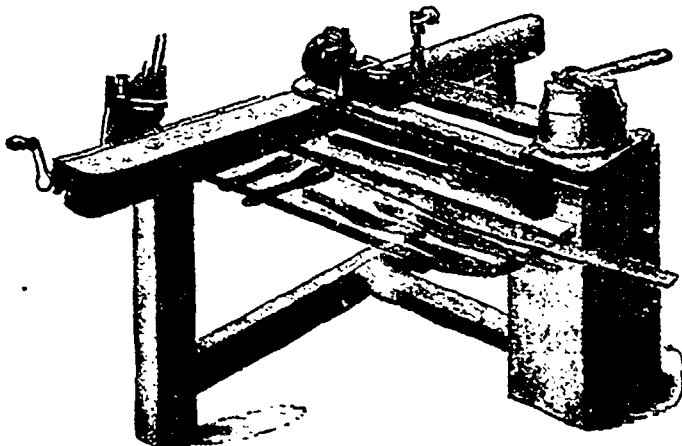
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TRY IT!

Price \$100, Cash 30 days.

Covel's Improved Saw Bench

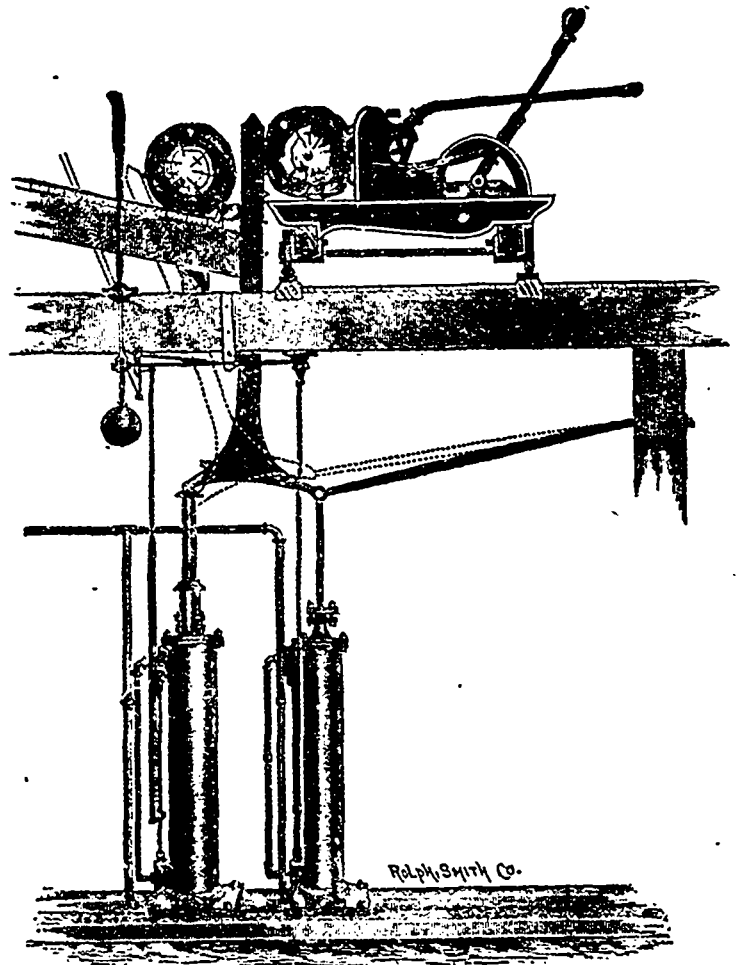
Price \$50, Cash 30 Days.



Price \$50, Cash 30 Days.

This is without doubt, from my knowledge of what is wanted in every mill, together with many testimonials I have received from those using them, the best outfit for hammering and the general care of Saws, that has ever been introduced, and accompanying each Bench is my "Handy Guide" book, giving all necessary instructions how to remedy any and all defects in the Saw. I have added improvements to it since I got the cuts out represented in the "Handy Guide" and done away with some parts there represented, leaving the Bench a model acquisition for the File Room.

THE KALAMAZOO STEAM "NIGGER"



Ralph Smith Co.

It is four machines in one—Log Loader, Log Turner, Hand Spiking Machine, and Machine for Springing Timber Straight on Sawmill Carriages. It saves time, which is money. Is durable, being made entirely of iron, steel and brass. It is very quickly and easily controlled, the machine being worked by direct steam, is elastic in its movements (thereby obviating its liability to breakage) which is a very desirable point in a machine. By using this machine your circular mill will saw from five to seven thousand feet more per each eleven hours, according to cutting capacity of mill. We guarantee this machine to be first-class in workmanship, durability and utility. It has given entire satisfaction to every one using it. They are very cheaply set up in mill requiring only a base for the cylinders on lower floor, and no bridge-trees shafting, boxes, pulleys, belts or chains. Both cylinders are supplied with steam by a one and a half inch steam pipe. It requires less steam to work it than it takes to overcome the friction on the old style friction turners. It works only while turning or loading logs—balance of time it is entirely idle. Another important use to which we direct your notice, is in springing and straightening long timbers. We would be pleased to receive your order for one or more of the above Machines, feeling confident that it will give you entire satisfaction.

We Guarantee each Machine in every Particular.

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Pumps for Fire Protection a Specialty.

SAVE INSURANCE.

Our Combined Boiler Feed and Fire Pumps are a NECESSITY IN EVERY WELL ORDERED STEAM MILL or FACTORY.

Cheap.

Cheaper than any Pump built.

Our Independent AIR PUMPS and Condensers will effect a saving of 30 to 50 per cent. when applied to high pressure Engines.

Simple.

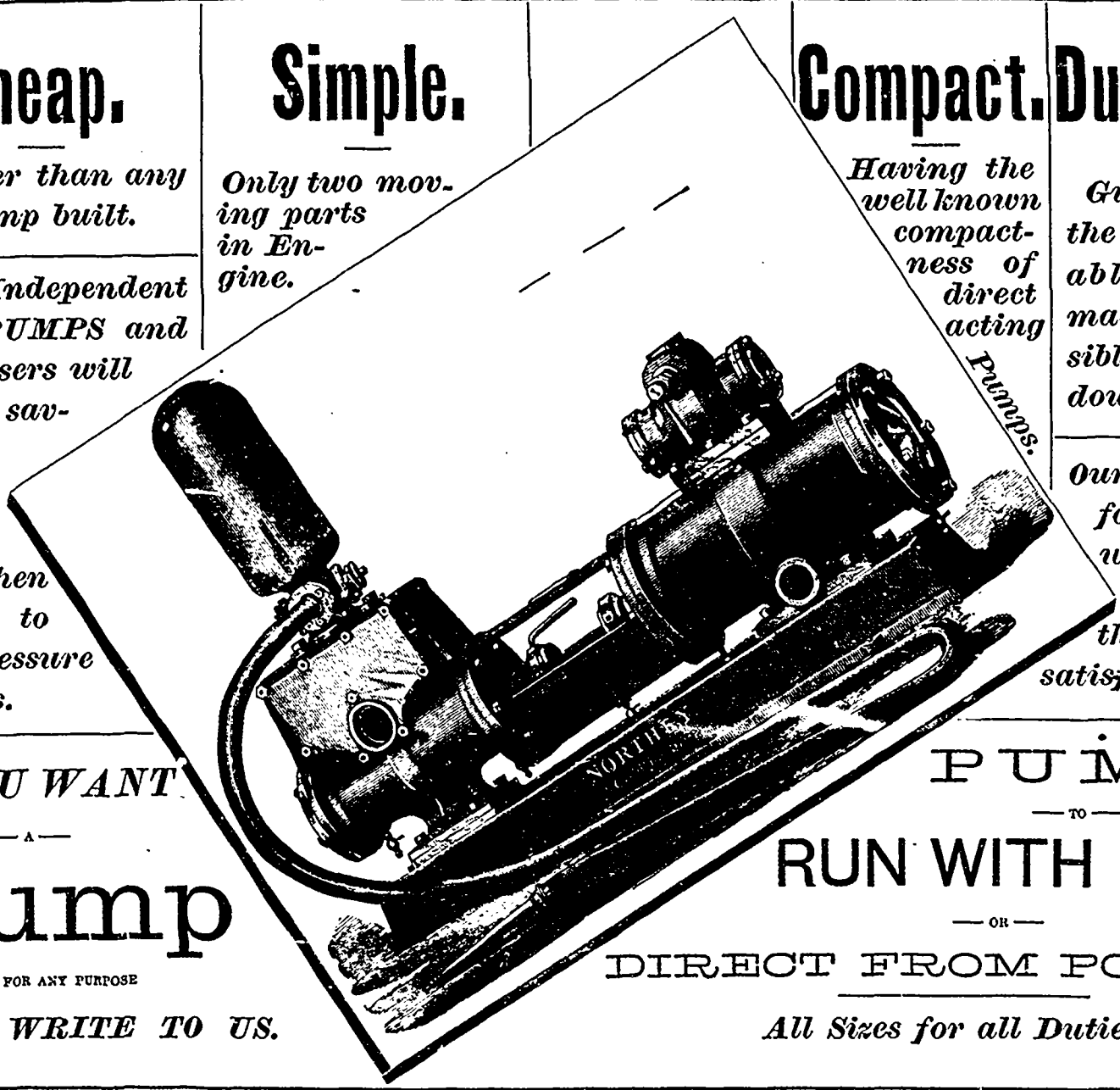
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Compact. Durable.

Having the well known compactness of direct acting Pumps.

Guaranteed the most durable Pump made; impossible to break down.

Our PUMPS for general water supply give the greatest satisfaction.



IF YOU WANT

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WRITE TO US.

PUMPS

— TO —

RUN WITH BELT

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DIRECT FROM POWER

All Sizes for all Duties.

Our make of Pump is specially adapted to Mills in out of the way places, as they can be absolutely relied on, and occasion no vexatious stoppages for repairs.

WE INVITE CORRESPONDENCE ON ANY POINT CONNECTED WITH PUMPS.

SEND FOR CIRCULAR AND STATE YOUR REQUIREMENTS.

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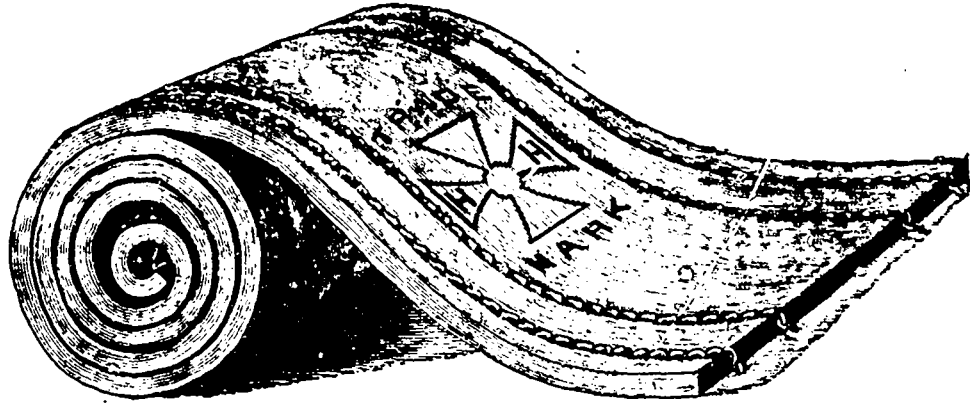
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124 AND 126 QUEEN STREET, MONTREAL.

Patent Stitched—Steam Power Pressure Stretched—Oak Tanned

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 IMA GOULD & SONS, CRTT MILLS,
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 Harris, Heenan & Co.
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 Yours respectfully,
 W. C. MARSHALL,
 Foreman, City Flour Mills.



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 PACK, BERRY & Co., CASAL HOBSE SHOE AND
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 CHAS. R. ELLACOTT,
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LEATHER BELTING!

*The Best, therefore the Cheapest, Belt in the market.
 Replaces, when used, all others.
 More Pliable and Durable, especially at the splices.
 Single equals medium double.*

*Stretches but little, always retains its original width.
 Superior for Cross or Double Belts.
 Runs straight and true, does not start at the laps.*

25 per cent Stronger, 33½ More Lasting, and 12½ Heavier, than any other Leather Belt.

Why do You Suffer when you May be Cured by Electricity?

Without loss of time or great expense. Ten or Twenty Dollars spent in ELECTRIC BELTS will do you more good than a hundred expended any other way.

CRYING BABIES.—Babies cry because they suffer. Their little gums are inflamed, and their bodies are more or less feverish. If you will tie around their necks one of NORMAN'S ELECTRIC TEETHING NECKLACES you will see a wonderful change for the better, their sufferings cease, and their general health improves. Ask for Norman's, and take no other, and you will be pleased. Price 50c.

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LUMBAGO.—Those who suffer from this disease will find a friend in NORMAN'S ELECTRIC BELTS when all other remedies fail. Ask your druggist for it, and take no other. Guaranteed.

CONSTIPATION AND BILIOUSNESS and all disorders of the Stomach and Liver are corrected by using NORMAN'S ELECTRIC BELTS. Try one and be convinced. Guaranteed.

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WEAKNESS and Lassitude yield to the influence of NORMAN'S ELECTRIC BELTS when all other remedies fail. Try one and you will suffer no longer. Every belt guaranteed.

NERVOUS DEBILITY.—This dreaded and miserable disease is immediately relieved by the use of NORMAN'S ELECTRIC BELTS. Ask for them, take no other. Every belt guaranteed.

INDIGESTION AND SLEEPLESSNESS.—This seven headed monster is more easily overcome by the use of NORMAN'S ELECTRIC BELTS than any other remedy, and it possibly cannot do any injury. Guaranteed.

RHEUMATISM cannot remain long with any one who uses NORMAN'S ELECTRIC BELTS, and Neuralgia is driven away like smoke before the wind. Give one a trial. Every belt guaranteed.

NERVOUSNESS may be entirely cured in a short time by using one of NORMAN'S ELECTRIC BELTS, without any fear of injury. Try one and be convinced. Guaranteed.

TESTIMONIALS—A few Sample Testimonials that speak for Themselves.

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 DEAR SIR,—I am happy to inform you that the Appliances I got from your Chicago agent have had a most marvellous effect upon my patient who suffered from Sciatica. He could get very little relief from medicine. Shortly after he got your belts he was able to get out of bed, and is now on a visit to his Canadian friends. Send me some more circulars.
 Yours truly,
 DR. D. McLACHLAN.

A. NORMAN, Esq.,
 DEAR SIR,—I have experienced considerable benefit from your Appliances. I feel stronger and better every way.
 Yours truly,
 R. E. HALLIBURTON.

Mr. NORMAN,
 DEAR SIR,—I have been wearing your Electric Insoles for about six months, and have been greatly benefited by them. I recommend them to all who suffer from Rheumatism.
 Yours truly,
 Mrs. J. GUTHRIE.

A. NORMAN, Esq.,
 DEAR SIR,—Soon after I commenced to use your Electric Appliances they opened my bowels, cured my cough and cold, relieved my head, and considerably relieved my catarrh in consequence. The discharges from my head and chest are now easy, and I feel altogether better. My digestion has improved, my stomach is less sour and windy, and I am less troubled with lascivious and vivid dreams. I had previously tried almost all the advertised patent medicines without deriving any good.
 Yours truly,
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CURATIVE BATHS: Electric, Vapor, Sulphur, and Hot and Cold Baths.

Baths have been admitted in all ages by every school of medicine, to be one of the best means of curing ailments, maladies and diseases. The Electric Bath is the latest and best discovery in this line. Come and try them. Consultation free. Circular on application.

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