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PUBLISHED SEMI-MONTHLY. 5 1/2 W. The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION \$2.00 PER ANNUM.

VOL. 1.

PETERBOROUGH, ONT., MAY 2, 1881.

NO. 13.

FORESTRY AND ABOICULTURE.

BEING THE FOURTH CHAPTER OF THE REPORT OF THE ONTARIO AGRICULTURAL COMMISSION.

Tree Planting—Ages and Dimensions of Trees.

Hitherto, the observations made have applied more particularly to the case of persons owning timbered lands of lesser or greater extent, and to whom the economical handling and management of their bush is of very great importance. The subject of tree planting will next receive some attention. It is probable that not a few farmers neglect the work of planting forest trees from the notion that their growth will be so tardy as to make the outlay of time and a little money worthless to them in their day and generation. The idea of handing down a fine estate to their sons is not so constantly present to the minds of Canadian farmers as to those of men in older countries, and a craving to achieve—even at some loss—immediate returns, is one of the weaknesses of the times. But it is possible to show not only that very speedy benefits of a practical nature may be conferred by tree planting on the soil itself, but also that, in actual money receipts, the investment will in a few years be a paying one. Horace Greeley has some very excellent advice to give under this head, and it may not be out of place to quote his utterances here. Greeley was, it will be seen, an advocate for the gradual substitution of new woodland plantations for the old forests—a very wise policy in most cases when carefully carried out. His first remarks are in that direction. He says:—

"I have said that I believe in cutting trees as well as in planting them. I have not said, and do not mean to say, that I believe in cutting everything clean as you go. That was once proper. It is still advisable in forest-covered regions where the sun must be let in before crops can be grown; but in nine cases out of ten, timber should be thinned or culled out rather than cut off; and for every tree taken away at least two should be planted or set out.

"Why do not farmers infer readily, and generally, that growing indifferent timber where the best and most valued would grow as rapidly, is a stupid and costly blunder? It seems to me that whoever has attained the convictions that apple trees should be grafted, ought to know that it is wasteful to grow red oak, beech, white maple, and alder, where oak, hickory, locust, and white pine might be grown with equal facility, in equal luxuriance, provided the right seeds were planted, and a little pains taken to keep down for a year or two the shoots spontaneously sent up by the wrong ones.

"North of the Potomac and east of the Ohio, and, I presume in limited districts elsewhere, rocky, sterile woodlands, costing \$2 to \$50 per acre according to location, etc., are to day the cheapest property to be bought in the United

States, even though nothing were done with them, but keep out fire and cattle, and let the young trees grow, as they will. Money can be more profitably and safely invested in lands covered by young timber, than in anything else. The parent who would invest a few thousands for the benefit of his children, or grandchildren, still young, may buy woodlands which will be worth twenty times their present cost within the next twenty years. But better even than this would it be to buy up rocky, craggy, naked hillsides and eminences, which have been pastured to death, and shutting out cattle in flexibly, scratch these over with plough, mattock, hoe, or pick, as circumstances shall dictate; plant them thickly with chestnut, wal nut, hickory, white oak, and the seeds of locust and white pine."

He then meets the difficulty above suggested. He says:—

"Many farmers are averse to planting timber, because they think nothing can be realized therefrom, for the next twenty or thirty years, which is as long as they expect to live. But this is a grave miscalculation. Let us suppose a rocky, hilly, pasture lot of ten or twenty acres, rudely scratched over as I have suggested, and thickly seeded with hickory nuts and white oak acorns only; within five years it will yield abundantly of hop-poles, though the better, more promising half be left to nature, as they should be; two years later, another and larger crop of hop-poles may be cut, still sparing the best; and, henceforth, a valuable crop of timber may be taken from that land, for, if cut at a proper season, at least two thrifty sprouts will start from every stump, and, so that wood will yield a clear income each year, while its best trees are steadily growing and maturing. I do not advise restriction to those two species of timber; but I insist that a young plantation of forest trees may and should yield a clear income in every year after its fourth."

In the Report of Dr. Hough, already referred to, and from which the quotation from Mr. Greeley is made, is a statement bearing upon the same subject, made by Mr. O. B. Galusha, in the course of a lecture delivered at the Industrial University of Illinois, in 1869. Mr. Galusha says:—

"Let us estimate the expense of raising a growth of ten acres planted with white ash and black walnut, five acres of each. These varieties grow at about the same rate, and are about equally valuable for lumber.

"A good way is to plant in rows eleven feet apart, running north and south, and three feet eight inches (in the marks for corn). This will secure straight trees, being closer, and they may be thinned out to eleven feet each way when large enough to use for grape-stakes, bean or hop-poles. This will give 300 trees per acre, or 3,000 trees in all, allowing for some vacancies, though in all cases of tree planting, whether in

groves or screens, a supply of good plants grown elsewhere should always be in readiness to use in filling vacancies, which should be done at the end of the first year.

"The preparation of the ten acres at \$5 per acre would be \$50. Average cost of seed, 50 cents per acre, \$5. Planting, \$25. The cultivation during the first five years will be paid for in the crops grown between rows. For cultivation from fifth to ninth years (four years), with horses only, \$30 per year, \$120. After this time no cultivation or care will be needed. This makes the entire cost, in seed and labor, of the ten acres of trees, \$200. These trees will at twenty-five years of age, average sixteen inches in diameter at the ground, and about ten inches at the height of sixteen feet. This will give, deducting waste in sawing, 120 feet of lumber per tree. Allowing one-sixth for damage by the elements and loss from other causes, we have in round numbers, 360,000 feet of lumber, which, at \$50 per thousand would amount to \$18,000. The value of the tree tops for fuel would be equal to the cost of preparing the logs for the mill, and the expense in sawing would not exceed \$5 per thousand. This, added to the cost of producing the trees, and the amount deducted from the value of the lumber, leaves \$16,000 for the use of ten acres of land for twenty-five years and the interest upon the amount expended in planting and cultivating the trees. This statement may be deemed incredible perhaps, by those who have not previously turned their attention to the subject; but after much study and many years observation and measurements of growths of different varieties of trees, I am convinced that in all well conducted experiments in growing artificial groves upon our large prairies, the profits will not fall far, if at all, short of the rates above stated."

As the owner of a large farm and other landed property, Senator Allan has taken a deep interest in this particular question. He has been able to fix with considerable certainty the exact age of several varieties of forest trees, and gives the results in the letter already referred to. What the size and quality of the tree may have been, and how far it would have been marketable at earlier stages of its growth may be inferred from its measurements at maturity. The Senator says:—

"In enumerating the trees which I consider desirable for planting, I have named only those which could generally be obtained without any great difficulty or expense, in almost any part of Ontario, and I shall now give some data, which will show what growth these trees will attain within a specified time, taken from memoranda kept by myself, or which have come into my possession, and for the accuracy of which I am prepared to vouch.

"Elm trees taken from the woods as young trees of about 6 inches round the stem, and between 8 and 9 feet high, have attained, in

forty-five years, a height and girth round the stem at 3 feet from the bottom, in several instances as follows: One 60 feet high, 8 feet in circumference at 3 feet from the ground; one 65 feet high, 8 feet 2 inches in circumference at 3 feet from the ground; one 60 feet high, 7 feet 9 inches in circumference at 3 feet from the ground. Another elm planted about fifty years ago, a small tree from the nursery gardens, has now grown to height of 70 feet, with a girth at 3 feet from the ground of 8 feet 6 inches.

"A red oak, planted as a sapling about forty-eight years ago, is now nearly 50 feet high, and measures 5 feet 8 inches round the stem at 4 feet from the ground.

"A maple of the same age, is 6 feet 5 inches round the stem, and nearly 60 feet high, and two others planted within the same period, are 6 feet in girth at four feet from the ground, and between 50 and 55 feet high.

"All three of these were, when planted in their present position, young trees about 6 or 7 feet high—just the size at which they can be most safely transplanted when taken from the woods.

"Of beech I have no record that I can entirely depend upon, but I believe one that I measured, which gave nearly 4 feet as the girth at about the same height from the ground, and was about 38 feet high, has been planted over forty years.

"A butternut between forty seven and forty-eight years old, measured 6 feet round the stem (4 feet from the ground), and has attained a height of 75 feet.

"Of two ash trees planted fifty years ago, one is 60 feet high, with a girth of 6 feet 5 inches; the other about 55 feet high, girth a little over 6 feet (3 feet from ground).

"It will be seen from this memorandum that the elm has made the most rapid growth of all these trees, and the maples come next; although the ash is close upon them.

"Of evergreens (native), I can only give with certainty the white pine. Two of these—both planted fifty years ago—have reached, one a height of nearly 70 feet; the other a little over 60 feet. One measures 6 feet 6 inches; the other a little over 5 feet, at four feet from the ground.

"It will be seen, therefore, that, within an average of fifty years, trees transplanted at just such a size as they can be safely and conveniently taken up when growing in the woods (say from 5 to 6, 8, or 10 feet high) have attained dimensions, which render them very valuable as firewood, as well as being perfectly sufficient for many useful purposes about a farm for which timber of a moderate size is suitable and requisite.

"I do not think that, with such facts as these, it can be said that there is anything visionary or impracticable in the means I have suggested for meeting the coming scarcity of timber in Ontario, and supplying the wants which will soon make themselves felt, even by

the present generation of farmers, and will certainly press heavily upon their children, if not provided for in some way or other."

On this very interesting subject, other witnesses before the Commission also gave evidence.

An indication of the periods at which hickory and walnut will be of marketable value may be obtained from remarks made by Mr. Beadle. He says:—

"Hickory trees might be planted quite close together, say three or four feet apart, with a view of thinning them out after they got as large around as a man's arm, because wood of that size would be valuable for many purposes. Black walnut would require to be planted farther apart, because they would be of no use until they were about as large around as a man's leg. Besides it is rather umbrageous in its style of growth, while the hickory is upright."

Mr. Beall, of Lindsay, has experimented with the black walnut. These trees, in fourteen years from the seed, have attained a growth of some eighteen to twenty-one inches in circumference, are twenty feet high, and have borne nuts for five years. He says:—

"I would consider black walnut the most valuable of all trees for forest planting. I know it will grow and succeed in this district. I do not know of any person who has grown it or attempted to do so but myself. I have about fifty very fine trees. I have some that will measure from six to seven inches in diameter, and are about twenty feet high. I have grown them from nuts planted in 1866. I know of no tree that will grow so easily, so rapidly and with so little trouble. The trees I mention are bearing nuts now, and I think I observed nuts on them five years ago."

Mr. Leslie says of the American elm and European larch:—

"The American elm, and European larch, would also be suitable for this purpose. The latter makes the best railway ties of any wood in the world, as it is almost indestructible. It is a very rapid grower, and in ten or twelve years' time the wood is of merchantable proportions, and useful for many purposes. Of course it would not be fit for railway ties at that time, but suitable for manufacturing purposes."

Of the butternut and hickory, he says:—

"The butternut is a very fine tree, and a quick grower, a little more rapid in its growth than the black walnut, and is useful in many ways. It makes capital wood for veneering. The hickory is hardly as far north as Peterborough, but is a slow grower, though it can be used for many purposes when three quarters of an inch or an inch in diameter."

Mr. Caldwell, M.P.P., says on this subject:—

"I would plant elm, maple, ash, and bass wood, all fast growing trees, mingled with spruce and cedar as evergreens, as well as pine. I think an elm would be forty to fifty years in attaining to ten or twelve inches in diameter. The soil would have some effect on the growth, but I do not think that either ash, maple or basswood would grow much faster than the elm. A maple eight inches in diameter might be tapped for sugar, I think it would then be twenty-five to thirty years old. I have not experience enough to speak positively on that point. Lombardy poplars twenty-two years old, measured by me, are from six feet to eight feet four inches in circumference."

Mr. Henry Ives, quoted by Dr. Hough, gives, in the spring of 1876, his experience in a communication to the New York Farmer Club. He says:—

"Five or six years ago, I planted two acres with four year-old seedlings of white elm and soft maple into forest rows sixteen feet apart, and three feet apart in the row. Now the best of them are twenty feet high and twelve inches in circumference, and for thinning out the rows. I sell trees for more money than wheat would have brought grown for these years, and can continue to sell so until they are so large that I can take them for firewood, and I am growing a good crop of orchard grass between the rows. So that these trees in forest timber are paying as well, and are likely to pay as well for years to come, as any other acres on the farm. I am cutting now the second crop of wood, where the first or original timber was taken off about twenty five years ago, and last winter 1,000

rails were taken by a neighbor from one-third of an acre of growth, besides a quantity of timber from the top, and timber not making rails. Another neighbor used nice black walnut lumber in building a fine farm house, sawed from the trees he had helped to plant when a boy."

The value of the white ash has been specially noticed. In a paper, published in the Transactions of the Northern Illinois Horticultural Society, it is shown that, in a ten-acre plantation, raised from seed, at the end of twelve years, with good culture for the first four years, and proper soil, the grove would have 12,000 trees in the ten acres, averaging eight inches in diameter.

THE AUSTRALIAN TRADE.

Messrs. Gemmill, Tuckett & Co., of Melbourne, report under date of February 15th, as follows:—

We have to report a steady demand during the month for most descriptions of building materials. The amount of business carried through at auction and privately has equalled our anticipations; and prices realized support late quotations.

Canadian Wood—The cargo ex Republic was placed at auction on the 11th inst. Spruce deals realized an average of about 37-16d. or foot of 9x3; clear pine 2 inches, £17 12s. 6d., and 12x1, £14 per M. super.; 6x7 spruce t. and g. flooring, 8s. 3d. per 100 feet lineal, being an advance on recent rates. The cargo ex Undaunted, from St. John's was offered at auction on the 4th inst. Prices not being equal to vendor's limits, the bulk was withdrawn.

Messrs. C. S. Ross & Co., of Melbourne, also report as follows:—

Spruce Deals—Imports—Canada and United States, 50,027 pieces; United Kingdom, 5,219 pieces. The principal arrivals have been the Veritas, from London; Republic, from Saguenay, and Undaunted from St. John. The Undaunted arrived via Adelaide, and it is inexplicable (in face of the bulk of the cargo ex R. B. Fuller having been sold in December last at an average of 38d. per foot, 9x3), why her cargo was not discharged in that port. The offerings for the past four weeks have been: parcels of 4,000, ex Veritas, which being held far above market, resulted in sale of 600 pieces only; cargo ex Undaunted resulting in sale of 1,800 boards, at from 4d. to 3½d., and 8,922 battens, at from 3-16d. to 3d. per foot, 9x3; and all the spruce deals and boards in the Republic at from 3½d. to 3d. per foot, 9x3. The imports for seven months foot up 119,729 pieces, 30,000 pieces more than has been landed here during any year for past seven, and 600,000 pieces more than the annual consumption.

A NEW DEPARTURE IN THE TIMBER TRADE.

The Ottawa correspondent of the *Globe* writing on April 18th, says that there has been no rain in this section for six weeks. The water in the Ottawa and its tributaries is in consequence very low, and there is felt to be considerable doubt as to the logs and timber cut during the winter being got down. Arrangements have been made by the Scotch Lumber Company with the Canada Central and Occidental Railway Companies for the shipment of their entire winter's cut of square timber on the Temiscamingue from Mackay's Station to Quebec, a distance of 475 miles. It is stated that the rate of freight agreed upon is five cents per foot. Special trains will manage the service, as there will be some twelve hundred car loads in all. Business on the railway lines named will thus continue to boom right along. This shipment of square timber by rail from the limits through to Quebec marks a new era in the trade.

OTTAWA.

MILLS AT WORK.—Gilmour & Company's steam mills commenced work on Monday afternoon. They give employment to several hundred hands.

NAVIGATION OPENED.—The Lower Ottawa Navigation Company's passenger steamers commenced their regular trips on Monday last.

SHIPPING. Lumber shipping has commenced in real earnest.

BUSY IN THE YARDS.—The Chaudiere yards are all bustle and excitement.

THE U. S. TIMBER CENSUS.

CHICAGO, April 16.—Since the announcement that the census will report only 81,650,000,000 feet of standing pine in the three States of Michigan, Wisconsin and Minnesota, the log cut of this season becomes a question of much interest. Admitting the correctness of the Government figures, a simple calculation shows that the lumber industry of those States at its present volume will extend over a period of only twelve years. Take into account the natural increase and the years will be reduced to ten. Such calculations would be more interesting had not Maine many years ago been set down as a State whose forests in a few years would be cut away; yet to-day she is as much of a pine tree State as ever, and is producing as much lumber as she ever did, though of an inferior quality. Still more interesting would the calculations be were it not that the figures were made largely by pine land owners, who are not likely to take the "bear" side of the question when their own interests are at stake.—*N. Y. Tribune.*

WESTERN ONTARIO TIMBER.

The Ailsa Craig correspondent of the *London Free Press* says:—Large numbers of men are now at work rafting, and will find full work all summer. The quantity of timber got out in Western Ontario the past winter is the largest for 20 years, and the prices paid the highest during that period. Many supposed that the supply of timber was exhausted, but it would seem that there was a large reserve. Many farmers who have been holding for fancy prices for a long time parted with their trees this season. The railways will have a busy time moving the accumulations at the several depots.

Elm, oak, cherry, pine, ash, beech, walnut and birdseye maple are the varieties of timber got out this season. Elm is scarce, also ash. Walnut is fairly exhausted. Holders of pine are obliged to part with it, as the old trees are dying. Another season like the last will certainly finish the timber business in Western Ontario. It will be almost impossible to repeat the transactions of the past winter.

Two Thousand Dollars.

The easiest, cheapest and best way to secure the above amount is to apply for membership in the Mutual Benefit Association of Rochester, N. Y. Pay Dr. S. B. Pollard, 56 Bay Street, one dollar for four medical examinations, he will send our application to a head office, if you are accepted as a member they will issue a certificate of membership, which, on payment of eight dollars, entitles you to full benefits as a member, should you die to-morrow, next day, next week, next month, or any time within three months, this Association will pay to your heirs, or assigns, the sum of two thousand dollars. At the expiration of the three months all you have to do is to pay your pro rata amount, which is from 20 to 75 cents on the death of some other member, who has done nothing worse than to die during the three months just past. By paying your assessments on deaths, you keep your certificate alive, and at the commencement of the second year you are assessed two dollars per thousand to keep up office expenses, etc., for the next year. No easier, surer or better schemes to carry two thousand dollars has ever been devised than the Mutual Benefit Association, of Rochester, N. Y. 5-1-13

Messrs. R. COLLAP & Co., of Liverpool, say that the stock of yellow pine timber is about double that held at the same time last year, but the deliveries from the yard have been on a fair scale; sales have been by retail only. The consumption of red pine has increased, but the stock held is excessive. For oak there has been less inquiry, and the consumption compares unfavorably with the very large consumption of the corresponding month last year, but the stock is not heavy; there are no sales to report. Elm and ash have been in fair request during the month. The stock of Quebec pine deals consists of 10,088 standards, against 4,033 standards at the same time last year; the consumption has been small, and prices are barely maintained. Birch is heavy in stock, but the consumption during the month has been on an increased scale.

LUMBERING IN NEW BRUNSWICK.

A correspondent of the *Montreal Herald*, writing from Newcastle, sends a report of the lumber operations in the Miramichi district for the present season. He estimates the amount cut this year on the north-west and south-west branches and the Lower Miramichi at 112,000,000 feet of lumber—13,000,000 feet less than the estimate already published. He states that quite a large percentage of the quantity credited to the south-west Miramichi was cut last season but "hung up" by the lowness of the fall freshet, and should, therefore, not be included in the estimate. The most of Mr. William Richard's drive was "hung up," and other lumbermen had more or less logs left in the streams. The quantity of logs cut on the south-west branch this year our correspondent places at 52,000,000, which is 8,000,000 or so more than was cut in the winter of 1879-80. On the north-west he thinks 17,500,000 feet of spruce was cut—2,500,000 more than the previous year's harvest. On the main Miramichi he places the quantity at 25,000,000—which would be an increase of 5,000,000 feet.

FOREST FIRES.

OTTAWA, April 25.—Bush fires have started in this vicinity.

BOSTON, Mass., April 25.—Forest fires are raging in Woonsocket, Cumberland, and the adjoining townships.

WOONSOCKET, R. I., April 25.—Extensive forest fires are raging along the Providence and Worcester road near the towns of Woodstock, Cumberland and Lincoln, and hundreds of acres have been burned over. The damage will be heavy.

MIDDLETON, N. J., April 25.—Forest fires have broken out in numerous places in this vicinity.

MILFORD, Pa., April 25.—Large forest fires are raging in Sussex county, N. J. Fires are reported in the back townships of Pike county doing considerable damage.

LITTLE ROCK, April 25.—A family named Dement camping on the mountains in Stone county were surrounded by forest fires, and a woman and two children perished. Dement was badly burned in endeavouring to rescue them.

New Brunswick Items.

Messrs. Hayford & Stetson have made extensive improvements in their, in a very large furnace, also a new boiler, making eight in all. The furnace will consume sawdust and other refuse. Their engine has been thoroughly overhauled, and the building generally repaired. They expect to cut about 12,000,000 feet this year. Much of their logs is now in the Fredericton booms and will be rafted as soon as possible. They start sawing some time next week.

Randolph & Baker's mill has been sawing steadily since March 30th.

The steam saw mill at Barnesville, K. C. which was owned by Samuel Currie, was burned to the ground on the 8th of April. A considerable quantity of lumber was also destroyed. The mill had only started the day previous, and the loss will be a severe one to Mr. Currie, who had no insurance. The mill and contents were valued at about \$2,000.

Doing the Work Well.

THE CANADA LUMBERMAN has come into new hands and we are glad to see that it is doing well the work which it proposes to itself, and for which there is a ample room in the Dominion. Messrs. Toker & Co., of Peterborough, are the new proprietors of the paper.—*Canadian Illustrated News.*

THEY ALL DO IT.—Everybody uses "TRAI BERRY" for the teeth and breath, the sweetest, brightest, costliest little toilet gem extant. Try a 5 cent sample.

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

IN cases of Chronic Diseases which doctors have failed to cure, BIRDCK BLOOD PURIFIER has achieved its greatest triumph. All diseases of the Blood, Liver and Kidneys, Scrofula, Dyspepsia, Nervous Debility, Rheumatism, Piles, Female Complaints, and all forms of lost vitality, are promptly cured by this great renovating Tonic. Trial bottles only cost 10 cents.

Trade Notes.

Canadian.

THE Parry Sound mill commenced sawing on the 6th of April.

BUILDING operations in Montreal during the summer promise to be exceedingly active.

THE rate from Brockville to Oswego is 90 cents per 1,000.

THE average rate for lumber from Toronto to Oswego seems to be \$1.25 per 1,000.

THE harbor of Duluth is not expected to open before the middle of May.

8,000,000 feet of lumber awaits the opening of navigation to be shipped from Parry Sound.

GOVERNMENT rates are quoted fifty per cent. higher than last year, and a charter has been made.

THE schooner *Denmark* has been loaded with timber at Toronto—an unusual proceeding as it is generally rafted.

A GENTLEMAN who arrived at Ottawa from the Black River on the 22nd of April, reports a foot of snow there.

THE saw mill owned by Alex. Carson, at Gorrie, was destroyed by fire on the morning of the 23rd April. Loss, \$4,000; no insurance.

A FIRE in Hall & Brown's lumber yard, Berlin, Ont., on the 18th April, destroyed \$300 worth of lumber before it was subdued.

THE steam barge *Tecumseh*, has been chartered to take ties from Cockburn Island to Chicago at 10 cents each and cedar posts at 6½ cents each.

THE shipment of lumber from the Chaudiere docks commenced on Monday last. The quantity to be shipped promises to be larger than that of any previous season since 1872.

THE scow *Onward*, of Buffalo, has been chartered to carry five loads of about 160,000 feet each, from Port Hope to Wilson and Oak Orchard, N. Y., at the rate of \$1.50 per 1,000.

THREE lumber barges are being built at Ludington, each 168 feet long, 36 feet beam on deck and 8½ feet deep in centre. They are to be towed by a steam barge and will carry 600,000 feet of lumber.

FOURTEEN lots of hop-poles, sufficient to make many car loads, have been deposited along the railway track east of the Trenton station. The poles are the property of Messrs. Rathbun & Son, and are intended for shipment southwards.

American.

THE Chicago *Tribune* says if the cheap rates on the railroads are continued, vessels may have to accept 4 cent. per bushel for wheat to Buffalo.

THE Grand Itap, a lumbering firm operating in Kent county, has bought a Monitor portable farm engine to use in loading logs upon cars in the pines. - *Detroit News*.

HIRAM SIBLEY, of Rochester, N. Y., has purchased 9,500 acres of pine lands on the Au Gres River of D. Wright & Co., for the sum of \$180,000. This tract it is estimated will furnish 100,000,000 feet of timber.

MR. G. W. HOIT, of Buffalo, manager of the commercial line of propellers, has concluded a contract with the Grand Trunk Railway Company, according to which the boats of this line will carry during this season the up freight of the railway from Port Huron to Chicago. The contract, however, does not cover east bound freights.

THE *Northwestern Lumberman* says that maple flooring continues in good demand in Chicago, and we doubt if there will be much of it left in stock by the opening of navigation. There is some that comes by rail from Wisconsin, but the bulk of it reaches here by water from Michigan. The season of navigation will bring to light a large stock, but we look for it all to be wanted. Building operations will be exceedingly brisk in this city during the year, and maple flooring is constantly growing in favor.

A COMPANY has been organized for the purpose of constructing a railroad through the timber counties of Wisconsin, to be known as the Great Northern Timber Belt Railroad Company. The road will pass through the counties of Oconto, Shawano, Langdale, Marathon, Taylor, Chippewa, Lincoln, Price, Barron, Polk, Burnett and Douglas. The east end of the projected road commences at some point on Green

Bay, either Oconto or Marinette.—*Lumberman's Gazette*.

LAST fall the lumbermen of Duluth organized a company to improve the St. Louis River, with a capital of \$50,000. The contract to do the work was let to the well known railroad contractors, DeGraff & Co., of St. Paul, who have done a most thorough job. The river is now in fine condition for log driving, and there will be no difficulty in filling the mill booms at Duluth this spring from last winter's crop. We congratulate our Duluth neighbors upon their successful enterprise. Pluck, energy, enterprise and work win!—*Ashtand Press*.

British.

THE deliveries of both hewn and sawn pitch pine have been large, and prices have been steady throughout the month; there has only been one cargo sale, the arrivals having been almost entirely on contract.

THE result of Messrs. Churchill & Sina's late sale is regarded as being generally satisfactory to holders of stock. Certainly the effect of the sale upon the better qualities of redwood stock is likely to be eminently satisfactory to holders.

MANY of the London agents are now on the coast, endeavoring to effect sales, but so far we do not hear that their efforts have been crowned with much success, as buyers are still holding off, in the expectation that prices may possibly come down. It is reported that two cargoes of Uleaborg deals and battens have been sold at prices decidedly low as compared with those ruling during the past season.

THE consumption of spruce deals has been about the same as last year, but stocks are too heavy for us to expect any early improvement in value; imports during the spring months, however, are likely to be on a very small scale compared with previous years, as stocks are unusually low at the shipping ports. Pine deals are moderate in stock, but the demand is limited. Birch, notwithstanding the large stocks, has fully maintained its value, but there cannot be much improvement until stocks are reduced.

"WHAT'S in a name? The rose by any other name would smell as sweet." We do not dispute that point with the poet, but certainly spruce, by any other name, does not sell as well as that which is called Quebec. The next in esteem seems to be that from St. John, N. B., which went at 30s. to £2 lower than Quebec, and Miramichi 10s. to a pound below that of St. John. It is true Miramichi pine deals went badly here, but that does not alter the case, for our Liverpool correspondent tells us there appeared to be no demand for pine deals at all, and very few were sold at the auction aforesaid, while here in London 1st bright Quebec pine deals went better than they have done for some time past up to £23 5s.

ONE of the noticeable eventualities of the great sale last week was the way that Quebec spruce held its ground, in spite of the enormous quantity of other kinds thrown on the market, at the same time and place, to go at any price that could be obtained for it. It may be said that, instead of suffering from this competition, it beat it, and triumphed over it, for quite as good prices were obtained at this great sale as had been previously reached when smaller quantities were before the buyers to choose from. We have more than once expressed our regret at seeing 1st quality Quebec spruce of eligible dimensions going at £10 to £10 10s. per standard; but on this occasion such sizes and quality realized £10 15s., and 2nd quality went up to £9 5s., while some 3rd 3 x 11 obtained £8 15s. and nothing in short lengths and batten sizes went under £7.

Excellent Style.

We have received the March number of THE CANADA LUMBERMAN, published by Messrs. Toker & Co., of Peterborough. As this is the only Journal published in Canada devoted to the interest of lumbering in its various branches, we hope to see it receive that patronage which will enable the enterprising proprietors to continue its publication in the excellent style they have shown in the present issue. For neatness, clearness of print and quality of matter it will rank as high as any paper we have seen, which advocates the same business. Success to T. & Co.—*Ottawa Herald*.

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

Wanted.

A SECOND HAND DOUBLE EDGER; also a LATH MACHINE, both in good repair. Reply stating lowest cash terms or particulars to Box 1002, Peterborough. L10

For Sale.

A 40 INCH LEFFEL WHEEL and COMPLETE CIRCULAR RIG, all in good order, suitable for a fifteen foot head. Apply to Box 1002, Peterborough. L10

Reid & Co.,

WHOLESALE LUMBER DEALERS Lumber, lath, shingles, &c. Car lots to suit customers. Best Culls in the market at from \$0 to \$7 per M. OFFICE on Dock. Esplanade, foot of Shelbourne Street, Toronto. b15

Hardwood Timber Land

FOR SALE.

FOR SALE, 1200 ACRES HARDWOOD TIMBER LAND near Nipissing Railway, Cobocook. Easy terms. OSHAWA CABINET CO., Oshawa. b13

Situation Wanted.

A Book keeper of first-class experience desires a situation with a lumber firm. An opportunity of acquiring knowledge of the lumber trade more of an object than the amount of salary. Unexceptional references both as to character and ability. b15 Apply to the Editor of THE CANADA LUMBERMAN.

The Stewart House,

Headquarters of Lumbermen in Peterborough, corner of Hunter and Water Streets. Good accommodation. Terms, \$1 per day. Free bus at trains. T. CAVANAGH, Proprietor. b15

Allandale Junction Hotel

Travellers by Northern Railway have 15 to 20 minutes by all trains, for refreshments. Solid meals. Tea and coffee at counter. Fine brands of Liquors and choice Cigars. b17 E. S. MEEKING, Proprietor.

Orillia House,

ORILLIA.

New and Commodious Brick Building, best north of Toronto; splendid sample rooms; centrally located; free bus. b20 JOHN KELLY, Proprietor.

The Queen's Hotel,

TORONTO, CANADA.

McGAW & WINNETT, Proprietors. Patronized by Royalty and the best families. Prices graduated according to room. b20

St. Lawrence Hall,

PORT HOPE.

Is noted for its superior home-like comforts—a well kept table, equalling the best hotels in Toronto, and large, well furnished rooms. Good sample rooms on ground floor. Walton Street, Port Hope. b20 WM. JACKIE, Proprietor.

St. Louis Hotel.

THE RUSSELL HOTEL CO., Proprietors.

WILLIS RUSSELL, Pres., Quebec.

This hotel, which is unrivalled for size, style and locality in Quebec, is open throughout the year for pleasure and business travel. b15

Queen's Hotel,

BRACEBRIDGE.

JOHN HIGGINS, Proprietor. The proprietor (late of Georgetown) having lately purchased the above hotel, will endeavor to make it one of the best houses in the District of Muskoka. Tourists and hunting parties will receive every possible attention. Free bus to and from steamboat wharf. Terms, \$1 per day. b20

Fraser's Hotel,

GRAVENHURST, ONT.

HENRY FRASER, proprietor, (successor to Douglass Brown) Mr. Fraser having purchased and thoroughly renovated and refitted that old established hotel, so long and popularly kept and owned by Douglass Brown, in the Village of Gravenhurst, is now in a position to attend to the wants of the travelling and general public. Parties en route to the Muskoka District, will find "Fraser's" a comfortable stopping place. The Bar and Larder are well furnished. Convenient Sample Rooms for Commercial Men. Good stabling and attentive hostler. Free bus to and from trains and steamboats. b20

Flexible Board Rules,

With Steel Head, either Cleveland or London make, at \$1.75 Each.

GEORGE STETHEM,

11. PETERBOROUGH. 13

Hotel Ottawa,

No. 21 North Side King Square.

ST. JOHN, N. B.

E. COSMAN, PROPRIETOR.

Terms \$1.00 to \$1.50 per day. 13

TRUSSES.



CLIPPE'S PATENT SPIRAL TRUSS all attachments improved. No more buckles, all on solid brass casting. Book on rupture and luman frame free. Send address in full post card. Best true information about rupture and deformities. CHAS. CLIPPE, Surgical Machinist, 118½ King Street west, Toronto. 12113



MAIL CONTRACT.

TENDERS, addressed to the Postmaster General, will be received at Ottawa until Noon, on Friday, 6th May, for the conveyance of He- Majesty's Mails, on proposed Contracts for four years, once, and three times per week each way respectively, between

Apsley and Cheddar, and Peterborough and Apsley,

from the 1st July next. Conveyance to be made in a public or other vehicle. Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained at the Post Offices of Peterborough and Apsley.

GILBERT GRIFFIN,

Post Office Inspector's Office, Kingston, 25th March, 1881. 3113



CHAS. M. MARSEN,

Manufacturer of all kinds of Lacquered and Enamelled Woodwork, Turning and Carving in WOOD, HORN AND IVORY.

BILLIARD BALLS

Turned and coloured a speciality. MEERCHAUM and AMBER GOODS repaired in first-class style. b17

77½ King St. West, Toronto, Ont.

THE RUSSELL HOUSE,

OTTAWA.

JAS A GOVIN, PROPRIETOR.

Is the Favourite Resort of Leading Public men of the Dominion attending the annual Session of Parliament.

Ministers of the Crown, Senators, Members of Parliament, Public Officials, as well as those having business with the various Departments of the Government. It is also the headquarters of those having dealings with the principal Lumber Manufacturers in the Great Pine Valley, of which Ottawa is the acknowledged centre. THE RUSSELL HOUSE being central, almost abutting on the magnificent PARLIAMENT and DEPARTMENTAL BUILDINGS the pride of the Country, is thus conveniently situated for those visiting the City on public business. But the location is also everything that could be desired alike for the man of business and the man of pleasure. A few minutes walk brings the guest of the Hotel within reach, not only of all the principal business resorts but also of the most splendid Mountain and Valley scenery that can be seen anywhere, as also of the two almost unrivalled Waterfalls—the Chaudiere and Rideau—and of the extensive Manufacturing Establishments and Depots of the leading Lumbermen. But besides the beautiful scenery, which, it may be mentioned, includes the magnificent Ottawa and two of its grand tributaries the Rideau and Gatineau there are in the immediate neighborhood, beautiful Lakes and apparently never ending woods, which afford opportunities for the finest Fishing and Shooting that can be obtained on the Continent. THE RUSSELL HOUSE affords excellent accommodation for 300 guests. Its table is abundantly supplied with a variety of the choicest description, in season, and nothing is left undone to make every visitor feel comfortably "at home." Omnibusses meet the Arrival of every Train and Boat. 125

"SPARE THAT TREE."

The Lumberman's Gazette says that when articles are written about the preservation of the timber of this country, they are always directed toward the consideration of the pine, and eloquent language flows from pencil points, and arrays of figures are marshaled to show how great is the urgency in that behalf. But the larger body of other sorts of timber is forgotten as of no consequence, or not subject to the depleting process. There is, nevertheless, and has been constantly going on since the first settlement of the country, a remorseless war upon the oak and ash, elm, poplar, hemlock, maple, and every other variety of wood growing in the grand forests with which this goodly land was covered. Thus far this waste has doubtless been unavoidable. To reduce the virgin land to fruitful fields the forests must needs be felled, for grain could not be grown under the branches of the trees. In the undeveloped condition of the western world there was no other course to pursue but to reduce even the best timber to ashes. Thus a vast offering in oak and ash and walnut, and every other goodly tree, was sacrificed on the log-pile of the settler to the spirit of development. There were no means of getting the timber to market had there been demand for it anywhere. But there is no longer a reason or excuse for the sacrifice. The land is divided by railroads almost as a farm by fences. There is scarcely ten miles of territory intervening between the lines of track in most of the northern and western states, and a mighty tonnage floats upon our rivers, lakes and canals. Fifty millions of people now and hereafter the mightiest nation the world has ever known, will require more timber than has ever before been used by any civilization that has preceded the generation of men now bustling in this restless world. Think of the multitudinous uses of timber, calculate the immense quantity required to meet the vast consumption. Figures need not be given. To say twenty billion feet does not convey any impression except of an incomprehensible number, but it is given as the consumption of American timber in 1880. Consider the uses of timber, the fifty millions of population in the United States, and estimate the value of timber twenty years from this date. Pine is not alone of value. Not a pine tree should be wasted, it is true, but it is equally true that he is a ruthless disregarder of the rights of posterity who needlessly and wantonly destroys an oak, an elm, a hemlock, an ash or a maple tree, or any other species of timber. The tide of development must roll northward over the peninsulas of Michigan and lay low her noble forests, but there need be no vandalism, no indifferent waste such as has marked the past. Be not in haste to denude the land. The hardwood of Michigan is to-day of more value than the pine, and it will increase in value as the years go by. The same is true of other states. The hemlock of every state where the tree grows is worthy of preservation; it is a useful timber wood and its value in some of the states will increase five fold within as many years. Let the old refrain be taken up, "Woodman, spare that tree."

IMPORTANT DECISION.

An exchange reports a decision by the Court of Queen's bench, for Ontario, involving the right of a landlord to seize upon the property of a third party, temporarily upon his premises, for the payment of rent. The suit was one for damages by the owner of certain sawlogs, which had been taken to a saw-mill to be converted into lumber in due course of the business of the mill. The defendant was the landlord of the premises, and distrained upon these logs to satisfy his claim for rent against the tenants. The court held this distress illegal, and the logs exempt from any liability. The court further held that it made no difference that one of the tenants appeared to have an interest in the sawlogs jointly with the plaintiff. This decision is of considerable importance to the large class of Canadians interested directly and indirectly in the lumber business, and it is a matter for congratulation that the courts have been able to hold these goods exempt. Their liability to seizure for rent would introduce a considerable element of uncertainty into this kind of business.

SPARK ARRESTERS.

There have been many devices offered to the public for the purpose of arresting sparks from chimneys, but like many devices for arresting the progress of sparks in every day life, the old original plan seems to work the best. This embraces a wire screen or bonnet, made either permanent with an enlarged arm above the stack, or with a hinge joint on a flat opening at the top. This latter is but a modification of the close top of the former, which, if of a small enough mesh to hold cinders, is apt to become clogged after a time, and prove annoying. The hinged opening at the top obviates this, so long as the wire rope connection with the ground, used for opening and closing the trap, remains intact, and when this is broken it is no great trick to restore it. A patent device embracing an inclined shelf inside the stack, so arranged that cinders removed from the direct influence of the upward draft would fall of their own gravity upon the shelf, which is connected on the outside of the stack with a pipe or area sufficient to pass them to the ground, has been tried by many mill men, but has not met with sufficient favor to come into extended use. Probably the best system of arresting sparks is found in so enlarging the area of the chimney that while a good draft is obtained, the heat will not rush up with sufficient velocity to carry cinders to the top. A small stack just large enough to create the required draft under the boilers, is a most prolific source of danger, as the velocity of the current of heated air is sufficiently great to overcome the gravity of the cinders. Tall, brick stacks of sufficient area, seldom emit cinders of a size to be dangerous to surrounding property. Give your stack a height and diameter exceeding the actual requirements of your grate surface, and you can find no more effective measure for arresting sparks, which, rising to a height where the current of air becoming somewhat weakened in its force can no longer overcome their gravity, fall into the ash pit at the rear of the arch. Confine the heated air to a small compass, and its force will invariably carry sparks or heavy cinders over the top of the stack.—Northwestern Lumberman.

SPEED OF CIRCULAR SAWS.

Nine thousand feet per minute, that is, nearly two miles per minute, for the rim of a circular saw to travel, may be laid down as a rule. For example, a saw 12 inches in diameter, 3 feet around the rim, 3,000 revolutions; 24 inches in diameter, or 6 feet around the rim, 1,500 revolutions; 3 feet in diameter, or 9 feet around the rim, 1,000 revolutions; 4 feet in diameter, or 12 feet around the rim, 750 revolutions; 5 feet in diameter, or 15 feet around the rim, 600 revolutions. Of course it is understood that the rim of the saw will run a little faster than this reckoning, on account of the circumference being more than three times as large as the diameter. The following table, which has been compiled as an authority on the subject, nearly covers the whole ground:—

Table with 2 columns: Size of saw (inches) and Revs. per min. It lists various saw sizes from 8 inches to 72 inches and their corresponding revolutions per minute.

HAOYARD'S PECTORAL BALSAM; a few doses relieves the most distressing cough, and a twenty-five cent bottle has cured many a sufferer from Asthma, Bronchitis, Croup, Influenza, Hoarseness and Soreness of the Chest. It is the grand specific for all throat and lung complaints leading to consumption.

WILSON'S ELECTRIC LIGHT.

It will be of interest to lumbermen and saw mill owners, who operate on a large scale, to learn that Mr. T. L. Wilson, of Hamilton, Ont., has invented an electric machine which affords a steady light at a small cost, and is of simple construction. Reference has already been made in the LUMBERMAN to the advantages which would accrue to river-drivers should they be able to use the electric light during the night in sorting logs, as often during the day the weather is unfavorable. Mr. Wilson's invention will doubtless be suitable, as it only requires a two-horse power to run the apparatus, which could easily be carried from place to place. An exhibition of the light was given in Hamilton lately and is referred to as follows by the Times of that city:—

"On approaching the building one was obliged to notice the bright illumination from the windows, which made posters on the adjacent fences as legible as in daylight. Mr. Sanford, who has taken great interest in Mr. Wilson's experiments, contributing the funds necessary for their carrying on, met the visitors and exhibited photographs printed by this electric light. The Times representative was able to read solid minion and nonpareil print without difficulty at a distance of twenty feet from the lamp. The apparatus is by no means intricate in design. The motive power is an engine running at two horse power, and the electricity is transmitted to the lamp through copper wire. The burner is made of coke and molasses, the parts being held in position by a clock-work attachment, which works automatically. Mr. Sanford explained that the apparatus was about one-fifth the weight and could be manufactured at much less cost than any electric machine in New York. The light, including carbons, which consume at the rate of 1 1/2 inches per hour, and power from the engine, will cost about 2 cents per hour. One light like the one exhibited would suffice for a large floor of a warehouse or manufactory. By attaching the wire to a machine contrived for the purpose—and which occupies little space—about 85 per cent. of the original engine power can be utilized for any manufacturing work, rendering the apparatus useful by day as well as by night. The inventor has labored long and faithfully to perfect his invention, and it is understood that a proposition to organize a joint stock company for the construction of the machines, etc., will be laid before the citizens of Hamilton at an early day."

COMMERCIAL VALUE OF WOODS.

The following are furnished by Messrs. Oliver & Co., as the present prices for the different kinds of lumber on board cars on the different lines of railroad nearest to the mills. The prices given are, per thousand, board measure: Walnut, best quality, according to thickness and lengths.....\$60 to \$70 Walnut, common..... 50 " culls..... 30 Cherry, best quality, clear of hearts, large knots and shakes,..... 22 Butternut, " " " " " " 22 Whitewood, " " " " " " 21 Chestnut, " " " " " " 18 White Oak, " " " " " " 17 White Ash " " " " " " 17 Hickory, " " " " " " 16 Rock Elm, " " " " " " 13 Sycamore, " " " " " " 12 Balm of Gilead, " " " " " " 12 Birch, " " " " " " 11 Black Oak, " " " " " " 11 Grey Oak, " " " " " " 11 Black Ash, " " " " " " 11 Basswood, " " " " " " 10 Maple, " " " " " " 10 Beech, " " " " " " 10 Soft Elm, " " " " " " 0

CREAK—HEMLOCK—TAMARACK.—For railways from these woods the railway companies pay as high as from \$20 to \$30 per 100.

Really First-Class.

THE CANADA LUMBERMAN has changed hands, Mr. Begg having sold out his interest to Messrs. Toker & Co., who now issue that journal from their office in Peterborough. Under the new management the LUMBERMAN promises to be a really first class paper, if we may judge from the first number sent out by them.—Australasia Herald.

HUMBUNG IN BUILDING.

There is a great deal of sham building in this country—building that is intended to catch the eye and give an appearance of solidity and finish, which in reality it does not possess. Sometimes this kind of work is intentionally made, with a view to making cheap houses that will sell for a dear price, and sometimes it is furnished by the contractors on a contract, where they have engaged to put in good work but do not. Of course, where the owner sets out to build cheap and flashy houses, there is no one to blame but himself. But when a man contracts for good work and in place of it gets sham work, he certainly has good cause for complaint. But in very many instances there are extenuating reasons, which, while not exactly exculpating the builders who violate their engagements, furnish them with a partial excuse for their actions. One of the chief causes for this kind of unfaithful work rests in the system of competitive bidding on jobs. A person desires to build a house, and forthwith he gets half a dozen carpenters and contractors to bid against each other for the job. These men, thus competing against each other, are, in nine cases out of ten, induced to put in their bid at figures below what good work, or work according to the specifications, can be done for. The result is that the party taking the contract at such ruinous terms begins to "cut the corners" at once. Whenever he can slight the work and not be detected he does it. He furnishes, when he can, inferior and cheaper material than he should, and in every way possible tries to make up for the "cutting rate," which by competition he was forced into giving in order to obtain the work. When he comes to turn the house over to the owner, if the latter has not had experience in building, he is quite likely to accept it as a good job, or if he detects the "little game" of the contractor, a law suit generally ensues. We do not mean to say that carpenters, or builders, do not sometimes willfully violate their contracts and cheat and deceive, when they are not induced to do so by competition. Unfortunately they often do.

Frequently poor work is put into buildings because the owners are too careless or too ignorant to furnish the proper plans and specifications, and make them a part of the contract. Thus, the contract may name certain kinds of work, but omits to mention the quality of the lumber, or the paint, or the styles and kinds of hardware to be employed. As might be expected, the builder, instead of putting in lumber that should cost \$40 a thousand, contents himself in using that which costs but \$30, and so through the work, wherever anything is left to his judgment or discretion, it is likely that he will figure for his own interest.

What is the remedy? A very simple and sensible way to build a house is for the party so building, to just find out what kind of a house he wants. Then ascertain how he desires it finished in detail. If he is able, he would do well to employ a competent architect to draw his plans and furnish him with the specifications. Then ascertain as nearly as possible by inquiry and observation, what good labor is worth, after which, take his plans and specification to a reliable builder and let him make his bid, giving him to understand that good work would be required. In almost every instance, it will be safe to assert, reasonable figures will be made. We mean reasonable figures for good work, but not as close as figures would be evolved by a process of competitive bidding. Good work cannot be had for nothing, and a good house cannot be built without good work. The dearest of all kinds of labor is that slipshod kind of carpenter work, the evidences of which are left in so many of our houses. But a good, solid, substantial, well-made building can be erected at reasonable figures, and by men of limited experience in building, provided they employ honest builders and give them a chance to obtain a fair remuneration for their labor and time, without compelling them to resort to the tricks of the trade to get it.—Industrial World.

On Sunday morning, April 17th, between one and two o'clock, a fire broke out in Hall & Brown's lumber yard at Berlin, and before it was subdued some \$300,000 worth of lumber was consumed. There was no insurance and the cause is unknown.

COST PRICES.

We have often urged upon our manufacturers and merchants the need of a close analysis of expenses, when making up the cost of their goods. And not long since, in an article upon Agricultural Machinery, we urged greater caution in fixing selling prices, which are not always sure of returning the ratio profit which makers imagine. We find in the *Book-keeper* a very interesting paper upon the subject of cost prices, by Mr. James Howard, of Bedford, England, president of the Agricultural Engineer's Association, and consider it well worth the careful attention of every Canadian manufacturer:—

"If a history were written of the rise and progress of our most successful mercantile establishments," says Mr. Howard, "it would doubtless be recorded, as a prominent feature in each case that a careful system of account-keeping had been adopted. Indeed, it may be said that without efficient book-keeping the success of any commercial enterprise is insecure, and instances are not wanting where apparently thriving concerns have been made shipwreck by violating the first principle of commercial economy. In a manufacturing business, by far the most important point in account-keeping is that of ascertaining the exact cost of articles when ready for delivery to the customer. To arrive at this may at first sight appear a very easy matter, but in order to obtain even approximate accuracy several conditions must be fulfilled. In the first place, every useful system of cost prices is dependent upon the correctness of the general accounts of the concern—an obvious fact when it is remembered that the measure of business success is simply the difference between the total payments for materials, wages, and establishment charges, and the net amount received in payment of sales.

Referring for a moment to the question of selling prices, is it not unusual to see agricultural machines offered at prices which evidently have been fixed at random. In some such cases the practiced eye can see at a glance that after the usual trade allowances have been deducted from the nominal selling prices, very little profit, if any, is left for the maker. Again, if the lists of the different manufacturers be taken for certain articles, it is singular to notice how nearly the figures agree. This seems to show that the practice of fixing prices by the list of others is not uncommon, those of the foremost houses being generally taken as the standard. Firms which adopt this practice would appear to say to themselves, 'It pays so-and-so to sell at such and such a price, and so it will us.' It may be true that the price of one firm must conform to some extent to the price of other firms; but it is none the less true that there is insecurity in simply following the lead of others without investigation. I have known even first-class houses which have not troubled themselves to go into the cost of certain articles which they manufacture. Again, it does not always follow that because a given article can be produced at a certain establishment and sold at a given price with a profit, at another establishment the same thing can be done; the mode of manufacture, the extent of the demand, the facilities and cost of transit, and the general policy adopted in the conduct of the business may vary so much as to make the result in one instance a fair profit, and in another an actual loss.

"A popular impression prevails that small makers can afford to sell goods at lower prices than large manufacturers, the idea being that the expense of the former are proportionately less. Apart from the fact that the expenses of the small maker are, as a rule, relatively higher than his larger rival, there are other considerations."

Any plan of arriving at prime costs, says the writer quoted, to be of reliable value must of necessity take note of every element of expense, both in production and sale. To arrive at these elements, it is absolutely necessary that the general cash-book should contain a detailed account of all payments, and that every item should be posted under the heading to which it belongs. For instance, payments in respect of any one of the following matters should be carried to separate accounts:—

MATERIALS, WAGES, FOREMEN'S SALARIES, CLERKS' SALARIES, TRAVELLING AND PUBLIC EXPENSES, EXPENSES OF FORWARDING DEPARTMENT, RENT, RATES, & TAXES, PLANT, REPAIRS OF FACTORY, PATENTS, & ROYALTIES, HORSES & VEHICLES, FUEL & GAS, ADVERTISING, LEGAL EXPENSES, PRINTING, STATIONERY, STAMPS & POSTAGE.

Furthermore, accounts should be kept of the loss upon returned goods or exchanges, cost of experiments, banking expenses, bad debts. "From an analysis of these items of expenditure say for three years a tolerably safe guide as to the percentage upon the returns of the business is obtained." These several items may be grouped under three heads; the first includes the purchase of raw materials and all articles used in the manufactory; the second deals with the articles produced and the cost prices of the same; and the last relates to the costs and charges incidental to the sale of the goods manufactured.

"The establishment-charges in the case of my own firm are calculated upon the average cost per cent on the returns of three years, and the charge of the carriage of goods is estimated at the average cost per ton of sending to the several points of delivery. In respect of the cost of melting pig iron and delivering the same to the moulders for casting, the practice of my firm is periodically to adopt a test—say for a fortnight; the whole of the materials and the produce of clean castings, runners, wasters, etc., being weighed. The labor for moulding is charged in the cost price in the same way as for other departments. The same experiments are also utilized to show the total cost per ton of the finished castings produced in the period.

"The foregoing remarks on cost prices would be very incomplete if I were not to touch upon a point in connection with the subject which does not always receive the attention due to its importance. I refer to the question of stock, viz., raw materials, stores and manufactured articles. It cannot be too prominently kept in mind that to its original cost five or ten per cent. is added to stock by keeping it the year round. Hence, it may be taken for granted that profuse buying of materials and over-production of manufactured articles are prolific sources of loss and waste; but, on the other hand, a sufficient stock for the requirements of current business is absolutely necessary, in order to prevent delay in the execution of orders and to make a business run smoothly. In the endeavor to overcome the difficulties of this question and strike the happy mean, it has long been the practice of my firm to keep accurate accounts of the stock in hand of finished implements and all parts thereof, which are corrected to the first of each month. From the data thus obtained the stock is equalized and a safeguard provided against the evils referred to."

There are many points in this address which Canadian manufacturers may ponder with advantage. It will be seen from the exhaustive survey which Mr. Howard makes, that the discovery of the cost of an article made, involves a great number and variety of considerations. And as no manufacturer in this country any more than in the old land, can ignore the many sources of leakage and loss, and yet arrive at an accurate estimate of prime cost. Too many among us, we fear, are governed in fixing their selling price by what their neighbor charges, instead of laboriously calculating the cost, each for himself.—*Monetary Times.*

Room for the "Lumberman."

THE CANADA LUMBERMAN is the name of an excellent sixteen page paper, devoted to the interests of the lumber and timber industries of the Dominion. It is full of valuable information and interesting reading for those interested in lumbering operations, as well as others. We believe there is room for such a paper in Canada, and it should receive the support of every person interested in the trade. It is printed by Toker & Co., publishers of the Peterborough REVIEW. The subscription price is two dollars a year, which is very cheap.—*Sherbrooke Gazette.*

HAWARD'S FACTORIAL BALSAM is composed of the most alling balsams and gums. The balsams, which enter into its composition, were used by the natives when America was first discovered, and are combined with other vegetable tonics, so blended together, that it is a specific for all affections of the throat and lungs. Thousands of bottles are used annually, and is considered one of the standard preparations of the day.

THE ART OF WOOD WEAVING.

The manufacturing district of the Austrian empire lies in the north of Bohemia, where miniature Birmingham and Manchesters are congregated together by the dozen, and hundreds of thousands of "hands" are actively and ceaselessly employed. For miles the high road is bounded by houses, chiefly one-storied wooden buildings with roofs of tatch or shingle, where the rattle of looms may be heard without intermission from early dawn till late at night. In some of the towns numberless chimneys pour forth volumes of black smoke by day, while by night the windows of the large factories glow with light as if there were a general illumination. One of the busiest of these little towns and villages is Ehrenberg, which lies close to the Saxon frontier, and is distinguished from the rest by a peculiar industry, which appears to be carried on in only two other places besides. The peculiar industry for which Old Ehrenberg is distinguished is wood weaving, *sparterie* work, as it is called, which was introduced something more than a century ago by a carpenter named Anton Menzel. The threads used for weaving are no thicker than writing paper, and vary in width from the fifth to the twenty-fifth part of an inch. The aspen is the only tree whose wood is sufficiently tough and pliable to supply these threads in the required lengths. The aspen was formerly indiginous in Bohemia, but has now almost entirely disappeared, or at all events does not exist in sufficient quantities to supply the demand in any degree. Consequently the raw material for the *sparterie* work has to be brought from Russian Poland, which is both a laborious and expensive process. The wood merchants go to Poland twice every year, in the early spring and in the autumn, the only times at which the wood can be cut with advantage, as none can be used at once but that in which the sap has not yet risen, or from which it has departed. Wood cut during the summer has to lie in water for a year, otherwise it is red and useless. It must be quite free from knots, as the smallest defect or irregularity, such as an ordinary person would hardly notice, makes the fibres quite unfit for weaving purposes. Arrived in Ehrenberg, the wood is planed and divided into pieces nearly 2 1/2 inches wide. When they have been made perfectly smooth they are divided again by an instrument resembling a plane, but furnished with a number of fine knifeblades, which mark the wood at regular distances according as the strips are to be 1-25 or 1-5 of an inch in width. This process requires the utmost dexterity and nicety, as it is absolutely essential that the divider should exactly follow the direction of the fibre; and for this reason among others it must always be done by hand. The divider makes incisions 1-5 of an inch deep; the wood is then carefully planed, and comes off in this paper like stripes, some of which are not wider than a stout thread. They are gathered up as they fall by women, who examine them and pick out any defective pieces; and, in spite of all care taken in the selection and manipulation of the wood, there is a good deal of waste in the process. The threads or fibres, being now ready, must be tied in couples at one end before they can be woven. This is done by children, and in Ehrenberg little creatures of four years old and upwards are employed at it, and earn fourpence a day. The weaving is done chiefly by women, and in looms which differ considerably from those in ordinary use, the fibre being, as before mentioned, not more than from 39 to 50 inches in length. The longer fibres form the warp, the shorter (28 to 32 inches) the woof, which is passed in and out by means of a little instrument with an eye like a needle. Until within the last few years this concluded the whole process—the "foundations," as they are called, were complete, and nothing more was done, except that a few hats and caps were made of them; but these were of the very simplest description, and anything but becoming. Moreover, they were glued together, which made them very unpleasant to wear in hot or wet weather, and accordingly they fetched but fifteen pence or 2s. and 4d. per dozen, and were worn only by the very lowest classes. Within the last few years, however, a great change for the better has taken place, thanks probably in part to the interest shown by the Government

in the manufacture, in part to the establishment of an enterprising firm, and in part perhaps to the fact that the Ehrenbergers have at last become alive to their own interests. At present Ehrenberg sends out not only the raw material, but ready made goods—fashionable hats of all kinds, and a variety of fancy articles skilfully concocted out of the wood fabric; ladies' hats of every possible description and the latest fashion such as no one need be ashamed to wear, are made entirely of wood, and sold at astonishingly low prices. Men's hats are to be had of all shapes, from the Panama hat—not a whit inferior to that bought in Paris—to the common hats exported in large quantities in China, and the linings or foundations which give stiffness to the fez of the Turkish soldier. The export trade embraces all Europe, from Spain to Russia, extends beyond the Caucasus to India and China, and maintains active relations with North and South America, as well as Australia. The manufacturers are in direct communication with the four quarters of the world, and their goods are being introduced into Africa by French and English traders.—*Cassell's Family Magazine.*

THE PETCHORA TIMBER-TRADING COMPANY.

From Mr. H. Seebahn's work on "Siberia in Europe," we gather that Alexievka is the shipping port of the above company. It is a group of houses built upon an island in the delta of the great river which empties itself into the Arctic Ocean, nearly opposite Nova Zembla, and where the ships are laden with larch for Cronstadt. The larch is felled in the forests 500 or 600 miles up the river, and roughly squared into logs varying from 2 to 3 ft. in diameter. It is floated down in enormous rafts, the logs being bound together with willows and hazel boughs. These rafts are manned by a large crew, some of whom help to steer them down the current with oars and poles, and others are hired for the season to assist in loading the ships at Alexievka. Many of the men bring their wives with them to cook for the party. Sleeping huts are erected on the rafts, and it becomes to all intents and purposes a little floating village, which is frequently three months in making the voyage down the river. Marriages have been known to take place on these rafts. Occasionally a funeral has to be performed, and sometimes all hands are engaged in helping to keep the raft from running ashore or grounding on a sandbank. Sometimes in stormy weather it is necessary to moor the raft under the lee of an island, or a promontory, to avoid the danger of having it broken up by the violence of the waves. With the greatest care in the world, this will sometimes happen. The Russian has a good deal of the fatal facility to blunder which characterizes the Englishman, and shiploads of stranded logs of larch are strowed on the islands of the delta, and on the shores of the lagoon of this great river.

Woods for Heating.

The *tibbe* has the following:—In Toronto, as elsewhere, the consumers of wood for fuel esteem the hard maple as the most valuable for the purpose. This is an erroneous notion. All the oaks yield more heat than maple does, and so, among the other woods accessible, does yellow birch. Here is a table based of American experiments made several years ago, and showing the value of different kinds of wood for firing. Shell-bark hickory is taken as the standard:—

Shell-bark hickory	100	Hard Maple	59
Pignut hickory	95	White elm	58
White oak	84	Red cedar	58
White ash	77	Wild cherry	54
Dogwood	75	Yellow pine	54
Scrib oak	73	Butternut	51
Red oak	69	White birch	49
Bleh	32	White pine	43
Yellow oak	60		

Carefully Guarded.

THE CANADA LUMBERMAN.—Toker & Co., of Peterborough, have purchased the LUMBERMAN, and it will hereafter be published semi-monthly by them. In the introductory we are told that THE CANADA LUMBERMAN will be purely a trade organ and will be absolutely non-political. If the number before us is a fair specimen of what it will be in the future, we have no hesitation in saying that the interests of the lumbermen of Canada will be carefully guarded by it.—*Lindsay Warder.*

Travelling Agent.

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

The Canada Lumberman

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY TOKER & Co. PETERBOROUGH.

Terms of Subscription :

One copy, one year, in advance \$2 00
One copy, six months in advance 1 00

Advertising Rates :

Per line, for one year \$0 60
Per line, for six months 30 50
Per line, for three months 15 00
Per line, for first insertion 10 00
Per line, for each subsequent insertion to 3 ins 05
Cards not occupying more than 12 lines (1 inch) per annum 8 00
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Special rates will be made for page, half page, and column advertisements.

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

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

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

PETERBOROUGH, Ont. MAY 2, 1881.

THE Quebec Chronicle learns that owing to a lack of water in the various small streams of the lumbering districts, several hundred thousand logs in the Province of Quebec are likely to remain in the woods owing to the impossibility of driving them.

MAPLE flooring is meeting with a steadily increasing demand in the Chicago market. Does this not suggest that Canadians might, with advantage, turn some of their attention to this wood, of which there are large supplies in many districts.

THE Three Rivers Concorde asserts that in Quebec pine saw logs, 12 to 15 inches in diameter, which formerly paid dues at the rate of 10 cents, now pay 12 cents; that those of 17 inches and over now pay 25 cents as against 15 cents formerly; and spruce logs which were rated at 5 cents now pay 6 cents. This is certainly a very substantial increase.

AN accident occurred at Ottawa on the 15th of April, which, had it not been for the timely arrival of medical aid, would have resulted in the death of Mr. Peter McLaren, a wealthy lumberman of Perth, Ont. Mr. McLaren had been confined to his room at the Russel House through illness. That morning his medical adviser ordered a new prescription, to be used internally. At the same time he was using an external application of belladonna and iodine. Through some accident Mr. McLaren took a heavy dose of the latter, but fortunately discovered his mistake in time to save his life.

AN Ottawa dispatch informs us that the drive prospects at present are uncertain. On the main streams no trouble will be found in getting down the logs, and from all accounts there is plenty of water in Indian river and its tributaries. On the north side of the Ottawa Valley there is no cause to fear but that all will go well, and any trouble that may arise will be on the south side, and along the creeks that flow from that direction. If, however, the run, which may be naturally looked for at this season comes, the only trouble which the lumbermen fear this season will be taken off his mind.

Mr. J. J. DONOUGH, of Surrency, Georgia, furnishes us the following report of the cut of one of the American Saw Company's 56-inch Trenton Tooth Saws :-

Table with 2 columns: Saw type and length, and Feet cut. Includes 14 Pieces pitch pine, 3 x 9 (883 feet), 170 x 12 (71,880 feet), 71 x 12 (13,008 feet), 67 x 2 inch plank (3,820 feet), 37 x 13 (1,122 feet).

Merchantable..... 90,773 feet
Boards..... 20,000
110,773 feet

Worked eleven hours. Sawed 230 logs.

While Messrs. Bentley, Moyer & Southwick, of Rochester, N.Y., say that they have sawed about 1,000,000 feet of the hardest white swamp oak and any quantity of pine with their inserted tooth saw, and that it did its work equal to the best gang sawing.

THE Timber Trades Journal of the 6th April, under the head of Liverpool, says:—"Another week has passed without bringing forth any signs of a return to a more active condition of business than has prevailed for some time past. The winter has at last departed sufficiently to admit of building operations proceeding, but this has not yet affected our trade in any noticeable degree, for orders come in slowly, and when they do come are competed for eagerly on all sides. All rumors from Canada that have reached this side point to a maintenance of the prices that were paid early in the present year, but we cannot find many buyers in this district willing to operate at the rates demanded by shippers. The outlook for the coming season is far from bright, for the present state of trade in the country is not brisk, and there is now on hand a stock equal to the probable demand for the next five or six months. In the face of this, it is most difficult to understand why such high prices should be demanded abroad, and still more difficult to comprehend why they should be paid, seeing that, so far as this port is concerned, the tendency of the market has been downward, not only for one or two articles, but for nearly every class of wood goods imported.

FOREST CONSERVANCY.

The English Journal of Forestry has called attention, as we learn from an extract which will be found elsewhere in this issue, to the marked advance in forest conservancy in the colony of South Australia. It seems that the government has instituted a system of forest reserves, and that an important addition was made last year to the area thus reserved by the Forest Board. By natural regeneration and by the formation of new plantations they are thus wisely and with prudent foresight, providing against the extirpation of their forests and the arrival of a period when they must depend upon importations from abroad for their supply of timber.

South Australia is a comparatively new colony. Men who are not of advanced age can remember its formation and settlement. New Zealand, which is also one of the younger dependencies of the British empire, has very sensibly under wise administrators adopted a similar system. Is it creditable to Canada, being as it is one of the oldest settlements and the most important in wealth and population of the colonial members of the British empire, to lag behind these minor and younger communities, and show less common prudence or foresight on such a vital point? It may be said that we were so richly endowed with forests that it did not seem necessary to take such precautions. Even if such an excuse were valid as regards the past, it is utterly without weight now. At present it is generally conceded that our forests are far from inexhaustible, that indeed the period of their duration, at the present rate of consumption, is limited to a generation at the furthest, so we would do well without delay to follow the example thus offered to us.

MR. HENRY ATKINSON, of Etchemin, opposite Quebec, has been successful in forming an English joint stock company, which takes over the lumber business formerly conducted by the firm of H. Atkinson & Co., including all their mill property and lands, as well as the lands belonging to the Bank Nationale.

FOREST LANDS.

We were glad to receive from Mr. Jack, a New Brunswick lumberman, the letter which we publish in another column, endorsing what we have urged as to the necessity of discriminating between the lands which are fit for settlement, and those which should be preserved as forests. It greatly strengthens our argument to find that not only in Ontario and Quebec, but also in New Brunswick, and we may fairly presume in other provinces of the Dominion of Canada, people are waking to a sense of the importance of this subject of forest preservation, and to the folly of opening indiscriminately for settlement districts which are not adapted for agriculture, and where the settler, without doing any good for himself, brings additional risk of the speedy destruction of our fast diminishing sylvan wealth.

The present wasteful and unphilosophical system of administration of our forests, will never, we are convinced, be remedied till there is a separate department for the supervision of woods and forests. We find many who individually will assent to this, and we call upon them to unite their efforts, which though separately impotent would collectively be most powerful, and to urge the adoption of a more sensible and prudent management of this very important portion of the capital of the country.

THE LOG CROP.

The Northwestern Lumberman of the 16th April contains an article on "The Log Crop" and one on "Last Year's Work of the Mills," from which we gather the following figures bearing upon the present position and future prospects of lumber for the current season.

With regard to the log crop, the Lumberman claims that the following figures are nearer correct than "any statement that has ever been made up" for the districts to which it refers. The item of "new logs" includes the estimated amount banked to April 15th, and that of "old logs" those left over from other years, either in mill booms, store booms, or in the streams :-

Table with 4 columns: District, New Logs, Old Logs, Total. Includes Miss. Valley (1,673,000,000), Lake Superior (147,500,000), Lake Michigan (1,044,000,000), E. Michigan (1,582,300,000), Wolf River (115,000,000), and a Total of 5,181,700,000.

The foregoing figures do not, of course, include the logs that will be put into streams and taken out by the railroad mills during the summer. Under average circumstances these are estimated to foot up 150,000,000 feet, while another 1,000,000,000 feet may be added for stocks to be supplied by mills not included in the above estimate, bringing the total log stock of the Northwestern States up to 7,455,000,000 feet for the season. Of last year's stock however, about 1,250,000,000 feet must have been carried over, and it is not unreasonable to assume that, for various reasons, at least as much will remain uncut at the close of the present season, leaving about 6,250,000,000 feet as the probable production of the saw mills in the north-west for the present year.

Turning now to the Lumberman's elaborate statistics with regard to the lumber product of the same territory for the last eight years, we find it was in :-

Table with 3 columns: Year, Lumber, Shingles. Shows data for 1873, 1874, 1875, 1876, 1877, 1878, 1879, and 1880.

These figures show a large increase in the supply during the last two years, but that it has not been more than the demands of consumers required is proved by the fact that the stock on hand on the 1st January of the four years named stood as follows :-

Table with 2 columns: Year, Lumber. Shows data for 1878, 1879, 1880, and 1881.

Doubtless if these figures were brought down to the present it would be found that owing to the lateness of the season the available stock is quite as low now as it was this time last year.

NEW BRUNSWICK TIMBER LANDS.

FREDERICTON, N.B., April 15, 1881. GENTLEMEN, - I enclose you the statistics which you have asked me for.

Allow me to congratulate you on the very valuable character of the information given to the public by THE CANADA LUMBERMAN.

Your remarks on fires resulting from settlers locating on lands unfit for settlement are very applicable to New Brunswick. It is time that our mill-owners should receive a little of that attention which has been so lavishly and often unwisely spent upon the settler, and that the public should learn to discriminate between lands which ought and those which ought not to be settled, in which matter great ignorance prevails.

Yours truly, EDWARD JACK.

Messrs. Toker & Co., Peterborough. NEW BRUNSWICK.

The following are the receipts from Woods and Forests and Crown Lands since Confederation :-

Table with 3 columns: Year, Woods and Forests, Crown Lands. Shows data from 1867 to 1880, with a Total of 8750,181 91 for Woods and Forests, and 2180,449 76 for Crown Lands.

ST. JOHN, N.B.

EARLY NAVIGATION. Navigation has opened earlier than was expected at the time of our last writing. The ice is out of the river so as to enable the steamers to commence running on the 11th inst., which is the earliest for many years past, the usual time being from 20th April to 1st of May.

LOW WATER. - The weather continues very cold and dry, and in consequence, the water is unusually low in the river for the season, and the anxiety as regards the prospects for stream driving are not diminished.

LOGS MOVING. - A few rafts of logs of last year's production, and frozen in last fall, are now coming forward, and some of the mills are commencing to saw, but it will be some weeks yet before logs in any quantity will be available.

WEATHER. - In this section during the past winter, and the spring thus far, the weather has been in marked contrast with that of very many places both on this continent and in Europe. We have had no violent storms, no severe frosts, no heavy thaws, no floods - but a steady course of fine weather of medium temperature, varied with light falls of snow. During the month of March we had but one snow storm, and that on the last day of the month, when a few inches fell, which all disappeared in two days after.

SHIPMENTS. Shipments of deals and other sawn lumber for fortnight ending this date, say For Europe 5,962,000 Sup. ft. " United States 1,430,000 " " West Indies 263,000 "

FREIGHT RATES. - Freighters are without material change; we quote, Liverpool and London 57/6; Bristol Channel 60; Dublin 58/9; Boston \$2.25; New York and Philadelphia \$3. St. John, N.B., April 21st, 1881.

New York Exports.

The Real Estate Record gives the following as the exports of lumber from the port of New York :-

Table with 3 columns: Destination, This Week, Since Jan. 1. Includes West Indies, South America, East Indies, Africa, etc., Europe, Continent, and Europe, United Kingdom.

THE Hamilton & Northwestern Railway is doing a lively business in timber this spring. Timber trains arrive in Hamilton on every day and it is being shipped by vessel as fast as possible.

EMERY WHEELS FOR SAW GUMMING!

Solid Emery Wheels are now almost in universal use for the purpose of gulletting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a year, costing \$3 to \$1 each, and when such small mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was so uncertain, and the demand so fierce, that storekeepers could not afford to carry them in stock. Now, however, Saw Gumming Wheels have become as staple an article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of \$500 to \$750 worth at a time. Saw Gumming Wheels are used with the edge (or face) square, round, or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

8x $\frac{1}{2}$	} $\frac{3}{4}$ in. hole.	10x $\frac{1}{2}$	} $\frac{1}{2}$ in. hole.	12x $\frac{1}{2}$	} Holes, $\frac{3}{4}$, $\frac{1}{2}$ and 1 inch.
8x $\frac{3}{4}$		10x $\frac{3}{4}$		12x $\frac{3}{4}$	
8x $\frac{7}{8}$		10x $\frac{7}{8}$		12x $\frac{7}{8}$	
		12x $\frac{1}{2}$			
		12x $\frac{3}{4}$			
		12x $\frac{7}{8}$			
		12x $\frac{1}{2}$			

Probably more wheels 12x $\frac{1}{2}$, 12x $\frac{3}{4}$ and 12x $\frac{7}{8}$ are used than all the other sizes together. Saw Gumming Wheels are used, however, of all sizes up to 24x $\frac{1}{2}$. The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth case hardened, in which condition the saw will cut about 33% per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw lightly a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

A QUESTION OF QUALITY.

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

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

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

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

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

The Tanite Co. Stroudsburg, Monroe Co. Pennsylvania

CANADIAN TRADE SPECIALLY SOLICITED.

M. Covel's Latest Improved Automatic Saw Sharpener!

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

**CIRCULAR SAW
STEAM FEED!**

I would also call special attention to my
Heavy Circular Saw Mills

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

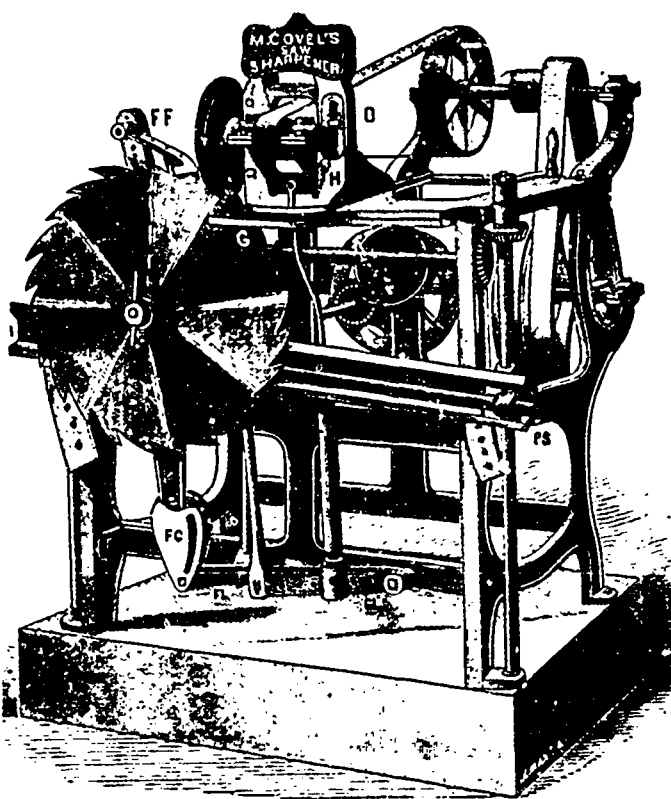
GRAVENHURST, August 20th, 1880.
WM. HAMILTON, Esq., Peterborough.

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

Yours respectfully,
WILLIAM TAIT,
Lumberman, Gravenhurst.

Toronto, August 11th, 1880.

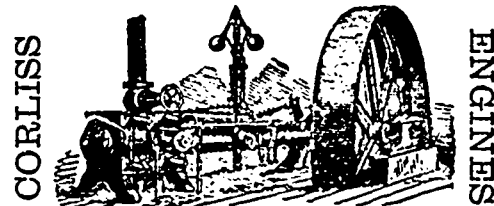
WM. HAMILTON, Peterborough, Ont.
DEAR SIR—The Steam Feed you put in is working splendidly.
Yours, &c.,
THOMPSON, SMITH & SON.



MILL MACHINERY!

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

Horizontal Engines and Boilers



Where economy of fuel is the great consideration, along with uniformity of speed, such as is required in Grist and Flouring Mills, Woolen and Cotton Factories, or large Factories of any kind, I supply the Corliss Engine. I feel justified in saying that our Pat. Workmanship and Finish on this Engine will do no discredit to its renown, and certainly is not equalled in this country for economy of fuel. I have them working at 2 1/2 pounds of coal per horse-power per hour.

WILLIAM HAMILTON - - PETERBOROUGH, ONT.

Chips.

The mill belonging to the Ontario Bank at Parry Sound is being put in order and is expected to commence running about the 1st of May.

In the manufacture of shoe lasts it is estimated that 500,000 cords of birch, beech and maple timber is used, and an equal quantity for small tools.

Mr. Alex. McArthur, of Kinmount, is shipping birch lumber to the front. So is Mr. Geo. Cluxton. All the factories along the Grand Trunk are glad to get it.

The lumber exports from St. John, N.B., for the past three months to trans-Atlantic ports reached 11,121,679 feet, not including 499 tons of birch timber.

A PINE TREE was recently cut in Clearfield county, Mich., that made three sticks of square timber, 62, 60 and 36 feet long respectively. At 36 feet from the stump the tree squared 27 inches.

The large belt referred to in our last issue as having been made by Messrs. Robin & Sadler at their factory in Hamilton, should have been credited to Montreal as it is in the latter city these gentlemen are located.

The official statement of the banks of the Dominion for the month of March show an increase of \$100,000 in circulation; an increase in Dominion deposits both on demand and on time and an increase in assets of \$1,000,000.

The *Omece Herald* says Mr. John Kucard, of that place, manufactures a cedar shingle the surface of which is as smooth as if it had been planed or sand papered, and that the point and butt are cut perfectly true and square.

J. H. REIFFENSTEIN, D.L.S., who has just returned to Winnipeg from the Shell River district, where he has completed a subdivision survey of six townships, says it is principally a timber tract of country, consisting of poplar, balsam of gilead, and spruce, a belt of the latter having been struck in the eastern part of the survey. Poplar trees averaged thirteen inches in diameter.

During the winter several improvements have been made in the Parry Sound Lumber Company's saw mill at that place, with a view to economizing labor and increasing the capacity of the mill. A new iron burner has been erected, and upon trial, although the sawdust and wood thrown into it was mixed with large quantities of ice, it proved a complete success. The company expect to cut from fourteen to sixteen million feet during the season.

An English paper predicts that wooden railway sleepers are to be replaced by steel, just as iron rails are being superseded by steel rails. Steel sleepers, it says, are very flexible, and will outlast the toughest rails, while their greater cost over timber sleepers will be compensated by their greater endurance, and the diminished expenditure of relaying. They are now manufactured in great quantities at Düsseldorf, and 70,000 tons have been laid down as an experiment in various parts of the continent.

A MANITOBA exchange suggests that it would be an interesting experiment if the farmers in Manitoba would enclose a few acres of prairie with a strong fence, carefully excluding cattle and other animals. The result would likely be a vigorous growth of young trees, perhaps mostly poplar. On a piece of ground which, for at least two years, was protected from cattle and fires, immense numbers of young poplars made their appearance last season. Claims for tree culture might, perhaps, in this way be retained. In any case a fine grove of trees at every farm house could be secured with very little trouble.

At the installation of the officers of the Buffalo Board of Trade on the 15th April, the newly elected president said:—"There is no doubt but that our citizens with very few exceptions are in favor of a new reciprocity treaty, and are therefore desirous that a joint committee should be appointed on the part of Great Britain and our Government to take the matter into consideration, and devise a plan that would result in giving the people of Canada and this country a just and equitable treaty, one that would be so fair that the good resulting from it would be actually advantageous to the people of both countries."

YELLOW PINE TIMBER.

The very best of yellow pine timber is not that of greatest density. Pitch pine is not as good for decks or deck frames as other fine-grained pine from the South. Before the war of 1861 there was a species of yellow pine grown about Wilmington, N.C., whose specific gravity equalled the best pine on our coast, the mean of which was 637 39 lbs. 13 oz. when squared; when round and in bark, 781 48 lbs. 13 oz. The very best yellow pine timber is that in which the even fineness and firmness of the grain is continued to the centre or pith of the tree, ranging from 15 to 25 grains to the inch. By careful observation much information that is valuable may be obtained from the table of specific gravity. Notwithstanding the thickness of the bark of the yellow pine and its lightness (the specific gravity differing not materially from that of cork), we find that the pine timber in bark weighs much more than the square timber. This, to the casual observer, would hardly seem possible; the man unacquainted with the nature of yellow pine sapwood would be likely to doubt the correctness of the table. But such is the nature of the exterior coating immediately under the bark of yellow pine, that we cannot find a substance more analogous than sponge; its retentive properties are very similar, and the turpentine with which this sapwood is saturated is the cause of its increased specific gravity above that of the squared timber when covered with bark.

The thinner the sap wood, the less the specific gravity.

There is an error in the prevailing opinion in relation to the durability of yellow pine timber. Our Government has become a heavy stockholder in this prevailing error, by acting on the supposition that yellow pine timber requires a great amount of seasoning. The consequence has been that large timber houses have been erected and filled with this timber, and kept for many years, and when in a state of decay it has been used for new vessels and vessels undergoing repairs. This is a very great mistake; an equal number of months would have answered the shrinkage and durability of yellow pine. When in pieces of any considerable size, it shrinks but little after the vessel is in active service; when used as deck plank, they should be made narrow. Our judgment, based upon a large experience, leads us to the conclusion that yellow pine requires no seasoning to make it durable. The ebb and flow of the turpentine are through the sap, as the specific gravity will show; hence we say that the capillary tubes of the heart would have no more of the resinous property if cut at the proper season than is required for strength and to render it durable.

The continued use of yellow pine timber in the private shipyards of New York has proved it incontestable. We could name ships built in this city more than thirty years ago that have their first yellow pine beams in their decks, and we could point to others that have exhibited a durability unknown to our navy. Proper care should be taken to clear a timber of all sap; and as regards shrinkage in naval vessels, if the same measures were adopted as in private yards, making strakes of planks narrow, there would be no cause of complaint. The strakes of clamps, deck plank, bulwarks and ceiling of naval vessels are too wide by at least twenty per cent.—*American Ship*.

A New Water Wheel.

One of the novelties in water wheels, patented some time since, consists of an endless belt of any suitable construction, passing over an upper and lower pulley, and fitted with a number of water buckets whose upper portions are formed with a rearward curve to permit them to pass through the water easily at the bottom of the wheel, and whose lower ends are secured to the belt by elastic connections to permit them to turn easily over the pulleys. The weight of the water in the buckets operates directly to drive the upper pulley, which, being fixed to a shaft, furnishes the desired power. The inventor claims for this simple form of water wheel a larger percentage of efficient power, with a given flow of water, than is obtained by the best turbine wheels.

ANOTHER LARGE ROLLWAY.

A correspondent of the *Lumberman's Gazette* writing from Pinconning, claims there is the largest rollway on the bay at the termination of the Saginaw Bay and Northwestern railroad. This road runs west from Saginaw Bay through Pinconning a distance of 10 miles, then north 12 miles. It has several branches from one-half to two miles in length. At the bay there are two trestles, their united length being a trifle 3,000 feet; they stand about 20 feet above high water mark. On the line there are 22 camps in operation—three camps belonging to Yawkey & Bradley, three to H. W. Sage, two to Folsom & Arnold, and four operated by W. J. Miller & Co., the last named getting out logs for T. H. McIraw. These camps run on an average about 80 men to a camp divided into two gangs, one working in the day and the other nights. At the bay there is about 80 men divided in the same way, the former to load cars and the latter to unload. The road has six engines, five in constant use night and day, two gangs to each train, in fact we have two gangs to every thing as we run day and night.

At the bay the logs are dropped off of the trestles and rolled a distance of 600 to 800 feet, and then tiered up, and as fast as they come we keep on piling them on top so we have them all in perfect straight tiers each mark by itself, and as every camp has a mark of their own, you can imagine how they look.

They claim that at Averill they had up to the 10th of this month, 14,500,318 feet, which I think is about the right figures. We can see them on that figure and go about 12,000,000 better, for we have banked at present about 25,000,000, and if any one wishes to see the largest rollway in Michigan, and I think in any State, tell them to come to Pinconning. It won't cost them anything from Pinconning to the bay, a distance of two miles, as W. J. Miller, general manager, is a very accommodating gentleman, and any train going to the bay will be at the service of visitors. Remember that the logs are all tiered up and not dumped like nails from a keg, as at Averill. The president of the company operating this road is W. S. Gorrish, of Muskegon; W. J. Miller, general manager.

To Fasten Cloth on Wooden Surfaces.

The following is said to be an excellent method of fastening cloth to the top of tables, desks, etc.: Make a mixture of 2½ pounds of wheat flour, 2 tablespoonfuls of powdered rosin, and 2 tablespoonfuls of powdered alum; rub the mixture in a suitable vessel, with water, to a uniform, smooth paste; transfer this to a small kettle over a fire, and stir until the paste is perfectly homogeneous without lumps. As soon as the mass has become so stiff that the stirrer remains upright in it transfer it to another vessel and cover it up so that no skin may form on its surface. This paste is applied in a very thin layer to the surface of the table; the cloth, or leather, is then laid and pressed upon it, and smoothed with a roller. The ends are cut off after drying. If leather is to be fastened on, this must be moistened with water. The paste is then applied, and the leather rubbed smooth with a cloth.

Utilizing Tide Power.

When the venerable Peter Cooper was an apprentice he invented a water wheel to utilize the natural current of the tides. His plan was to cause the waterwheel to rise and fall with the tide, at any desired speed, by the action of its own machinery. It was so arranged that the whole power could be thrown on a mill, or be made to force compressed air into a reservoir to be used as a motive power to propel ferry boats across the river. This last was done by making the hull of a ferry boat consist of two strong iron cylinders, to provide for the buoyancy of the boat, and form at the same time a reservoir for the compressed air used to drive it across the river. The wreck of the model of this tide mill is still preserved in the garret of Mr. Cooper's house.

That Marvellous Purifier or Blood Bitters, will speedily change the sallow face to one of freshness, health and beauty. It regulates the bowels, acts promptly on the liver and kidneys and strengthens the system when broken down by nervous and general debility. Ask your druggist for a trial bottle, the cost is only 10 cents. Large bottles \$1.00.

AUSTRALIAN FORESTS.

According to the London, Eng., *Journal of Forestry* there has been a marked advance in forest conservancy in South Australia during the past year. The extent of the forest reserves has been increased by 4,762 acres, the total area now reserved being 239,368 acres. The reserves are distributed throughout various parts of the colony, but chiefly in the northern and southern districts. During the year, 996 acres have been put under a crop of trees in these reserves by planting, seed sowing, and natural regeneration which, added to the 931 acres planted in previous years, gives 1,840 acres now inclosed and put under a crop of trees by special cultivation and designated plantations. This can only be called a small beginning, considering the immense area that still remains to be treated, but it is nevertheless highly creditable to the forest board of the colony that it has accomplished this much in the short time since the board was constituted.—*Northwestern Lumberman*.

Pine Forests in Georgia.

The wanton destruction of the pine forests of Georgia is creating considerable alarm. Georgia has untold wealth in her pine forests, and yet they are diminishing rapidly and bringing but a nominal return. Georgia contains an area 35,515,526 acres. The pine belt contains nearly one-third of this area, say 11,505,174 acres. Allowing about one-half of this amount to be already taken up and employed for cultivation, milling, and turpentine purposes, we have only 5,752,587 acres left in the original forest. There was consumed during the year 1880, as near as we can estimate, a little over 250,000 acres of timber. This timber found its way to foreign markets principally, leaving but little money in the country as compensation. At this rate, it will be seen that it will only require about twenty years to destroy the last original pine in Georgia, even if there is no increase in consumption. The supply, however, is not equal to the demand now, and now mills and turpentine farms are being brought into existence continually. Certainly such a showing is calculated to alarm any thinking man. We were told by a mill-owner in southern Georgia that it requires 2,600 acres annually to supply that one. All the merchantable timber for miles on either side of the railroads, rivers and creeks has been cut and sent to market. A section of uninclosed pine timber will be a fortune to any man in less than twenty years.

Wash For Outside Walls.

I have long used for whitening my dwelling and also for barns and sheds the following preparation: Dry zinc, 1 lb; white glue, 1 oz; or in the same proportion of ingredients for any quantity needed.

The zinc must be ground or pulverized and dissolved in water moderately hot, stirring it thoroughly during this process. The glue is to be dissolved in a vessel by itself in the usual manner and added to the zinc mixture while hot, stirring the same during the process and for some little time afterward. The object desired is a thorough admixture of the ingredients. The preparation when ready for use should be of the consistency of ordinary whitewash. It is best applied with a wide brush. Walls treated with this mixture, which has not been limed, will preserve a pure white for several years, and will not rub off. Twelve years since I applied this mixture to my barn and sheds, and to-day it is nearly as white as when first put on, and cannot be rubbed off with the hand. If tinting for border is desired, I have no doubt that a slight admixture of lamp-black would give a leaden color. I have not used it on newly dressed surface, and do not know whether it would adhere. A good quality of dry zinc should be purchased for from 6 to 7 cents per pound.

Strength of Insects.

At a meeting of the Maryland Academy of Sciences recently Dr. Theobald showed a species of a beetle and gave the following figures:—Weight of beetle, two grains; weight moved by it 5½ ounces—2,510 grams, or 1,320 times the weight of the beetle. A man weighing 150 lbs., endowed with the strength of this insect, should therefore be able to move 198,000 pounds, or nearly 100 tons.

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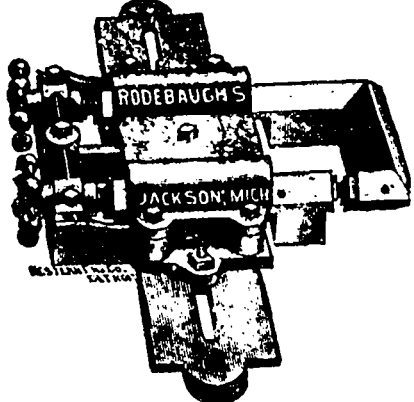
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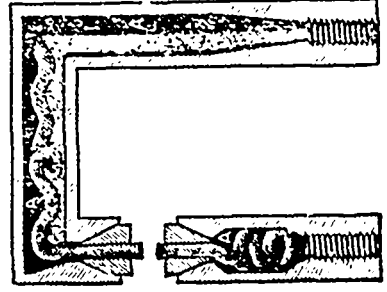
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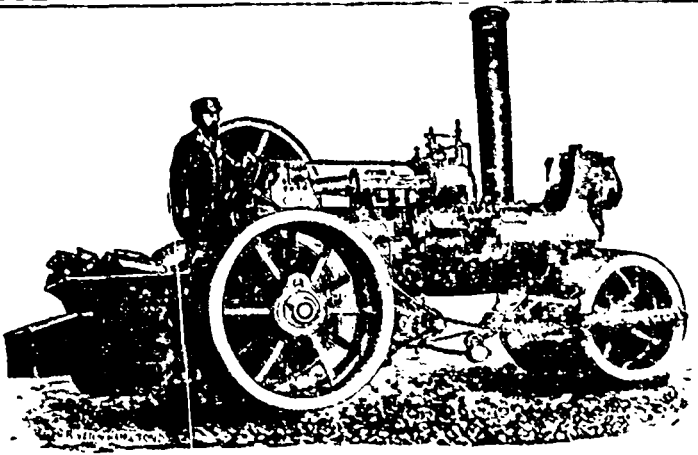


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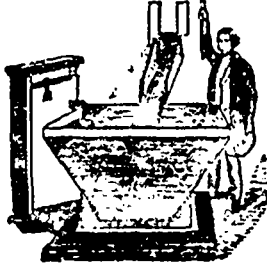
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Market Reports.

Table with Montreal market reports including items like Ash, Basswood, Black walnut, Cedar, Grey elm, Spruce, Red oak, Pine.

Chicago.

The volume of shipments has largely increased during the week, the reported shipments being over 7,000,000 feet greater than for the corresponding week of last season...

A buoyant feeling is manifest among the dealers and all are looking forward to a short and active season, the gross results of which will exceed anything heretofore known...

Table with columns for 1881, 1880, 1879, listing lumber, shingles, lath, pickets, cedar posts, and hardwood.

YARD QUOTATIONS - CAR LOTS - DRY.

Table with columns for 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st, 32nd, 33rd, 34th, 35th, 36th, 37th, 38th, 39th, 40th, 41st, 42nd, 43rd, 44th, 45th, 46th, 47th, 48th, 49th, 50th, 51st, 52nd, 53rd, 54th, 55th, 56th, 57th, 58th, 59th, 60th, 61st, 62nd, 63rd, 64th, 65th, 66th, 67th, 68th, 69th, 70th, 71st, 72nd, 73rd, 74th, 75th, 76th, 77th, 78th, 79th, 80th, 81st, 82nd, 83rd, 84th, 85th, 86th, 87th, 88th, 89th, 90th, 91st, 92nd, 93rd, 94th, 95th, 96th, 97th, 98th, 99th, 100th.

COMMON BOARDS - ROUGH.

Table with columns for 12 in. A, 12 to 16 ft., 12 in. B, 12 in. C, 12 in. D, 12, 14 and 16 ft., 12 in. E, 18 ft., 12 in. F, 10 in. A, 10 in. B, 10 in. C.

TOWER AND LANSION DRY.

Table with columns for Small timber, 18 ft. and under, 12, 14, 16 and 18 ft. post, 24, 10 and 20 ft., 24, 18 ft., 20 feet, 22 feet, 24 feet, 26 feet, 28 feet, 30 feet, 32 feet, 2 in. cull plank, all widths, 24 culls all lengths.

SHINGLES - DRY - CAR LOTS.

Table with columns for Clear, Extra A, Standard A, Cedar shingles, Loads of shingles less than car load 100 lbs. five cents per thousand extra. The single handled in the Chicago market are all 100 lb.

FRAGILE LATH.

Table with columns for Flat, 5/8 x 3 1/2 clear, d. and h. 100 lb., Square, 3/4 x 3 1/2, Flat, 5/8 x 3 1/2, Flat, 5/8 x 3 1/2, Dry lath.

FRAGILE LATH.

Table with columns for Sawed, 1 1/2 x 3 1/2, 1 1/2 x 4, 1 1/2 x 5, 1 1/2 x 6, 1 1/2 x 7, 1 1/2 x 8, 1 1/2 x 9, 1 1/2 x 10, 1 1/2 x 11, 1 1/2 x 12, 1 1/2 x 13, 1 1/2 x 14, 1 1/2 x 15, 1 1/2 x 16, 1 1/2 x 17, 1 1/2 x 18, 1 1/2 x 19, 1 1/2 x 20, 1 1/2 x 21, 1 1/2 x 22, 1 1/2 x 23, 1 1/2 x 24, 1 1/2 x 25, 1 1/2 x 26, 1 1/2 x 27, 1 1/2 x 28, 1 1/2 x 29, 1 1/2 x 30, 1 1/2 x 31, 1 1/2 x 32, 1 1/2 x 33, 1 1/2 x 34, 1 1/2 x 35, 1 1/2 x 36, 1 1/2 x 37, 1 1/2 x 38, 1 1/2 x 39, 1 1/2 x 40, 1 1/2 x 41, 1 1/2 x 42, 1 1/2 x 43, 1 1/2 x 44, 1 1/2 x 45, 1 1/2 x 46, 1 1/2 x 47, 1 1/2 x 48, 1 1/2 x 49, 1 1/2 x 50, 1 1/2 x 51, 1 1/2 x 52, 1 1/2 x 53, 1 1/2 x 54, 1 1/2 x 55, 1 1/2 x 56, 1 1/2 x 57, 1 1/2 x 58, 1 1/2 x 59, 1 1/2 x 60, 1 1/2 x 61, 1 1/2 x 62, 1 1/2 x 63, 1 1/2 x 64, 1 1/2 x 65, 1 1/2 x 66, 1 1/2 x 67, 1 1/2 x 68, 1 1/2 x 69, 1 1/2 x 70, 1 1/2 x 71, 1 1/2 x 72, 1 1/2 x 73, 1 1/2 x 74, 1 1/2 x 75, 1 1/2 x 76, 1 1/2 x 77, 1 1/2 x 78, 1 1/2 x 79, 1 1/2 x 80, 1 1/2 x 81, 1 1/2 x 82, 1 1/2 x 83, 1 1/2 x 84, 1 1/2 x 85, 1 1/2 x 86, 1 1/2 x 87, 1 1/2 x 88, 1 1/2 x 89, 1 1/2 x 90, 1 1/2 x 91, 1 1/2 x 92, 1 1/2 x 93, 1 1/2 x 94, 1 1/2 x 95, 1 1/2 x 96, 1 1/2 x 97, 1 1/2 x 98, 1 1/2 x 99, 1 1/2 x 100.

Boston.

The distribution continues to gradually improve, and although the demand is not yet very large, dealers show no desire to dispose of any stock at "off" rates, and are continuing to make additions to their supply, especially in the finer grade.

CANADA PINE.

Table with columns for Selects, Dressed, Shingles, Dressed, 1st, do do 2nds, Dressed Shingles, Dressed Box, Sheathing, 1st quality, 2nd.

Albany.

Table with columns for Pine, clear, P.M., Pine, fourths, Pine, selects, Pine, good box, Pine, common box, Pine, 10-in. plank, Pine, 10-in. plank, culls, Pine boards, 10-in., Pine, 10-in. boards, culls, Pine, 10-in. boards, 10 ft., P.M., Pine, 12 in. boards, 16 ft., Pine, 12 in. boards, 14 ft., Pine, 14 in. siding, select, Pine, 14-in. siding, common, Pine, 1-in. siding, select, Pine, inch siding, common, Shingles, shaved, pine, 2nd quality, extra, sawed, pine, clear, cedar, mixed.

Oswego, N.Y.

Table with columns for Three uppers, Pickings, Pine, common, Common, Culls, Mill run lots, Sidings, selected, 1 inch, 1 1/2 inch, Mill run, 14 to 16 ft., selected, shippers, Mill run, 1 and 1 1/2 inch strips, Culls, selected, Culls, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

Buffalo.

Table with columns for Wo quote cargo lots: Uppers, Common, Culls, Dressing stocks, Dressing sidings.

Tonawanda.

Table with columns for CARGO LOTS - MICHIGAN INSPECTION. Three uppers, Common, Culls.

British Imports.

The British Board of Trade Returns for February show the import of woods into the United Kingdom during the month ending February 28th, 1881, and in the two months ending February 28th, 1881, compared with the corresponding period of last year to be as follows:-

Table with columns for FOR THE MONTH OF FEBRUARY, Quantity, Value, Timber, (hewn) 1880, do 1881, Increase, Timber, (sawn or split or dressed) 1880, do 1881, Decrease, FOR THE TWO MONTHS ENDING 28TH FEBRUARY, 1881, Quantity, Value, Timber, (hewn) 1880, do 1881, Increase, Timber, (sawn or split or dressed) 1880, do 1881, Decrease.

Freight Rates.

The rate of freight on lumber from Belleville to Oswego has not yet been established, as shippers only offer 90 cents while vessel men are asking \$1.25. There are plenty of vessels at that port, so that the latter will likely have to moderate their demands.

The English Wood Market.

James Smith & Co.'s Liverpool Wood Circular of April 5th says:-The arrivals since our last have been 17 vessels, 12,621 tons, against 30 vessels, 14,635 tons, in corresponding period last year; and 8 vessels, 5,139 tons in 1879:-

Table with columns for Vessels, Tons, Quebec, St. John, N.B., &c., United States, Baltic, Total.

Table with columns for Vessels, Tons, Quebec, St. John, N.B., &c., United States, Baltic, Total.

Table with columns for Vessels, Tons, Quebec, St. John, N.B., &c., United States, Baltic, Total.

Business during the month has been excessively dull, and buyers generally exhibit a want of confidence in the future; therefore, sales both by private and by public auction have been unsatisfactory to sellers. It is now to be hoped that the fine weather may have some beneficial effect, although for some time to come the stock will be ample, and shippers should curtail supplies as much as possible.

COLONIAL WOODS.-Of yellow pine timber there have been no fresh arrivals during the past month; the stock is comparatively heavy, and the consumption has been moderate.

The sales have been by private only, as the parcel of Quebec waney board recently offered at auction was not sold. Red pine is in dull demand, and the stock ample; there are no sales reported. Of elm there is an ample supply, and the consumption during the month has been on a small scale.

Of oak there has been an improved consumption, but the stock still remains heavy, being 444,000 feet against 361,000. A parcel of 650 planks, cut to waggon size, was offered at auction, but did not meet with a purchaser. Black walnut-There has been a good demand, and several parcels realized at auction 5s@ 6s per foot.

Of birch there have been no fresh arrivals, but the stock, which consists of 140,000 feet, will be sufficient until the fresh import comes in. There have been no sales during the month. The parcel of 483 logs, which was offered at auction a few days ago, was withdrawn, and afterwards sold privately at 14 1/2d per foot.

N.B. and N.S. spruce deals have been sold freely by private at from £6 17s 6d@ £7 per standard for St. John's and other good shipments, all from the yard; but for shipment under contract the sales have been at from £6 15s@ £7 per standard, and Pugwash at £6 5s per standard c.i.f. By auction the cargoes (sold "without reserve") ex Minnie Gordon, from Richibucto, averaged £6 17s 6d per standard, and ex Gularre, from Bay Verte, averaged £6 14s 6d per standard, and a few days ago the cargo of St. John's deals, ex Flying Foam (old deals), realized from £6 5s@ £7 12s 6d, and averaged about £7 per standard.

The stock is being reduced, and the consumption as compared with the same time last year has greatly improved. There is still a good inquiry from the Continent, and it is probable the present prices will now be fully maintained. Of pine deals the stock is light, but there is not much demand for these at present. A small lot from St. Margaret's Bay of 1st, 2nd and 3rd quality was sold at £7 per standard. Quebec pine deals are very heavy in stock, but the consumption is improving; the sales have been by auction for 3rd quality at £9 10s@ £11 12s 6d for board deals, and at £8@ £9 7s 6d for 11-inch and under the 1st and 2nd quality were withdrawn unsold. Quebec pine and West India staves are in fair demand. Palings and lathwood are easily disposed of; the latest sales of palings were 70s for 5x1 inch; and 5s for 4x1 inch.

Liverpool Timber Sales.

On Friday, April 1st, Messrs. Farnworth Jardine offered a cargo of spruce deals from St. John, N.B., stored in the yard, consisting of about 35,000 pieces, of which about two-thirds was sold by auction, chiefly to the local trade, and the remainder was probably closed by private treaty after the auction was over. Two or three parcels of Quebec pine deals were offered, chiefly 1st and 2nd quality, but there was no disposition to buy, and the goods were withdrawn. A parcel of 5,700 3rd quality logs sold as per particulars below:-

Table with columns for Spruce deals, St. John, N.B., 20 to 25 ft., 3x11, 7 1/2, 15 0, 16 " 10 " 3x11 7 1/2, 15 0, 12 " 15 " 3x11 7 1/2, 15 0, 9 " 11 " 3x11 6 1/2, 15 0, 10 " 10 " 3x9 7 1/2, 15 0, 12 " 15 " 3x9 7 1/2, 15 0, 9 " 11 " 3x9 6 1/2, 15 0, 10 " 10 " 3x7 6 1/2, 15 0, 12 " 15 " 3x7 6 1/2, 15 0, 9 " 11 " 3x7 6 1/2, 15 0, 9 " 20 " 2 1/2 x 7 7 1/2, 15 0.

Table with columns for Pine deals, Quebec, 3rd quality bright, 12 ft., 3x10 to 20, 11 3/4, 12 " 3x12 " 15, 10 3/4, 11 " 3x12 " 10, 9 1/2, 11 " 3x11 " 9, 7 1/2, 11 to 13 " 3x7 " 10, 8 1/2, 13 " 3x9, 8 1/2, 13 " 3x7 & 8, 8 1/2.

Glasgow.

During the week several extensive auctions have been held, as detailed below, and afford a good indication of the state of the market here. The first was held at Greenock on the 31st March, when a large amount of business was done--say about 1,000 pieces log timber and 70 lots deals changing hands.

At the sales of deals held here on the 6th April, there was a fair company, but merchants and consumers were evidently disposed only to buy sparingly (as regards pine deals especially) although tempting offers were made of some lots at very moderate rates. On the whole the market for pine deals here at present is by no means active. This state of things, however, may only be temporary, as the stock of ordinary useful deals is not large comparatively.

The spruce deals, particularly the long length and favorite breadths, met with fair competition. Some lots of the narrow sorts, or 7 1/2, were withdrawn:

Table with columns for Quebec 1st yellow pine deals, 12 ft. 17/20x3, 2s. 10jd. p. c. f., 12 " 15/10x3, 2s. 6d, 10 " 14/21x3, 2s. 7d, 12 " 15x3, 2s. 7d, 11 " 14 1/2 x 3, 2s. 6d, 10 " 12 1/2 x 3, 2s. 6d, 12 " 14 x 3, 2s. 6d, 9 " 15 1/2 x 3, 2s. 6d, 10 " 12 1/4 x 3, 2s. 4d, 9 " 12 1/2 x 3, 2s. 3jd, 12 " 10x3, 2s. 2d.

Do. ends, 6 to 8 ft. 7/11x3, 1s. 11d, and 1s. 10jd per cubic ft. Do. floated deals, 9 to 11 ft. 9/10x3, 2s. p. c. f. Do. 3rd do., 12 ft. 15/20x3, 1s. 3jd, p. c. f.

On 6th April, at Glasgow, Messrs. Hunter, Sheriff & Co., brokers (following Messrs. Gillespie & Co.'s sale):-

Table with columns for St. John, N.B., spruce deals, 10 to 24 ft. 11x3, 1s. 0jd. p. c. f., 15 & 18 " 11x3, 1s. 0jd, 10 " 12 " 11x3, 1s. 0jd, 11 " 21 " 14x3, 1s., 9 to 12 & 14 " 11x3, 11jd, 9 to 22 " 12x3, 11jd, 17 " 23 " 9x3, 11jd, 12 " 9x3, 11jd, 13 & 14 " 11x3, 11jd, 16 " 9x3, 10jd, 9 to 21 " 9x3, 9jd, 9 to 23 " 7x3, 10d, 10 " 21 " 7x3, 10d, 9 " 22 " 3 1/2 x 3 & 2 1/2, 9jd.

Do. ends-- 6 to 8 " 7 1/4 x 3, 9jd, 8 " 5 " 7 1/4 x 3, 8jd.

Do. 4th spruce deals-- 9 to 22 ft. 11x3, 9d., 9 " 22 " 9x3, 9d., 9 " 22 " 12 1/4 x 3, 8jd, 9 " 22 " 7x3, 8jd.

St. John, N.B., pine deals-- 10 to 24 ft. 11 & 13x3, 1s., 10 " 25 " 9x3, 10jd, 10 " 14 " 7x3, 9jd.

Quebec 1st pine deals A-- 13 ft. 11x3, 2s. 3jd, 11 " 12 1/2 x 3, 2s. 4d, 11 " 11x3, 2s. 2d, 13 " 6x3, 1s. 10jd, 10 " 6x3, 1s. 10jd, 6 to 16 " 6x3, 1s. 10jd, 6 to 16 " 6x3, 1s. 10jd.

Do. 2nd do. 8 to 14 ft. 6x3, 1s. 10jd.

"Hall Beauteour, Boniteous, Gladstone Spring" -this was Mark Twain's prize poem but the 23 diseases incident to spring, spoil the remainder. The dock blood hitters is the prize remedy, the remedy prized by all who have tried it as the best blood purifying Tonic and System Regulator in the market. It cures all Blood Humors from the worst Scrofula common Pimple. Sample bottles 10 cents. For sale by all dealers in medicine.

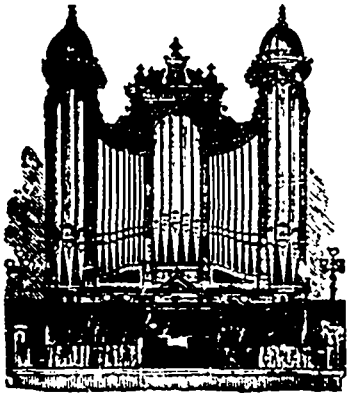
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THE GENUINE SILVER-STEEL,
Lance Tooth
CROSS-CUT SAW!



It stands without a rival, and is the fastest cutting saw in the world. It has beaten the best Canadian and American made saws 33 per cent in every contest. Its superiority consists of its excellent temper. It is tempered under the secret Chemical Process, which toughens and refines the steel. It gives a true and keener cutting edge, and will hold it twice as long as any other process. We have the sole right for this process for the Dominion of Canada.

None genuine that are not like the above cut, with registered trade mark with the word "The Lance," and Maple Leaf with our name. Price \$1 per foot. Beware of Counterfeits. There are in ten or twenty counterfeits on the market, which are intended to be sold at a high price upon the reputation of this saw. We will send to any address a saw exactly like any counterfeit, warranted equal in quality or no sale, at one per foot. This is not done to humbug into paying a first class price for a second class saw. A fact to bear in mind is that if the material steel temper are not of the very best quality the shape of the teeth accounts for nothing. A saw, like a knife, will not cut for without it will load a keener cutting edge. We have cut off a 14 inch round basswood log in eight seconds with this saw. Manufactured only by

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This cut is a simile of Package.



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Ask your Grocer for it, or send direct to the factory.
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The Best Article ever offered to the Trade.

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

SINGLE OVEN STOVE

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

DOUBLE OVEN STOVE

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

The Best Stove I have ever Used.

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Yours truly, THOS. GEO. HAZLITT.

The Stove for Lumbermen.

PETERBOROUGH, June 1st, 1880.
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Yours truly, IRWIN & BOYD.

Gives the Greatest Satisfaction.

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Very truly yours, GEO. MILLARD, J.P.

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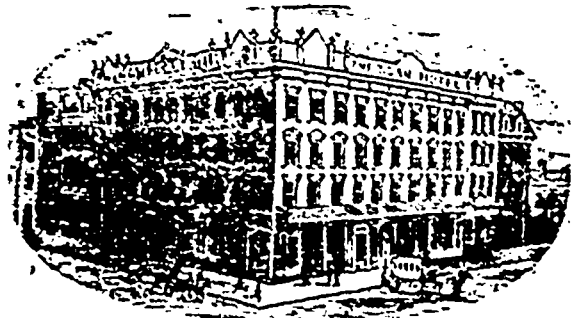
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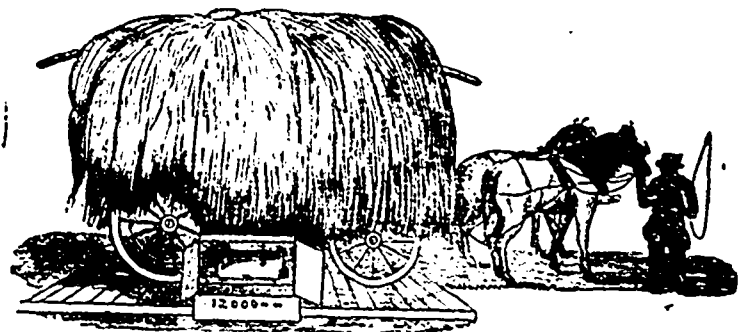
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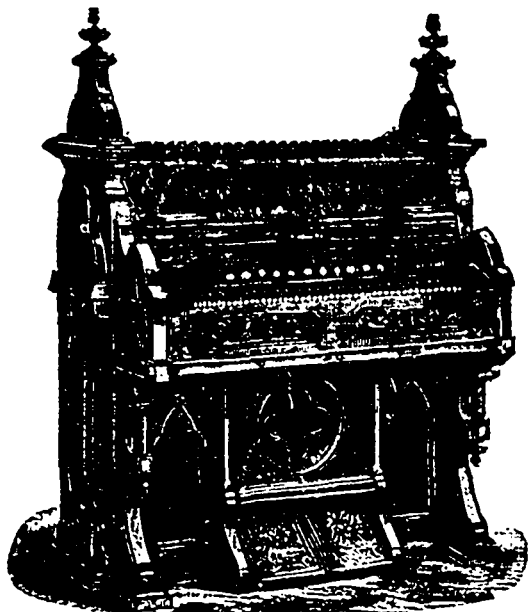
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And Gold Medal.....at Sydney Australia, 1880

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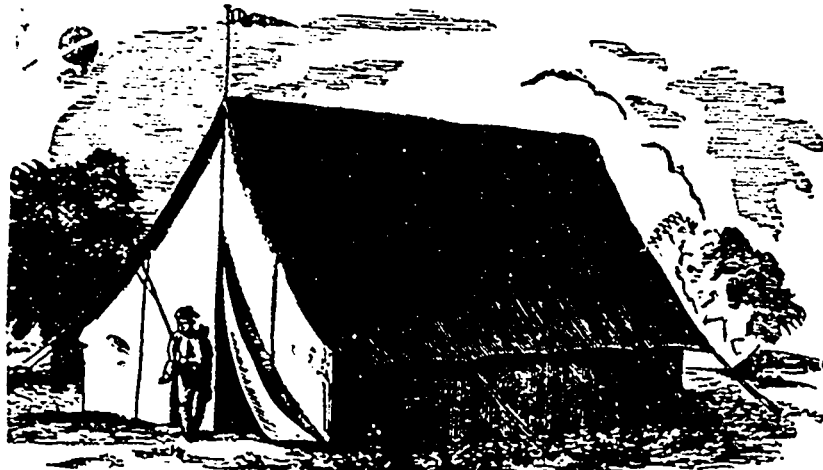
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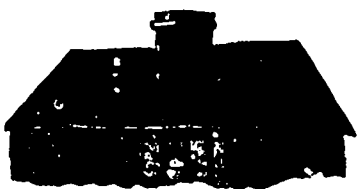
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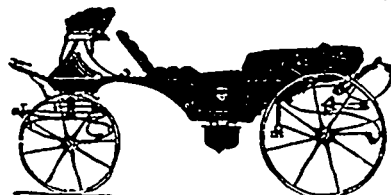
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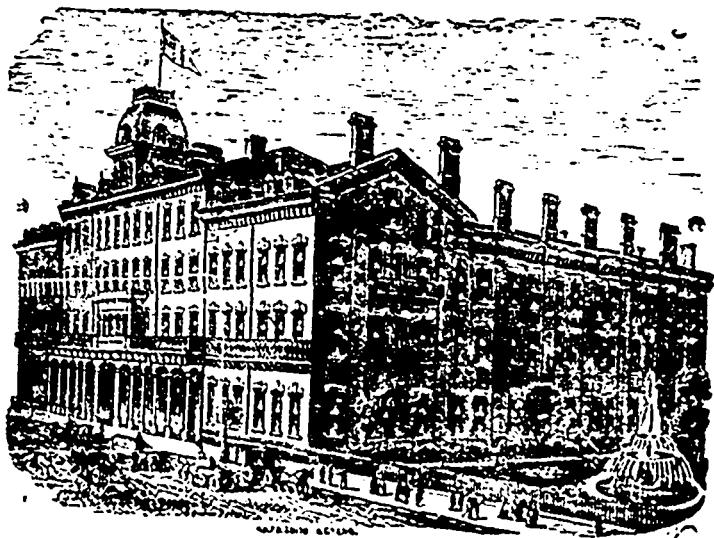
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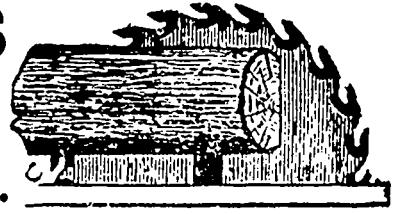
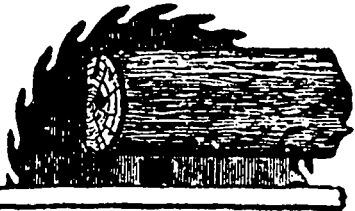
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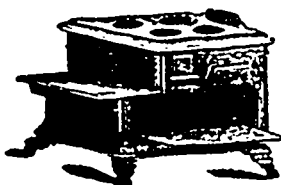
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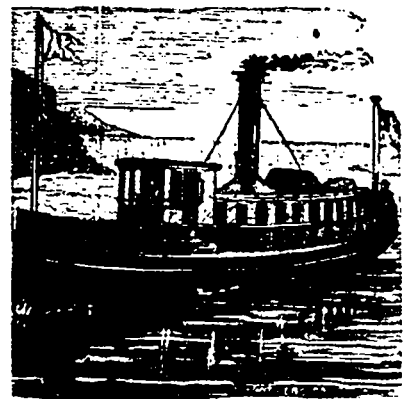
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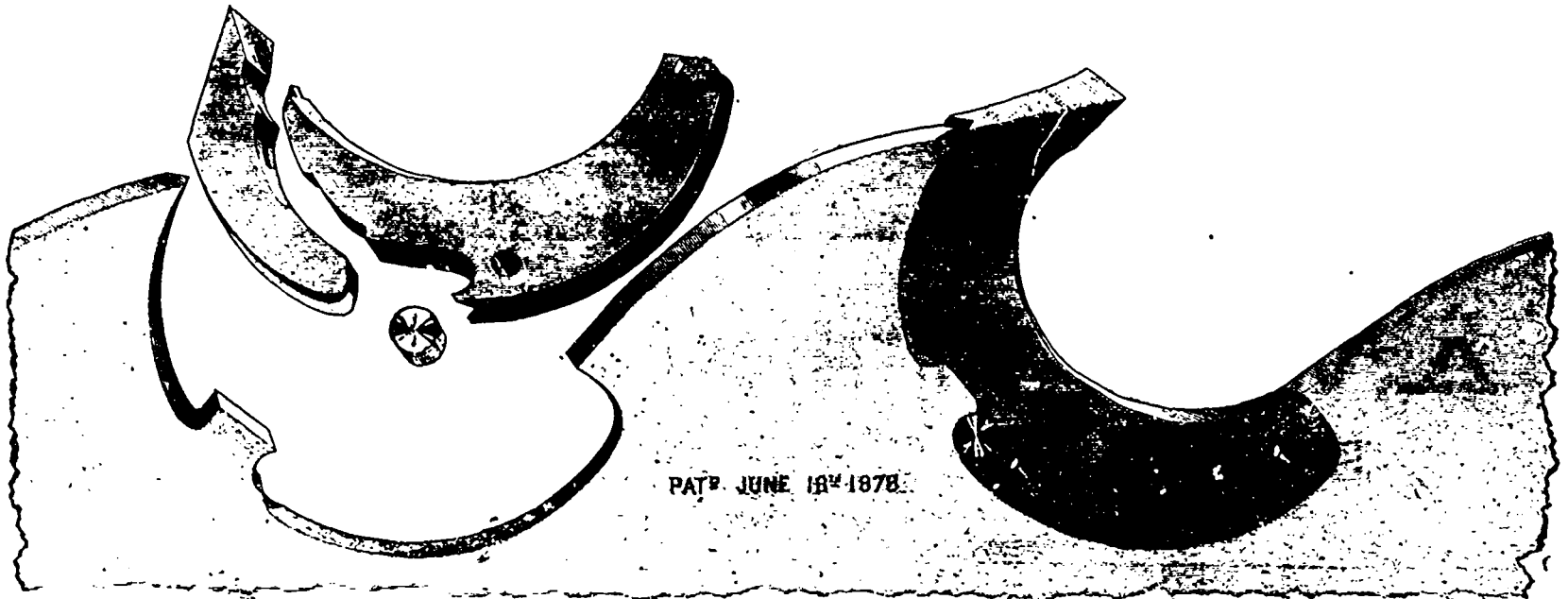
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THE "BROOKE BIT" SAW

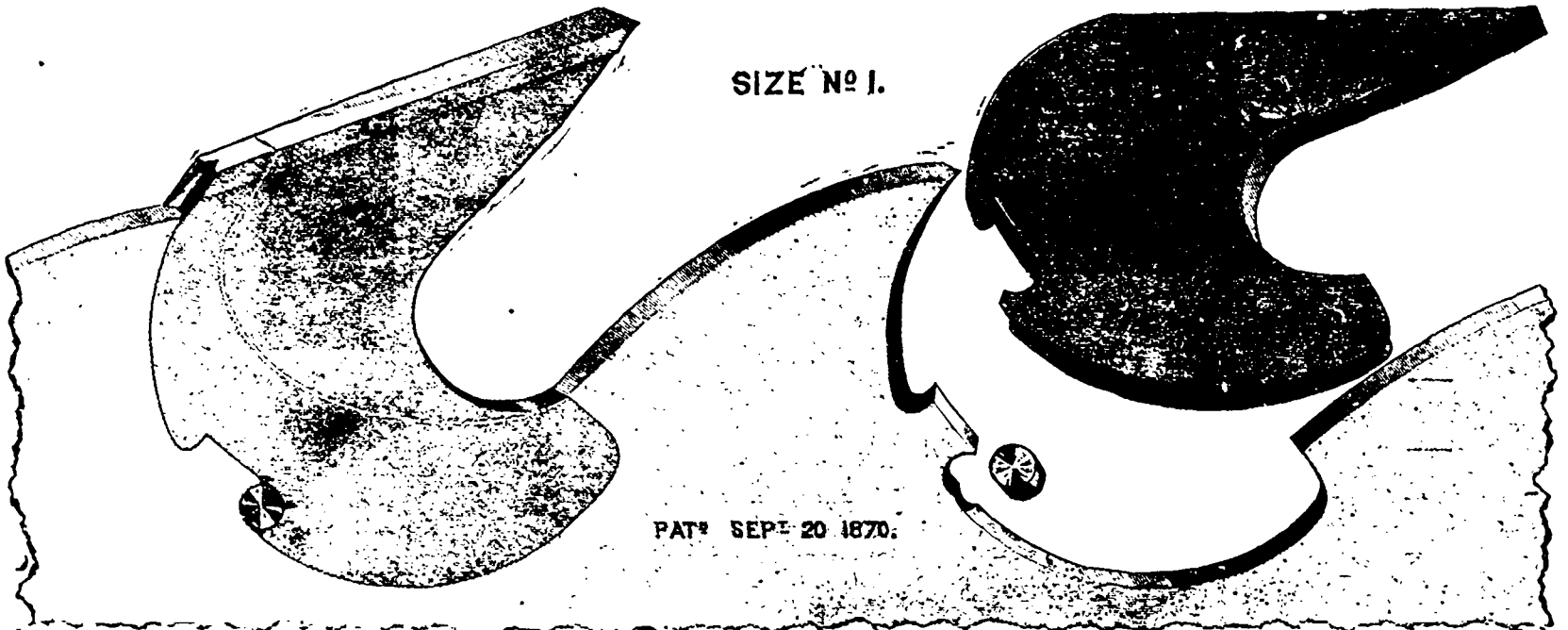


PAT. JUNE 18th 1878.

AND

THE "TRENTON TOOTH" SAW.

SIZE No 1.



PAT. SEPT. 20 1870.

The BROOKE BIT will cut more and better Lumber at Less Cost than any other Tooth. The TRENTON TOOTH is Warranted to stand in frozen timber. The BROOKE BIT and the TRENTON TOOTH fit in the same socket, enabling the Sawyer to use either Tooth. SEND FOR OUR NEW ILLUSTRATED CATALOGUE.

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Waterous Engine Works Company, Brantford, Ontario.