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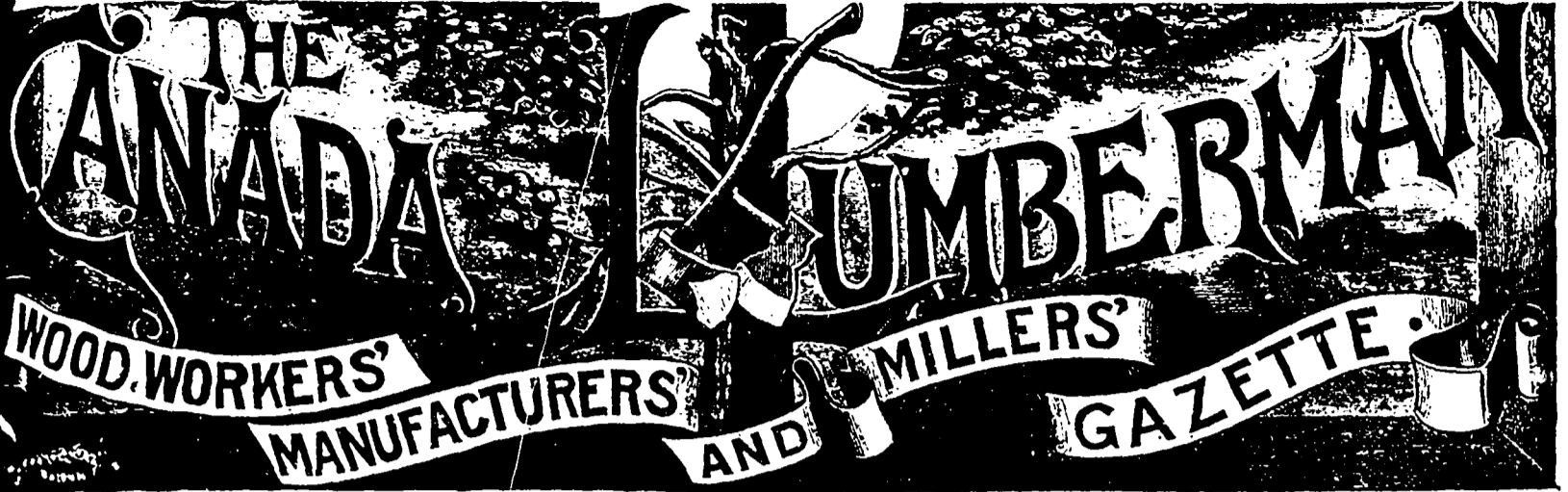
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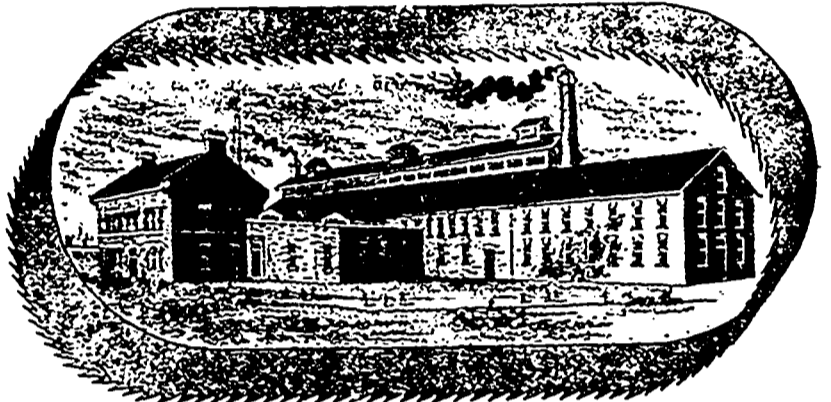


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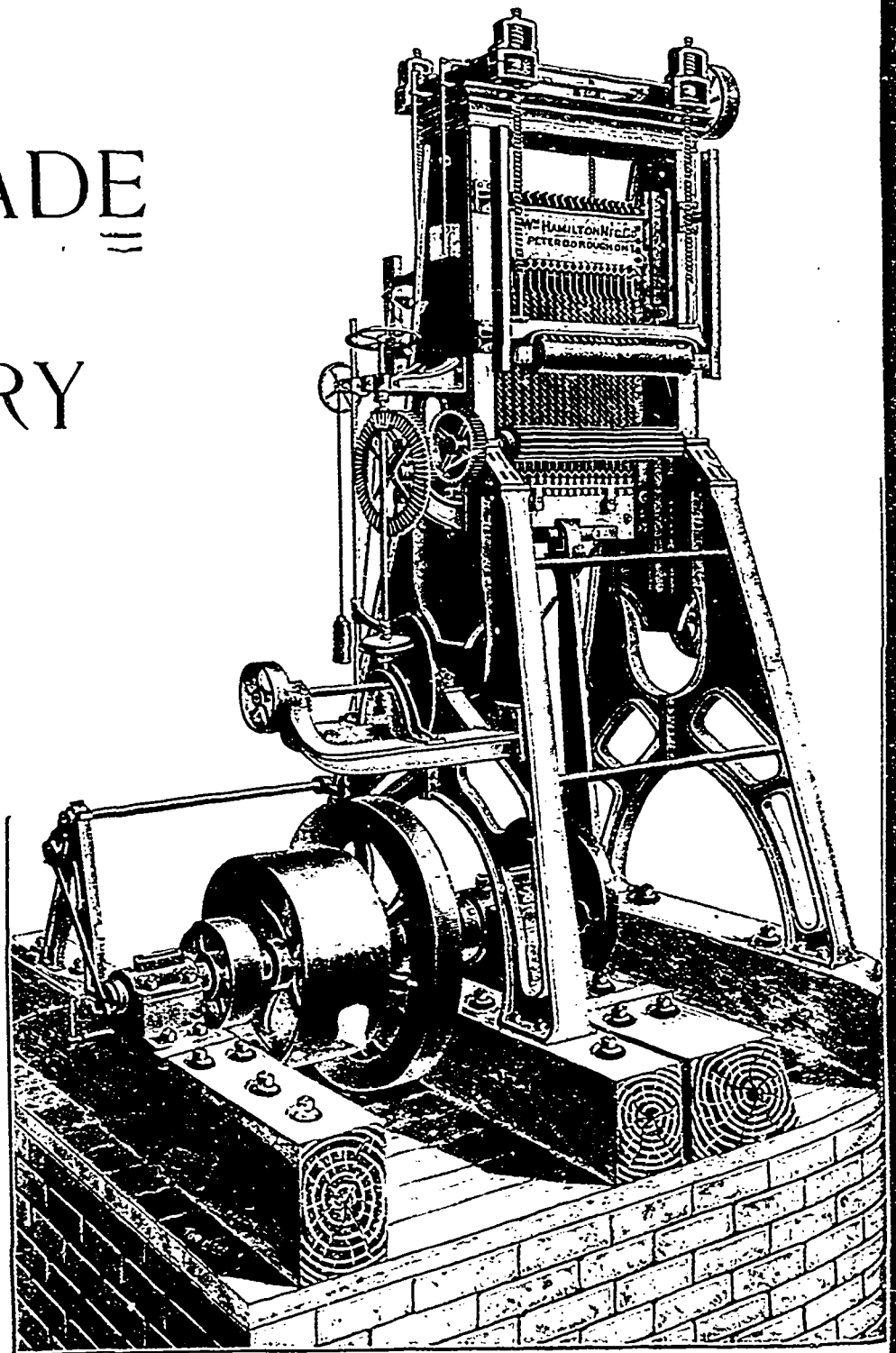
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THE CANADA LUMBERMAN

VOLUME XX.
No. 1.

TORONTO, CANADA, JANUARY, 1899

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LIGHT ON THE LUMBER QUESTION.

By "JOSIAH THE TRUTHFUL."

"Yes, sir, we're a-goin' to expand—we've busted our narrer limits same's my growin' boy Jake has busted his last year's coat—and we're a-goin' to spread out, and take a hand in the gin'ral affairs of the world, 'long with the other great powers, and don't you forgit it. W'y, I see by the paper t'other day thet deown to Washin'ton they're a-tawkin' beout buildin' a be no palace for the president's residence, jest as it was every way as what Queen Victorey or the King of Roossia lives in, and turn the old White House into a work-shop. That's right, too. We got to git up and put on some style, to let the hull of creation un'stand that the cry of expansion hes got here. Ef we don't hev things in reg'lar sure enough royalty style, sose our President kin set 'em up and intertain in a manner becomin' to the leadin' nation on top of earth, w'y, we haint in it, that's all. It's our distiny, and everything goes!"



So ran the peroration of Mr. Sam Skittles's speech before the assemblage in the corner grocery of Squashville, Mass., on a recent Saturday night. It was generally conceded that Sam was the greatest orator in the village, and as a man with a good command of language is always a centre of more or less influence, Mr. Skittles had a considerable following, notwithstanding that in other respects he did not count for much, being fonder of talking than of working, and as a consequence, having a distinctly low rating in the local Bradstreet's credit list. The sentiments quoted above, with which he concluded a lengthy harangue delivered with much effective gesticulation, were received with great applause by the miscellaneous audience gathered about the stove. But Demosthenes himself did not carry all the Athenians, and there was one unconvinced auditor in Sam's presence.

"But haint it a-goin' to cost like thunder?" piped up the tremulous voice of old Deacon Smithers. "I see it in the Bosting paper thet we'll hev to pay 'bout twice as much es them folks in Yurrup does to keep up army and navy and all like of that. I don't believe in it. I hick to old George Washin'ton. We'd orter go on jes' mindin' our own business; that's how I look at it."

The growl, a dissent which greeted this view, brought Sam to his feet once more—he had taken seat on a convenient biscuit-box at the close of his oratorical effort.

"I haint got nothin' agien George Washin'ton on gin'ral principles," he began. "He was a right good man, and done fust rate fer them fur

back times, but the world is a-movin', and this kentry hes growed bigger'n George Washin'ton ever hed any idea it would, so his harness don't fit things es they is to-day. Yes, gentlemen, the hour has struck, and the word is 'expansion'. These United States is a-growin'. We've took in Haywayee and Port Ricco and the Phillipines es a part of the Union, and we're agoin' to foller our destiny ef we hev to annex colonies all round the airth!"

During this supplementary burst an additional auditor had arrived, in the person of Sol. Wheatcroft, and glad-some anticipations of a lively argumentative scrimmage at once filled the breast of the collected idlers.

"What hev you got to say to them idees, Sol?" asked Deacon Smithers, as soon as Mr. Skittles had finished his period.

"Expansion is all right," replied Sol, taking his pipe from his mouth, "so long as it haint got no Dingley nonsense in it."

"Dingley nonsense!" echoed Mr. Skittles, greatly shocked, "what do you mean?"

"I mean what they call protection," promptly replied Sol. "I don't believe in takin' in a lot of foreign parts and puttin' a high fence round 'em to keep out everybody but ourselves."

"Well, I swan?" exclaimed Mr. Skittles, "I didn't expect to live fer to hear Sol. Wheatcroft go back on his kentry like that—I really didn't. I spose you will next argy thet we'd dorter low them Canady fellers that is down to Washin'ton to send lumber in here free es they're askin' fer."

This fine stroke called out a roar of applause.

"As to that pint," replied Sol, with a guileful air of reconsideration, "of course I draw the line somewheres, and I guess we can't stand free lumber over here, not jes yit, anyhow."

"Well, I'm glad you got some sense left, after all, Solomon," said Sam, approvingly.

"I calklate I hev, neighbors, and I try to make use of it, es fur's I kin," responded Sol. "My sense tells me, fer instance, that when we fetch lumber over from Canady we

do it jes es a neighborly act to the Canucks, jest to oblige 'em, and as a matter of Christian kindness, but es they don't belong to the union, we haint bound to treat 'em that way less we've a mind to. So, of course, when they send some of their leadin' fellers to Washin'ton to ask us to let 'em send lumber in here right along free of duty, we haint a-goin' to do no sech a thing, 'cus that would be 'bleegin' us to ack neighborly whether we liked it or not. Haint that sound sense?"



There was a general murmur of assent.

"You're buildin' a new dwellin' house jes now, I believe, Elder Simpson?" resumed Sol, turning to a weary looking citizen on his left.

"Not yet I'm a thinkin' of it, but lumber's too dear. I'm waitin' fer a fall in the price," replied the Elder.

"Oh," commented Sol, "lumber's too dear jes' at present, the Elder says. I s'pose he wants white pine, and that is dear 'cus it got to be brung 'way down from Min'soty and Michigan an' round thar', and its pooty scarce even thar', I bleeve."

"Scarce?" put in the grocery man. "W'y, I've allus ben told that's a thick wooded kentry up yender."

"It haint now, though I guess it was at fust," replied Sol. "You see we've went right along cuttin' it deown and sawin' it up fer years, 'thout ever takin' eny thought fer the future or plantin' more trees like the Canady fellers hev, and now in Michigan we've got 'bout to the lenth of our rope. Fer years past the mills up thar has bin kep' agoin' on logs brung over from Canady, up 'round Georgain Bay, but that can't be did no more as the government up in Ontario hes stopped it by passin' a law to make everybody that cuts logs over thar' manufacture the lumber on the spot."

"W'y, blame my cats!" interjected Sam Skittles. "I never knowed all this afore. Do you mean to say we hev run out of lumber ourselves, and yit won't let Canady send it in to s'ply our wants?"

"Not 'thout \$2 a thousand duty on to it that's the Dingley tariff, you know. And thet's why lumber is so dear thet the elder can't go on with thet buildin' of his, and I guess there's thousands more folks all through New England in jes' the same fix—would like to build if they could git cheaper lumber."

"I'm beginnin' to think they hain't so much of a statesman 'bout Dingley es I had s'posed," remarked Sam.

"Hold up, there, neighbor!" cried Sol; "it's agin the law to raise eny question 'bout the wisdom of Dingley. He's a true patrit, and is bound to protect his kentry agin free lumber not like them Canady statesmen thet lets lumber go into Manitoby free fer the benefit of farmers and so forth up thar they buy 'bout 20 million feet from our side of the line every year. But Dingley don't b'lieve in such foolishness. He can't see why the United States should suffer from free lumber jes' to oblige a foreign kentry."

"I'm willin' to stand some sufferin' along thet line fer one," said Elder Simpson.

"You he?" cried Sol, turning upon the little man with simulated scorn—"What! air you a

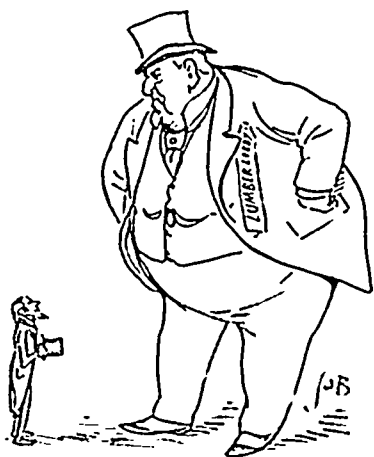


traitor, too? You mean to say that the duty of \$2 a thousand on lumber is not in the interests of the United States, es Dingley says?"

"Well," replied the Elder, "I don't want to say a word agin Dingley, but I don't see what good it does me to keep lumber out when I want to use it; so fer es I kin see the \$2 per thousand of duty only adds that much to the price, and I want it cheaper."

"But I tell you, repeated Sol, rising to a warmth of eloquence, "Dingley says the United States would lose by free lumber, and you kin see that's Gospel truth when you come to understand what the United States is, es Dingley looks at it. It is a community of people that owns lumber mills and timber limits, and earns a honest livlihood by furnishin' lumber to folks that wants to build. You kin see that if we took off the duty and let Canady lumber come in, the United States would lose trade or hev to bring down the price and so lose profits."

"But, jes' hold your hosses a minute, Solomon," piped up Deacon Smithers, "I don't agree to it that the United States is jes' a passel of lumber mill fellers—I guess thase a few millions of us folks that don't make and sell lumber, but hes to buy it. Whar' do we come in?"



THE CONSUMER AND THE LUMBER BARON.
(Showing their relative size in the eyes of the Dingley law.)

"Thar' you hit the nail right on the head, Deacon," said Sol. "In the Dingley way of lookin' at things you don't come in at all. You belong to the class they call the consumers, and the Dingley kind of statesman don't know you at all. You may be several millions more'n the protected class, but you haint got any political pull to speak of, and don't amount to nothin' in the lobby at Washin'ton that's the way it is. It must be plain to eny man of common sense that free lumber would be a big blessin' to the people of the United States in general, and especially to us of New England that happens to be right next door to Canady—but I won't say no more less Sam there might s'pose I didn't hev the respect I'd order hev fer Mr. Dingley of Maine."

"I've kinder got new light on this lumber question this evenin', neighbors," said Sam, candidly "and es I look at it now, I can't see why our folks at Washin'ton shouldn't 'gree to put lumber on the free list, specially es Canady is willin' to take the duty off other things we send over thar'. What's the trouble with it Sol? Why haint it agreed to?"

"I don't quite know," replied Sol, refilling his pipe, "but I have an idea that our commissioners is afraid the Senate won't let 'em, and the

Senate dassent on account of the big lumber fellers in the lobby."

"This is my hour fer closin', friends," mildly suggested the grocery man, and the company dispersed.

J. W. BENGOUGH.

MESSRS. E. D. DAVISON & SONS, LIMITED.

THE Lahave river, which passes through the town of Bridgewater, and empties into the Atlantic ocean, fifteen miles below, has, with its tributaries, without doubt, the

the longest haul to water not exceeding three miles. The logs are driven from twenty-five to fifty miles.

At Bridgewater the firm have two saw mills, shown in the accompanying illustrations. They are operated by water power, and are thoroughly equipped for the manufacture of first-class stock, the plant consisting of a shing and stock gang in what is known as the lower mill, and a live gang in the upper mill. There is also lath, picket and box machines, patent edges and gang circulars in both mills for sawing scolding, planks and boards up to six inches wide. The firm exercise great care in the manufacture of their lumber.



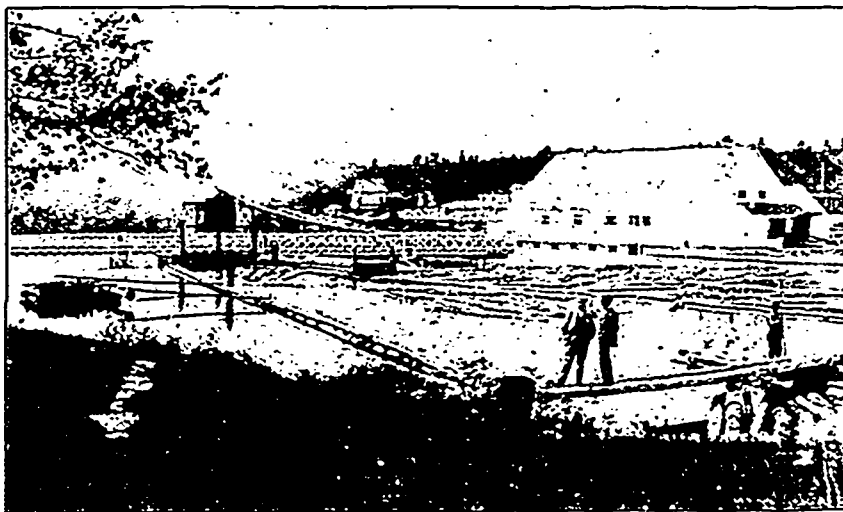
LOWER MILL OF E. D. DAVISON & SONS, LIMITED, AT BRIDGEWATER, N. S.

largest area of timber lands to be found in the province of Nova Scotia. Lumbering on a large scale has been carried on there for forty years. At one time there were three large operators on the river, but for the last ten years or so the firm of E. D. Davison & Sons, Limited, have been the sole owners, having purchased the mills and timber properties of the other operators. Within three miles up the river from the town of Bridgewater there are several excellent water privileges, also owned and controlled by E. D. Davison & Sons, where in all likelihood pulp mills will be erected in the near future.

Messrs. Davison & Sons own over 200,000 acres of

using very thin saws as compared with the usual gang mills sawing spruce—as thin as thirteen gauge being successfully used. The capacity of the two mills is about twelve million feet, when working day and night.

Messrs. Davison & Sons also operate a water power gang and rotary mill at Alpena, a station on the Nova Scotia Central Railroad, the timber for which is cut in the Nictaux waters and driven to the mill. The lumber from this mill is taken by rail to either Bridgewater or Lunenburg for shipment. From three to five million feet are usually cut there. They also own a large two gang mill on Port Medway river, at Mill Village, and have large limits on this river, but they have at



UPPER MILL OF E. D. DAVISON & SONS, LIMITED, AT BRIDGEWATER, N. S.

timber property, and are therefore the largest land-holders in the province. The present firm was established on the Medway river in 1840, and on the Lahave river in 1865, but their ancestors had been getting timber in the district since 1760. On the Lahave river the firm own 50,000 acres on which no logs have been cut for twenty years, and 30,000 acres on which none have ever been cut. It is estimated that their lands will produce about 4,000 feet of timber to the acre, which would give a total production, from all their property, of 800,000,000 feet, the bulk of which is spruce. There is also a considerable quantity of pine and hemlock. The facilities for logging are excellent, owing to the numerous streams and lakes,

operated on them for four years, preferring to let the timber grow.

The principal part of the firm's shipments are cut from their wharves at Bridgewater, which are a mile below the mills, and where large vessels can load with safety. Having been in the lumber business longer than any other concern in the province, they have secured markets out of the ordinary course, and procuring to specifications which require considerable labor compared to the amount of lumber produced, and for which the price realized is considerably higher, they do not draw heavily on their forest area as those who ship only do. With the large timber limits they own, and their system

of manufacture, the lumber business bids fair to be perpetual with them. They manufacture largely for export, shipping to Great Britain, South America, West Indies, Madeira, Canary Islands, United States, Portugal and other countries.

The business was founded by the late Edward D. Davison, at Mill Village. He, with his son, acquired the privileges at Bridgewater, with some timber limits on the Lave river, and since, from time to time, have succeeded in getting control of the whole lumber interests on the river. A few years ago the business was put into a joint stock company, under its present name, with Mr. C. Henry Davison president and general manager. After his death, which occurred in 1896, Mr. Frank Davison, brother of the deceased, became president, Mr. E. D. Davison vice-president, and Mr. A. F. Davison secretary. Mr. Frank Davison is also president of the Bridgewater Steam Packet Co., which owns the splendid Glasgow-built iron steamer, "Bridgewater," running between Bridgewater and Halifax in summer, and coast ports and Halifax in winter. Lunenburg, 19 miles by rail and 12 miles by common road, is the winter port, open the year round, from where the company ship considerable lumber.

OBITUARY.

ROBERT THOMSON.

THE sudden death of Mr. Robert Thomson, the well-known lumber merchant of Hamilton, which occurred on December 6th, was learned with sincere regret, not only by the citizens of Hamilton, but by a host of friends and acquaint-



THE LATE ROBERT THOMSON.

ances throughout the country at large. Mr. Thomson was apparently in the best of health, and was actively engaged in business pursuits almost up to the hour of his death. He went to Toronto in the morning to attend the meeting of the Board of Directors of the Traders' Bank; he returned by the G.T.R. train at 7 o'clock, and drove from the depot to his residence on upper James street, where he took dinner with his family. Almost immediately afterwards he complained of a sharp pain in his chest, and medical aid was at once summoned. No assistance could be given, however, and he expired in a few minutes, death being due to heart disease.

Deceased was a man of remarkable energy and clear business perception, and success attended his career. He was a Scotchman, born in Kirkcounell, Dumfriesshire, on May 21st, 1833, and was therefore in his 66th year. His parents were William and Jean Charteris Thomson, his mother being of Amisfield, Dumfriesshire, from which place the family residence in Hamilton took its name. Mr. Thomson came to America when 19 years of age, his father, mother and three sisters accompanying him. They settled

at Wellington Square, now Burlington. From there they removed to Puslinch, in Wellington county, between Hamilton and Guelph, an elder brother of deceased, who had come to Canada three or four years before the rest of the family, having settled there. There they took up farming and lumbering, and Mr. Robert Thomson soon became a factor in the lumbering interests of the country. His father died in 1854, but his mother survived many years, passing away at her son's residence in Hamilton about nine years ago, at the age of 88 years. In 1856 deceased went to Cummingsville, county of Halton, and there successfully pursued the lumbering business on a large scale until 1874, when he purchased the business in Hamilton of the late Julius Caesar McCarty. His business grew into great proportions, and of late years he controlled mills at Huntsville, Gravenhurst, Katrine, Powassan, Callendar, Chelmsford and Biscotasing, with branch offices at Windsor and Toronto, and agencies in Glasgow and Leith, Scotland, and Belfast, Ireland. The business was carried on under the name of Robert Thomson & Company.

In public affairs the late Mr. Thomson exercised considerable influence, although he would never consent to accept a public position. For many years he had been a member of the Board of License Commissioners of Hamilton; besides being a director of the Traders' Bank, he was a member of the board of the Hamilton Electric Light and Power Co., and a former director of the Hamilton Jockey Club. He was on the board of the Central Fair in the old days, and a member of the body that organized the Central Fair Agricultural and Exhibition Company, owners of the Jockey Club property.

Mr. Thomson was a member and officer of MacNab street Presbyterian church, holding the position of trustee. It was in private life that the fine qualities of the man were seen. He was of a warm hearted and generous disposition, and attracted the respect and esteem of all who knew him. In 1863 he married, and his widow and only son, Mr. J. J. C. Thomson, who has long been connected with his late father in his lumbering interests, survive.

WILLIAM BEATTY.

AFTER a lingering illness and gradually declining health, the death of Mr. William Beatty, of Parry Sound, Ont., took place on December 11th. Deceased was the pioneer lumberman of the Parry Sound district, and was the founder of that town. He was born at Stoneyford, county of Kilkenny, Ireland, in 1835, and was therefore 63 years of age. He came to Canada with his parents when but a child, and settled at Thorold, in the Niagara district, where he spent the first thirty years of his life.

Mr. Beatty was educated at Victoria College, Cobourg, and at the University of Toronto, where he took the degree of L.L.D. He was the first representative from the county of Welland to the Ontario Legislature after Confederation, being elected in 1867. In 1863, in association with his brother, James H., and his father, Mr. Beatty purchased from Messrs. J. & W. Gibson, of Willowdale, the mill and timber limits at Parry Sound, and shortly afterward bought his father's and brother's interests and became sole owner of the Parry Sound property. Mr. Beatty foresaw that Parry Sound was destined to become an important shipping and railway centre, and up to within a short time of his death he labored zealously in the interests of the town.

When Mr. Beatty first settled in Parry Sound there were but a few log shanties. He surveyed the property into village lots, and proceeded to establish communication with other points. The steamer Waubuno was built to ply on the Georgian Bay, and from this modest commencement grew the now famous White Line of

steamers and afterwards the Black Line. Mr. Beatty was instrumental in getting the government to give the first grant towards the building of a main road from Bracebridge to Parry Sound. He built much of the Parry Sound road, by means of which settlers and lumbermen could drive to Barrie, where the Northern railway then had its terminus.

Mr. Beatty was all his lifetime identified with lumbering, operating a saw mill at Parry Sound and taking contracts for logging. During the last eight years he operated only in a moderate way, although still owning timber limits on the Georgian Bay.

In 1865 the subject of our sketch was elected to the Board and Senate of Victoria University, continuing a member by re-election for about twenty-five years. Although "learned in the law," Mr. Beatty never followed the practice of the profession. In politics he was a Liberal, in religion a Methodist. In 1873 he married Miss Bowes, daughter of the late J. G. Bowes, for many years mayor of Toronto. Of his personal qualities the Parry Sound Star says: "In him the poor had a friend who did more than console them with kind words. He daily practised the spirit of the golden rule, and his loveable and gentle disposition endeared him to all who loved righteousness and truth. Truly he earned the endearing title of "Governor" which was universally accorded him, and of him it can be truly said he "bore the white flower of a blameless life." His reputation extended far beyond the borders of the town and district where his life's work has been spent, and wherever he was known he was loved and respected."

JOHN FISHER.

IN the death of Mr. John Fisher, senior member of the firm of Small & Fisher Company, Woodstock, N.B., lost one of its best citizens and most enterprising men. Mr. Fisher was the eldest son of the late John Fisher, who moved to Woodstock from England with his family in 1859. He was born in Cockermouth, Cumberland Co., England, in 1840, thus being, at the time of his death, in his 58th year. He served as a student of mechanical engineering with Haw-



THE LATE JOHN FISHER.

thorne's, of Newcastle-on-Tyne. Coming to Canada in 1859, deceased went into the foundry and machine business with R. A. Hay, of Woodstock, N.B. In 1865 the firm of Small & Fisher was formed, with Mr. Fisher as partner. They soon worked up an extensive business in the manufacture of shingle machines, rotary mills, threshing machines, mill supplies, etc. On the decease of Mr. Small, Mr. Fisher became the head of the business. A few years ago the Small & Fisher Co. was organized as a joint stock concern, with Mr. Fisher as president and manager.

On several occasions Mr. Fisher served in a public capacity, being at different times town councillor, and a member of the county council. He was of a most kindly and benevolent disposition, and was much respected.

PERFORATIONS IN CIRCULAR SAWS.

THERE are some points of interest connected with the perforations which have been made, from time to time, in circular saw blade. The objective point of different efforts varied considerably. The results in practice have in some cases surprised those who originated the designs. Some instances might be cited where the perforations accomplished more than the designers expected, and others which resulted in comparative or total failure when practically considered.

Perhaps the earliest record relates to a circular saw designed by J. Gove, of Fayetteville, N. C., in 1839. The object in view was to prevent the saw from buckling from the unequal expansion due to unequal heating. The saws were made as shown in Figs. 1 and 2. This invention was patented nearly 60 years ago, and saws made in both patterns are in use at the present time. Pattern shown in Fig. 1 was utilized not long

saws were made and were well received by lumbermen. They are still on the market.

Ten years later E. W. Tilton designed a variation in the arrangement of the slots, shown in Fig. 5. By this arrangement the range of the slots was extended to a larger proportion of the blade, at the same time leaving the saw as stiff or stiffer than in the design shown in Fig. 4. The following year a third arrangement was brought out, shown in Fig. 6. Some advantages were claimed for this design over the others, but it never came into general notice, if used at all.

A little later J. A. Miller, of Oshkosh, Wis., and W. P. Miller, of Brooklyn, N. Y., designed an arrangement of holes involving the entire saw blade, illustrated in Fig. 7. The upper part of the saw is the Oshkosh pattern, in which the holes are countersunk alternately on opposite sides of the saw. The lower half shows the

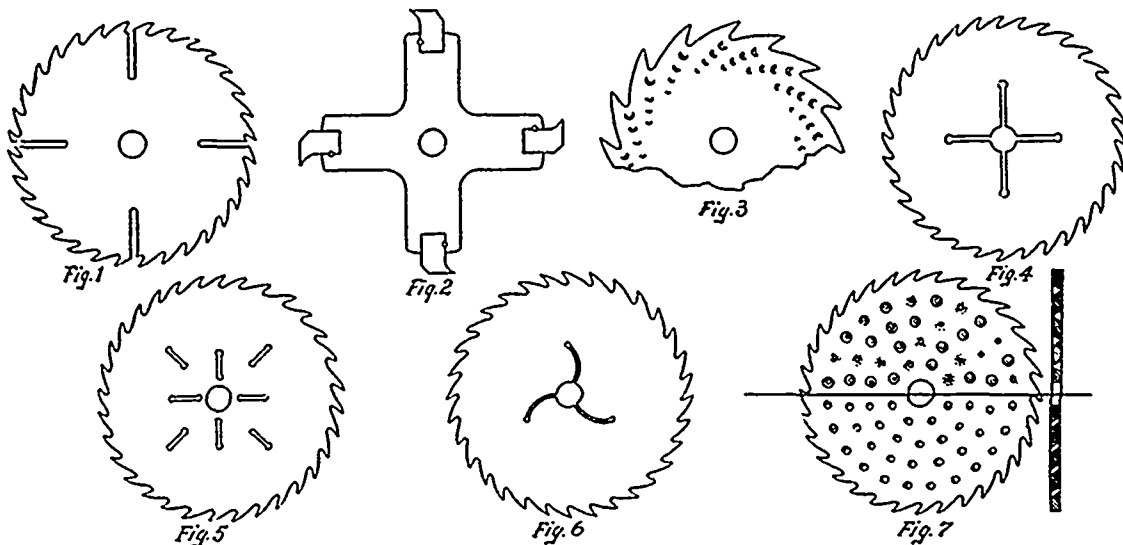
subject matter of patent claims, but the patents have now expired.

For small circular saws and for saws running in gangs, the Gove saws are of unquestionable merit. It is a just criticism of these early inventors that they were too liberal in application. There is a dimension limit, soon reached, beyond which the area of openings in circular saw blades cannot go without impairing the strength of the saw. Inside of this limit they are, in many instances, of special value.

There is another set of openings in circular saw blades which may be dismissed very briefly. They are comprised within efforts made to effect planing or smoothing with a saw at the time the lumber is sawn. They consist of openings, varying in size and position, having edges set out beyond the surface of the saw and sharpened to make a planing cut, or, of openings into which plane irons are inserted for the same purpose. It is sufficient to say that although numerous efforts have been made to achieve success along this line, nothing has yet appeared of practical value.—Theron L. Hiles, in Wood-Worker.

MR. VALAMORE E. TRAVERSY.

MANY of our readers will recognize in the accompanying portrait the countenance of Mr. V. E. Traversy, of Montreal, a gentleman well known in Ontario and Quebec. Mr. Traversy is a native of Ottawa. Although a young man, he is by no means a novice in mercantile affairs, having had eighteen years' experience in the lumber business, both at the mills and with the largest dealers in Canada. He has, therefore, a thoroughly practical knowledge of the



SPECIMENS OF PERFORATED SAWS.

since to prevent cracks from forming in circular cut-off saws. This was done as the result of an investigation into the cause of these cracks and the result arrived at independently of any knowledge of Gove's invention. A practical test not only established the efficiency of the remedy as to the prevention of cracks, but incidentally confirmed the value of Gove's proposition. The saws run lighter, cut smoother, and always cut squarely.

Thirty years later J. E. Emerson, of Trenton, N. J., brought out a circular saw with a series of holes or perforations extending from the gullet of the tooth some distance into the body of the saw, as shown in Fig. 3. This was designed to facilitate in gumming out the saw, and was calculated to save time and labor. At that day the modern emery saw gummers were unknown, and saws were kept in shape by filing by hand or being sent to a saw factory from time to time to be gummed out under a punch press. It can readily be seen how well contrived this plan was to the prevailing conditions. It also served to keep the periphery of the saw cool, and thus added to its efficiency. Saws of this description are still in use, and the design has proved to be of permanent value.

In 1867 I. J. Lockwood designed a circular saw with radial slots located at the centre of the saw blade, as shown at Fig. 4. This was the reverse of the Gove effort, and aimed to keep the saw free from buckle when cool on the rim and heating at the centre. Large numbers of these

Brooklyn pattern, in which the holes pierce the saw blade at an oblique angle. These saws were termed "ventilated saws," and no one will be likely to object to the term. The designer intended to keep the saws cool by inducing air currents to flow through the holes when the saw was in use. The inclined walls or sides of the holes were arranged to afford as little opportunity as possible for lodgment of sawdust. Only one saw of this sort ever came under the observation of the writer. It was a 72-inch circular, inserted tooth. The saw was made to order, as specified by the owner of the mill, six and seven gauge. When put to work it persisted in heating, and was finally returned to the factory to be refitted. When it was received back at the mill it had a large number of holes about $\frac{3}{4}$ -inch diameter arranged as shown in the lower half of Fig. 7. It did not work in this condition. Possibly there were too many holes and the saw lacked stiffness. It did not meet with approval and was returned to the makers. No doubt the ventilating and cooling idea was accomplished, but it made a saw difficult to hammer satisfactorily.

With these efforts and others which are simply variations or combinations of some of them, the circle looking to equalizing the expansion and contraction in circular saws by means of perforations in the saw blade, seems to have been completed. An intelligent adaptation of some features of these designs is of special value even at this late day. All of them have been the



MR. V. E. TRAVERSY

trade. He represented extensive western companies until five years ago, when he went into business with George W. Perkins, of Ottawa, and established their large yards at 268 Ottawa street, Montreal. The firm, V. E. Traversy & Co., are wholesale dealers in lumber, especially white and red pine, spruce, hemlock and hardwoods, and under the able management of Mr. Traversy, a prosperous and constantly increasing business is being built up.

The LUMBERMAN acknowledges receipt of calendars for 1899 from Mr. A. F. Bury-Austin, wholesale dealer in lumber and timber, Montreal, and Messrs. John Betram & Sons, Canada Tool Works, Dundas, Ont.

LUMBERING OPERATIONS IN NOVA SCOTIA.

(Correspondence of the CANADA LUMBERMAN.)

THE bulk of the lumber cut for export in the western part of Nova Scotia goes to South America and the West Indies, only a small portion being shipped to the United States and Europe. Beginning at Yarmouth and coming up the Bay of Fundy, the principal operators and exporters are Blackadders & Co., of Hectanooga and Methegan River. At the former place they have a steam rotary mill and at the latter a water power gang mill, with a combined capacity of six million feet. Parker, Eakins & Co. have a water power mill at Methegan river, which cuts one and one-half million feet. These mills are situated on the line of the Dominion Atlantic Railway, and the lumber is freighted to Yarmouth for shipment.

At Weymouth, G. D. Campbell saws about two million feet, and Charles Burrill & Co. buy the product of several mills, all of which is shipped direct. The Sissiboo pulp mill is about five miles above the town of Weymouth, on the Sissiboo river, and has a capacity of about twenty tons per day.

Pickles & Mills, Annapolis, have a considerable timber limit at Paradise, their output being about four million feet, which is taken by rail to Annapolis for shipment. T. S. Whitman, Annapolis, buys the cut of several small mills inland, and also ships from Annapolis. R. W. Hardwick, Annapolis, saws about one million feet for export to the United States and West Indies, also considerable for the local trade. He has a sash and door factory in connection and carries on a large building trade.

Clarke Bros., Bear River, operate several small mills, sawing from four to five million feet, which they ship in their own vessels to South America, United States and the West Indies. The vessels bring return cargoes of sugar and molasses from the West Indies, and coal from the United States.

R. W. Kinsman & Co., Canning, successors to Hon. F. W. Borden, the present Minister of Militia, have a rotary mill at Blomdon, in which they saw about three million feet per year for export. They saw some deals for the English markets, as well as boards for the United States and the West Indies. They ship via Minas Basin into the Bay of Fundy.

THE JORDAN RIVER.

H. W. Freeman carries on lumbering operations on this river, which is about thirty-three miles east of Liverpool. About two years ago he purchased the Doull property adjoining his own, on the same river. This, with the Freeman property, which he purchased about five years ago, makes an excellent limit. Last year he thoroughly rebuilt the mill, putting in new water wheels, new rotary, and practically a new gang, and put all the other machinery in first class shape. The mill has now a capacity of five million feet in a season. Formerly the mill cut exclusively for the South American, West India and United States markets, but latterly it has been turned to sawing deals. Mr. Freeman is thoroughly practical, and is always ready to manufacture for the market that yields the best returns. He intends stocking the mill for next season to its full capacity. He resides in the shiretown, Shelburne, seven miles further west.

MILTON.

This town is situated on the Liverpool river, about three miles from Liverpool, which is about one hundred miles west of Halifax. If the name had another "I" and a "w" put in the proper places, it would spell "Milltown, and would describe the place exactly. There are two dams on the river, about three-quarters of a mile apart, each furnishing power for four mills, by which the town is practically sustained. There is also a large pulp mill about two miles further up the river. On the lower dam are the mills of Henry L. Tupper, John Millard, Mulard & Freeman and John G. Morton. John Millard's mill is a rotary and stock gang, with patent edger, trimmers, lath machine and planer, while the others are live gang mills. At the upper dam Harlow & Kempton have a live gang and rotary mill, with patent edger, lath and picket machines, box and shook machinery. They handle from three to four million feet each season. This firm also have another mill, with planers and sash and door machinery. The Estate of Joseph Ford has a rotary, which has not been in operation this year, and Eldred Minard has a live gang, in which he saws from three-quarters to one million feet. The principal stock cut in all these mills is pine, spruce and hemlock boards, which are exported to the West Indies,

South America and the United States. There is a considerable quantity of oak on this river, some of which is cut every year for Halifax markets, and also for the car works at Amherst. The pulp mill referred to is owned by the Acadia Pulp & Paper Company, who use a large quantity of the smaller logs. Their output is about sixty tons of net pulp for twenty-four hours. The pulp and lumber are transported to shipping point at Liverpool on a steam tramway, built about two years ago. The lumber operations in Milton have been very slack for the past two or three years, owing to the complications in Cuba and other West Indian Islands, but now that there is a prospect of business reverting to its normal condition, the outlook is brighter.

About three miles east of Milton, J. & J. Coops have a steam gang, shingle and planing mill, and also a mill for cutting pulp blocks for the Acadia pulp mill at Milton. This firm saw about one million feet per year, of board, ship and building timber. Lumber shipments from Liverpool are made in a small class of vessels—brigs, brigantines and schooners—which usually return with sugar or molasses to some of the Nova Scotian ports.

SHEET HARBOR.

The section of country that goes under the name of Sheet Harbor has been operated for a long time, but for a few years back neither of the large limits which converge there have been operated but to a very limited extent. There was an American syndicate which bonded these and a number of other properties, but for some reason the purchase was not completed. Afterwards capitalists at Amherst concluded that these properties offered good fields for investment, with the result that both were purchased in 1896, and have been operated to a moderate extent since. The property at West River, Sheet Harbor, is owned by the Sheet Harbor Lumber Co., who have seen about four million feet of English deals in each of the two years they have owned the property. At East River, some two miles distant, the East River Lumber Company have operated to about the same extent. These two rivers afford splendid water power privileges, and a description of one mill will suffice for the other. The equipment consists of a live gang and rotary, with the necessary edging and trimming machinery and planers. Large ships can take cargo in the river, a short distance below the East River mill. These mills have usually sawn for the English markets. Sheet Harbor is about sixty miles by water east of Halifax, on the Atlantic coast.

WANT FREE LUMBER.

At the monthly meeting of the Massachusetts Wholesale Lumber Dealers' Association, held in Boston on December 5th, one of the subjects to which careful attention was given by the members present was "Reciprocal Trade with Canada from the Lumberman's Point of View," which was interestingly treated by Mr. W. R. Chester. He pointed out that the enormous amount of lumber that is being used for manufacturing purposes in the United States, particularly for supplying the immense and steadily increasing demand for wood-pulp paper, is fast decimating the forests of that country. In New York and New England alone the amount of spruce used in paper manufacturing now amounts to 650,000,000 feet a year, while from Maine to Michigan, inclusive, all except the coarser qualities of pine have been practically used up. Under these circumstances he felt that the hour had arrived when the rapid destruction of the forests of the United States should be stopped, and what is left of them carefully husbanded. This necessary policy in the face of the continuous demand for lumber of all kinds could only be carried out by drawing what is needed for manufacturing purposes from the abundant supply to be found in the forests of Canada. In pursuance of his advice, a resolution was introduced and referred to a special committee stating that "the Association favors reciprocity relations with Canada whenever such relations can be established on a fair and equitable basis; that it behooves this Association to give this subject careful consideration, as the lumber interests of the two countries are extensive; and that, owing to the vast amount of spruce now being used for pulp to be manufactured into paper, this wood being considered the most valuable for that purpose, our spruce forests are being rapidly decimated, while our pine forests have been practically cleared of all but coarse qualities, from Maine to, and including, Michigan. We believe the time has come for us to carefully husband the

remaining forests, as the source of future wealth, health and beauty, and to borrow from our neighbor, who still has an abundance."

REPORTS FROM FOREIGN COUNTRIES.

THE government of Tasmania, a colony south of Australia, has passed an act making certain changes in the customs duties. The new schedule relating to timber is as follows:

Timber, sawn, 3 inches or over, not elsewhere specified, 1s. 6d. per 100 superficial feet; timber, sawn, under 3 inches, 2s. 6d. per 100 superficial feet; timber, planed, of every description, including tongued and grooved boards, 5s. per 100 superficial feet; timber, in short lengths, suitable for making cases, not exceeding two cubic feet in measurement, 1½d. per case; timber in log and veneer wood, free.

Mr. J. S. Larke, commissioner for Australia, writes to the Department of Trade and Commerce as follows:

I have had an inquiry respecting sculls and boat oars. The extent of the trade I have called attention to in previous reports. The chief demand is for ash oars, and they are bought in lots of five hundred and a thousand pairs. The number of spruce sculls required is more limited. The business is now largely done by Detroit and New York firms. The following are prices quoted f.o.b. at Detroit, cash:—

	Per Foot
Plain ash oars, 6 to 12 ft. in length.....	5c.
" " " 13 to 16 ft. in length.....	6c.
" " " 17 to 18 ft. in length.....	6½c.
" " " 19 ft. and upwards.....	1c.
(Extra up to 22 ft. 2c. after.)	
" " " 6 to 12 ft. in length, copper tipped	5½c.
Pine spoon oars, 7 to 8 ft. in length.....	10c.
Spruce spoon oars, 7 to 8 ft. long, copper tipped, leathered and varnished	13c.
Straight spruce oars, 7 to 8 ft. long, copper tipped	7c.

The report of Mr. G. Eustace Bird, commercial agent for Kingston, Jamaica, says of lumber:

"What, however, concerns me most to bring to the notice of your honorable department is, that as a result of the war and the difficulty at first in chartering American bottoms, lumber of all descriptions made a considerable advance; in fact, in many instances orders could not be supplied. I then thought it a good opportunity for the exporters in the provinces of Quebec, New Brunswick and Nova Scotia to introduce their spruce and pine direct instead of via New York, and felt it incumbent on me to take measure to bring the situation to their notice. I accordingly addressed a communication to the CANADA LUMBERMAN, of Toronto, Ontario, and other organs on the subject, giving full particulars as to the sizes and descriptions required, offering my services for any other information desired. I, however, regret to say that but one cargo arrived at the port of Montego Bay, and that by chance, the craft being unable to enter a Cuban blockaded port. Although results were anything but satisfactory, I felt satisfied that I had done my duty, and I again through your honorable department call the attention of Canadian lumbermen to the fact that there is plenty of room for a direct profitable trade."

"WANTED AND FOR SALE"

Persons having for sale or wishing to purchase a particular lot of lumber, a mill property, timber limits, second hand machinery, etc., in fact, anything pertaining to lumbering operations, will find a buyer or seller, as the case may be, by placing an advertisement in the "Wanted and For Sale Department" of the CANADA LUMBERMAN Weekly Edition. Testimonials to the value of this department by those who have given it a trial state that the results of advertisements were frequently better than anticipated. The cost is comparatively small. Mill owners might, with profit to themselves, make use of this method of advertising their stock to a still greater extent.

The J. C. McLaren Belting Company, of Montreal, are sending to their customers a neat 15-inch desk rule, drawing attention to their well-known brands of belting, general mill supplies, pulleys, etc.

THE JAMES SHEARER COMPANY.

The lumber and building trade of Montreal is one of its most important industries, as evidenced by the numerous substantial houses engaged in the various branches of the trade. Foremost among the establishments of this character is that of the James Shearer Company, located at No. 172 Shearer street. This company are exten-

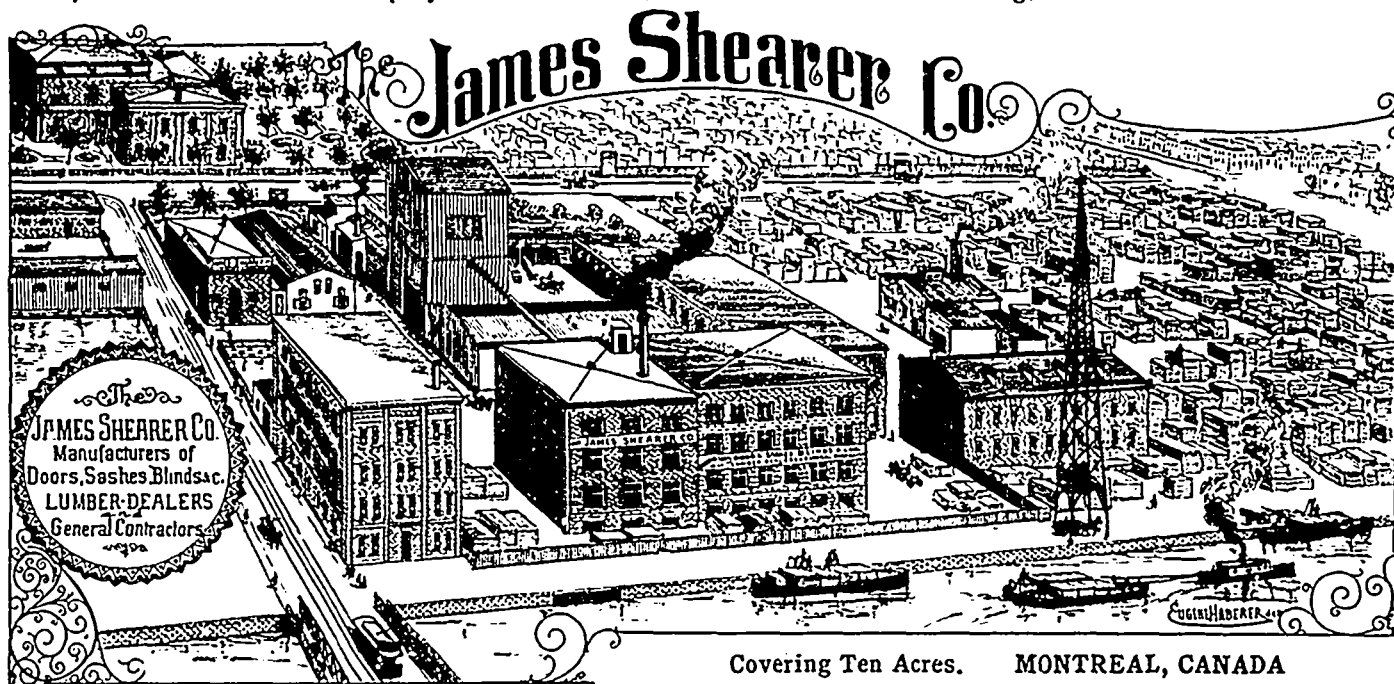
streets; Dominion Cotton Mill plant; Watson, Foster & Co.'s plant; Belding, Paul & Co.'s silk mills; John McDougall's boiler shop; Sadler & Haworth's leather belting factory; the Rodier block; Protestant Insane Asylum at Verdun; Montreal Sailors' Institute; Queen's Park grand stand; Montreal Baseball Co.'s grand stand, and Montreal Arena building, besides

enterprise and marked success. We predict for this company a steadily increasing patronage.

THE SHEARER & BROWN COMPANY.

The Shearer & Brown Company, Limited, are manufacturers of dimension timber and saw mill lumber in Montreal. It is one of the best houses in the trade that are conducted under

a management whose policy is a successful continuation of all the sterling principles of old-time trading, with a strong progressive tendency essential to success. The large and successful business conducted by the company was established by Messrs. James Shearer and Jonathan Brown in 1866. The present company was incorporated under Dominion laws on November 1st, 1895, with a capital stock of \$100,000. The office of the company is conveniently located at No. 172 Shearer street, while the exterior mill and yards



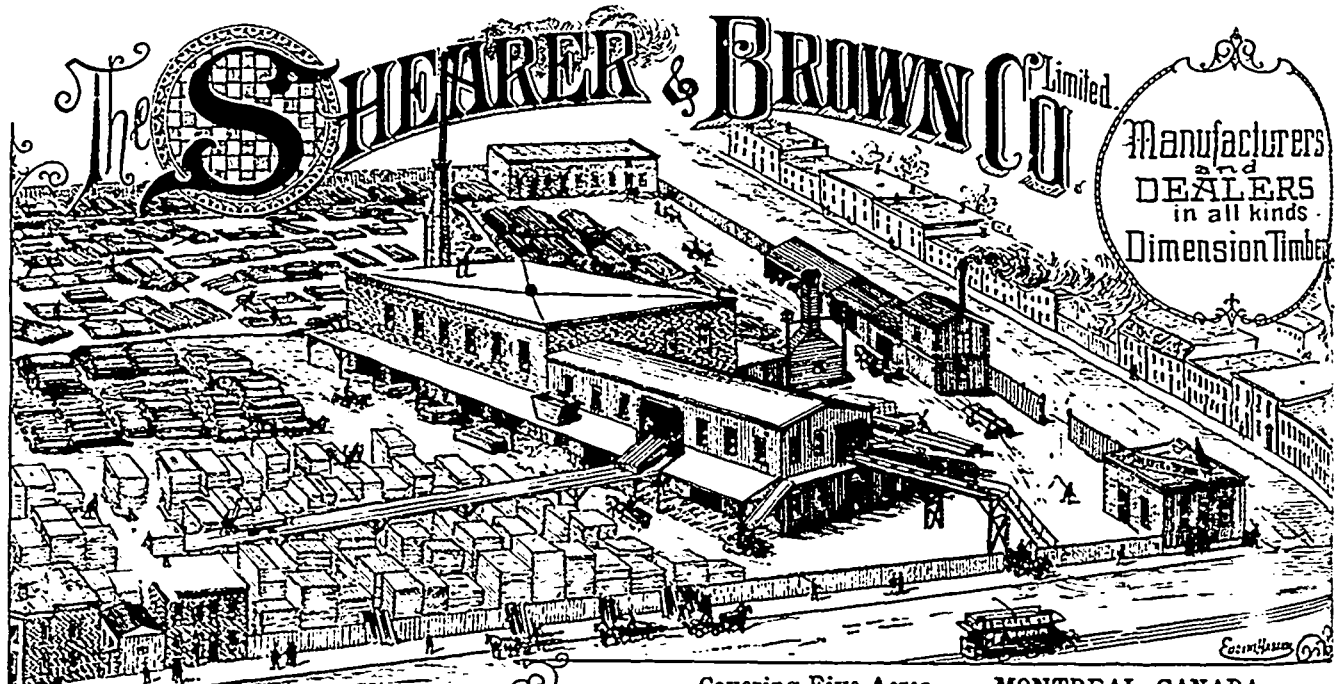
Covering Ten Acres. MONTREAL, CANADA

sive manufacturers of doors, sashes, blinds, mouldings and all kinds of house and steamboat work, as well as lumber, flooring, laths, shingles, clapboards, etc. The business was founded forty years ago by Mr. James Shearer, and on the 1st of January, 1896, the present company was organized under the laws of the province, with a capital of \$200,000, Mr. James Shearer being president, Mr. James T. Shearer vice-president, and Mr. Bert H. Wills secretary and treasurer. The plant comprises a four storey planing mill, sash, door and blind factory, shown in the accompanying illustration, and a large lumber yard, bounded by Shearer, St. Patrick, Island streets and canal bank; while the equipment embraces the latest improved machinery, operated by water power and auxiliary engines of one hundred horse power. Steady employment is given to one hundred and forty skilled workmen.

many residences. Orders and commissions receive immediate personal attention, to which is due, in no slight degree, the extensive trade of the company both in city and country.

President Shearer, the founder of the business, is a native of Scotland, and deservedly prominent as president of the Shearer & Brown Co. of that city, a member of the Board of Trade, and a representative business man. His son, Mr. Jas. T. Shearer, vice-president, was born in Montreal,

are at the corner of Richardson and Shearer streets. The saw mill at Montreal, of which a view is shown, is fully equipped, and has a capacity of cutting forty thousand feet of lumber daily. A large stock of the best white and red pine, hemlock, spruce, tamarac, cedar, rock elm and oak lumber is kept on hand and cut to order, a specialty being made of dimension timber and joisting. The company own and operate timber lands in the Nipissing dis-



Covering Five Acres. MONTREAL, CANADA

The facilities of the James Shearer Company for supplying builders and consumers with first-class materials are such as can be readily appreciated by those thoroughly understanding the business, and who are enterprising enough to take advantage of every convenience whereby orders may be promptly filled and with satisfaction to customers. The situation of their factory commands unsurpassed facilities for the receipt and transportation of supplies by rail and water. This company are also prominent as builders and contractors, and among notable specimens of their work may be named the Merchants Bank of Halifax, corner Seigneurs and Notre Dame

and holds important positions in many other companies. Portraits of these gentlemen appear on the opposite page. Together with the secretary, Mr. Wills, they bring special qualifications to bear on the building trade. They are closely identified with the best interests of Montreal, and have ever given cordial support to all measures calculated to promote the future benefit and permanent welfare of the city, whose commerce and trade they are promoting with zeal,

strict, in the province of Ontario, Mr. D. McIntyre jr., Cache Bay P. O., being manager, also is Clarence township, Russell county, of which Mr. John Hunter, Hammond P. O., is manager. The trade of the company is with dealers throughout the Dominion, shipments being made by rail and canal. Buyers everywhere are said to accord the company unlimited confidence as one of the most satisfactory and reliable from which to obtain their lumber requirements. In addition to the

various classes of lumber above mentioned, the company are in a position to supply telegraph poles, railroad ties, cedar posts, British Columbia fir, Southern pine, and car and boat timber, and are always pleased to furnish quotations on bills. Mr. James Shearer, president of the James Shearer Company, is also president of



MR. JAMES SHEARER.

this company, and is an energetic business man. Mr. Jonathan Brown, the vice-president, who is also a native of Scotland, is thoroughly experienced in the business. Mr. James T. Shearer is manager and director. He is vice-president of the James Shearer Company, president of the Canadian Construction Company, director of the Philipsburg Junction Railway and Quarry Company, and director of the Jacques



MR. JAMES T. SHEARER.

Cartier Pulp and Paper Company. Mr. Bert H. Wills is secretary and treasurer of this company, as well as of the James Shearer Company. He is a man of tried and sterling personal worth.

Mr. H. R. McLellan, of St. John, N.B., has recently returned from England.

Messrs. G. B. Housser & Co., of Portage la Prairie, Man., intend erecting large lumber sheds.

THE FILER.

By "MECHANIC."

Saw fitting is considered one of the most important jobs in the saw mill. The quantity and quality of lumber cut and the steady hum of the saws depend largely upon how the saws are fitted up, and the filer is therefore a profitable or profitless man for his employer, according as he fits his saws in condition to operate. As a rule, the filer should have some knowledge of millwright work, at least to the extent that he may ascertain when faults lie in the saw, in the mill, the carriage, the track, or any portion of the plant directly under his personal supervision or operation.

Defects may lie in any of these places, which, if not ascertained and remedied, will render only partially effectual the best of efforts tending to improvements in the care of saws. The service of a saw filer may be invaluable at from three to eight dollars per day, or expensive at two dollars per day. One fitter may increase the cut of well manufactured lumber from two to five thousand feet per day; another may not only lessen the average cut, but also impair the quality of the output, a double loss.

The actual results in the running of saws depend largely on the skill of the filer, and upon his having good saw fitting machinery to work with. If the filer has not the proper saw fitting tools he is not in a position to do fine work.

Every filing room should be equipped with the best saw fitting tools procurable, and saw filers should be interested in any method, or machines, or tools that are well calculated to improve or facilitate saw fitting. Their services are mental and mechanical rather than physical. Hence, intelligence and skill in a filer are better recommendations than physical strength or a disposition to hammer and file from morning till night. It is not a question of quantity altogether, but of quality of work.

(To be Continued.)

PUBLICATIONS.

An attractive feature of the January Ladies Home Journal is the collection of photographs of "Some Remarkable Old Ladies" artistically grouped on a single page. Of the fourteen ladies all are above four score, and five are centenarians. The photograph of each one reflects the beauty of a happy life of well-doing—a beauty that time cannot obliterate.

An illustrated anecdotal character sketch of the late General Garcia, the Cuban patriot, is contributed to the January Review of Reviews by George Reno, who was closely associated with General Garcia for two years. The frontispiece of the Review is a portrait of General Garcia from a photograph taken by Chmedinst, of Washington, only a few days before the general's death.

Messrs. John Hadden & Co., Bouverie House, London, Eng., have published an attractively printed brochure entitled "A New Field for British Manufacturers," in which are concisely set forth many important facts concerning the nature and extent of Canada's trade requirements. Suggestions are made as to advertising and other methods by which British manufacturers might develop their business in the Dominion. This little book is well calculated to promote closer trade relations between Great Britain and this country, a subject of much present importance.

Readers of THE LUMBERMAN who contemplate enlarging their mill, or purchasing new machinery of any kind, are asked to advise us of their requirements. Such information is greatly appreciated.

CORRESPONDENCE

Letters are invited from our readers on matters of practical and timely interest to the lumber trades. To secure insertion all communications must be accompanied with name and address of writer, not necessarily for publication. The publisher will not hold himself responsible for opinions of correspondents.

MILL AND FACTORY SITES.

MASSEY, Dec. 19th, 1896.

Editor of the CANADA LUMBERMAN.

DEAR SIR,—If you will allow me space in your valuable paper, I would like to call the attention of the public to our immense water powers on the Sauble river at Massey. Massey is situated 58 miles west of Sudbury, on the Soo branch of the C. P. R., at a point near the Spanish river where the Sauble river intersects it. There are three water falls within a little over half a mile from the town, excellent sites for erecting pulp mills or factories, and great shipping facilities either by the C.P.R. or by boat down the Spanish river.

Massey is a lumbering town, and the lumbermen have foot roads cut out and graded for over fifty miles north of the town parallel with the Sauble river, and camps are erected here and there through a and near the vast tracts of spruce. We have over twenty townships of spruce in this part of the district, besides an endless quantity lying along the Spanish river which is of easy access to the water powers on the Sauble. Our town is willing to assist in every way possible to induce capitalists to invest in mills of any kind. I might say also that we have an endless quantity of good maple, birch and oak for furniture purposes, plenty of room for two or three factories or mills, and an excellent site for a good large town. For any information regarding the above apply to Newton H. Bowers, J.P., and the same will be cheerfully given.

Yours respectfully,
"READER."

HARDWOOD LUMBER RATES.

OWEN SOUND, ONT., Dec. 24th, 1896.

Editor CANADA LUMBERMAN:

Now that a demand for hardwood stock, in rough, for export, is springing up, the question of rates is of vital importance to the hardwood lumber manufacturer. For a number of years, for some unaccountable reason, the railway companies of Canada have made a discrimination against hardwood lumber, charging from one cent to two and one half cents per 100 lbs. more than for pine or basswood lumber. This discrimination has caused thousands of acres of beech and maple to be cut into cordwood in the counties of Grey and Bruce alone that would have gone largely into lumber if the railway people would only take a more just view of the equalization of rates. When cut into cordwood it is carried in the same cars and largely to the same markets and over the same roads for just about one-half the rates they would get were the same trees made into lumber and carried on the same rates as pine. Then, again, in the manufacture of hardwood lumber, there is, on an average, 30 per cent. that runs to common and mill culls that it is difficult to sell for anything but firewood; but you can't ship it as such unless you cut it four feet or shorter in length. Neither can you load it up as cull lumber and ship it with pine or hemlock, without paying the additional charge made against hardwood lumber.

If the hardwood manufacturers were to take this matter up unitedly with the Canadian railway companies, I am sure they would ultimately succeed in getting this discrimination removed. There are no roads in the United States which make this most unjust discrimination. The writer would be pleased to hear from others of your readers who are interested in hardwood manufacture. Lack of time prevents me from pursuing this subject further, but I will at a later date take up the matter again. In the meantime, I will be glad to hear from other interested manufacturers on the subject.

Yours respectfully,
"HARDWOOD."

A well-known logger, in the person of Robert Law, died at Vancouver, B.C., last month. He had been hand-logging on Thurlow island and had a boom ready. He went to Vancouver about December 1st, and stopped at the Terminus hotel, waiting for the arrival of the tug with the boom, but took ill and expired suddenly. He had been connected with logging operations for ten years, and was a native of London, Ont.



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THE CANADA LUMBERMAN is published in the interests of the lumber trade and allied industries throughout the Dominion, being the only representative in Canada of this foremost branch of the commerce of this country. It aims at giving full and timely information on all subjects touching these interests, discussing these topics editorially and inviting free discussion by others.

Special pains are taken to secure the latest and most trustworthy market quotations from various points throughout the world, so as to afford to the trader in Canada information on which it can rely in its operations.

Special correspondents in localities of importance present an accurate report not only of prices and the condition of the market, but also of other matters specially interesting to our readers. But correspondence is not only welcome, but is invited from all who have any information to communicate or subjects to discuss relating to the trade or in any way affecting it. Even when we may not be able to agree with the writers we will give them a fair opportunity for free discussion as the best means of clearing the air. Any items of interest are particularly requested, for even if not of great importance individually they contribute to a fund of information from which general results are obtained.

Advertisers will receive careful attention and liberal treatment. We need not point out that for many the CANADA LUMBERMAN, with its special class of readers, is not only an exceptionally good medium for serious publicity, but is indispensable for those who would bring themselves before the notice of that class. Special attention is directed to "WANTED" and "FOR SALE" advertisements, which will be inserted in a conspicuous position at the uniform price of 14 cents per line for each insertion. Announcements of this character will be subject to a discount of 25 per cent. if ordered for four successive issues or longer.

Subscribers will find the small amount they pay for the CANADA LUMBERMAN quite insignificant as compared with its value to them. There is not an individual in the trade, or specially interested in it, who should not be on our list, thus obtaining the present benefit and aiding and encouraging us to render it even more complete.

1898-99.

THIS issue of the CANADA LUMBERMAN marks the incoming of another year, and suggests a few thoughts as to the conditions which have prevailed during the year which has just passed into history. Speaking from an international standpoint, the past twelve months have not witnessed that peace and harmony which is so much to be desired by all nations. The great Republic to the south felt called upon to take up arms to defend the freedom of a helpless people. Later the war cloud hovered over the European continent, and for a time a conflict between the mother country and France seemed certain. But at the close of the year the horizon brightened, and war seems to be a more remote condition, for which all should be thankful.

So far as Canada is concerned, the year has been a remarkable one in many respects. After a somewhat lengthened period of depression, it has marked the return of prosperity. There has been a substantial improvement in the commerce of the country, in the development of our natural resources, and a large increase in the number of industrial establishments to the betterment of the people in general. The development of our mines, the greater number of buildings erected, the contemplated construction of railways, harbor improvements, pulp mills, all bear evidence that we have entered upon a new era of prosperity. The amount of British capital

that is finding its way to this country for investment is an indication that our natural advantages are becoming known abroad. Following this will come the much desired increase in population.

The lumber trade has, in some degree, shared in the general improvement, although probably not in equal degree with other industries. Peculiar circumstances affecting the export trade, and which may not be experienced again for years to come, have precluded the full measure of benefit which would otherwise have come to the trade from the improved commercial conditions. One feature, however, particularly favorable to lumbermen is the increasing local demand, as a result of the establishment of a greater number of wood-working factories and of more extensive building operations. We believe that during the past year the consumption of lumber per capita by the population of Canada was larger than ever before. As our home consumption increases, we will become less dependent upon foreign markets.

It is with gratitude to our advertisers and readers that the publishers of this journal announce their participation in the general business improvement. During the year the CANADA LUMBERMAN has been accorded a liberal support, its circulation having been greatly extended in foreign countries, as well as in Canada. This we regard as a practical demonstration that our efforts to furnish the trade with a thoroughly reliable and up-to-date journal are appreciated. Throughout the present year our efforts will be unceasing to improve the standard of the journal, and to render it of greater value and assistance to the trade. To all our readers we extend a New Year's greeting, and trust that 1899 may be a year of continued prosperity.

THE LUMBER TARIFF PROBLEM

THE December number of the monthly edition of the CANADA LUMBERMAN has been received, and it is remarkable how quiet it is on the subject of the lumber tariff.—Mississippi Valley Lumberman.

Our contemporary is evidently non-plussed at our total indifference. We are glad that this same degree of indifference pervades the lumber trade of Canada and the country at large. In the words of a prominent lumberman, in speaking of the negotiations at Washington: "We will be content if they do nothing." Why should we be continually worrying over a matter after having definitely announced and acted upon our policy? Free logs for free lumber has been offered—nothing short of it will be accepted. If the United States objects to this method of equalizing conditions, then the prohibition of the export of logs will continue. It is not a question to be settled by the Dominion of Canada, but by the various conflicting interests in the United States.

Should the efforts of the Joint High Commission prove abortive, the other provincial governments will no doubt follow the example of Ontario and prohibit the export of pulp wood. Indeed, the authorities at Quebec are now believed to be considering this step. By cutting off the timber supply of the United States, and thus wiping out their export trade to a large extent, we will be enabled to place a much greater quantity of lumber and pulp in foreign markets. Public sentiment is strongly in favor of this

course being adopted even in the event of free admission of our lumber to the United States. The feeling is against the building up of paper and paper industries in the United States by means of Canadian raw material.

The Commission sitting at Washington has adjourned until January 31st. What has been offered by the representatives of the two countries as the basis of a reciprocity treaty is not definitely known, yet as to the lumber duties the reports are on certain points almost unanimous. The Canadian Commissioners have, it is said, been offered several modifications of the tariff in the shape of the removal of the duty on the higher grades of lumber; the reduction of the duty to one dollar per thousand feet; or a sliding-scale arrangement, commencing with a reduction of 20 per cent. and eventuating in the entire removal of the duty at the end of five years. None of these concessions will be accepted by the Canadian Commissioners. Even were they disposed to agree to a settlement of the question on the lines of any of the above offers, there would still be found an insurmountable obstacle in the Ontario government. Mr. A. S. Hardy and his colleagues have spoken in unmistakable terms. They will permit the exportation of saw-logs only in consideration of the free entry into the United States of the forest products of Canada.

VALUE OF LUMBER ASSOCIATIONS.

THE number of lumber associations in the United States, and their continuation from year to year, leads to the conclusion that they have proved beneficial to their members. Not only are there associations representing the different branches, such as the white pine, the yellow pine, and the hardwood manufacturers, wholesale and retail dealers, salesmen, etc., but the secretaries of these various lumber associations have also an organization of their own, the purpose of which is to discuss ways and means for executing their work in the most efficient manner. There can be no doubt that the meetings of these associations accomplish good results—they diffuse new ideas, broaden the minds of the members, promote social intercourse, and, in the end, oil the wheels of business.

That in Canada the movement towards organization has been so backward is not readily explainable. In an industry of the magnitude of that of lumber, there cannot but be questions which could be discussed with profit by associations formed to represent the different provinces and interests, to say nothing of the social advantages. Yet the only lumber manufacturers association in existence in Canada to-day is the Lumbermen's Association of Ontario, which was revived into activity about eighteen months ago. We must not, however, overlook the Western Retail Lumbermen's Association of Manitoba, of which the manufacturers catering to that market are honorary members. An association once existed in New Brunswick, but as no meetings have been held for some years, it has probably become extinct.

A social society which has invaded Canada from the United States is the Hoo-Hoo order, composed of lumbermen and persons identified with the lumber trade. Two branches have been established, one at Vancouver, B. C., and

one at Winnipeg, Man. It is probable that an effort will be made to form others at various points in Canada, the success of which we would welcome as indicative of a growing disposition towards closer relations between persons having interests in common.

Probably the most urgent need of organization is among the spruce manufacturers of Quebec, New Brunswick and Nova Scotia. It should not be a difficult matter to form an association to conserve the interests of the lumber manufacturers of these provinces, situated, as they are, adjoining each other. The headquarters of the association might be in St. John, the most suitable place. Owing to its central location, members from all points could attend the meetings with but little expense or loss of time.

We hope that during the coming year the lumbermen of Canada will take steps in the direction of more complete organization, and that live associations may be formed representing every branch of the trade.

EDITORIAL NOTES.

INFORMATION is now being collected for the annual review of the lumber trade to appear in the February number of THE LUMBERMAN. Blank forms have been sent to manufacturers throughout the Dominion, and we respectfully ask that they be returned to this office, with the required particulars, without delay. In addition to this, we would be pleased to receive from any of our readers statistics or general information which would assist us in the preparation of the review.

THE timber interests of Canada will learn with satisfaction that there is now a fair prospect of an early settlement of the chartering difficulty, referred to in our last issue. The Documentary Committee, by whom the charter party was drawn up, has submitted to the British Timber Trade Federation certain modifications in the public charter, the amended form being a distinct improvement on that previously submitted. With a settlement of this charter, it is believed that no difficulty will be encountered in arranging amicably the Canadian document, more especially as the shipowners are now fully cognizant of the attitude of the timber trade in general.

REVERTING to our remarks in last issue anent the discrimination in freight rates against hardwoods, we find the Mississippi Valley Lumberman taking up the cudgels on behalf of the hardwood trade. It concludes its arguments for a rate on hardwoods similar to that on pine in the following words: "The car can be loaded to its maximum capacity better with hardwood than with pine. A car heavily loaded with hardwood is safer to haul than one heavily loaded with pine. The damage to hardwood in case of accident is usually less than that to pine. The greater value of the hardwood should not make the difference in the rate, for pine uppers may be worth more than hardwood uppers, and low grade hardwood may be worth less than average pine."

THE Dominion government is to be commended for the step it has taken to preserve forest areas in Manitoba and the Northwest Territory. This western country is largely a prairie region, and timber areas are therefore specially valuable. With proper attention it is possible, also, to make these reserves a source of revenue to the

country. The town of Freudenstadt, in Germany, owns a forest of less than six thousand acres, which is said to produce a revenue sufficient to meet the annual expenditure of the town. The great Black Forest in Germany yields an annual net revenue varying from \$2.50 to \$10 per acre, and is a region unfit for cultivation in any other manner. Canada should profit by the experience of older countries.

IN common with all Canadians, we welcome the establishment of a new service of steamers between Canada and Great Britain. The points of destination are Paspébiac, at the mouth of the St. Lawrence river, in Quebec, and Millford Haven, in Pembrokeshire, England. It is claimed that a considerable saving both in time and distance, as compared with the Liverpool route, will be effected by this line. But perhaps the greatest advantage will be in the direction of providing the necessary shipping facilities for Canadian produce, the lack of which has in the past resulted in a large proportion of our products being exported to Great Britain by way of United States ports. In many instances, also, these products of Canada were credited to our neighbors. It is to be hoped that the promoters of the enterprise may be able to make it a financial success, and be encouraged to establish other similar services.

HOW TO USE A LOG RULE OR SCALING STICK.

THE ordinary log scaler's rule is something of a puzzle to the beginner in its use, even when he knows just how to use the common board rule. A correspondent wants to know just how to use the rule; in other words, as near as I can make out, how to scale a log.

The log rule is usually a flat hickory stick 4 or 4½ feet long and about 1½ inches wide. It has two lines running lengthwise on each side, making three spaces in the width of the rule. On the head or lower end in these spaces are stamped, beginning on the left, the figures 12, 14, 16 on one side, and 18, 20, 22 on the other. These figures represent the lengths of logs to be scaled. There are rules for special purposes beginning with smaller numbers for shorter logs, and a few are made to order wider and with four or more spaces on each side. But the man who can not scale any length of log that was ever cut on a three-run, four-foot rule or stick has not learned his business.

Stamped on one edge of the rule is a regular four-foot rule in inches, usually beginning with eight inches, as that is supposed to be the smallest log ever scaled. The two flat faces of the rule are also marked across into one-inch spaces to correspond with the inch marks on the edge. In these spaces are stamped figures to represent the contents in board feet of a log of the diameter of the corresponding figures in inches on the edge and of the length of the figures on the head of the rule in the same space.

Now to scale a log, first get its diameter inside the bark at the top or smallest end, then get its length, then look in the column containing the length, in the space opposite the figures on the edge denoting the diameter you have found, and there you will find the amount. For instance, if the log is 14 feet long and 16 inches in diameter at the top end inside the bark, look along the edge of the rule to the figure 16 inches, then to

the figures in the space indicated by 14 on the head of the rule, and the figures there found will give the contents in board measure. According to Doyle's rule this amount will be 126 feet. If the log is only 12 feet long and of the same diameter, the contents will be 108 feet, and if 16 feet long, 144 feet. The old Scribner rule gave these figures as 130, 110 and 150 respectively, for a 16-inch log 14, 12 or 16 feet long.

I would say the figures for diameter are usually stamped on both edges of the rule, and the figures for the length are usually also stamped across the top or handle end of the rule, as well as on the head. Some rules are also made with these figures denoting length with the lowest number, 12, on the right, but in scaling a good many million feet of logs I always used the other or right-handed rule. There are a lot of things a scaler must learn, but only by practice under a good instructor. If the log is crooked, he must get his diameter between two straight lines, drawn by the eye so as to leave out the crook; in other words, straighten the log. If the heart is defective, its proportion to the total bulk of the log must be thrown off, either in making the diameter or from the total contents; the former is preferable for reasons to follow. Other defects must also be measured out.

In practice, except when buying a few logs at a time which one may want to figure on the spot as a matter of convenience, the scaler makes little or no use of the scale on the face of his rule. Instead, he has a tally hook in which he simply tallies each log in the column denoting its length at the top and opposite the figures in the margin denoting the diameter. When his day's work or job is done, all he has to do is to multiply the number of feet in a log of a given size and length by the number of tallies set against it and add the totals. He thus saves a lot of unnecessary figures and besides has a complete record of every size and length of log in the lot, which is often of great moment in determining their value. Scribner's tables as now published use only the Doyle rule, having practically discarded the old Scribner rule, as the latter was never a favorite with log buyers.

In scaling logs of other lengths, those below 12 feet are measured at one-half or the proper fraction of one of the lengths given. For instance, a 10-foot log is measured for one-half a 20-foot, and so on. 12, 14 and 16 are considered the standard lengths, and all logs over 22 feet are measured as though cut into standard lengths, "raising the scale," or in other words increasing the diameter one inch for every standard length made from the top down. A 24-foot log 12 inches in diameter at the top is scaled as if cut into two 12-foot logs, calling the butt log one inch larger than the top one, or 13 inches, to allow for supposed taper. A 30-foot 12-inch log is scaled as one 10-foot 12-inch and one 14-foot 13-inch, always making the top log the longer one where the division can not be made even, remembering that all logs are measured in even feet unless otherwise agreed on in the contract. But there are long logs that have so little taper that it would not be fair to "raise the scale," and that is a question for the good judgment of the scaler.

These and other questions should naturally suggest themselves to him with experience. He should remember that but few logs are actually round, generally having one short diameter, which is the one to take. O. S. Whitmore, in *The Wood-Worker*.



WHEN in Owen Sound recently I dropped into the office of the North American Bent Chair Company, and was surprised to learn that notwithstanding that their large new factory was erected about two years ago, they have in contemplation the building of an addition. This is necessitated by their rapidly increasing trade both at home and abroad. Their principal foreign markets are Australia and England. I am informed that the company have opened a branch at 447 Kent street, Sydney, Australia, which will be managed by Mr. L. O. Banting, who lately left Owen Sound for his new field of labor. In the manufacture of chairs the North American Bent Chair Company consume a large quantity of hardwood lumber, of elm, birch, beech, maple and oak. Hemlock and basswood are used for packing the chairs for foreign trade. Last year over three million feet of hardwood logs were manufactured into chairs, and in 1899 four million feet are expected to be required.

In certain ancient hardwood districts of Ontario the timber has become almost exhausted. Mills that once were overstocked with logs are being removed to new locations where the primeval forests are still untouched. Take, for example, the Owen Sound and Warton district. No such quantity of hardwoods as once existed can now be found. But it is surprising how long after the supply is believed to have become exhausted some of these localities continue to rank as lumber producing. This question I discussed with an Owen Sound hardwood man, who gave as a reason that the older men, imbued with the necessity of making provision for coming generations, were husbanding their timber. "As they die off," he remarked, "the sons, less mindful of the interest of their successors, place the timber upon the market. I know of just such lots of hardwoods at the present time. Ten years ago, when we were taking out logs of 45 feet average, we could see but one or two year's supply, yet to-day we are still cutting timber of that size." Another mill man with whom I conversed remarked that some persons owning a little timber refused to sell, on the ground that prices would be much higher in years to come. From a financial point of view he thought they were making a mistake. "They will find," he said, "that the quantity obtainable in the locality is so small that dealers will not handle it. That is what has actually happened in the case of cherry, walnut and other scarce woods. Unless you have a considerable supply you can't find a market for it."

I NOTICE in the Timberman an item of special interest to Canadian exporters. Its English correspondent says: Some time ago in these notes I mentioned that a firm (The M. Timber Co. of Canada) had started business on this side for the purpose of supplying the chair trade of this country (which has its centre at High Wycombe) with partly converted "stuff," i.e., tops, bottoms,

rails, etc., of chairs. The success that has attended the operations of this concern has induced one of the leading chair manufacturers of High Wycombe to go into the business on his own account and import direct. I refer to Messrs. R. Howland & Co., and I recently gathered from Mr. R. Howland, jr., who has negotiated the business, what the intentions of his firm are. Mr. Howland has appointed an agent in Canada who will look after his firm's interest exclusively, and besides utilizing the ready-made articles in their own business, his firm contemplates placing the stuff on the local market. It is hoped that the use of same will mean a good deal to the Wycombe manufacturers, and will enable them to keep their hold on trade that seems inclined to drift away from the town; provided, of course, that satisfactory terms can be arranged with the shipping and railway companies in the matter of freight. Anyhow, Mr. Howland has placed orders to the extent of £8,000 for goods to be delivered during 1899, and if the venture proves successful (as there is every prospect of its doing), a still larger business will doubtless be done in the future, which should be fraught with good to all concerned on both sides of the Atlantic.

EVERYONE knows C. Beck, of Penetang, he who figured so prominently in the movement to have embodied in the Ontario laws the manufacturing clause which is now causing the Michigan lumbermen so much anxiety. When on one of his frequent visits to Toronto last month he was captured by one of the invincible representatives of the daily press. On the lumber question he said: "As far as the lumbermen of Ontario, and especially of the Georgian Bay, are concerned, it is immaterial to them whether we get free lumber or not. As I understand free lumber, it means the free exportation of logs which is now prohibited. Although the Americans no doubt have large quantities of southern pine, in many cases it will not fill the requirements of our white pine. Minnesota and Wisconsin pine are too far away from the eastern market, and, besides, the timber of that region is not so good as our Canadian pine. Therefore, I think it would be to the interest of Ontario if the present arrangements were maintained by our local government. The shortage in the eastern market that would be caused by the stoppage of the export of our logs to Michigan would cause an advance in the price of our lumber, and the consumers would have to pay the advanced price, and we would, besides, have the manufacturing of the whole of our Ontario pine. The present arrangement is a great benefit to the province at large, and in my opinion it would be better for Ontario not to get free lumber. As free lumber would mean free logs, that is where the Georgian Bay millmen and the country would lose. I would not, however, object to free trade in lumber, if that could not be done; I would not feel contented to have a half measure, that is to say, to have the duty reduced to one dollar and give the Americans free logs. If the arrangement fails in regard to the lumber question, all I would ask and expect of our government would be to put a duty on the American lumber equal to their duty now on ours."

HELPFUL IN BUSINESS.

A COPY of this issue of THE CANADA LUMBERMAN will fall into the hands of a number of persons interested in lumbering and allied industries who are not regular readers of the journal. From these we respectfully solicit their authority to add their names to our already large number of readers, believing that they will find THE LUMBERMAN of interest and value in their business. The nominal sum of one dollar per year covers the subscription price of both the weekly and monthly editions. Begin the new year by investing one dollar for 52 issues of THE LUMBERMAN.

TWO CIRCULAR SAWS.

THERE is a noticeable difference in the tension of speed circulars. Saw-makers, like filer, differ in opinion on this point. Take, for instance, a 60-inch saw running 800 revolutions per minute. One saw-maker will tell you a saw that can hardly be pulled through at the whole another will send a saw that will run through easier, while both saws have the same amount of tension. Writes "Foreman" in the Wood-Worker. This is contradictory to the average filer, indicating the saw is too open while the other is not open enough. Keep in mind that both saws have the same amount of tension, but in different places. The first saw has tension nearer the center, while in the latter it is near the rim. These are not extreme cases.

Both saws will run fairly well. The first (which will call No. 1) is the best saw and will give the satisfaction, for several reasons. I have seen cases of No. 2, where the filer and sawyer would do such a saw would not run, yet it ran fairly well. The conclusion was, it was a "hard" saw, as it has "less" tension, while No. 1 would be considered a "soft" saw, requiring more tension.

Some filers in fast mills do not seem to understand the difference in saws when they are of the same size. Take a saw while standing on edge and dish it back forth. Notice carefully at right angles to its support you will see that with saw No. 1 the stationary edge is fully 12 inches from rim, while in No. 2 it will be close as six or seven inches to rim, showing that the latter has tension much nearer the rim. A talk with a filer on this subject will surprise one. The majority claim tension must be this near the rim for high speed, yet, as stated, saw No. 1, which is more open, is the better running saw. It will slab much better than No. 2.

I do not mean that the most open saws are always the best. There is a limit, and when it is passed the result is a broken saw at the eye. Some "experts" claim to be able to run a 56-inch saw at 800, with but little tension, heavy feed, with plenty of power. A Texas filer ran a saw so open that it will come down to the floor before the centre will go through. Which is right? The filer runs a saw with little tension at high speed fast and his saws run badly. He is compelled to use more than is necessary, for, as the wheel cuts down the throat, the tension is removed.

Saw No. 1 requires but little tensioning after grinding. It is understood that we are now treating new saws as they come from the shop. Saw No. 1, as stated, gives the best results. I know of a saw firm that sends its saws out hammered like No. 1; they all give satisfaction and do not break at the eye, unless some "expert" gives his "segment" hammering in on them. This saw is tensioned that the average filer can wear a cut in fast mills without getting "stuck." When it needs tensioning it up a little about half way from rim to eye gives it the right amount.

Another firm sends out saw No. 2, as stated. It runs fairly well on the start, but the first heavy grinding requires a change, and presently it must be hammered. At this time it is accepted and paid for. If the right man makes this saw all is well; if not there is trouble and loss of it. To open it up half way, as may be done with No. 1, will give only temporary relief; the saw will let go sooner than before. It may now be opened up at its place as open as No. 1, yet it will not take a slab and will run off badly.

Along comes a man and applies his "infallible" rule, hammers it from rim right down to the eye. After a day's hard work the saw goes very well. This man goes to the next mill and finds No. 1. It also needs hammering. He applies this "infallible" rule. The saw runs very well, but presently this saw is broken. No one is to blame, it is the filer's fault, as he had improved the saw and let it run nicely. The sawyer accounts for it. "The saw suddenly dodged out of the cut a little, and 'pop' it went."

As a rule, a 60-inch saw, properly hammered, should lean to almost a 45 degree position before the centre drops through, though this is according to the power and feed. If it is driven up to 12-inch feed in hard pine, should lean fully 45 degrees before the centre drops. A saw may be more open than this and run well, yet it is as nearly perfect as it can be made. As stated, in opening there is danger of a broken saw.

A filer may be deceived in saw No. 2 and conclude it needs more tension. Opening it up a little makes it worse. The only remedy is to let out the tension and put it back near the collar. Saw-makers tell us to be away from the collar. Generally speaking they arrange for it is an easy matter to do too much there, and the lot of skilled work is required to get the saw right.

The British Columbia Mills, Timber and Lumber Company have decided to rebuild their saw-mill at Vancouver, B.C. According to the present contract part of the mill will be completed by April, which will enable the company to resume its shipping business. In the meantime the remainder of the work is being completed. When the entire mill is finished it will have a capacity of 200,000 feet per day of ten hours. The William Hall Manufacturing Company, of Peterboro', Ont., will supply the machinery.

THE RETAILER AND Wood-Worker

WOOD-WORKING FACTORIES OF MONTREAL.

REVIEWING the woodworking industries of Montreal, the Herald remarks that there are many allied trades which make an aggregate lumber business the size and importance of which is not generally realized. Scattered over the city of Montreal are planing mills, sash and door factories, and lumber yards which supply builders with the finished woods. A favorite site on account of the facilities for transportation by rail and water is along the canal bank. Here, for example, at the corner of Napoleon and Tracey streets, is the business established about ten years ago by Mr. Toussaint Prefontaine and incorporated last spring under the name of T. Prefontaine & Co., Limited. The company has extensive yards on each side of the canal, and carries a large and varied stock valued at over \$75,000. The planing and moulding mill is equipped with the most improved machinery. Mr. Prefontaine has been in the lumber business for over 25 years, and having a wide connection in the country, he is able to control a large outside trade, shipping direct to country firms from the yards in Ottawa.

At 464 William street is the well furnished yard of V. Pauze & Son, who acquired it from End, Metayer & Company a couple of years ago. Their mills are at 193 St. Urbain street. The firm, in addition to carrying on an extensive general lumber trade, are among the largest contractors of the city. They built the wood-work of Laval University, the church of St. Louis de France, and the church of the Blessed Sacrament, and at the present time are engaged on a block of six houses on St. Denis street, a school for the nuns of Maisonneuve, additional storey to the Hoopes Cartier bank, extension to the Ville Marie bank on Notre Dame street, a large extension to the Grey nunnery on Dorchester street, and other important works.

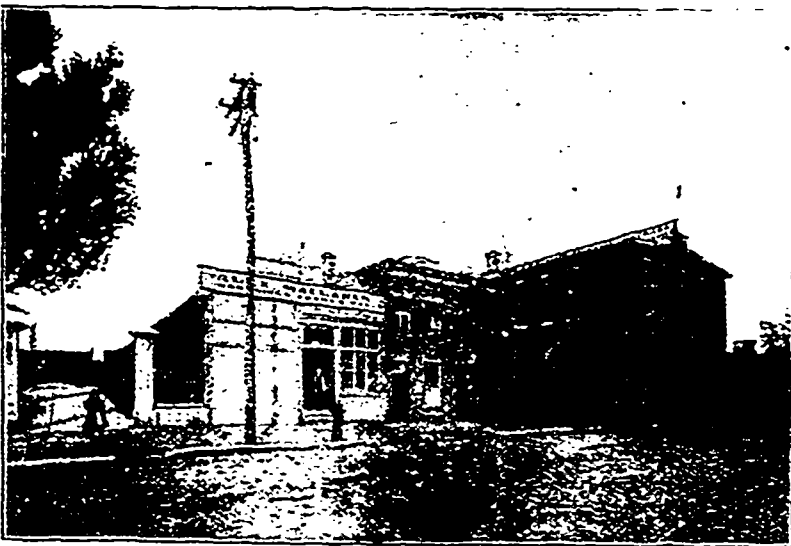
John A. Bulmer & Company, who established their business as long ago as 1871, had for some years a number of yards, but have lately concentrated their business at the corner of Dorchester and St. Charles Borromeo streets, finding the locality best suited for the requirements of their trade. The firm makes a specialty of mahogany, quartered oak, quartered sycamore, and all kinds of hardwoods. They are also well equipped with

kilns, and make a further specialty of kiln-dried maple flooring. In addition to a large local trade, the firm ships extensively to other points.

Mr. Damase Pariseau is one of those French-Canadian merchants who, with little or no capital at the outset, save what he had saved himself, has succeeded in establishing himself in the front rank of Montreal's lumber merchants. He has been president of the Chambre de Commerce, and sat four years in the Quebec legislature for the St. Louis division of Montreal. He does a large lumber business, and has yards at 512 Lagauchetiere street, at the Lachine Canal Basin, and in St. Louis du Mile End.

ALEXANDER MACLAREN.

Situated within easy distance of the lumber wharves at Maisonneuve is the extensive lumber factory of Alexander MacLaren, 107 Papineau avenue, a view of which is shown. Mr. MacLaren lives at Buckingham, Que., but his manager, Mr. Ashley P. Twidale, attends to all the details of the business in Montreal. The firm manufactures doors, windows, blinds, mouldings, etc., and deals in rough and dressed lumber, and hard and soft woods of all grades. Kiln-dried lumber is a specialty. Mr. MacLaren has one of the best equipped dry-kilns in the city, the capacity



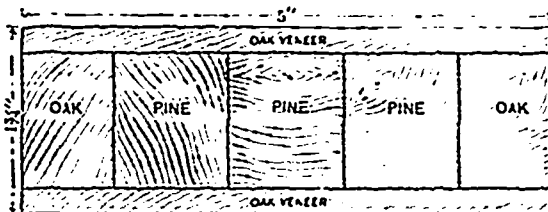
FACTORY OF ALEXANDER MACLAREN.

of which is two hundred thousand feet. Estimates are made on all kind of factory work, and the establishment carries a full line of foreign woods, such as Indiana quartered oak, mahogany, sycamore, etc. The doors and windows of the new mining building of McGill University and the wood-work for the new London and Lancashire Insurance Co.'s building on St. James street, on the site of the old Barron block, were supplied by this concern. The advantageous situation of the factory in respect of shipments

by water is being utilized by Mr. Twidale, who intends to cultivate the export trade to England in doors, blinds, mouldings, hardwood, etc. There is a strong demand in the English markets for the finer qualities of lumber, and Mr. Twidale is confident that the superiority of his firm's products will be quickly recognized as soon as they have been properly introduced.

CONSTRUCTION OF VENEERED DOORS.

In order to make a good veneered door which will not warp it is first necessary to glue up a core, which will be the foundation for the veneers. Use white pine for the cores and let it be well seasoned. The quality need not be the best, as common pine will do. In making cores proceed in the following manner: Rip 7/8 inch pipe into strips 1 1/2 inches wide and glue enough of them together to form the width of stile or rail. The outside strips will have to be of the same wood as the veneers, unless the doors are to be flush



SECTION OF STILE OF DOOR.

molded, in which case the outside edges of the stiles only need be the same as the veneers. After the glue has become hardened take the cores to the wood worker and face and join them. Next take them to the planer and run them to 1 1/4 inches thick, though perhaps it would be better to rip the stuff 1 3/8 inches wide, leaving 3/4 inch to work on, for these cores must be perfectly straight and out of wind. If proper care is taken when gluing up they can be kept pretty straight so that less timber will do to work on. Make veneers 5/16 inch thick and glue on before framing the door, because it is much easier to lay the veneers on the stiles and rails than it would be after the door was put together. Having followed the directions thus far, the stuff will now be 1 7/8 inches thick, giving 1/2 inch to work on. Take the stuff to the wood worker once more and take off a light cut to remove all defects. Join one edge and rip to the proper width. Also dress to 1 3/4 inches thick, leaving the veneers about 1/4 inch thick. For making a thicker or thinner door enlarge or reduce the core as circumstances require. The accompanying sketch represents a section of the stile of a door, which will help to explain my meaning. This shows three pine and two oak strips, but it might be better to use four pine and two oak, all 7/8 inch thick, for a 5 inch stile. The writer of this has been engaged in planing mill work for the last fifteen years, and this is the method used in making veneered doors for the market. Carpentry and Building.

WEIGHT OF LUMBER.

THE average weight of one thousand feet of lumber is usually reckoned as follows:

	Partly Sea.		
	Dry.	Seal.	Green.
	Lbs.	Lbs.	Lbs.
White pine, whitewood and basswood	4,700	5,000	5,500
Butternut, chestnut, red pine, yellow pine, hemlock, spruce and tamarac	3,000	3,500	4,000
Ash, elm, maple, cherry	3,500	4,000	4,500
Oak, walnut, hickory, birch and beech	4,000	4,500	5,000

NATIONAL HARDWOOD INSPECTION RULES.

The National Hardwood Lumber Association of the United States held its first annual meeting in Cincinnati, Ohio, a few weeks ago, at which there were present over 200 persons from all sections of the country. The national rules for the inspection of lumber as adopted at the meeting last spring were revised, and some slight alterations made thereto. At the request of some of our readers, we publish herewith the rules, as finally adopted, relating to the kinds of lumber most common to Canada:

GENERAL INSTRUCTIONS.

STANDARD GRADES.—The standard grades of hardwood lumber are firsts, seconds, common and culls, except as otherwise specified. When firsts and seconds are combined as one grade there shall be at least 33 1/3 per cent. of firsts. Lumber below the grade of culls shall be classed as mill culls.

STANDARD LENGTHS.—The standard lengths are 6, 8, 10, 12, 14, 16, 18 and 20 feet, except as otherwise specified. Most lumber is handled in lengths of 10, 12, 14 and 16 ft. Odd lengths, such as 9, 11 and 13 feet, shall be measured back to the next even lengths, except when otherwise specified. In the grade of firsts and seconds the lengths are from 10 to 16 feet, and there must not be over 10 per cent. of 10 foot lengths, unless otherwise stated.

STANDARD THICKNESS.—The standard thicknesses of lumber are 3/8, 1/2, 5/8, 3/4, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

STANDARD DEFECTS.—One knot 1 1/4 inches in diameter; two sound knots not exceeding in extent or damage one 1 1/4-inch knot; one inch of bright sap, except when otherwise specified; one straight split, not exceeding in length, in inches, the surface measure of the piece in feet, except as otherwise specified; worm or grub holes not exceeding in extent or damage one 1 1/4-inch knot, except as otherwise specified.

Ordinary season checks are not considered defects. Black stains, heart shakes, rots, dot and unsound knots over 1 1/2 inches in diameter are considered serious defects, reducing to a grade lower than firsts and seconds.

SPECIAL INSPECTION.—Log run means the full run of log with mill culls out. Common and better means the full run of log with culls and mill culls out. Common and better must contain at least 50 per cent. of firsts and seconds. Merchantable means the full run of the log with mill culls out, and that the common and better shall be measured full and culls one-half.

ASH.

Grades: Firsts, seconds, common and culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long and free from all defects except in pieces 10 inches and over wide, which may contain one standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Firsts and seconds 18 feet and over long will admit of 5-inch widths.

Firsts and seconds will admit of 10 per cent. of 10 foot length.

All tapering lumber 20 feet and over long to be measured one-third of the distance from the narrow end.

Commons are 5 inches and over wide, 8 feet and over long. 5-inch pieces must have one face clear. Pieces 6 inches and over wide must be of sound character and work 1/4 clear.

Culls are 3 inches and over wide, 6 feet and over long, and include all lumber not equal to the grade of common that will work one-half without waste.

BASSWOOD.

Grades: Firsts, seconds, commons and culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long and free from all defects except in pieces 10 inches and over wide, which may contain one sound standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 4 inches and over wide, 8 to 16 feet long. Four inch pieces must have one face clear and two clear edges. Pieces 5 inches wide must have one clear face. Pieces 6 inches and over wide must work three-fourths clear in not over three pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half without waste, of sound cutting, in not more than three pieces.

NOTE.—Black spots or streaks are a serious defect, and inspectors shall be careful in estimating their damage. If they are excessive they will reduce the piece one or more grades.

BEECH.

Grades: Firsts, seconds, commons and culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long, and free from all defects, except in pieces 10 inches and over wide, which may have one sound standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 3 inches and over wide, 8 to 16 feet long. 3 and 4 inch pieces must have one face clear and two square edges, 5 inch pieces one face clear. Pieces 6 inches and over wide must be of sound character and work three-fourths clear in not more than two pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half clear not to exceed three cuttings. No piece to be less than 3 inches wide nor less than 2 feet long. Pieces 3, 4 and 5 inches wide must be sound.

BIRCH.

Grades: Firsts, seconds, commons and culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long, and free from all defects, except in pieces 10 inches and over wide, which may have one sound standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 3 inches and over wide, 8 to 16 feet long. 3 and 4 inch pieces must have one face clear and two square edges, 5 inch pieces one face clear. Pieces 6 inches and over wide must be of sound character and work three-fourths clear in not more than two pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half clear, not to exceed three clear cuttings. No piece to be less than 3 inches wide, nor less than 2 feet long. Pieces 3, 4 and 5 inches wide must be sound.

Red birch shall be not less than 75 per cent. red on one side. 4 and 5 inch strips shall have one face all red. Otherwise the grades shall be governed by the grades of ordinary birch.

ROCK ELM.

Grades: Firsts, seconds, commons and culls.

Lengths, 6 to 16 feet.

Widths, 4 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts and seconds are 4 inches and up wide, 8 to 12 feet long, not to exceed 20 per cent. shorter than 12 feet. 4 and 5 inch pieces must be clear. Pieces 6 inches and up wide must be sound and work 80 per cent. clear in not more than two pieces. The grade of firsts and seconds must have 25 per cent. of clear lumber, 6 inches and up wide and 10 feet and up long. Straight splits the width of the piece will be admitted into the grade of clear.

Commons must be 4 inches and up wide, 6 to 16 feet, not to exceed 20 per cent. shorter than 12 feet, and work two-thirds clear in not more than three pieces.

Culls must not exceed 40 per cent. less than 12 feet, and work 50 per cent. clear in not more than four pieces.

SOFT ELM.

Grades: Firsts, seconds, commons and culls.

Lengths, 6 to 16 feet.

Widths, 3 inches and over.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts are 8 inches and over wide, 12, 14 and 16 feet long, and free from all defects except in pieces 10 inches and over wide, which may contain one sound standard defect.

Seconds are 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 4 inches and over wide, 8 to 16 feet long. 4 inch pieces must have one face clear and two square edges. Pieces 5 inches wide must have one clear face. Pieces 6 inches and over wide must work three-fourths clear in not over three pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half without waste, of sound cutting, in not more than three pieces.

NOTE.—Black spots or streaks are a serious defect, and inspectors shall be careful in estimating their damage. If they are excessive they will reduce the piece one or more grades.

MAPLE.

Grades: Firsts, seconds, commons and culls.

Widths, 3 inches and up.

Lengths, 6 to 16 feet.

Thicknesses, 1, 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

Bright sap is no defect.

Firsts shall be 8 inches and up wide, 12, 14 and 16 feet long, and free from all defects, except in pieces 10 inches and over wide, which may have one sound standard defect.

Seconds shall be 6 inches and over wide, 10 to 16 feet long. Pieces 6 and 7 inches wide are clear. Pieces 8 and 9 inches wide may have one standard defect. Pieces 10 and 11 inches wide may have two standard defects or their equivalent. Pieces 12 inches and over wide may have three standard defects or their equivalent.

Commons are 3 inches and over wide, 8 to 16 feet long. 3 and 4 inch pieces must have one face clear and two square edges; 5 inch pieces one face clear. Pieces 6 inches and over wide must work three-fourths clear in not over two pieces.

Culls are 3 inches and over wide, 6 to 16 feet long, and include all lumber not equal to the grade of common that will work one-half clear without waste, in not to exceed three pieces. Pieces 3, 4 and 5 inches wide must be sound.

Maple strips are 3, 4, 5 and 6 inches wide, 6 to 16 feet long.

Grades: Clear, commons and culls.

Clear strips are 10 to 16 feet long, and must show one face clear and two good edges.

Commons are 8 to 16 feet long, not to exceed 20 per cent. shorter than 12 feet, and will admit of one standard defect showing on both faces.

Culls are 6 feet and over long, and shall work one-half clear, in not more than three cuttings, no cutting to be less than 10 feet in length.

Mr. Eldoras Todd, of Brantford, Ont., in reviewing his subscription to THE CANADA LUMBERMAN for 1898, writes: "This is the tenth year I have taken THE LUMBERMAN and I would not be without it for double its cost. You are improving it every year. Wishing you success in the year to come."

THE NEWS.

-H. A. Kribs, M.P.P., purposes starting a box factory at Galt, Ont.

-R. Truax, of Walkerton, Ont., recently purchased a saw mill in Bentons.

-E. W. Benjamin, of Yarker, Ont., talks of starting a hub factory at Araprior.

-James McLellan was seriously injured in a logging camp near Vancouver, B.C.

Harvie & Co. of Toronto, may establish a box factory on the Chaudiere at Ottawa.

-The Sicken Lumber Company, of Sombra, Ont., have lately put in a hand saw and jointer.

-R. F. Hicks, of Norwich, Ont., will probably branch out into the manufacture of staves.

-Armstrong Bros., of Markdale, Ont., are making extensive improvements to their saw mill.

-F. Austin & Sons, of Haliburton, Ont., are about to establish a saw and shingle mill at Baptiste.

-Thomas and William Swift are carrying on extensive lumber operations at West Adamsville, N.B.

-Rider & Kitchener, of Brampton, Ont., will probably remove their excelsior and veneer factory to Lindsay.

-Cromwell Bros., of High Forest, near Sawyerville, Que., are adding to their saw mill a pulp wood peeler.

-Robert Latontaine, of Brigham, Que., purposes building a sash and door factory in connection with his mill.

-A lumberman named Sampson was killed by the fall of a tree at Kelly's lumber camp near Rat Portage, Ont.

-J. Gregory has leased Cook's saw mill at Howich, Ont. He purposes starting a planing mill in connection therewith.

-H. A. Clemens & Company have taken over the planing mill and sash and door factory of Wideman & Clemens, Guelph, Ont.

-A Rat Portage paper states that the Rat Portage Lumber Company are making preparations to refit and improve their saw mill at Norman, Ont.

-Sewrey's foundry at Barrie, Ont., has been purchased by Dymet & Buttsfield, who will manufacture saw and shingle mill machinery, boilers, engines, etc.

-Among the enquiries received at this office is one from a correspondent at Rat Portage, Ont., asking for the address of mills manufacturing clear spruce.

A. Beauhen, saw mill owner of St. Benoit, Que., and his family were almost blown up by an evidently designed explosion. The side of the house was torn out, but fortunately no one was injured.

-Wm. Fraser, an employee of Sutherland, Innes & Co., Chatham, Ont., was struck by a falling tree in the woods near Glencoe, and instantly killed. His companion, named McEachren, was severely injured.

-Paradis & Belly, of Quebec, are about to start a factory at Chicoutimi, Que., for the manufacture of boxes for butter, cheese and condensed milk, and are negotiating with a Swiss company for a large contract.

In the Holland river, near Bradford, Ont., there has been found a number of white oak logs, which have at various times been lost while towing for shipment. These logs are being raised, and sold. They are sound and said to be worth \$50 a thousand.

The Gilman Company, of Trenton, Ont., propose to increase the capacity of their sash, door and blind factory, and build a box factory. The town has been asked to assist to the extent of a \$10,000 bonus, to be voted on by the ratepayers on January 2nd.

A number of lumbermen, including Senator Snowball, of Chatham, Wilard Kitchen, of Fredericton, and J. L. Black, of Sackville, N.B., have secured a controlling interest in the Woodstock Gold Mining Company, of Forest Hill, Guysboro, N.S., for \$22,800.

Tenders will be received until noon on Monday, the 15th day of January, for a permit to cut timber on Berth No. 531, in the province of Manitoba, containing an area of one square mile, more or less. Tenders to be addressed to John R. Hall, Department of Interior, Ottawa.

-The British Columbia Wood Oil Company, of Port Moody, B.C., whose mill was recently destroyed by fire, had just made the first shipment of the commodity known as oil of cedar. The patents covering the process of manufacture have still four years to run, and if Mr. Mc-

Donald can obtain any new capital, it is understood he will rebuild.

-H. Elderkin & Co., of Port Greville, N.S., have men in the woods getting out the frame of a three-masted schooner of about three hundred and fifty tons register, which they intend building next summer. They also have a small coasting schooner of about sixty tons nearing completion.

-The late Robert Hamilton, lumber merchant, Quebec, who died in September last, left an estate valued at \$2,027,240. The trustees are his son, John Hamilton, gentleman, of Quebec; his brother, Right Rev. Charles Hamilton, Lord Bishop of Ottawa; and Walter Pringle Cassels, Q.C., of Toronto, his son-in-law.

-George Long has purchased the Sherbrooke, Que., Grained Lumber Co.'s business from H. Silver & Son. The company own a process for making grained lumber for finishing in imitation of the more expensive woods. Mr. Long purchased the sole right for the manufacture and sale of the lumber in the eastern townships of Quebec.

-At the annual meeting of the Madawaska Improvement Company, held in Ottawa on December 14th, Mr. J. R. Booth was re-elected president, and Mr. G. B. Greene, secretary. The following board of directors was elected: Messrs. J. R. Booth, Alexander Fraser, C. B. Powell, M.P., E. H. Bronson, and Claude McLachlan.

-To mark the closing for the season of the Longford Lumber Company's saw mill at Gravenhurst, Ont., an entertainment was tendered the employees by the manager, Mr. William Thomson. Refreshments were partaken of, after which an address was presented to Mr. Thomson, in which expressions were not lacking of the appreciation by the employees of his kindness and consideration.

-The High Commissioner at London, Eng., announces that he has received enquiries for the following: From Sweden, from a firm desiring to import spruce boards from Canada, to be perfectly free from knots; Antwerp, from a firm wishing to represent Canadian timber exporters in that city; for woodenware and manufactures of wood from a Manchester firm, who desire to be placed in communication with exporting houses in Canada, with the object of opening up business relations.

-An Ontario charter of incorporation has been granted to the North Shore Timber Company of Port Arthur, Ont. This firm is the outgrowth of the firm of Hazlewood & Whalen, pulp wood contractors. The new company is capitalized at \$60,000. The members of the company are P. Weidner, E. W. Voight, O. L. E. Weber, A. K. Kiefer, of Detroit, Mich., and R. A. Hazlewood and James Whalen, of Port Arthur. The object of the company is to carry on a general lumbering and pulp wood business.

-Mr. G. P. Magann, of Toronto, has entered an action for \$22,500 against the Grand Trunk Railway Company. The plaintiff, who is a tie contractor, alleges that when last spring he proceeded to Saugeen peninsula, on the shores of the Georgian Bay, to ship some 75,000 ties which he had there, he discovered that they had been taken away by the Grand Trunk Railway Company, who claimed to have received them from one of their contractors. Mr. Magann therefore took action to recover the value of the ties.

-The British Consul at Windsor, Ont., has the following to say regarding exports of staves: "The timber in this district being almost entirely hardwood, and the elm found here being especially fitted for cooperage stock, the stave industry has thrived for the past fifteen or twenty years; but the elm forests are rapidly becoming depleted; 150,000,000 feet only of the original stumpage still remain, and it is only the matter of a few years before the manufacture of elm staves will cease. The recent increase in the United States duty on staves has not stopped their export."

-A Michigan man is considering the establishment of an excelsior factory at Woodstock, N.B. According to an exchange he estimates the cost of making six tons of excelsior as follows:

6 cords wood at \$3.00.....	\$18.00
3 men on machines.....	3.75
2 men on saws.....	2.50
Boys.....	1.00
Foreman.....	2.50
Wire for bailing.....	15
Power.....	3.00
Total.....	\$30.90

USEFUL INFORMATION.

A rule by which to estimate the power of a double belt is given as follows: Divide the number of square feet that passes over one of the pulleys in a minute by 40. The result will be the power that it can develop. The authority which gives it says that it does not contain many fine points, but the results are just as reliable as those obtained by more complicated methods. Probably this is true.

OIL FOR BOILER SCALE. The use of oil as a scale remover in steam boilers is treated in an article in a recent issue of The Locomotive, the conclusions of which are summed up as follows. Mineral oil is often useful for the prevention or removal of scale, when it is properly applied; in the prevailing method of introduction, it gives good results in many cases; but when it has not proved as effective as desired, we recommend that the boiler be dried out and that the kerosene be sprayed upon the plates and tubes. It is important to avoid the use of open lights in or about a boiler that is being so treated; incandescent electric lights are the safest to use. Finally, kerosene is very serviceable for removing lubricating oils from plates and tubes.

FITTING SMALL BAND SAWS.—The care of scroll band saws has become a fine art. Saws of good quality can now be used until worn out without breakage other than by accident. Among the chief causes of breakage, located in the saws themselves, are crooked brazes, irregularity in the width, size of teeth or set, saws stretched too much on one edge, and saws crooked either on tooth or back. All of these defects will be eliminated by an intelligent use of the best filing room tools. Such appliances are money savers in any shop, and the larger the number of band saws in use the better interest they return. There are four points on the machine which are responsible for many broken saws: The friction of back of saw against a metal guide, which crystallizes the back and causes flaws; a ragged covering on the face of the wheels; the lack of alignment of wheels, and a lack of sensitiveness or over-loading in the straining device.

ROPE TRANSMISSION. In a paper on power transmission by ropes and belts, read before the French Society of Civil Engineers, V. Dubreuil states that one great advantage possessed by ropes is that cyclical variations in the speed of the driving pulley are "damped" by the ropes, so that the speed of the driving pulley is much more uniform than that of the driver. Ropes are also useful when the two lines of shafting are not perfectly parallel. The velocity of the rope should not be less than about 4,500 feet per minute, nor more than 5,000 feet, while with belts a velocity of as little as 600 feet per minute may be used, but the maximum should not exceed 4,000 feet per minute, above which the centrifugal force prevents the proper adhesion of the belt to the pulley. For great distances between the lines of shafting ropes should be used; though in exceptional cases they may be employed with as little as 12 feet between shaft centres, in general the distance should not be less than 20 feet. Spans of as much as 325 feet have been worked by ropes with only intermediate support. Under no circumstances should the diameter of the smallest pulley be less than 30 times the diameter of the rope, and in general the pulley ratio should not be greater than four to one. Three standard ropes of manila, hemp or cotton may be used. Hemp is much cheaper than cotton, and usually wears longer, but is less pliable. To facilitate estimates, the approximate weight of a rope pulley may be taken as 5½ pounds per groove for each inch of diameter, though single groove pulleys will weigh double this amount.

TRADE NOTES.

Mr. E. A. LeBel, wholesale lumber dealer of Sarnia, Ont., has sent out to his business friends a large and very attractive calendar.

One of the most attractive calendars which have reached our desk is from Messrs. T. Sullivan & Co., Buffalo, N.Y. This firm are wholesale lumber dealers, and make a specialty of elm and ash.

Mr. Thomas Pink, manufacturer of lumbermen's tools, Pembroke, Ont., has recently made extensive improvements in his machine shop. The old office has been removed, and in its place a commodious business office, shipping room and store room has been erected. A 35 horse power compound engine has been put in, which gives ample power for all purposes.

WOOD PULP DEPARTMENT

MARKETS FOR CANADIAN PULP.

WHEN in Montreal recently, ex-Mayor George Robertson, of St. John, N. B., was interviewed regarding the proposed pulp mills in New Brunswick. After referring to the several mills now completed and projected, he was asked the following questions :

"Will there be room for all of these mills, and will the demand be sufficiently large to warrant such an extensive outlay?"

"I will answer your questions," Mr. Robertson replied, "by giving you some information as to the extent of the British market. In the Lancashire district of England, 180,000 tons of mechanical pulp are imported yearly for paper. This immense quantity comes chiefly from Scandinavia and Bohemia, and please remember that this is only one kind of pulp."

"Leaving Great Britain and France, which is also a pulp importer, out of the question, just consider the ever-growing paper consumption of the United States. Besides this, there must be at least thirty different articles in which pulp is used in the manufacture."

"Can we compete with the States in the manufacture of pulp?" was next asked.

"To use a common expression, the United States are "not in it." They simply cannot compete with Canada in pulp manufacture. Wood costing from \$2.50 to \$3 and even less in Canada is costing to-day \$6 per cord in the United States."

Continuing, Mr. Robertson said that the Americans allowed our wood to go in free, but they levy a duty on the pulp, and in reply to another question, he said : "I should judge the Canadian pulp and paper industry to be of sufficient importance to bring influence to be felt at the proper time and place. I look upon the manufacture of pulp and paper in Canada as one of the most important industries that can be fostered in the Dominion, and the day will come when Canada will have almost a monopoly of the business."

"And New Brunswick will possess its good share?"

"Yes; our province has the largest area of spruce suitable for that purpose that exists in Canada to-day."

FAVORS AN EXPORT DUTY.

Mr. J. H. Lefebvre, C. E., of Montreal, who recently returned from England, tells, in the Montreal Star, of the results of his investigations touching the pulp and paper industry. For the last four years he has devoted his time to the study of the manufacture of pulp and paper, and of the advantages that Canada offers to that industry, and the conclusions he has arrived at are : That we possess indisputable resources and advantages; that, in order to be remunerative and susceptible of attracting capital, the industry should be carried on on a large scale in mills of large capacity; that, in order to retain the control of their market, the British people

will have to turn their eyes to Canada and invest their capital here.

Early last winter he went to England for the purpose of impressing these views upon some of the wealthy manufacturers, and in this he states he was successful. He considers it necessary, however, that Canada should impose an export duty on pulp wood.

Mr. Lefebvre says : "If we increase our production suddenly to a large extent, we must create a demand, because we must be careful not to flood the market; and the only way to do is to take the place of the Americans on the British and European markets, even on their own market. The position to-day is this: The United States forests are getting depleted, and we are allowing the Americans to take our logs and pulp wood, while they impose a duty on our manufactured articles. Why should we let them steal our wood the way they do and leave practically nothing in the country in return but the stumps, while our Canadian workmen are working in the United States in mills supplied with Canadian wood to the benefit of the Americans, who sell us paper and export pulp and paper to Great Britain, Europe—even Australia? We have a great field before us, and it is now time to decide whether we shall take the lead in the wood pulp and paper industry. In the Old World, except Scandinavia, they have no surplus of wood, but barely enough for their own consumption, and many countries have to rely on others for their supply. In Sweden and Norway wood is going up in price, and they can hardly increase their production. We must look to Great Britain for the capital to develop our interests, and especially this one. British capitalists are now turning their attention to Canada. They seem to realize that after Australia and South Africa have had their turn, they should naturally look to Canada for investments; but as yet they are timid. By affording the necessary facilities and encouragement to make it a success, they will start in a good sound enterprise, such as the pulp and paper industry, and the capital will soon follow to develop the other industries of the country. It is time that we should look sharply after our own interests. And sooner or later the question must be settled by the Dominion government, as they will be requested by the American authorities to veto any legislation passed by the provinces to aid this industry. What the country requires is an export duty. I admit that if the duties were taken off on both sides of the line it would open a big market. But this would not have the results we are looking for—it would not stimulate the industry, and would permit the Americans to retain the control of the market."

QUESTIONS AND ANSWERS.

"READER" asks: Can you tell me whether the balsam or fir timber grown on the shores of the Lower St. Lawrence is used in the manufacture of pulp?

ANSWER: We understand that balsam fir is used quite extensively and successfully for chemical (either sulphur or soda) process pulp, but it is no competitor with spruce for ground wood or mechanical pulp. No other wood so far as known is so well adapted for mechanical pulp as our native spruce. We are informed that some spruce mills making spruce pulp may add a

small percentage of balsam pulp to their product without detection, but it is considered an adulteration. As a matter of fact, any of our native woods will make chemical pulp, but there is no substitute for spruce for mechanical.

PULP NOTES.

The E. B. Eddy Company have commenced the erection of a new pulp mill at Hull, Que.

Mr. Douglas Ayerst has been appointed superintendent of the pulp mill of the Royal Paper Mills Company, East Angus, Que.

The council of St. John, N.B., has granted to the Cushing Sulphite Fibre Company the necessary water rights and the erection of the proposed pulp mill will now proceed with.

Mr. Hiram S. Maxim, of London, Eng., was in Quebec last month, investigating the prospects for a pulp mill. An examination of the water power at Chelsea, owned by Gilmour & Hughson, was made.

The mayor of Woodstock, N.B., has received a communication from a large business concern in Ontario are considering the erection of an immense pulp mill in Eastern Quebec or New Brunswick.

Mr. W. J. Findlay, of Lawrence, Mass., who has been appointed manager of the Sturgeon Falls Pulp Company is a brother of Mr. J. D. Findlay, superintendent of the Toronto Paper Co.'s mill at Cornwall, Ont.

The Lake Megantic Pulp Company, of Lake Megantic, Quebec, is seeking amendments to its charter, with a view to increasing the capital stock and engaging in a more extensive pulp-making, saw-milling and electric light business.

It is understood that Mr. George Taylor, of Toronto, has abandoned, for the present at least, the idea of erecting a pulp mill at Seven Islands, on the north shore of the St. Lawrence river, in Quebec. At one time the project seemed in a fair way of being carried to completion.

A dinner was given recently at the Royal Hotel, St. John, N.B., by Mr. M. F. Mooney, in compliment to Messrs. Philip Grosset and W. D. Grosset, managers of the St. John Sulphite Co., Ltd., who came from Scotland to inspect the work that had been done. The mill will be completed early in March.

The pulp mills at Val Morin, three miles from St. Adele, in Quebec, were destroyed by fire last October. The mills passed into the hands of an American company about two months ago, J. H. Nault, the former proprietor receiving \$55,000 for the property, including the buildings and installing new machinery to the value of \$15,000. The loss is about \$30,000, half of which is covered by insurance. It is stated to be the intention of the company to rebuild at once.

A patent has recently been taken out for a new method of drying pulp. According to this invention, the drying cylinders are enclosed in an air-tight compartment in which there is a partial vacuum created by means of air pumps. By this means the water evaporates quickly, and the temperature of the drying cylinders is not, therefore, very high. Pulp dried by this method is, therefore, not exposed to the danger of being discolored or affected by being too highly heated. Mechanical pulp dried in this way is disintegrated in the hands of the miller as easily as air-dried pulp.

The Sissiboo Falls Pulp Company, of Weymouth Falls, N.S., have in their mill four grinders, three wet machines, two hydraulic presses and a smaller packing press. There are also the necessary repair shops, and an electric light and steam heating plant. The mill works day and night throughout the greater part of the year. Sawdust of water in certain seasons sometimes necessitates a suspension. This difficulty, however, has been largely overcome by the construction of reservoirs at certain points on the upper part of the river. Some twenty tons per day is the average output of the mill, which consumes annually about 3,000 cords of spruce. Employment is furnished to twenty-six men.

The Chatham, N.B., World of recent date says: The steamship Tiber sailed on Monday with 1,200 tons of pulp shipped by the Maritime Sulphite Fibre Co. She will stop at Halifax and take on 400 tons of pulp that the company has forwarded to that port by rail. The Tiber's stowage freight, four carloads, was forwarded by rail from the

The pulp taken from here by the steamer is valued at \$40,000. The company had the option of sending the fiber either to Halifax or St. John to load the balance of the cargo, and chose Halifax because the Intercolonial bid lower to Halifax than the Canadian Pacific and Canada Eastern to St. John for the carriage of the 400 tons of pulp. Competition between rival railways is a big thing for shippers of freight.

The Dominion Pulp Co., says the Chatham, N.B., world, is experimenting with hemlock. Two batches of hemlock fibre were cooked the other day, and the pulp looks white and of good quality. Should it prove to be as valuable to the paper makers as pulp made from spruce, it will be of much benefit to the owners of hemlock lands.

The Halifax Mail says: The pulp business is now looked upon as one of the most profitable investments in this province, and St. Margaret's Bay is considered a suitable locality for the operation of a large mill. It has advantages for shipping, and if the scheme goes through the community there will be benefitted. It is from this point, too, that the company proposes to distribute its power to other manufacturing concerns. From the engineer's report it has been ascertained that the water supply at that point is sufficient to develop thousands of horse power, and of the enormous amount available it is estimated that some 2,000 horse power can be brought to Halifax. The rest will be devoted to furnishing power for the pulp mill. As to Rockingham, a central power house will be established, and from that point the electricity be distributed about the country. In order that no time may be lost should the legislature decide to grant a charter, a representative of the company is now in New York making inquiries as to the cost of a plant and the machinery most approved by up-to-date electricians.

A correspondent of the Montreal Gazette, referring to the proposed works to be carried out in Newfoundland by the Newfoundland Bleached Pulp Company, under the management of the Messrs. Reid, of Montreal, says: "Preparations for commencing the pulp manufacture are in an advanced stage. All the plans are matured and machinery ordered. The most skilled experts have been consulted. The site of operations is an ideal one, being an immense area on the shores of Grand Lake, not far from the railway, densely covered with wood of the very best kind for making pulp. Close to it are the coal mines. Water power to any extent is available. In the marble beds of the Humber, at a short distance, are inex-

haustible supplies of lime. At Bay of Islands, at no great distance, are immense deposits of iron pyrites, containing 50 per cent. of sulphur, from which sulphuric acid is made—an indispensable article for the manufacture of the best kind of pulp. It would be impossible to find such a combination of advantages for carrying on such an industry, in any other place. One of the greatest pulp factories in the world will spring up here, as if by magic."

About one year ago arrangements were nearly completed for the erection of a large pulp mill at Buckingham, Que., but for a reason then unknown the undertaking was not proceeded with. Now the explanation is made public by an action for damages entered in the Superior Court of Quebec against Frank Ross, for \$500,000, the largest claim for which an action for damages was ever entered in that district. The plaintiff is John Livingstone, accountant, Montreal. Mr. Ross was the owner, or one of the owners, of the property that had been under negotiation, and Mr. Livingstone was the medium through whom it was sought to be purchased. In short, Mr. Livingstone acted as if he had an option on the property, and proceeded in the usual way to promote the sale of it by getting together the nucleus of a company to take it over. Mr. Ross is said to have intervened and the transaction was stopped. Mr. Livingstone regards Mr. Ross' withdrawal of the property, or refusal to sell it on the terms proposed, as a breach of agreement, for which he now sues for damages. He alleges that last fall Mr. Ross wrote to him offering the property for \$150,000, \$30,000 to be in cash and the remainder equivalent to cash. This letter he sets up as a promise of sale. He had an option of three months, he further states, in which to accept the offer or not. On the 15th of January last, the day on which the option is represented to have terminated, he claims to have tendered Mr. Ross through a notary \$50,000, which, he says, Mr. Ross refused to accept.

ONE DOLLAR.

THE above sum represents the yearly subscription price of the CANADA LUMBERMAN, including both weekly and monthly editions, mailed to any address in Canada or the United States. Owing to postal charges, the subscription price to foreign subscribers is two dollars per year. Persons in foreign countries interested in Canadian timber products can invest that sum to no better advantage than by becoming a subscriber. Likewise every mill owner in Canada should read the columns of the CANADA LUMBERMAN. A sample copy will be furnished upon request.

CANADA'S COMMERCIAL AGENTS.

FOLLOWING is the correct official list of Canada's Commercial Agents in Great Britain, British possessions and foreign countries:

- J. S. Larke, Sydney, N.S.W., agent for Australasia.
 - G. Eustace Burke, Kingston, Jamaica, agent for Jamaica.
 - Robert Bryson, St. John, Antigua, agent for Antigua, Montserrat and Dominica.
 - S. L. Horsford, St. Kitts, agent for St. Kitts, Nevis and Virgin Islands.
 - Edgar Tripp, Port of Spain, Trinidad, agent for Trinidad and Tobago.
 - C. E. Sontum, Christiania, Norway, agent for Sweden and Denmark.
 - D. M. Rennie, Buenos Ayres, Argentine Republic, agent for Argentine Republic and Uruguay.
- In addition to their other duties, the undermentioned will answer inquiries relative to trade matters, and their services are available in furthering the interests of Canadian traders:
- J. G. Colmer, 17 Victoria street, London, S.W., England.
 - Thomas Moffat, 16 Church street, Cape Town, South Africa.
 - G. H. Mitchell, 15 Water street, Liverpool, England.
 - H. M. Murray, 40 St. Enoch Square, Glasgow, Scotland.
 - Harrison Watson, Curator, Imperial Institute, London, England.

PERSONAL.

- Mr. A. E. Ryan, millwright with the Bronson & Weston Company, Ottawa, was married last month to Miss Bertha Denmark.
- Mr. S. W. Conrad, a popular lumberman of St. Croix, N.B., recently took unto himself a wife, in the person of Miss Reid. THE LUMBERMAN extends congratulations.
- Mr. Joseph S. Wallis, of Port Carling, Ont., died last month. He carried on a sawmilling and general store business, and had been a resident of that village for 27 years.
- Mr. W. H. Harris, representing Messrs. George T. Houston & Co., wholesale hardwood lumber dealers of Chicago, spent the holidays with his family in Toronto. The CANADA LUMBERMAN received a pleasant call from him during his stay in the city, and was pleased to learn that he is succeeding in working up an important business in Canada for the company which he represents.

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BANKER'S VIEW OF THE LUMBER TRADE.

Mr. Charles Magee, president of the Bank of Ottawa, thus referred to the lumber industry in his address read at the annual meeting in Ottawa last month :

"With regard to the lumber trade, which has in the past and still continues to give employment to a large proportion of our resources, I am glad to know that recently a distinct improvement is noticeable in the demand for the grades usually sold to the American market, with quite

a perceptible hardening in prices, while indications are not wanting that Great Britain's requirements will be as large as for several years past, and that values will be fully maintained. We must, however, recognize that in so far as the manufacture of sawn lumber at the city of Ottawa and vicinity is concerned, it is a diminishing industry. There is, however, every reason to believe that the water power at the Chaudiere Falls can and will be profitably employed in other branches of manufactures, doubtless, with in-

creased outlay for skilled labor, which will be a tendency to advance the growth and increase the prosperity of the city. The utilization of products made from spruce and other woods hitherto considered of but little value, in the manufacture of paper and other products, has added immensely to the value of our forests, and many limits in the Ottawa and other lumber districts, dense of the merchantable timber, but having a large quantity of young spruce trees on them, may be considered valuable properties, and possibly a more valuable asset than a gold claim in the Klondike."

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If you are in the market for any kind of Hardwood Lumber, Yellow Pine or Cypress, or expect to be in the future, send us your enquiries. The stock has to be moved, and if we can pick your orders out of any of the lots referred to, we will quote you prices to save additional handling expenses.

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FOREIGN NOTES OF INTEREST.

The Sanders & Egbert Company, hardwood lumbermen, of Goshen, Ind., recently paid John M. Newton, of Tecumseh, Mich., the sum of \$10,000 for fifty-one walnut trees growing on his farm.

A wealthy lumber dealer of Dresden, Germany, has come across the ocean and gone across the continent to investigate the quantities of fir lumber. He has purchased a number of cargoes and is negotiating for others. He

says that they want wide lumber, and that they can get what they want better on the west coast than any place else he knows of.

For several centuries timber cutting has proceeded in Bohemia, Europe, and yet the primeval forests retain almost their original area. This is due to the forethought of the government, and the regulation which provides that as trees are cut down others shall be planted, or young trees preserved, so as to maintain a complete stand in

the forest growth. The timber is mostly pine. Whenever a clearing is made, small trees are set so as to cover the denuded space. The trees are raised in small enclosures in the mountains, from whence they are transported.

Mr. William Carther, Ariel, Ont., in remitting his subscription, writes that he would not care to be in the lumber business without THE CANADA LUMBERMAN.

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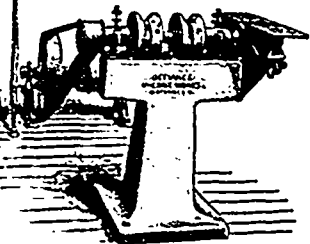
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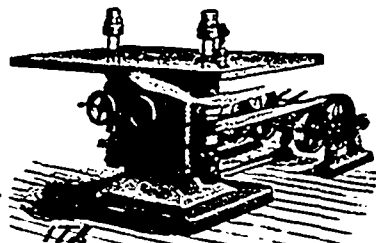
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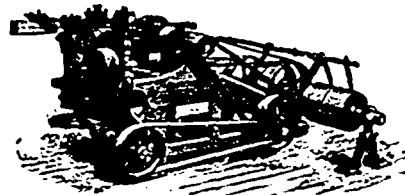
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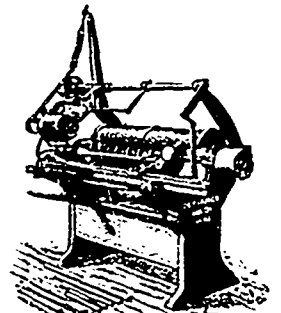
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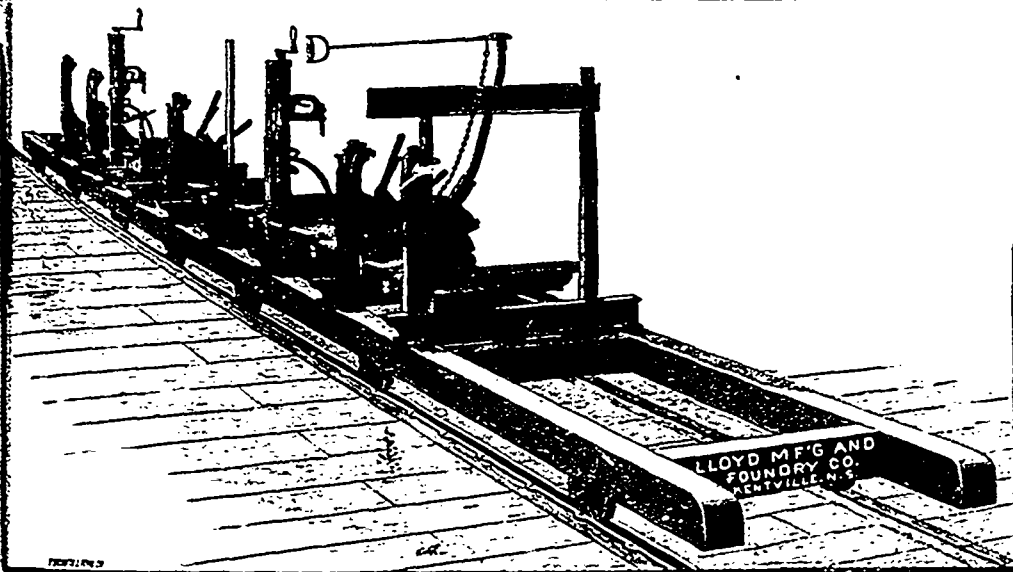
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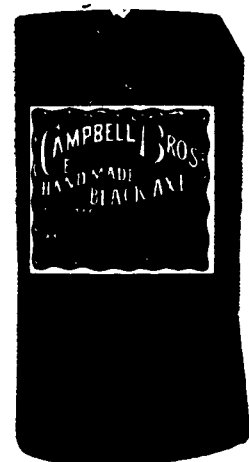
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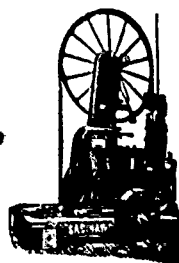


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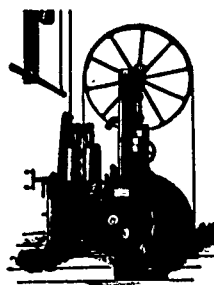
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Yours very truly, JAMES MCKINLAY.

CAMPBELLTON, N.B., Nov. 17th, 1894.

R. H. SMITH CO., LTD., St. Catharines, Ont.

DEAR SIR,—In regard to your Shingle Saws, you can say that I have been using Shingle Saws of your make (Simonds) for the past four years, and they have given good satisfaction. I am running nine machines and use a good many saws, but have never had a saw yet that did not work satisfactorily. Before using your saws I used saws of American make, which worked well, but after giving your saw a trial have continued to use yours, as they are cheaper, and in regard to working qualities are all that is needed.

Yours truly, KILGOUR SHIVES.

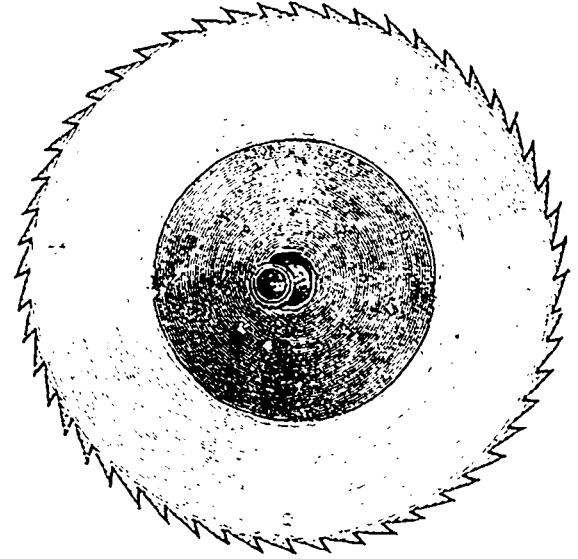
CLAVERING, ONT., May 3rd, 1897.

R. H. SMITH CO., LTD., St. Catharines, Ont.

GENTS, In reply to your letter asking me how I liked the 62" SIMONDS Saw, I must say in all my experience I never had a saw stand up to its work like the one purchased from you last month. Having used saws for the last 22 years, and tried different makes, I can fully say it is the best saw I have ever had in my mill, and would recommend the SIMONDS' Process Saws to all mill men in need of circular saws.

Yours truly, W. G. SIMMIE.

P.S.—I am sending you my old saw to be repaired; please hammer to same speed as new one. W.G.S.



THE "LEADER" CROSS-CUT SAW

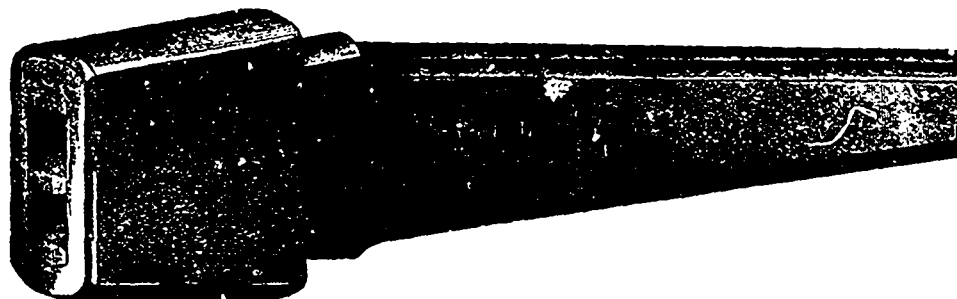


These Saws are made from the best DOUBLE REFINED SILVER STEEL, warranted four gauges thinner on back than front, and the only Saws on the market that are a perfect taper from the points of the teeth to the back, and require less Set than any other Cross-Cut Saw.

They are tempered by the Simonds' Patent Process, insuring a perfectly uniform temper throughout the plate, and stand without a rival as the BEST, FASTEST, AND EASIEST-CUTTING SAW KNOWN. A gauge to regulate the clearing teeth is furnished with each saw.

Directions for Setting and Filing are plainly Etched on every Saw. None genuine without our Registered Trade Mark as shown in cut.

THE "LEADER" SAW SWAGE



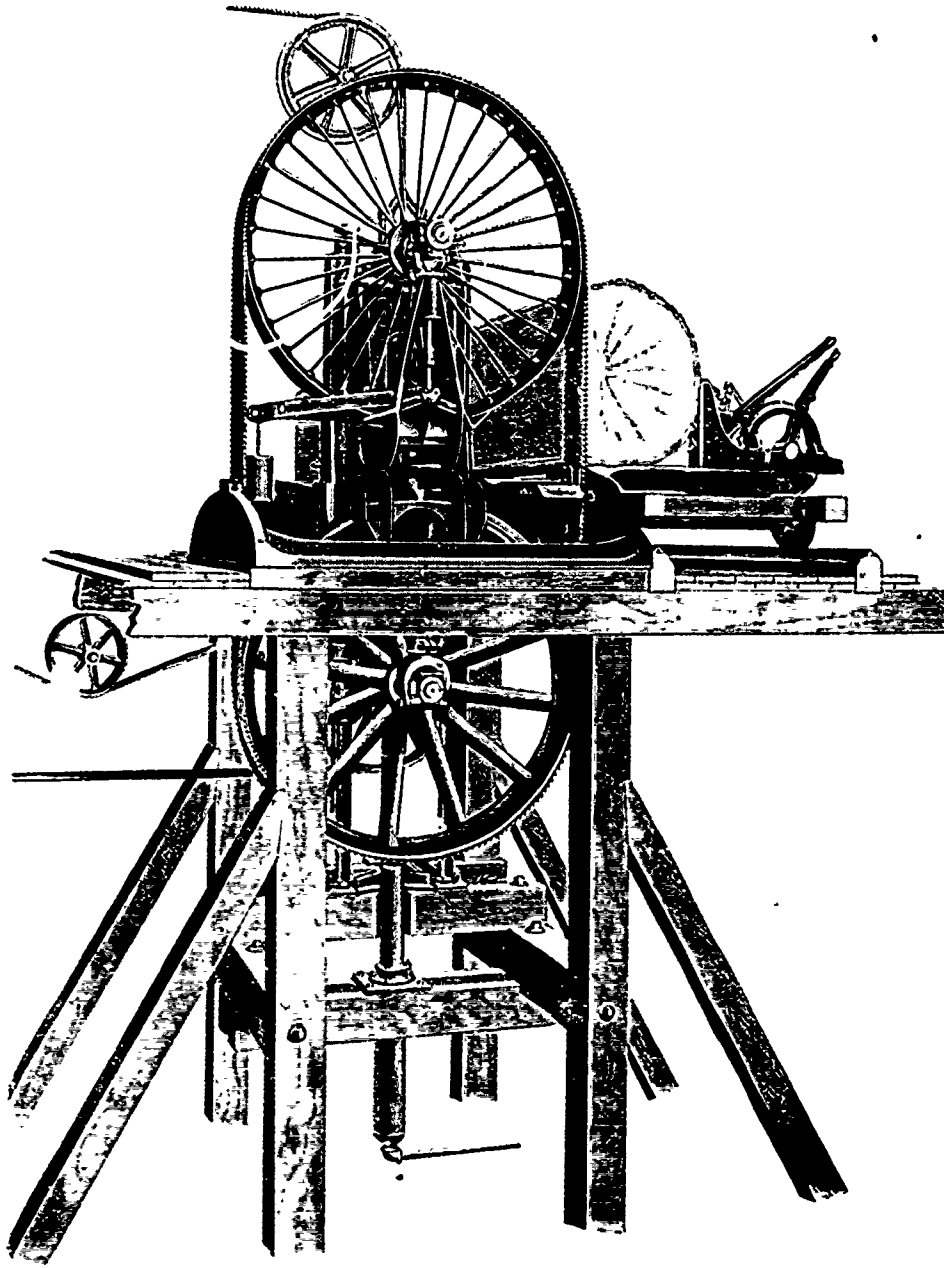
Made in 3 Sizes—\$2.00, \$2.50, \$3.00 Net.

OUR PRICES ARE RIGHT. KINDLY ALLOW US TO QUOTE YOU BEFORE PURCHASING.

R. H. SMITH CO., Limited, St. Catharines, Ont.

New Allis Telescopic Band Mill

For Either Single or Double Toothed Saws



The machine is now, and has been for over seventy-five days, running twenty-two hours per day, fitted with double-toothed band saws, in the H. C. Akeley Lumber Co.'s mill at Minneapolis, Minn.

A visit to the above mill will convince anyone that this mill is cutting lumber at least 50 per cent. faster than it can be manufactured on any other make of band mill.

This mill is moved up and down at any desired speed while sawing by hydraulic power. The machine is very simple in construction, consisting of a regular band mill (less the upper guide and driving mechanism for same) mounted on slides with hydraulic cylinder for raising.

This cut shows mill in lowest position to cut cants 12" thick.

We will be pleased to mail you our Circular, giving full information.

Waterous, Brantford, Canada

WHAT DOES IT MEAN?

It means a Band Mill that is built on correct mechanical principles.

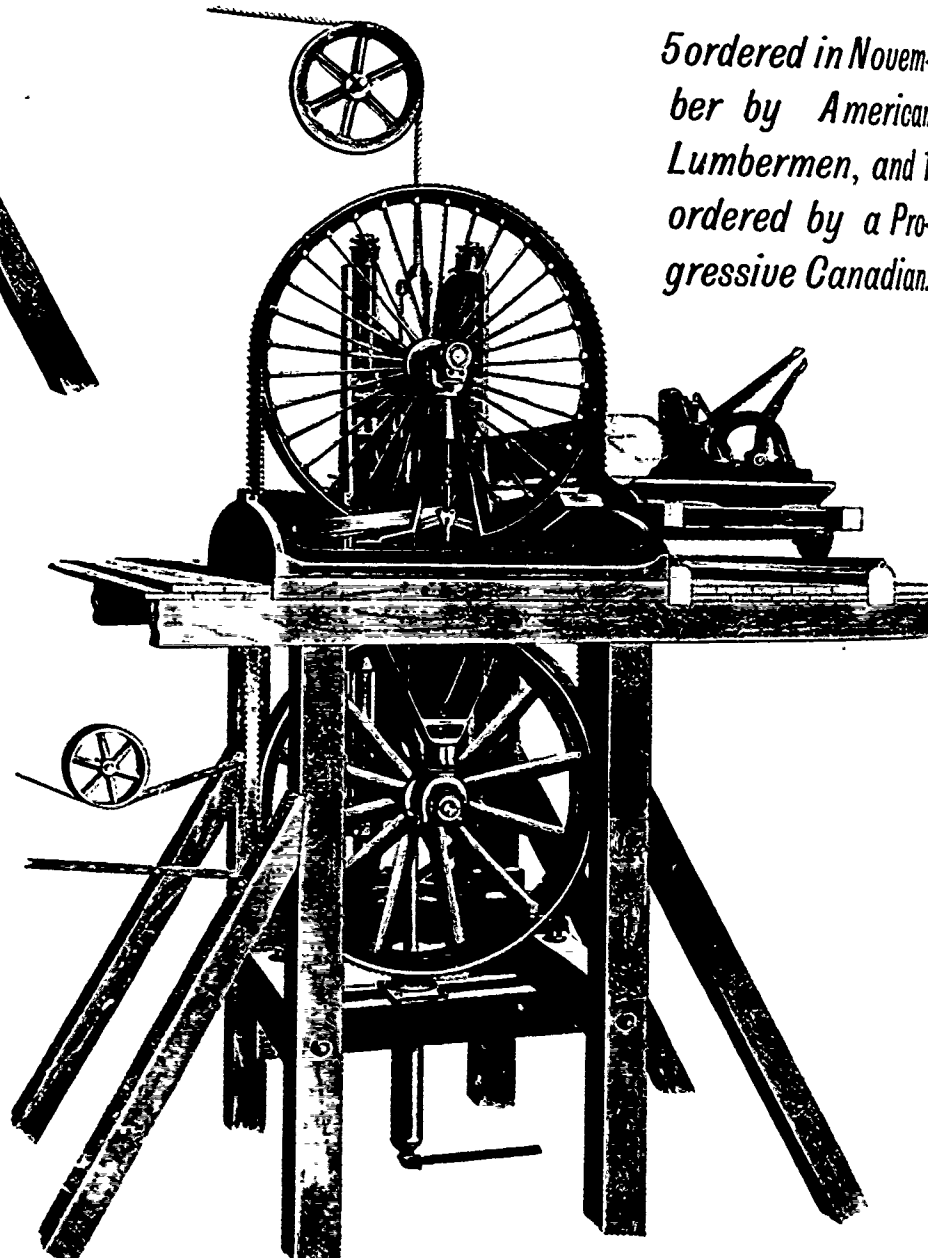
This entire mill is moved vertically, so that the center of the upper band wheel can be brought down close to the top of the smallest log, thereby having a saw shorter than a gang saw above the work on any sized log.

The vertical movement enables us to keep the surplus length of saw blade below instead of above the log. The upper wheel acting as the guide, insures the greatest possible rigidity of the saw, enabling the same to stand more feed than on the ordinary band mill.

This cut shows the mill elevated to cut a large log.

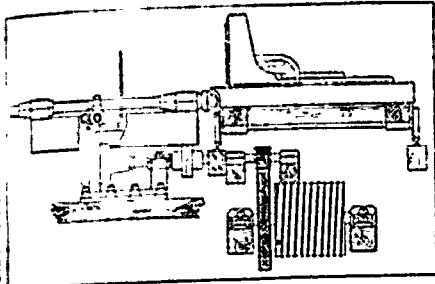
Manufactured in Canada only by.....

THE WATEROUS ENGINE WORKS CO.
BRANTFORD, CANADA



5 ordered in November by American Lumbermen, and 1 ordered by a Progressive Canadian.

The DAKE STEAM FEED

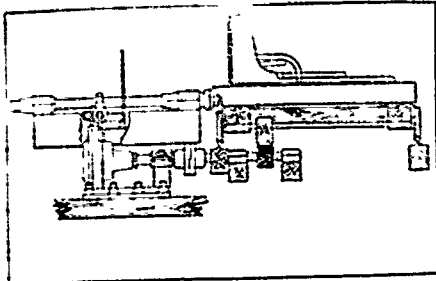


WITH ROPE FEED.

The movement of the engine in either direction is under the absolute control of the sawyer, thus accommodating the speed of the feed to the size of the logs.

Mill men who have used other makes of Steam Feeds comment favorably on the economical use of steam of our feed over others.

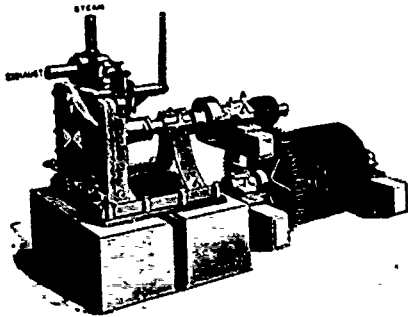
Write for Catalogue and full particulars.



WITH RACK FEED.

Embodies the following Advantages:

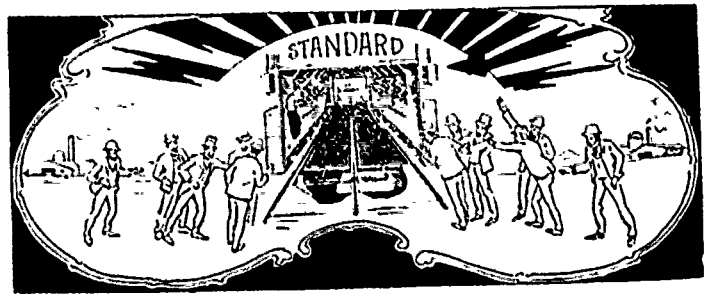
- Simpliety of Construction,
- Positive and Easy Management,
- Economical Use of Steam,
- Small Space Occupied,
- Cheapness,
- Easy Adaptation to either New Mills or those now in use.



The Jenckes
Machine Co.

36-40 Lansdowne
Street,

SHERBROOKE, QUE.



TAKE A PEEP INSIDE

of the Standard Kiln, and it will be easy for you to understand why it is the Most Perfect Lumber Drier in the World. There are other "good looking" kilns. Yes, and other "good" kilns, too; but no other kiln ever made will dry so much lumber, do it so quickly and so thoroughly, and use so little steam as

The Standard Improved Compression Dry Kiln

We can prove that—by demonstration or by evidence. We will mail you the evidence of many users, if you want it. It will give you a good idea of the range and the quality of its work. Here is one firm's opinion:

OTTAWA, ONT., June 25, 1898.

THE STANDARD DRY KILN CO., Indianapolis, Ind.

GENTLEMEN,—In reply to yours of the 21st of June, I have to say that the "Compression" Kiln put in for us is "all right." It worked very nicely during the winter months, and seems to suit our Canadian climate.

Yours truly,

R. THACKRAY,

Per James Davidson.

Our illustrated catalog sets forth in a very clear manner the detail of construction, and shows plainly the application of the Standard "Moist Air" theory of drying. You can have one for the asking.

THE STANDARD DRY KILN CO.

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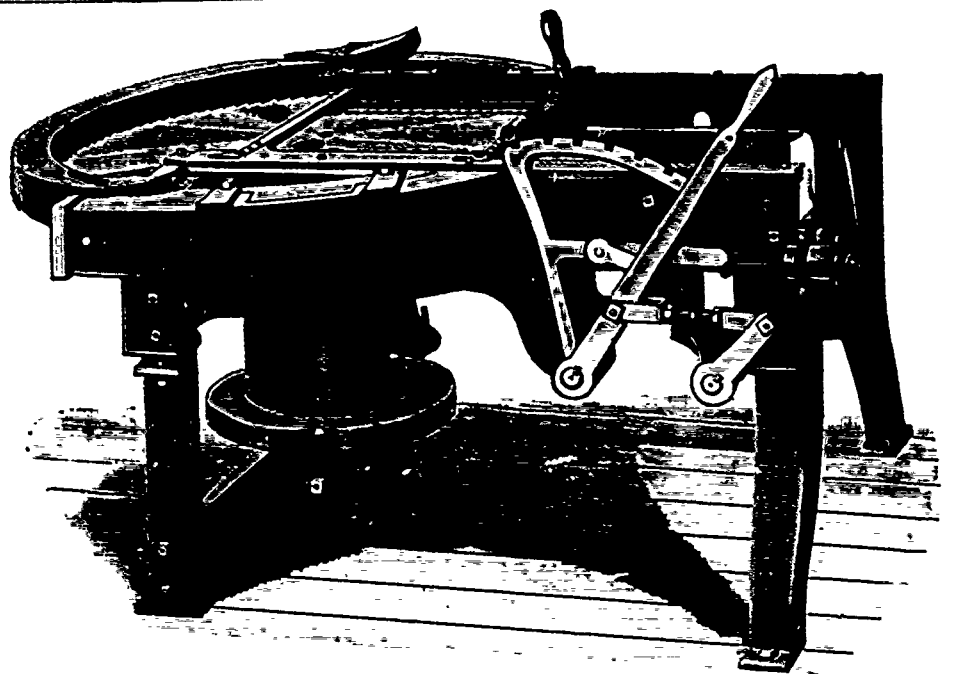
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- Saw Filers, and all of
- F. J. Drake's Patents



DAUNTLESS SHINGLE AND HEADING MACHINE.

Size No. 1 takes Saws up to 42" diameter. Size No. 2 takes Saws up to 48" diameter.
Capacity 25,000 to 50,000 per day.

Our Patterns are New and of Modern Design. We can give you a Complete Outfit and guarantee results. No trouble to quote prices.

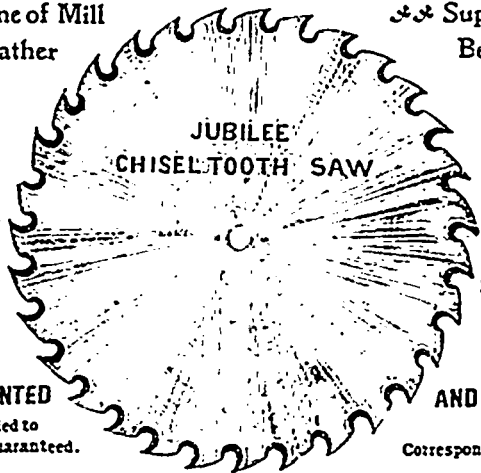
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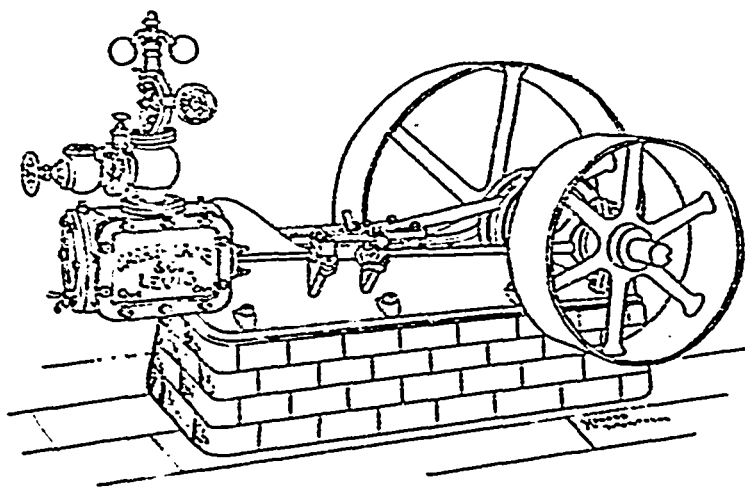
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But if that "3" represents Middlemen's commission on the Machinery you buy, you had better make a change and deal at headquarters.

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