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THE CANADIAN LUMBERMAN

WOODWORKERS' MANUFACTURERS' AND MILLERS' GAZETTE

VOLUME XVII. }
NUMBER 10.

TORONTO, ONT., OCTOBER, 1896

TERMS, \$1.00 PER YEAR
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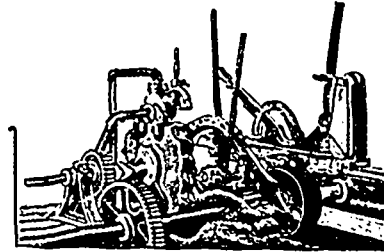
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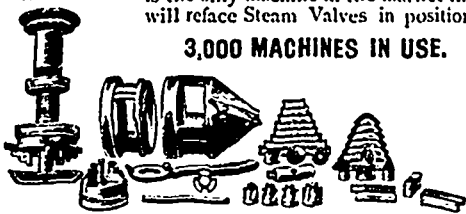


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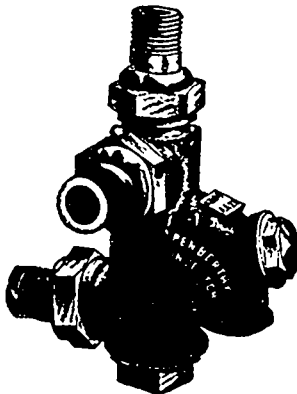
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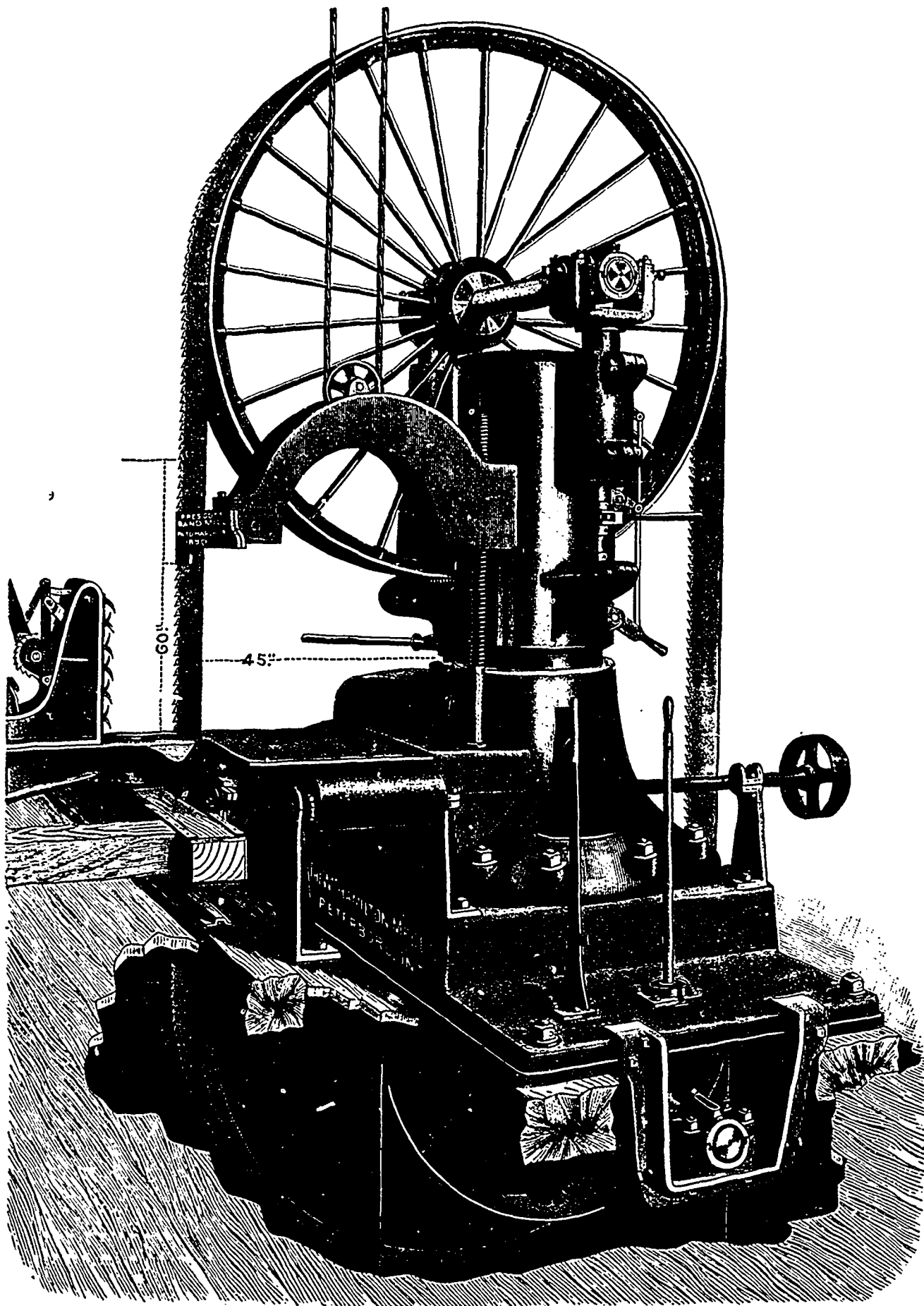


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BY THE WAY.

DR. NANSEN made his recent Arctic expedition in a vessel built of Douglas fir, which he is said to have chosen in preference to all other woods. The logs from which his ship was built were cut from the forests of Washington. During the voyage the ship was subjected to great hazard from ice floes, as is shown by the following dispatch to the London Chronicle: "We were regularly exposed to violent pressures, caused by the changing spring tide. The "Fram" was once or twice lifted from six to nine feet. The bottom became visible and rested on the ice. So little effect did this have on the ship's timbers that the men continued their slumberings undisturbed."

* * *

In the West Coast and Puget Sound Lumberman we find the following remarks relating to a former Ontario lumberman: "Mr. T. H. DeCew, who is now the owner and operator of the Ainslie mill at Ainslie, was in Tacoma last week superintending the loading of 200,000 feet of lumber, which he is furnishing as a part of the cargo of the "Aida," for China. The timbers are 24' x 24", 40 to 100 feet. Mr. DeCew is well pleased with his plant. It has a capacity of 100,000 feet per day, but his average cut now is about 50,000 ft. daily. He has 100,000,000 feet of timber accessible to his plant, and when that is exhausted he may remove the plant to his tract of 3,700 acres of timber land near Albany, Ore. His eldest son is conducting the business which they are closing up at Essex, Canada, and will also remove to Washington at an early date. Mr. DeCew has been shipping most of his output th is far by sea, loading at Kalama. Last month he shipped a cargo of 300,000 feet to South America."

* * *

CANADIAN spruce is rapidly becoming in favor in many of the foreign markets of the world. Within the past fortnight Messrs. W. H. Crossman & Bro., of New York, have shipped two cargoes from St. John, N. B., to South America. This firm ships annually millions of feet of lumber to that market, their vessels loading at Portland and Philadelphia. Should the recent shipments from New Brunswick prove satisfactory, however, they will no doubt be followed by others. Mr. Tordoff, inspector for Messrs. Crossman & Bro., made the

following statement regarding the quality of the shipment: "I am agreeably surprised at the quality of the lumber being sent to the vessel by Cushing & Co. I have in my time inspected cargoes of spruce and pine at almost all the important shipping ports in Canada and the United States. The pine lumber cut on the Ottawa has always enjoyed the reputation of being the finest lumber taken out anywhere. This is hardly to be

OPENING OF THE FOREST CAMPAIGN.



"Make we here our camp of winter,
And through sleet and snow,
Pitchy knot and beechen timber
On our hearth shall glow.
Strike then comrades—trade is waiting;
On, our rugged toil,
Far ships waiting for the freighting
Of our woodland spoil."—WHITTIER.

wondered at, because pine being a softer wood, is much more easily prepared for market. But the spruce lumber which Cushing & Co. are supplying for this cargo is the equal in appearance and quality of any lumber I have ever seen. It is fully as good in point of manufacture as the best Ottawa pine it has ever been my duty to inspect, and I have handled some of the choicest cargoes ever loaded. This is a general cargo as far as sizes go, and I can safely say that no fault can be found with a single piece of it. I am

satisfied Messrs. Crossman will soon take a place among the largest shippers of lumber from St. John to the River Platte. The demand for spruce lumber out there is ever on the increase."

FELLING A TREE.

FELLING a tree is an art. All woodmen agree that there is a "knack" or "sleight" about it. The man who leaves a "fox-eared" stump is a hacker and not a chopper. Usually there is very little that is commendable in the ways of woodmen. When they are careful, however, they should have the credit of it. It is quite the custom in the pine woods of Southern New Jersey to leave seed trees, and, what is still more commendable, they leave the smooth bark Pinus echinata) and not the rough bark pine (Pinus rigida). This is practising forestry in a very crude way. A few choppers burn the limbs after them that is, they fell a strip of trees to the left, then the neighboring strip to the right, so that the tops and limbs form a windrow. If the wind is right they burn it, and in that way reduce the danger from fire in summer, and destroy what may become a breeding place for pestiferous insects. A good chopper leaves the proper kind of stump. If it is pine there is no difference, since pine produces no coppice growth of value, and the stump soon decays. If it is oak or chestnut it is an important matter. A good chopper cuts a tree close to the ground and leaves a clean sloping top to the stump. If the bark is not split and the cut is clean it will not rot, and the coppice growth which follows will be healthier and in ten or fifteen years fit for fuel. There is no reason for using such large fire-wood. Although more tedious to cut in the woods, there is more of it in the same bulk, it is more easily handled, easier to cut and split on the wood-pile, dries quicker and makes a quicker and a hotter fire. The Forester.

The British Columbia Mills, Timber & Trading Co., of Vancouver, B. C., will put in four new planers in the near future.

Several specimens of railway ties made from British Columbia fir have been sent to China for inspection by the Chinese Government, there being a strong possibility that they will be adopted in the construction of new railroads.

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.

THE CULTIVATION OF FOREIGN MARKETS.

OTTAWA, Sept. 11th, 1896.

To the Editor of the CANADA LUMBERMAN:

DEAR SIR: - I have noticed, with great pleasure, the active interest that you have been taking through your paper towards opening up new fields for the consumption of our Canadian wood products, and I am sure that some of your remarks cannot help but bear fruit. Although I am rather averse to needless speculation, I must admit that I think that the majority of the Canadian lumber dealers are inclined to be a little too conservative as regards sending their wood goods into a market that is not thoroughly conversant with our trade. Of course, there are evils to contend against before a new market can be opened up, but on the other hand, once the trade is understood and a satisfactory arrangement can be arrived at, then you have the satisfaction of knowing that the business is not so over run that you have to sell your goods at a most unsatisfactory figure or else retire in favor of some hawker who is able to place some job lots at a sufficiently low figure to fill the requirements of a glutted market. One has not to look back very far to remember the time when there was little or no Canadian woods sent to the European trade, other than square timber; then as trade developed we saw the introduction of three inch deals, and now even these are to a certain extent being replaced by smaller sizes, such as 1, 1½, 1¾ and 2 inch. How have these changes been brought about? It was by the introduction of these lines into the different markets on a small scale; then as the success of the venture was proven, larger consignments were sent forward, until we have not only shown the superiority of our goods and our manufacture, but we have tended very largely to cause quite a reformation in that trade. Of course we cannot take all the credit to ourselves, for had it not been for the foresight and push of some of the large English dealers this movement would have been greatly retarded. Now that we have met with such success with our pine, why should we stop there. One has only to take up one of the European import returns to find the large quantity of hardwoods which they receive from the United States and other countries, which to a very large extent should come from Canada. The hardwood lumber trade of Canada is just in its infancy, and it is very liable to remain so unless there is some effort made both on the part of the Canadian government and the manufacturers to improve the state of affairs. First of all, we want to find a market to enable us to take it out in paying quantities and to manufacture and handle it as the species and quality requires. At present you will see distributed all through the country small mills everywhere from six horse power up. To these the farmers draw a few logs, which are sawed in a very inferior manner and graded in any way to suit the convenience of the "manufacturer." These men find the name of someone who purchases hardwoods, and write offering them firsts and seconds, which may be principally culls, at an absurdly low figure. They get their order to ship, and when the lumber arrives at its destination, of course there is a huge kick and a corresponding reduction by consignee, who even then finds the article unsuitable and injurious to his trade.

You will admit that this is not the way to advertise our goods, which if done in the proper way, would hold their own with any in the world. While in New York some months ago I met a large dealer from Germany who told me that he had come over to the States to purchase some hardwoods. He informed me of a mill in the state of New York where he had purchased a large quantity of ash and maple. I asked him why he did not try Canada for these woods, but he said that he had once tried a small shipment and found the quality of the wood and the sawing was not in any way equal to that grown and manufactured in the States. A short time after this I had occasion to visit the mill in question, and was surprised to hear that all the hardwood logs which they were manufacturing had been shipped to them from Canada, and that the States were getting the credit for producing an article which rightly belonged to Canada. This is only one instance of many that might be recorded in which

other countries are obtaining the cudos which we should use every effort to retain ourselves.

Although the pine industry is likely to remain the chief wood trade of Canada for years to come, still these is no reason why such a valuable factor as our hardwood trade should be kept in the background, and I trust that through the good influence of your paper, the proper authorities will be induced to use every effort to further the interests of an industry that would give employment to large numbers and place a value on thousands of miles of timber territory which are now considered valuable only as a means of supplying fuel.

Yours very truly,
E. C. GRANT.

MARITIME NOTES.

[Correspondence of the CANADA LUMBERMAN.]

AFTER a couple of months of compulsory vacation consequent on a too close attachment of your correspondent's principal writing fingers with the janitor knives of a clapboard machine in a mill he was visiting—in which the fingers came off a very poor second—it will be in order to again take up the broken thread and begin again.

Mr. Kilgour Shives, Campbellton, N. B., has a fine steam power saw and shingle mill, containing gang, patent edger, slab slasher, trimmer and resaw machine, for the manufacture of long lumber. In the shingle mill he has nine machines, eight Dunbar and one made in Ontario, large circular saws for cutting the logs in lengths required for shingles, and a saw splitting machine used to divide the large bolts into sizes suitable for the machines without waste, as is the case where winding or twisted bolts are split with an axe. The shingle bolts, after being prepared—sapped and quartered—are thrown into a sluice that lays on the floor a little behind the operators, in which runs an endless chain, one man thus being able to take the bolts from the sluice and place them within reach of the men operating the machines. There is a large amount of refuse, such as bark, heart, sawdust, etc., from cedar—which is used for shingles—which would entail a great amount of labor to get clear of, but Mr. Shives, with his characteristic enterprise, erected a large brick furnace two years ago, into which a large endless chain sluice dumps all the refuse of both the shingle and saw mills. Small sluices lead from the different machines to the main sluice; there is also a sluice leading to the fire room. Mr. Shives being located in the growing town of Campbellton, finds it more profitable to cut his slabs and edgings into fire wood than to make laths, and finds ready sale in the town for all he can make. In long lumber he cuts deals for the English market, but takes advantage of his logs as to lengths and size for the American and South American markets. The higher grades of shingles are shipped to Boston and other points in the Eastern States, the lower grades going to Prince Edward Island and Nova Scotia. Mr. Shives operated his mill day and night this season, and has a very nice electric plant for supplying light to the mill, yard and pond, also to his store and machine shop. The capacity of the gang mill is about 50,000 feet and 15,000 shingles each machine, per day of ten hours. The logs to supply the mills at Campbellton come down the Restigouche river, the boom and rafting grounds being at Flatlands, some five miles above the town. Large vessels take half their cargo at the wharves and the remainder of their cargo is lightered to them. Norwegian vessels have been doing the principal foreign lumber trade from all northern New Brunswick and Quebec ports along Bay Chaleu, but steamers are finding their way there and will no doubt make their presence felt.

A. E. Alexander, Mayor of Campbellton, has the largest and one of the most complete shingle mills on the north shore of New Brunswick. It is equipped with thirteen Dunbar shingle machines, with circular and drag cut-off saws, saw splitting machine for large bolts, sluice with delivery chain for supplying bolts to the different machines, refuse and fire house endless chain sluices, suitable to the conditions, which enables him to get rid of the refuse at very little expense. The cedar logs are cut on the Restigouche and Metapedia rivers. Mr. Alexander ships largely to the United States markets by rail, having a siding run into the mill yard. The mill has been run day time only, as Mr. Alexander runs some small mills in the woods in the winter and takes the output of some other mills, which gives him a sufficient stock to supply his requirements. Besides milling Mr. Alexander is the

largest general merchant in northern New Brunswick, and in both his mill and stores one can see a general air of prosperity which such an enterprising man richly deserves.

W. P. Gray has a four machine shingle mill in the town and does a very nice business. He has the advantage of most shingle mill owners, in that he has come up from the ranks—as the saying is—and has the practical knowledge necessary to enable him to take a hand at any part of the work in a shingle mill. Mr. Gray runs one of the two machines all winter.

W. W. Doherty has a steam power gang and circular saw mill, with patent edger and lath machine. This is a new mill built to replace one burned last year. Mr. Doherty saws for David Richards, principally deals for the English market. The capacity of the mill is about 70,000 feet per day. He has also been mayor of the town, and is a genial, whole-souled man whom it is a pleasure to meet, as are all the mill-owners in Campbellton.

About one mile below town David Richards has built a very fine mill, in which at present he has three Dunbar shingle machines and two clapboard machines, with all the necessary machinery for doing the work intended to the best advantage. The mill was built with a view of adding either a gang, circular or band when conditions warrant an increased output. Mr. Richards is a large lumber operator, as besides supplying stock for his own mill, he stocks several other mills, both on the New Brunswick and Quebec sides of the river. He also takes charge of the logs coming down the river to the booms, where he rafts and tows to the several mills as needed. Mr. Richards has built up quite a village near his mill, and shows good taste in the pretty houses he has built and their neat surroundings. He is the pioneer in the clapboard business on the North Shore. Knowing what was required he had the machines built to suit the conditions, with the result that they do the work required of them without any hitch or trouble. The logs suitable for clapboards are sorted at the boom, so that the very best stock only is used in their manufacture; they are taken from the saw and properly air dried, then planed and jointed by a machine made specially for that work, sorted into the respective grades, 1st, 2nd, 3rd and 4th, then either put into the warehouse or car for shipment, the Eastern States and Quebec being the principal market for them.

Across the river from Campbellton at Oak Bay, Que., J. D. Sowerby has a gang mill with circular, patent edger, resaw and four shingle machines, which are fully employed during the sawing season. Mr. Sowerby has another mill which he runs in the winter. The power at Oak Bay is a combination of steam and water, and has, it is said, the second largest water wheel in existence, being 52 feet in diameter and about seven feet wide. It looms away above the top of the mill and reminds one of the ferris wheel as it slowly revolves. The power was not sufficient, so steam was added and now does good work. Mr. Sowerby had the misfortune to have his dwelling and store burned some two or three years ago, but now has rebuilt and dispenses a welcome cordiality to the wayfarer in need of refreshment, without money and without price, in his beautiful home. May his shadow never grow less.

W. J. P.

AN UP-TO-DATE JOURNAL.

MESSRS. John Piggott & Sons, Chatham, Ont., in remitting the amount of their subscription to the CANADA LUMBERMAN, write: "We find a good deal of information in its columns, and think the parties from one of our neighboring towns, who wrote you some time ago forbidding it in their office, are not up-to-date lumbermen."

THE LUMBERMAN'S BEST GUIDE.

MR. E. Errett, of Merrickville, in asking that the LUMBERMAN be discontinued for the reason that he is going out of the lumber business, says: "I may just say that in closing my connection with the CANADA LUMBERMAN I am parting with the best guide extant to every man engaged in the lumber trade."

According to the report of the Forest Warden of Minnesota, there still remains in that state 10,890,000 acres of forest land, covered with 19,000,000,000 feet of white Norway pine. The annual destruction amounts to 1,800,000,000 feet.

OBITUARY.

THE LATE JOHN WILSON.

TOWARDS the close of July there died in the city of New Westminster, B. C., Mr. John Wilson, manager of the Brunette Saw Mill Company. For some years past Mr. Wilson had not enjoyed good health, and had taken several vacations in the hope of regaining his strength. A visit to San Francisco was not attended with beneficial results, and latterly he found it necessary to entirely abandon the cares of business. He returned from a trip to Plumper's Pass only a few days before his death.

Deceased was a native of Ontario, having been born at Appleton, county of Lanark, on April 20th, 1846. He had been connected with the lumbering business for many years, and previous to going west was in the employ of Mr. J. R. Booth, of Ottawa. He entered the employ of Mr. Booth in the year 1868, when the business was in its infancy, and was the first shipper. He introduced the



THE LATE JOHN WILSON.

system of shipping by car and boats now in use, which has given every satisfaction to Mr. Booth's patrons. He was Mr. Booth's first agent to inspect the logs and timber produced at his shanties, which duties Mr. Booth performed himself in the early years of the business. He also inspected a great many limits, which Mr. Booth purchased on his report of same. His relations with the men under him were of the most friendly nature, and it was a matter of regret to them when he severed his connection with Mr. Booth in the year 1890, and removed to British Columbia. In the following year he assumed the management of the Brunette Saw Mill Company at New Westminster, which is composed largely of Ontario stockholders. Mr. Wilson at once set to work to extend the trade, and had exceeded admirably when in July, 1895, the large mill of the company was completely consumed by fire. The disaster somewhat disorganized the company, and it seemed doubtful for a time whether any action would be taken towards rebuilding the mill. But after Mr. Wilson had conferred with the leading eastern stockholders, its reconstruction was decided upon, and renewed efforts were put forth to re-establish the trade of the company. The very onerous duties this involved, however, proved too great for his vitality, and he was finally compelled to resign his position.

As a business man the late Mr. Wilson was widely known and highly esteemed, and during his short residence in New Westminster he accomplished much towards the advancement of the commercial interests of the city. He held the position of president of the Board of Trade for two years, and at the time of his death was vice-president of that organization. Of a kind disposition and urbane manner, his loss will be keenly felt by the vicinity in which he lived. He was an attendant of St. Andrew's Presbyterian church, and took an active interest in its affairs. He leaves a widow and daughter. Mr. Robert Wilson, of the Ottawa, Arnprior and Parry Sound Railway, Ottawa, is a brother of deceased.

THE LATE C. H. DAVISON.

By the death of Mr. Charles Henry Davison, which occurred on the 27th of August, the village of Bridgewater, N. S., loses one of its most enterprising and esteemed citizens. After a severe and extended illness, he passed away at the age of 57 years. Deceased was the eldest son of the late E. D. Davison and was born at Mill Village, Queens Co. He received his education at Mt. Allison, Sackville, N. B. About the year 1865, in

conjunction with his father, he started the widely known firm of E. D. Davison & Sons, at Bridgewater, which has since been changed to the F. D. Davison & Sons Co., Ltd., and of which he was president.

His thorough knowledge of the lumbering business, his excellent judgment and upright business methods were elements which aided his success in business. Notwithstanding the demands of business he allowed himself to be elected to the local legislature of the province when Hon. M. B. Desbrisay, the member, was appointed to a judgeship. Mr. Davison only sat two sessions, but during that time was able to do signal service for his country in connection with the then new railroad enterprise. He was a staunch Liberal.

In private life Mr. Davison was of retiring disposition. He was married in 1874 to Miss Annie F. Foster, and leaves a family of three children.

THE LATE WALTER S. TENNANT.

In lumber circles throughout Ontario few persons were better known than the late Walter S. Tennant, who for the past ten years had been connected with that industry. His death, which took place at Toronto on the 11th of August, was learned with profound regret. He was a successful and energetic salesman, and to his customers was a welcome visitor. It is said of him that he never allowed his anger to rise under any provocation whatever.

The late Mr. Tennant was born in November, 1854, in the township of Blenheim, Oxford county, Ontario, of Scotch parentage. He was educated at the public schools in his native township until 14 years of age, after which he spent two years under the tuition of Mr. A. S. Cruikshank, of Hamilton, who fitted him for a teacher. His next two years were spent in teaching school, but not liking the profession, he next learned telegraphy, and was for many years in responsible positions on the Great Western Railroad. Leaving that service in 1880, he was for six years express and ticket agent at Paris, Ont. In 1886 he came to Toronto to enter the lumber business, for a time being in the employ of Messrs. F. N. Tennant and Christie, Kerr & Co. In 1889 he formed a partnership



THE LATE WALTER S. TENNANT.

with his brother, Mr. James Tennant, as wholesale lumber dealers, the firm being known as James Tennant & Co., and continued in this connection until the time of his death, which resulted from typhoid fever, after an illness of ten days. In 1882 he married Janet, daughter of John McKimmie, of Niagara-on-the-Lake, who survives him. He leaves six children.

One of the timber slides on the Lake St. John Railway, which cost the government about \$50,000, was abolished in 1894. The slidemaster, however, has been drawing \$45 per month ever since as superannuation. The Minister of Justice has now decided that when the office is abolished the superannuation is abolished along with it.

It is estimated that 45 per cent. of the lumber produced in the United States is used up in the manufacture of packing cases of one kind and other. In the shipment of eggs to market \$500,000 worth of cases are used annually. It is also stated that 12,600,000 feet of lumber is consumed in the manufacture of canned corn cases alone. In the shipment of canned tomatoes 25,000,000 feet of lumber is required in the shape of boxes.

THE LEARY RAFT.

CAPT. Wm. B. Hiller, of New York, states that on July 1 last he discovered, some 500 miles off the coast of Labrador, the celebrated Leary raft, which was lost some years ago. It was headed south-west, he says, but was not making much more headway than a laundry. The raft is larger than any ocean liner, and it would be an ugly customer to meet under the condition of a 20-knot gait and a dark night. Other mariners and the Collector of New York laugh at him and declare the raft has broken up long ago.

James D. Leary, of St. John dock fame, who first conceived the plan of transporting lumber at sea by means of a raft, was recently interviewed. "I think Capt. Hiller's story to be very probable. I was employed personally in the construction of this raft and I know that it was constructed as strong if not stronger than many ocean steamers. Its general compactness and solidity made it almost as inseparable as one great massive log.

"This raft was the largest by some 300 feet of any ever shipped by sea. In fact it was too large. Nothing like it is now attempted. It was constructed on an improvised dry dock at Two Rivers, Nova Scotia, in the fall of 1890, and launched on the plan of an Atlantic liner's launching. The largest rafts we now undertake are 300 feet long and weigh about 4,000 tons. The one we lost was 600 feet in length longer than any liner. It weighed 10,000 tons.

"When completed the structure contained 25,000 sticks of spruce and pine timber, from 35 feet to 95 feet in length and a good quantity of beech, birch and maple, making a total of 4,500,000 feet of timber. The diameters of the logs ran from 12 to 35 inches at the butts, and from six to ten inches at the tips. At the time it was launched and ready to be towed the raft had cost us about \$32,000 and the contract price for towing it to our Long Island yards was \$3,500."

HINTS FOR THE SAW MILL.

CLEAN and oil leather belts without taking them off their pulleys. If taken off they will shrink; then a piece must be put into them and removed after the belt has run a few days.

Look well to the bearings of your shaftings, engine and machines. Sometimes twenty-five, thirty, forty, and even fifty per cent. of your power is consumed through lack of good oil.

Set an engine upon three or four movable points, as upon three cannon balls. Connect with steam and exhaust by means of rubber hose. If the engine will run up to speed without moving itself back and forth, then that engine will run a long time without repair. If it shakes itself around the room then buy another engine.

Safely moving a tall mill chimney has been accomplished several times. Chimneys which have been caused to lean slightly through settling of the foundation may be straightened up again by sawing out the mortar between courses of brick at the base. A chimney 100 ft. high and 12 ft. square at the base will be varied over 8 in. at the top by the removal of 1 in. at the base.

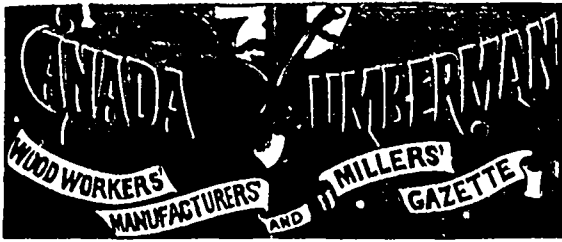
For leading steam joints, mix the red lead or litharge with common commercial glycerine instead of linseed oil.

When you begin to fix up the mill for cold weather, don't forget to put a steam trap in each and every steam pipe, which can be opened into the atmosphere for heating purposes.

In tubular boilers the hand holes should be often opened and all collections removed from over the fire. When boilers are fed in front and are blown off through the same pipe, the collections of mud or sediment in the rear end should be often removed.

Nearly all smoke may be consumed without special apparatus by attending with a little common sense to a few simple rules. Suppose we have a battery of boilers and "soft coal" is the fuel. Go to the first boiler, shut the damper nearly up and fire up one half of the furnace, close the door, open damper, and go to the next boiler and repeat the firing. By this method, nearly, if not quite, all the smoke will be consumed.

A coiled spring inserted between engine and machinery is highly beneficial where extreme regularity of power is required. It is well known that a steam engine, in order to govern itself, must run too fast and too slow in order to close or open its valves, hence an irregularity of power is unavoidable.



MONTHLY AND WEEKLY EDITIONS

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ADVERTISING RATES FURNISHED ON APPLICATION

THE CANADA LUMBERMAN is published in the interests of the lumber trade and of 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 trade 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 eliciting the truth. 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 securing 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 15 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.

TO VISITING LUMBERMEN.

Lumbermen visiting Toronto are invited to use the office of the CANADA LUMBERMAN as their own. We shall take pleasure in supplying them with every convenience for receiving and answering their correspondence, and hold ourselves at their service in any other way they may desire.

SPECIAL NUMBER OF "THE LUMBERMAN."

The November number of THE CANADA LUMBERMAN will be a "Special Number" as regards appearance, size, contents, and the number of copies to be printed. It will be attractive in appearance, large in size, and will be in an unusual sense representative of the lumber and wood-working interests of every part of the Dominion. It is the intention to place a copy of this issue of THE CANADA LUMBERMAN in the hands of every person in Canada who is known to be connected with the lumber and wood-working industry. Several hundred copies will also be mailed to buyers in foreign markets. Advertisers desirous of reaching the above mentioned constituency should write the publisher at once regarding space in this number. The opportunity to thoroughly cover the field at a reasonable cost is one which no wide-awake advertiser should miss.

OUR HARDWOOD SUPPLY.

THERE is evidence of the fact that under the direction of Mr. Southworth, the Department of Forestry in connection with the Ontario Crown Lands Department will do a more valuable work in the future than in the past. Systematic methods of collecting and compiling information relating to the timber resources of the province are being adopted and put in operation, from which in the near future good results are likely to be seen.

One direction in which the Department might expend useful effort, would be in locating the districts in which hardwoods grow, and in collecting data regarding the extent of the available supply of each particular variety of hardwood. There exists at present an ill-defined idea that the province has a considerable supply of hardwood. Just where it is to be found, and where to look for a particular variety, are matters of the greatest uncertainty to lumber buyers both at home and abroad. Information on these points would be of the highest value, and will, we trust, be made available by the Forestry Department before many years shall have passed.

Hardwoods are becoming increasingly valuable, and if the extent and character of our resources were known, we should be in a position to estimate their present and future value.

METHOD OF LOADING LUMBER ON CARS.

Much ignorance and carelessness may frequently be observed in the manner in which lumber is loaded on cars. From this results loss and annoyance to both shippers and the railway companies. Thirty thousand pounds is the minimum weight fixed by the railways for a car of lumber. If the shipper permits his men to guess at the weight instead of arriving at it by some exact process, the cars will often be underloaded, and a percentage of the money paid as freight charges will be thrown away. In the event of cars being subjected to an overload, as frequently happens where guesswork methods are employed, the stakes are liable to give way, causing damage and delay both to shipper and carrier.

With the object of lessening the annoyance and loss arising from ignorant and careless loading, the Master Car Builders' Association of the United States has formulated certain rules for loading, including tables showing the maximum height for loading different kinds of green lumber, based on the ordinary width of cars between stakes, of 8 feet 6 inches. Following is a digest of the general instructions as to loading:—

1. When two or more cars have to be used to carry a lading, the consignee and destination of all the material must be the same. When more than one car is used the lading must always be kept clear from the floors of the cars, whether a carrying car or an idler. Both cars carrying the load must be considered for the same capacity as the one of lesser capacity. Flat cars must always be used for loading lumber too long for one car. On single cars or the extremes of a group of cars, the lading must not extend beyond the end sills.

2. If the lading consists of piles or telegraph poles or other round timber, they must rest on bearing pieces not less than 10 x 10 inches in section and be loaded with the butts and tops alternating, and if the lading occupies two or more cars, each tier must be separated by strips over the bearing pieces and must be well wrapped with wire around the middle and both ends to prevent the shifting, and in all cases there must be two pairs of stakes at each end of lading, and securely fastened.

3. Where the lading projects so as to necessitate the use of an idler, and there is sufficient material in one consignment, another car may be loaded in reverse order and one idler serve for both cars, and the space between projecting ends may be utilized to load the idler with short lumber; but in all cases there must be at least two

feet between the ends of such loadings. The lading of the idler must not exceed two-thirds its marked capacity.

4. Where the dimensions of bearing pieces are not otherwise specified, they must not be less than 8 x 8 inches in section, and extend the full width of car. They must never be placed between the bolster and the end of the car, but either between the bolsters or directly above them. When there is but one bearing piece it should not be less than 22 inches from the centre of bolster.

5. Where maximum weights are not specified in these instructions, the usual excess will be allowed.

6. All stakes must be sound, straight-grained lumber, free from knots (hardwood preferred), and of full size to fit stake pockets. Care must be taken to keep the stakes from spreading at top while cars are being loaded, and in no case must the load exceed the width of the car.

7. Opposite stakes must always be fastened together. In cases where the lumber is confined to one car and does not project beyond the end, the stakes should be secured at the tops, either with wire or boards. In cases where the load projects beyond the end of a car or is carried in two or more cars, the stakes must be secured at the tops with wire, but if the load exceeds three feet in height, the stakes must be secured at the middle with wire and at the tops with either wire or boards. The wire used should be equal to six strands or three wrappings of No. 8 telegraph wire, and the stakes must be notched to prevent the wire from slipping. When boards are used there must be two to each pair of stakes 1 x 4 inches in section, securely nailed to each side of the stakes with not less than two 10-penny nails on each side and end. When stakes are wired at the middle there should be a bearing piece across the lading of such size as to keep the material apart sufficiently to protect from injury by these wires.

8. All cars must be loaded so as to leave not less than 18 inches between ends of lumber and brake shaft, so that brakes will be operative—one brake for one or two cars and two brakes for three or five cars.

THE RELATION OF THE CANADIAN LUMBER MANUFACTURER TO THE CANADIAN WHOLESALE.

THERE has been a tendency of late, on the part of Canadian manufacturers of lumber and American buyers, to deal direct with each other, passing by altogether the Canadian wholesale dealers. This tendency is naturally viewed with dissatisfaction by Canadian wholesale merchants, who claim that not only does it deprive them of business, but that no advantage results from it to the manufacturers. Canadian wholesalers advance a number of arguments to show that the manufacturer would better serve his own interest by disposing of his product through wholesale dealers in the home market.

It is pointed out that the small manufacturer especially has but limited opportunity of finding out the character of the foreign buyer and of satisfying himself of his integrity and financial responsibility, and that consequently there is great danger that he may fall into the hands of unscrupulous and irresponsible men whose object it is to get possession of stock which they have no intention of paying for. The columns of the LUMBERMAN for several years past bear witness to the fact that this argument is not without foundation, as not a few of our lumber manufacturers have learned to their cost. This much may be said without the inference being drawn that all or even the majority of foreign buyers are men of this description. The difficulty is to steer clear of the "sharks."

The Canadian wholesaler reminds us also of the fact that there is great diversity in the methods of classification of lumber as between Canada and the United States, and also as between one market and another in the United States, and that stock shipped without a very distinct understanding is liable to be culled to an extent which will greatly depreciate its value. In case of misunderstanding, as to grading, the manufacturer is likely to be put to a great deal of trouble, and stands to lose a considerable proportion of the profit which he had counted on making on his consignment.

The Canadian wholesaler argues that in view of

all these disadvantages and uncertainties, it would be to the interest of the smaller Canadian manufacturers of lumber, at least, to sell to the home buyer, whose responsibility they can easily ascertain, and who takes off their shoulders all responsibility as regards inspection, payment, etc.

There is another point which should be mentioned in this connection, which is, that Canadian wholesale dealers are constantly endeavoring to find openings in foreign markets for the sale of Canadian lumber, and if they are passed over and thus forced out of business, the advantage to the manufacturer of their efforts in this direction will cease.

EDITORIAL NOTES.

THE brisk demand in Great Britain for American lumber has developed a singular feature in connection with the spruce trade of the east. While some of the mills are engaged in sawing lumber for the New England and New York markets, United States mills on the Penobscot river have recently contracted to supply several million feet of spruce deals for the west coast of England, thus crossing on their way to Europe the shipments from Nova Scotia to United States markets.

A QUESTION which is said to be under consideration by the Dominion government is a reduction in the official staff of lumber cullers at the port of Quebec. It is held by some, who claim economy as their motive, that it is not necessary to employ more than two or three cullers. On the other hand, a reduction of the staff would, it is claimed, result unsatisfactorily, inasmuch as purchasers of rafts or other stocks would be unable at times to obtain the services of official cullers, and would of necessity call in cullers of their own. The lumbermen naturally protest that their interests are safer under the present arrangement, and it is to be hoped that such influence will be brought to bear upon the government as will remove any probability of a change.

FROM information which has reached this office we are led to infer that the prices of lumber as published in the WEEKLY LUMBERMAN are not fully understood by some manufacturers, who claim that the quotations are too high. This matter has already been referred to, but a further explanation may assist the manufacturer to a clearer understanding. It should be borne in mind that the prices quoted are the wholesale selling prices at the points named, and the manufacturer, in estimating the figure he should receive for his stock, must deduct from the wholesale selling price as quoted the cost of freight from his mill to the wholesale market, together with the commission which the wholesale dealer is entitled to receive. Thus it will be observed that some manufacturers are more advantageously situated than others to supply certain markets, owing to the difference in freight charges, and will consequently receive more for their stock at the mill. It would be impossible to publish anything like correct selling prices of lumber at the mills, consequently the only course is to furnish the mill man with the wholesale prices, and he must make his estimates accordingly. Further, the prices quoted are given as an average. It is not contended that lumber cannot be purchased in wholesale lots

below the figures named, neither would it be impossible to secure a higher price for a special grade. In the case of mill run this is strikingly manifest, especially at a time like the present when stocks at the mills are heavy. One manufacturer may be willing to dispose of his cut at a figure below ruling quotations, while another, whose stock is perhaps above the average, will hold out for an advance. A case was recently brought to our notice, where a dealer claimed he could secure the output of several mills at \$9, and asserted that our prices were too high. Notwithstanding this, we claim that the average price paid for mill run is from \$11 to \$12. Taken as a whole, the prices are as nearly correct as it is possible to make them.

THE city of Montreal has announced its purpose to hold an International Exhibition in 1897 or the year following. Toronto also gives notice of its intention to hold a Dominion Exhibition next year. Toronto claims it was first in the field, and says it doesn't want to undertake an International Exhibition, and asks Montreal to defer the larger enterprise for a year or two. Montreal replies that the holding of a Dominion Exhibition in Toronto next year would seriously impair the chances of an International Exhibition a year or two later. Both cities have applied to the Dominion and Provincial governments for aid. Both have admitted that without such aid they cannot hope to make their scheme a success. Therefore, the decision as to which of the enterprises shall go forward at the present time would appear to rest with the government, unless, as we trust will be the case, a satisfactory arrangement can be reached between the representatives of the two cities.

THE past month has witnessed the destruction by fire of one of the largest and best equipped saw mills in Ontario, that of J. W. Howry & Sons, of Fenelon Falls. The fire occurred during the afternoon, when the men were at work in the mill, but owing to a heavy gale their efforts to save the building were fruitless. The box and shingle factory and planing mill were saved, together with the stock of lumber on hand. About three years ago the company leased the old R. S. Smith property at Fenelon Falls, and rebuilt the saw mill, placing therein the latest and most improved machinery. Since that time they have employed constantly from 200 to 250 hands, besides from 800 to 1,000 men every winter in the woods. On June 19th last over 12,000,000 feet of lumber were destroyed by fire, but the loss was largely covered by insurance. The destruction of their mills, however, is particularly unfortunate, as a contract had recently been closed with an American firm for about thirty million feet of lumber, on which they were cutting. We have not yet learned their intention regarding rebuilding, but it is stated they may remove to another locality.

THE annual statement of the trade of the United Kingdom with foreign countries and British possessions during the year 1895 shows that Canada exported a considerable quantity of various classes of wood goods. The imports of hewn fir were 2,008,206 loads, of which 70,517 loads were from British possessions, Canada supplying 69,927 loads. France, Sweden,

Russia, Norway, United States, Spain and Denmark contributed in the order enumerated. Other hewn wood and timber from the British possessions were imported to the amount of 39,492 loads, and 45,089 loads from elsewhere. Imports of hewn oak were 90,232 loads from foreign countries, and 18,270 loads from Canada. Sweden supplied the largest quantity of sawn fir, the amount being 1,534,207 loads, followed by Russia, with 1,467,445 loads, and Canada, with 1,112,028 loads. The imports of sawn timber other than above named consisted of 135,560 loads, 38,626 loads being from Canada. A very small trade in staves from British North America is shown, being only 2,221 loads, while the total imports for the year from British possessions were 142,530 loads. Canada supplied 3,822 tons of furniture woods and hardwoods, while the total from the British possessions were 38,587 tons. A third of the supply of house frames, fittings and cabinet work was furnished by the United States.

LUMBER MEASUREMENT IN GREAT BRITAIN.

WE give below an explanation of some of the terms used in measuring lumber in Great Britain, which may prove useful to our readers:

Retailers usually sell boards, battens, etc., by the square foot. Log timber is usually sold by the cubic foot, while the wholesale trade usually sells boards, deals, etc., by the St. Petersburg standard. The standard deal contains six feet of 3 x 11, and 120 standard deals make one standard, which is equal to 165 cubic feet, or 1,980 feet of American inch board measure. The British standard thus lacks only twenty feet, or one per cent., of being equal to 2,000 feet, 1,000 feet being the unit of value in all American and Canadian transactions.

There is also what is called the Irish standard, which contains 3,240 feet, and this standard is sometimes used. Exporters should make a note of this, as under certain circumstances disputes might arise in shipping to certain ports, although it is not understood that the Irish standard is especially used in Ireland.

The term "load" is often found in English lumber market reports. A load equals fifty cubic feet, or 600 feet inch board measure. Mahogany is sold by Liverpool, or broker's sale measure, which allows a tare of from 25 to 33 per cent. The London rule does not allow quite so much tare. Mahogany is sold by the square foot, one inch thick.

There are a lot of other things about the measurement of lumber in the English market it would be well for exporters to learn, before making shipments, unless they sell by American measurement, at so much per thousand feet in American money, at the mill or port of shipment.

During the past ten or twelve years the planing machine has been greatly improved, and other important machines also have been pushed along the road to perfection. In all the standard machines the defects have been weeded out gradually. The improvement can be best appreciated when one compares the wood-working machines of 1896 with those of 1886, and, still better, with those of 1876. The workmen of 1866, could they return to the shops of 1896, would find many machines and devices utterly strange to them.

THE SCALER.

SINS, WOES AND TRIBULATIONS RELATED BY ONE OF THEM.

All our readers who are in the lumber or logging business scarcely need an introduction to the scaler. Like the poor, he is always with them, albeit it may be that even to them his merits are unknown; though his sins of omission and commission are constantly in evidence; so much so, in fact, that they have come to regard the poor rule-bearer as a necessary evil, and not what he really is—an absolutely indispensable adjunct of the logging business. If our readers, in taking their walks abroad in the summer, happen to take in any of the great saw mills, they will notice a lonely looking individual promenading over the logs in the boom, stooping every now and then to measure the ends of them with an instrument like unto a vastly magnified shoemaker's foot-rule, and occasionally recording the result of his manipulations in a small book. The individual in question is the scaler. But "on the boom" he is enjoying an "otium cum dignitate," so to speak. In the woods his real work is done, and he appears in all his glory and, as his traducers say, does all his devilment. For in the scaler's case is exemplified the truth of the Good Book's words anent the impossibility of escaping calumny. He is generally regarded as a clever rogue suborned by the "big companies" who are generally unaware of his existence—to "do up" the guileless hauler of logs. It makes not the slightest difference that the log hauler aforesaid keeps the scaler "guessing" all the time to prevent him from "doing up" somebody else; he is firmly persuaded that the scaler only exists to work him woe, and he will doubtless continue in that frame of mind while the log hauling lasts.

But the general slight esteem in which the scaler is held in the woods does not prevent his being treated with a fine outward show of respect, probably on the principle that certain savage tribes worship the evil spirit, as well as the good, to propitiate him; that is, to the end that he may do them as little harm as his malevolent nature will permit. The "lumber jack," that incarnation of the glorious spirit of American independence, who refers to and addresses the heads of the Weyerhauser syndicate and the great Day Lumber Company as "Fritz" and "Wes.," and as a general thing has no reverence for anything human or divine, invariably addresses the scaler as Mister. That is to say, to his face he does. Behind his back he generally mentions the unhappy subordinate of Surveyor General Brown as "the worst ——— on the river," or in some of the equally strong terms of endearment with which his vocabulary is so lavishly endowed. So much for the esteem in which the scaler is held by those his work brings him in contact with. Now let's glance at the work in question and see how he goes about doing it. In brief and in

simple, the scaler's work consists in applying a Scribner's log rule to the small end of every log landed that is, hauled upon the ice—on his "route," recording in his tally book the amount of lumber the rule allows for each log, minus such deduction as his experience shows him should be made for rot, crook, or other imperfection, entering each log under its proper bark-mark and stamp, or end mark; keeping an accurate account of all logs so scaled, for the foregoing is a perfect description of the operation known as "scaling," and rendering such accurate account of them to the parties interested and to the surveyor-general of logs and lumber of the district. Also, he is required to see that all logs are properly bark-marked and stamped, refusing to scale all such as are not, and that every man hauling logs in his bailiwick gets due credit for all he hauls and no more or less. In short, he is required to do equal justice to all without fear or favor, to the best of his ability. To the average reader the foregoing does not look like an appallingly hard job, does it? However, let him who

himself to the infernal gods. He is also thoroughly well aware that the foreman will confront him with a count of the logs in the pile before him far in excess of the number he will be able to account for, strive as he may. He also knows that all the defective logs will be well at the bottom of the pile, where he can't see them, and yet he is under oath to do even and exact justice without fear or favor between buyer and seller. And how does he manage to do it? Do it he certainly does, or at least a remarkably close approximation to it. If he did not he would not hold his job very long; but how he does it is a secret between him and his Maker, which secret, having acquired it with infinite pains and labor, I shall not divulge. He works as long as he can see the figures on his rule and then takes himself to the camp, certain of food and shelter, and too well used to the inevitable row awaiting him to dread it. Arrived at the camp, he is wise enough to get his dinner before he foots up his day's work, and thus postpones the inevitable "chewing of the rag" as long as possible. When it can no

longer be avoided, he does his share of the masticatory process as good-humoredly as possible, but when crowded too much he simply asserts his dignity as the great "I Am" of the woods, informs all and sundry that his decision is final; that right or wrong, it "goes," and that fact having been established, he is generally able to dwell in what may be termed armed neutrality for the rest of the winter.

It sometimes happens, however, that the scaler, most peaceful of mortals though he naturally is, is forced to maintain his dignity "viet armis," and in that case thrice lucky is he if in addition to "having



A HIGH LANDING.

thinketh it a "snap" cast his eye over the artist's work shown in the picture appearing herewith.

That conglomeration of confusion, gentle reader, is a "landing." It ought to be called a dumping of logs. The woe-begone looking man at the top there is a scaler. Naturally you would like to know why his classic features wear an expression so much akin to that of "the little boy that God made," and I'll tell you. In that heap of logs of all lengths he must work all day, scaling each one according to its length, keeping the Norway separate from the white pine logs, doing his "level best" to get an accurate count of the number of logs in the mass. That last he must do at all hazards, for his instructions positively forbid his taking the count kept by the hauler of the logs; long experience having proven that the hauler's count, as a general thing, is not at all akin to Caesar's wife, and he is well aware that when he goes into the camp at night and gives a scale bill, that is to say, an account of the number of logs and amount of feet of lumber that this mess contains, to the foreman, he is sure to have "a growl" with that worthy and to be forced to listen with what patience he may, to divers invidious reflections upon his capability and integrity, and sundry heart-felt devotions of

his quarrel just," he can manage to also "get his blow in fust." It was once the fortune of the present scribe to incur the wrath of a herculean foreman, who modestly referred to himself as "the best man on the river," and who swore that "if the next scale didn't suit him he would break the scaler in two." As the wrathful gentleman in question had already broken one man's jaw, bitten off the nose of another, and otherwise mutilated several others, it was a fair presumption that he would at least attempt to keep his word in my case. But the danger had to be faced, be the outcome what might; so taking my courage in my hand and a Smith & Wesson ".38" in the side pocket of my coat, I went to meet it. My prospective breaker was at the landing waiting for me, and wearing an appearance of mingled joy and ferocity, as if he scented the battle near and exulted in its certain outcome. To my polite inquiries as to the state of his health he condescended to growl out the alarming information "that it was a d—— sight better'n mine was goin' to be if I robbed him this time;" and that "the quicker I got to work the sooner I'd find out all about it." Well, I made up my mind to cow that man or kill him, one or the other, and went to work on his logs, scaling them as fairly

as I knew how, and yet as closely as justice would allow. When I finished the work and footed up the result, I called him to me and asked him if he still intended "to break me in two," if the result of my work displeased him, to which question he promptly returned a prompt and profane answer in the affirmative. I then proceeded to make out a scale bill for him. Now the manner of a scale bill as used in the woods is this :

John Jawbreaker's Log, Feb. 9/95.
 X-X-Log Feet.
 1,470 147,810
 C. C. COTTEHARD, Deputy.

This bill I wrote out on a "scratch block," such as all scalers are provided with, and as my belligerent friend advanced to take it I tore the leaf off with one hand, whipped out my "gun" with the other, rolled the bill into a spill, thrust it into the barrel of the "gun," and holding the latter six inches from his countenance asked him how it suited him. You never saw a man so well pleased with a scale in your life. And I never had any more "kicking" from him. Urbanity as a general thing pays in the woods, as elsewhere, but there are occasions when a little abruptness has a great deal of saving grace about it.

But if a foreman can't bulldoze the scaler he has still at his command a beautifully efficient means of "getting even," so to speak, with that unfortunate dispenser of justice. A lumber camp is the one perfect democracy of earth, and if the White Czar or Czar Reed, for that matter, passed the night in one, he'd be compelled to sleep with some lumber jack or other, according to the assignment made by the foreman, or his executive officer, the "cookee." Now a deep-rooted prejudice exists in every well regulated lumber camp against sleeping with the scaler, and truth to tell, more can be said in its favor than in that of most prejudices. As it was tersely put by my good friend Fred Bonness, the dislike to the scaler's nocturnal comradeship is this :

"You see," said Fred, "the dashed blank tramp has to work every day, and Sunday, too, and of course he has no time to boil his clothes, so as a matter of course, he's lousier than a pet coon, and no white man wants to sleep with him."

Such being the case—and candor compels me to own that Fred's remarks contain more truth than poetry—the scaler is invariably assigned to sleep with some gentleman noted for lack of personal cleanliness, and success in the raising of the product known to science as "pediculus humanus." It will readily be seen that the scaler, having to sleep in a different camp every night, is certain to carry away from each one more than he brought to it, and to become a walking terror to himself and to everyone else before spring puts an end to his woodland miseries. But his work is not at all like the prize puzzle shown in the picture of the high landing. Occasionally he strikes an oasis in the desert.

A scaler has no Sundays ; he must work every day or his work will "get ahead of him" to such an extent that he can never catch up. He must bear with the abuse, covert or open, of everyone he has to deal with, and "turn the other cheek," as low as flesh and blood can stand doing so. He must be constantly on the watch for every possible scheme to beat him. He must be ab-

solutely bribe proof, perfectly unscarable and as "sandy" as a bull dog. He must be able to work all day, and every day, regardless of the weather, and if he is, as he is generally called, "a crank," he is a crank which saves a vast amount of friction to the rest of the machinery of the logging world.

On the regular routes where logging is done by men who are regularly engaged in the business, and nothing else, the scaler's lot, like the policeman's, is the reverse of happy. But on the "moss-back route," that is to say on a route where the logs are hauled by farmers, may God be good to him, for man's sympathy cuts no figure. To say that the average farmer holds the average scaler a thief is stating the case very mildly indeed. I would like to put on record the average scaler's opinion of the farmer—considered as a log hauler—but the English language won't do it. In the first place the farmer will never do to-day what he can put off till to-morrow, and per consequence never gets his logs stamped till the scaler has been forced to make at least three vain visits to his landing. And the guileless agriculturalist—particularly if engaged in making mistakes in the matter of section-lines—is extremely suspicious, and will seldom direct the scaler to the landings in his neighborhood, unless he is personally acquainted with the scaler, and knows he is a scaler, and not that nemesis of the woods commonly called a "cruiser." Hence it follows that a new man on the moss-back route has the pleasure of always discovering that he has left several landings behind him, on every trip he makes over it. And there is always the extreme friction existing between the farmer and the scaler as to the number of logs the former has landed ; as to the proper number of feet the logs contain, there never was, and never will be, an agreement, the granger always "knowing that the scaler has beat him out of at least fifty," and perfectly certain that he (the scaler) has been paid for doing so.

Give him his own count and he won't be satisfied, as witness one I had the pleasure of "fore-gathering" with last winter. That gentleman told me he had something more than 800 logs on the ice, that if I did not believe him (I knew perfectly well he was lying), that he would swear to it, and that he wanted them all scaled, or there would be trouble. I went to work on the landing, and before I was one quarter through, I saw plainly that there would be but little more than 700. So I made up my mind to give the farmer all he claimed, and see what the result would be. So I began "splitting" logs, that is, putting down the amount contained in each log, as two logs, as for instance, one 80 ft. log as two 40 ft. logs, and when I had scaled the whole lot I had record of 807, or 7 logs more than he claimed. And still he was not happy. He had tried to cheat me on the count, had apparently succeeded, and yet he had gotten the worst of the deal, and he don't know to this day how it came about, but he never fails to refer to me as "the slickest thief he ever saw." Add to the other miseries of the moss-back route, the fact that the landings are always 3 or 4 miles from any house, and that the unfortunate condemned to expiate his sins by travelling it must regard eating, sleeping and resting as to be indulged in on the instalment plan, if at all ; that

the inhabitants look on him as an agent of the "lumber ring," sent out for the sole purpose of their spoilation, and that all of them are in league to "beat," mislead, bully if possible, and abuse in any event, the poor devil whose only crime is that he stands between them and the great log-buyers, seeing that they are paid for all they haul but also seeing that they haul all they are paid for and in sober truth is the best friend they have. He would have to be more, or less than human, did he not return the affection of the inhabitants of his bailiwick, with interest. Taking the scaler's winter life altogether, it may be said that on a regular route it is tough, but so is the scaler, and he can stand it. On the "Moss-back" route, well, I don't know any better description of that than "Jimmy" Monroe's :

"It's pure hell," said "Jimmy," and he'd been there often, (over the moss-back route, I mean.) The scaler who works it, and asks for another chance, would out-tough Joey Bagstock, of immortal memory, but as yet has not been discovered, and if he ever is Charlie Sinclair will have him framed. C. C. Kelly, in Mississippi Valley Lumberman.

THE MILTON PULP COMPANY.

Two and one-half miles from Milton proper, but still in the parish of Milton, and five miles from Liverpool, N. S., are the mills of the Milton Pulp Company, the principal owners of which are A. G. Jones & Co., of Halifax, and the manager of which is Mr. Hughes, formerly of that city. In the manufacture of the pulp spruce is exclusively used and there is an unlimited supply. The logs are rafted down the stream and pass through an artificial canal several hundred yards to a slide that takes them right into the mill. Here they are sawed in lengths of about two feet, the bark peeled thoroughly and then placed in large cylinders, where they are ground into pulp by stone grinders. The next process is straining, and then the pulp goes to the presses, where it comes out in great sheets. These are torn off in strips of about 20 pounds, folded in squares of about 18 inches and sent in piles to an hydraulic press, where the water is squeezed out ; then it is packed in bales of 200 pounds each and is ready for shipment. In the mill about 40 men are employed and about 40 tons of pulp are turned out every day. The motive power is water and the power 1,500 horse. Everything about the mill is modern ; the hydraulic press is new and of tremendous strength.

The pulp is carted to Milton Landing and Liverpool and shipped to Boston and New York by vessel. Here it brings \$25 a ton, and is soon converted into printing paper for the great metropolitan dailies. It used to realize \$60 a ton, but with the expansion of the industry the price rapidly came down.

The construction of an electric road from Liverpool through Milton to the mills is just being commenced. It will do away with the five mile haul from the works to the seaboard, and will also be a great convenience for ordinary and passenger traffic. The pulp manufactory means a good deal to Liverpool, Milton and the surrounding country.

The French River Boom Company have finished the season's work at French River, Ont.



"I OBSERVE that you act as Canadian correspondent to the Chicago Timberman," remarked a gentleman to me the other day. I assured him that such was not the case, and enquired how he had arrived at such a conclusion. "Why," said he, "I have noticed that the Canadian correspondence in the Timberman consists almost entirely of matter which has previously appeared in THE CANADA LUMBERMAN." In the light of the above conversation, it does not require the aid of a microscope to discover the source from which our Chicago contemporary's Canadian correspondent draws his inspiration.

* * *

Dows in Haliburton county there grows tamarack and balsam in abundance. The owner of some of this timber dropped in on me during fair week, and asked if there was any demand for the product of such timber, and why it wasn't quoted in THE LUMBERMAN'S prices current. The tamarack, he said, would produce lumber from 10 to 20 inches wide, equal in strength to hemlock, of better color, and capable of better finish. The balsam, which was of less diameter, but of great length, should cut satisfactorily into scantlings. My answer was that balsam and tamarack are only to be found in certain localities, and while abundant in a few places, the quantity generally available was probably too small to warrant dealers in handling the material. This opinion seemed to be borne out by a remark which my enquirer let fall during the conversation, viz., that although brought up on a bush farm, he had never seen a balsam tree prior to going to the county of Haliburton. He believes, however, that as pine and hemlock become more scarce, there will arise a demand for such woods as tamarack and balsam as substitutes, which opinion I doubt not is well founded.

* * *

The worthy representative of Nipissing district in the Dominion parliament is Mr. James B. Klock, who, with his brother, Robert A., comprise the lumber firm of R. H. Klock & Co., with head office at Klock's Mills. A visit to Toronto a few days ago afforded "Eli" an opportunity of meeting Mr. Klock, who was en route to Montreal and Quebec. He informs me that while the United States market was never, perhaps, more depressed, the export trade from Canada, some of which is done through United States houses, is steadily improving. His firm are taking out a little square timber, and he thinks as a whole the quantity of square timber taken out this winter will probably be greater than last year, owing to the fact that the weak demand for lumber is causing some operators to turn their attention to timber. The change, however, is not a wise one, as it may result in over-stocking the British market. Regarding the extent of the season's operations in the woods, Mr. Klock is of the opinion that they may be

slightly curtailed, but this will not result in a reduction in the lumber output should the market improve, as many manufacturers in the Ottawa valley have a number of logs left over from this season.

* * *

FROM surveys made from time to time by the Geological Survey at Ottawa, the statement has been made by Dr. Bell and others that there are to be found in the northern part of Ontario and Quebec large tracks of heavily timbered land, spruce predominating to a large extent. These reports have been questioned by some, who, probably, have given the matter little or no attention. When in the office of the Clerk of Forestry at Toronto the other day, I was shown two samples of timber which had been brought from the head of Lake Temiscamingue, one of cedar and the other of spruce. The diameter of the cedar was over two feet and of the spruce about eighteen inches. Heretofore it has been generally believed that about six or seven inches was the extent of the growth of the trees in that district, but this theory is now shown to be an erroneous one. No doubt it will be similarly shown that much unexplored country in the northern part of Ontario and Quebec possesses valuable timber, which, if properly conserved, will prove a perpetual source of revenue to the government. As the use of the logging railway becomes more general, with the consequent cheapening in the cost of construction thereof, sections of country which hitherto have remained unexplored will be under tribute to the lumberman. The system of floating logs down streams has already been abandoned in some sections in favor of the logging railway.

* * *

ALTHOUGH Algonquin Park was set apart by the Ontario government as a reserve, and contains upwards of one million acres, little is as yet known of its character by the general public. Mr. Thomas Southworth, Clerk of Forestry, returned from a visit to the park early last month. He informs me that lumbering operations are being actively carried on, and one of the largest manufacturers is reported to have contracted for his entire cut of deals next season. The operations in the woods this winter, he thinks, will be on an extensive scale. "One who has not visited the park," said Mr. Southworth, "has little idea of its magnitude and forest wealth. The density of its forests is remarkable, and the only means of travel is by the numerous lakes and rivers. To attempt to travel through the woods is useless, and even in the winter time, when the snow is deep, the axe has to be brought into use before a toboggan can be taken through. It is estimated that 25 per cent. of the total area is water. All the licenses except one, which was granted many years ago, are for cutting the pine only, but there is considerable hardwood which will require to be cut at an early date. In my opinion it is a waste of wealth to allow timber to stand for years after maturity. The Ottawa, Arnprior and Parry Sound Railway is now completed to park headquarters, and affords splendid facilities for lumbermen." In speaking of the question of reforestation, Mr. Southworth remarked that the belief that the clearance of pine was always followed by a growth of other varieties was somewhat erroneous. On a tract of pine land in

the park which had been burned over, the small pine were to be seen growing between the birch and poplar, which clearly indicated that the pine seeds had not been altogether destroyed. He believed that under a proper system of forest preservation, by which fires would be prohibited, that pine would be succeeded by pine. The fact that pine was followed by a growth of other varieties was due to the destruction of the pine seeds by fire. The light seeds of other timber, which may be carried long distances by the wind, naturally take their place. The growth of the pine tree during the first ten years is very slow, but after a time it gradually outgrows the other varieties.

* * *

A HALIFAX architect with whom I had a conversation recently informs me that it is no longer possible to obtain in Nova Scotia clear native pine for interior finish, the supply having become exhausted. Such pine as is now obtainable must be putted and painted to make a presentable appearance. Such clear pine as is used is brought from Ontario, but owing to the distance it has to be carried, very little is imported. White wood, imported from the neighboring States, is chiefly employed as a substitute, but of course is not equal in quality. Most of the more pretentious buildings are now constructed of brick, and those of low cost of wood. The latter are shingled on the sides as well as the roof. The climate will not admit of the use of clap-boards. The moisture from the foggy atmosphere, followed by the heat of the sun's rays, causes the clap-boards to warp and split. The method was tried of boring out the centre of the log and sawing the boards diagonally to the centre, but even boards cut in this manner succumbed to the influence of the weather. Cedar shingles for roofing and siding are imported from Bangor, Maine, at a cost of from five to six dollars per thousand. The shingles are held in place by heavily galvanized nails, and when properly put on are said to have a life of about twenty-five years. It is not possible in this climate to use galvanized sheet iron for exterior cornices and ornamentation in the manner so common in Ontario. Stone, copper, and such like durable material, must be employed. While the cost of building is thus necessarily increased, there is less incentive to the dishonest use of materials.

TO MEND A CIRCULAR SAW.

Drill a one-fourth inch hole at the lower end of the crank, but do not countersink or rivet. Then drill a one-fourth inch hole one-half inch from the top through the crank, and countersink to center from both sides. Make a rivet that fits the sole slack, about twice as long as the saw is thick. File the ends true, then upset rivet by striking square on the end, holding the saw a little up from the face of the anvil. Then turn the saw over and upset from the other end. After upsetting so that it fills the hole plate out to fill countersink and finish smooth by filing or grinding. I have mended several in this way and never had any of them give away. One that I mended had a large piece broken out of it, afterwards spoiling the saw, but did not start the old crack. When the saw wears down nearly to the rivet drive out the rivet and put another lower down.

OTTAWA LETTER.

[Regular Correspondence of the CANADA LUMBERMAN.]

So far as can be learned the season in the woods in the Ottawa valley district will be a quiet one. While several firms have sent men to the woods, the number is smaller in most cases than that sent last season. Buell, Hurdman & Co., Bronson & Weston and J. R. Booth are among the firms mentioned as likely to curtail operations. Gilmour & Hughson will operate on about the same scale as last winter. They have already dispatched their crews to the woods.

The city has been visited by a large number of men seeking work in the woods. Unfortunately for them, many have been unable to obtain employment, and some who have worked in the bush for years have been obliged to return to their homes. As is always the case when the labor market is over-supplied, a considerable reduction has taken place in the wages of the woodsman. At the beginning of the season log cutters were being engaged at \$20 per month, but at the time of writing from \$12 to \$18 is the current wage.

The sawing season being near a close, I endeavored to obtain some idea of the cut of the various firms. As far as could be learned, there has been a slight curtailment by one or two firms, but the total cut will compare favorably with that of last year. The shipments to the British market show a decided increase, however, which advantage has been offset by the stagnation in the United States trade.

During the past summer only four rafts of square timber were floated down the Ottawa river. Thus it is seen that the square timber business is gradually being abandoned, as at one time upwards of two hundred rafts found their way to Quebec en route to the British market. It is probable, nevertheless, that during the season of 1896-97 some renewed activity may characterize this business. There is yet to be found in the Ottawa valley an abundance of logs suitable for square timber.

INDIFFERENT LENGTHS.

Mr. Garvoek, foreman of the Edwards planing mills, is at present enjoying a six weeks' tour through the United States.

Mr. James Lockman, head culler for the Shepherd & Morse Lumber Co., left a fortnight ago with a large gang of men for the Upper Ottawa limits.

Mr. J. R. Booth, with his characteristic generosity, has offered to give \$10,000 towards the erection of a sanatorium in Algonquin Park, near Canoe Lake.

Improvements have been made at the Edwards mills in New Edinburgh. An office has been erected containing five large compartments, also a drying shed, 165 feet long by 48 feet wide. This occupies the full length of the yard.

OTTAWA, Ont., Sept. 25, 1896.

NEW BRUNSWICK LETTER.

[Regular Correspondence of the CANADA LUMBERMAN.]

The operations in the woods during the coming winter promise to be fully equal to those of last season. Up to the present a large number of camps have been started, and everything points to a successful season. The cost of all kinds of lumbermen's supplies is lower than for many years. On the Miramichi James Robinson, M. P., Richards, Lynch, and Mahone have crews at work, and R. A. Estey is commencing on the Tobique, having sent 25 men and a car-load of horses from Fredericton on the 21st ultimo. His cut will be about twenty-five million feet. H. R. McLellan is conducting operations back of Devil's Back Creek, Greenwich.

The shipments of spruce lumber from St. John to transatlantic ports up to August 31st show a considerable increase as compared with the same period last year, the figures being 99,963,334 feet in 1895 and 125,758,667 feet in 1896. The shippers were: W. M. Mackay, 75,803,060 feet; Alex. Gibson & Sons, 38,423,461; George McKean, 5,521,013; other shippers, 5,011,133. Of birch timber, 8,785 tons went this year, compared with 6,856 for the same period last year. Of pine timber there was only shipped one ton, compared with 324 tons last year. From other ports in New Brunswick and Nova Scotia Mr. Mackay shipped 109,790,494 feet, against 91,111,741 feet in 1895. The quantity sent to the United States shows a falling off.

The largest cargo of lumber that has been shipped out of St. John this year went recently to Cardiff per steamer

Treasury. The lumber was furnished by W. M. Mackay and consisted of 1,400 1/4 standards.

Two shingle machines have been placed in the Aberdeen mill, Fredericton, by Donald Fraser & Sons, which, it is understood, will be run at night along with the clapboard machine and planer until the close of the season. The rotary will be closed down at night, while the usual work will continue during the day.

BITS OF LUMBER.

Lack of logs necessitated the temporary closing down of Adams & Burns' mill at Bathurst.

Messrs. Cushing & Co. have found it necessary to further enlarge their mill at Union Point.

Gibson's mills on the Nashwaak are running full blast now, the recent rains having assisted in bringing the logs down.

John Kilburn has returned from Quebec, where he has been looking after his lumbering interests. He has 80 men and ten horses at work, and intends augmenting this force.

The shingle mill of Charles McMilkin, at Marble Cove, which was recently burned, was built 16 years ago, and employed 20 men. The loss is only partially covered by insurance.

Forest fires have been raging in the vicinity of Doaktown, and for several days the mills were shut down, the men being employed in trying to save the timber. The fires have now been subdued.

D. & J. Ritchie, whose mill at Newcastle was burned recently, will erect a mill modern in every respect. They have arranged with T. W. Flett, just across the river at Nelson, to cut for them, and that mill is now rushing their logs through. About 55 men were thrown out of employment by the fire.

ST. JOHN, N.B., Sept. 24, 1896.

MICHIGAN LETTER.

[Regular Correspondence of the CANADA LUMBERMAN.]

THE depression which has characterized the lumber trade in general would seem to have fallen with unaccountable force upon the Michigan operators. At every point the report is heard that business is at its lowest ebb. No doubt the recent financial disasters have been an important factor in disturbing the trade of the state, while political questions are also engaging the attention of capitalists. At Saginaw nearly all the mills have closed down until some of the lumber which is piled upon the docks is removed. Manufacturers have wearied of cutting lumber to augment the already large supply, while there is little or no demand.

Preparations for the woods are being made upon a very limited scale, and it is doubtful whether the quantity of logs taken out this winter will reach one-fourth of the usual output. Bay City manufacturers will operate very lightly, while the Saginaw manufacturers who obtain their supply from the Georgian Bay district will also curtail. Should the Presidential election be followed by increased trade, however, most of the mills will be in a position to make an average cut, as there are large quantities of logs being held over. It is estimated that fully 70,000,000 feet of Canadian logs will be held over until next season to save the cost of labor in sawing them.

The great Menominee river log drive has been completed for this year. The total amount of logs driven down was 330,000,000 feet, about 35,000,000 feet less than last year. It is estimated that next year's drive will be proportionately less. The drive this year has been remarkable. The main river drive was completed in fifty-two days, while last year, with 35,000,000 feet more, it took seventy-one days to finish it and then some logs were hung up.

SELECTS.

Close estimates of the amount of lumber piled in the different mill yards along the Menominee river give it as 204,483,000 feet.

The Holland & Emery Lumber Company's mill at East Tawas, which was closed down for six weeks, has just started up with 150 hands.

Alger, Smith & Co. have dispatched their last raft for the season, of 1,500,000 feet, from Georgian Bay to Cheboygan. The concern has 5,000,000 feet of logs still back in Canadian waters.

The importation of Canadian logs into the Saginaw Valley fell off over one-half during the month of August as compared with July, while the shipments of lumber

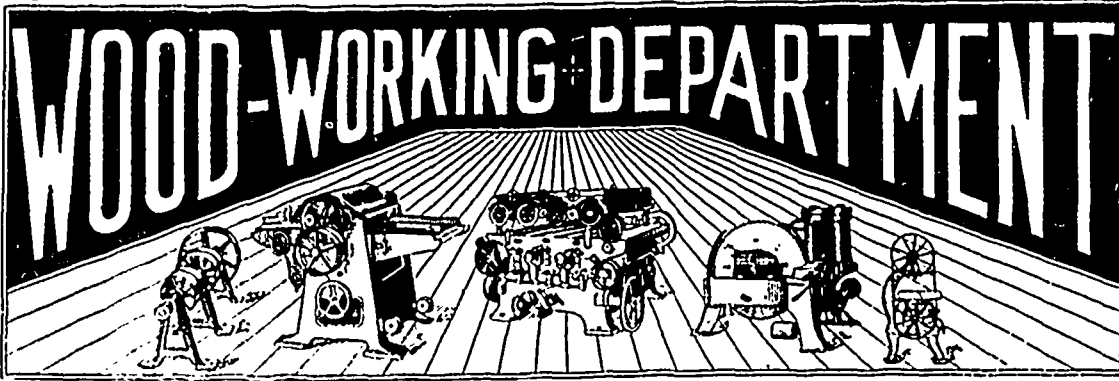
were the lightest in years. The entries were 348,775 feet of lumber and 274,816 pine saw logs, containing 16,654,100 feet, board measure, and valued at \$132,295.

Preliminary negotiations are under way for the removal of the lumbering business of the Diamond Match Co. to a site on Portage Lake, near Houghton. The company has 130,000,000 feet of logs already cut in the streams, which will suffice for two years' work, and could easily raft its remaining standing pine in Ontonagon county, when cut, to the mills there.

SAGINAW, Mich., Sept. 26, 1896.

WOOD PULP.

THE utilization of saw mill waste in the production of wood pulp is a subject which will bear the closest investigation by the promoters of important saw mill enterprises. When this industry was in its infancy it was supposed that the solid log sawed to an exact and unvarying length was an absolute necessity if success was to attend the operation of the pulp mill. But there are saw mills to-day in Maine holding contracts with the pulp mills to absorb all of their mill waste, and at a price which causes the lumberman to rub his hands with glee, as he recalls the old refuse burner or slab-piles to which so important a percentage of his mill product was formerly consigned. As the use of wood pulp extends from one class of goods to another, the industry itself assumes proportions which places it well toward the top of the list among the giant industries of the country. Of course, the waste product of our saw mills, if it were diverted exclusively to the pulp grinders, would supply but a very small percentage of the total amount of wood so consumed, and the manufacturers realize that their supply must come in the log direct from the forest. Spruce, by reason of its peculiar texture and fibre, is the great staple for use in the pulp mill. The bulk of the supply to-day comes from the Adirondacks, Northern New England and Canada. The pulp men are buying available timber tracts wherever found in order to secure an adequate supply for the future. When purchasing timber tracts or stumps they acquire it at the market price, but in recent years they have very frequently outbid the saw mill men in their scramble for the possession of logs at the sorting boom. It is evident that West Virginia must soon be invaded on a large scale by the pulp makers, and when they come to realize the vast spruce timber resources of that state pulp factories will spring up like mushrooms on every line of railroad. Much of the timber land of West Virginia has been cut over for its poplar, oak and other hardwoods, the spruce being left for future generations to utilize. Readers who have followed our able and critical letters from West Virginia have learned that vast forests stripped of everything but the spruce are now found in many sections of that state, offering a fertile field for pulp operations. Several mills in that state are now cutting spruce exclusively, turning out something like 300,000 feet of lumber per day, and the mill waste produced in these plants would furnish the nucleus for substantial pulp operations. It is a growing industry, for, in addition to the former uses of pulp, it is now being extensively employed in the manufacture of mouldings, paper tiles for roofing purposes, and an enthusiastic advocate has recently declared its great value as a substitute for brick and stone as a building material. Lumberman's Review.



ELECTRICAL TESTS OF POWER REQUIRED BY WOOD-WORKING MACHINERY.

Prof. O. G. Dodge reports the following tests of power required by the wood-working machinery at the Washington Navy Yard: The mechanical h.p. delivered by the motor was determined by tests made under the same conditions as the previous power tests. This was necessary, as in many cases long leads were run to the motor and the drop was large. In other cases it was necessary to use a rheostat in series with the armature to obtain the required speed. Under these conditions the efficiency of the motor was a very variable factor, and a separate test was made in each case to determine the output of the motor. The column of mechanical output is therefore the proper one to use in determining the motor required, and the electrical h.p. to be delivered by the generator.

The work done is the heaviest that will be required of these particular machines:

Circular rip saw, 28" diameter; speed, 1,200 revolutions per minute, or 8,800 lineal feet per minute. Arbor pulley 5 1/4" diameter by 8 1/2" face; hand feed; motor belted to saw shaft: Motor and saw, idle, 3.4 e.h.p.; ripping seasoned heart oak, 7 5/8" thick; feed, 10 feet per minute, 19.3 e.h.p.

Circular rip saw, 24" diameter; speed 1,500 revolutions per minute, or 9,429 lineal feet per minute; hand feed; motor belt direct to 7" pulley on saw shaft: Motor driving saw, idle, 3.2 e.h.p.; ripping seasoned heart oak, 6" thick, 10 feet per minute, 12.8 e.h.p.; ripping seasoned white pine, 6 1/2" thick, 15 feet per minute, 9.4 e.h.p.; ripping seasoned yellow pine, 2" thick, 45 feet per minute, 10.7 e.h.p.

Circular rip saw, 14" diameter; speed 2,200 revolutions per minute, or 8,067 lineal feet per minute; Arbor pulley, 3" diameter, 5" face; hand feed; motor belted to saw shaft: Motor, idle, .96 e.h.p.; motor and saw, idle, 2.7 e.h.p.; ripping seasoned heart oak, 3 1/2" thick, 12 feet per minute, 6.3 e.h.p.

Circular rip saw, 12" diameter; speed, 2,200 revolutions per minute, or 6,914 lineal feet per minute; hand feed; belt pulley 3 1/2" diameter and 3" face; motor belted direct to 3 1/2" pulley on saw shaft; saw set to wobble for cutting grooves: Motor, idle, .96 e.h.p.; driving saw, idle, 2.2 e.h.p.; cutting groove in seasoned walnut, 3/8 x 5/8, 12 feet per minute, 3.6 e.h.p.

Band saw pulleys 72" diameters; speed, 160 revolutions per minute, or 3,017 lineal feet per minute; belt pulley 30" diameter, 8" face, power feed; motor belted to saw shaft: Motor and saw, idle, 12.1 e.h.p.; ripping seasoned ash, 10 3/4" thick, feed 6 feet per minute, 16.1 e.h.p.; ripping seasoned white pine, 16 1/2" thick, feed 10 feet per minute, 16.1 e.h.p.; ripping yellow

pine, 12" thick, 20 feet per minute, 18.8 e. h. p.

Band saw, pulleys 42" diameter; speed, 350 revolutions per minute, or 3,850 lineal feet per minute; belt pulley 16" diameter, 5" face; hand feed; motor belted to saw shaft: Motor, idle, .96 e.h.p.; Motor and saw, idle, 2.9 e.h.p.; ripping seasoned oak, 12" thick, feed 3 feet per minute, 5.7 e.h.p.; cross-cutting seasoned oak, 8" thick, feed 5 feet per minute, 5.7 e.h.p.; ripping live oak, 10" thick, feed 3.2 feet per minute, 5.7 e.h.p.

Band saw pulleys, 28" diameter; speed, 480 revolutions per minute, or 3,520 lineal feet per minute; belt pulley 12" diameter, 3 1/2" face; hand feed; motor belted to saw shaft: Motor, idle, .96 e.h.p.; motor and saw, idle, 1.7 e.h.p.; ripping seasoned oak, 3" thick, feed 2 1/2 feet per minute, 2.3 e.h.p.; ripping seasoned pine, 3" thick, feed 4 feet per minute, 2.3 e.h.p.; cross-cut seasoned oak, 3 1/4" thick, feed 4 feet per minute, 2.3 e.h.p.

Daniel's planer, machine bed 2 feet 5 in. by 21 feet 6 in.; belt pulley 13 in. diameter by 5 1/4 in. face; speed 350 revolutions per minute; speed of cutting edges of tool 10,400 feet per minute; power feed 12 feet per minute; motor belted to countershaft: Motor, idle, .96 e.h.p.; driving machine, idle, 3.9 e.h.p.; planing seasoned oak, cut 3/16 in. deep by 20 in. wide, 12 feet per minute, 6.2 e.h.p.

Hand cylinder planer or jointer, size of machine 24 in.; belt pulley 4 in. diameter, 5 in. face; speed 3,200 revolutions per minute; speed of cutting edge of tool 4,000 feet per minute; hand feed; motor belted to shaft of tool: Motor, idle, .96 e.h.p.; driving machine, idle, 2.40 e.h.p.; planing white pine, cut 1/100 in. deep by 18 in. wide, 25 feet per minute, 4.80 e.h.p.

Cylinder planer, size of machine 24 in.; belt pulley 5 in. diameter, 5 in. face; 2,250 revolutions per minute; speed of cutting edges of tool 3,105 feet per minute; power feed; motor belted to shaft of tool: Motor, idle, .96 e.h.p.; driving machine, idle, 2.40 e.h.p.; planing pine, cut 1/16 in. deep, 18 in. wide, 11 feet per minute, 3.6 e.h.p.; planing oak, cut 1/16 in. deep, 6 1/2 in. wide, 11 feet per minute, 3.6 e.h.p.

Boring machine, speed of bit 375 revolutions per minute; hand feed; motor belted to bit shaft: Motor, idle, .96 e.h.p.; driving machine, idle, 1.7 e.h.p.; boring, 4 inch hole in seasoned oak, 9.35 feet per minute, 2.3 e.h.p.

Boring machine, belt pulley 8 in. diameter, 3 in. face; speed 750 revolutions per minute; hand feed; motor belted to machine shaft: Motor, idle, .96 e.h.p.; driving machine, idle, 1.9 e.h.p.; boring 1 in. hole in oak, feed 3 3/4 in. in 5 seconds, 2.2 e.h.p.; boring 1 5/8 in. hole in oak, feed 1 in. in 7 seconds, 2.2 e.h.p.

A POPULAR DRY KILN.

The illustrations herewith presented show the operation of a cheap dry kiln which is extensively used on the Pacific coast, and which is claimed to possess considerable merit. The essence of success in drying lumber lies in the circulation of the air. Figure 1 shows the interior of the kiln. The air shaft, with damper to regulate the down pressure of the air, is situated between the outside door and a false door. The false door does not reach the floor of the kiln, consequently the hot moist air current does not come in contact with the cold air from the air shaft, but passes under the door. For a small distance into the kiln (enough to take in a car of lumber) the floor is solid; that is, there are no steam pipes underneath. The reason for this is to give the lumber a gradual heat. In other words, when one car is taken out the one nearest the false door is moved forward into a hot temperature. At the dry end of the kiln, and underneath the floor, is a

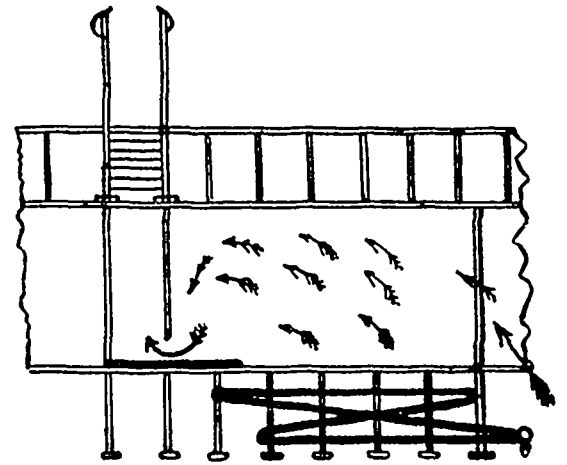


FIG. 1.

cold air duct, extending nearly the width of the structure and about four inches in diameter. The cold air forces the hot air to the top of the kiln and through the lumber and down at the other end through the opening under the false door. The passage of the hot air through the lumber makes the air damp and passes so fast that it prevents any sweating of the sides of the kiln or in any part of the lumber. The principle of this is that rapid

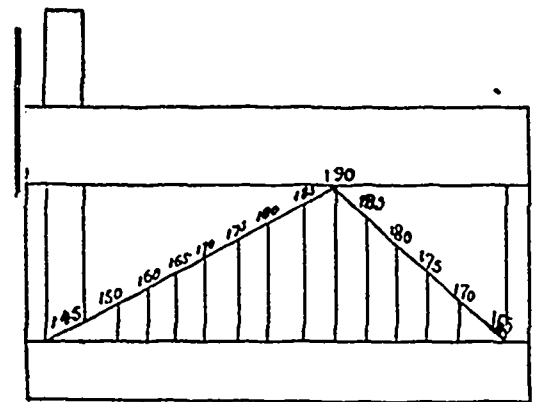


FIG. 2.

and strong circulation takes up the small particles of dampness as soon as they leave the lumber. In this way the damp hot air will start the water from the centre of the board through the cells or pores, thus drying the centre first, preventing checking, warping and twisting. So strong is the circulation that shavings are blown away at the wet end.

The pipes underneath the kiln are placed on an incline in order to carry off condensation of steam. At the first joint of the pipe, at the wet end, is a header. A bleeder carries the condensation through an independent pipe to the second header, which is at the cold air inlet. Here is another bleeder which carries the condensation to the outside.

Figure 2 gives an idea of the temperature, and is self-explanatory. From it can be seen that the area of very hot temperature is at about one-third the length of the kiln from the hot air end.

Spruce, cedar and fir has been dried in fairly good shape in 36 hours, without checking. About 500 feet of pipe is used to every 100,000 shingles, and lumber requires less. About 365 degrees serves to dry lumber in four days and 185 degrees for shingles.

THE NEWS.

—Mr. Hamilton, of Cache Bay, has taken over the plant of the Imperial Lumber Co., of Warren, Ont.

—Gilley Bros., loggers, etc., New Westminster, B. C., have been succeeded by the Mauland Logging Co., Ltd.

—The St. Anthony Lumber Company are building a new dam at Whitney, Ont., across the Madawaska river.

—The second mill of the Sault Ste. Marie Pulp and Paper Co., at Sault Ste. Marie, Ont., is nearing completion.

—The gang saw in Mickle, Dymont & Sons' mill at Severn Bridge, Ont., closed down for the season a fortnight ago.

—W. E. Tatton, of Grand Manan, N. B., is refitting his mill there with a new 50 h. p. steam plant from the shops of E. Leonard & Sons.

—Messrs. McMillan & Haynes, saw manufacturers, St. Catharines, Ont., have been succeeded by the McMillan & Haynes Company, Ltd.

—Messrs. Price have closed down their saw mill at Sault au Cochon, Que. The late superintendent, Mr. G. W. Forrest, has removed to Waterloo.

—D. A. Nease, an American capitalist, has been in the Port Arthur district investigating the resources and advantages of that region for the pulp grinding industry.

—It is understood that a company is negotiating for the purchase of the mill property of John G. Rice, at Digby, N. S., with a view of converting it into a general wood-working factory.

—The news has reached the Ontario Crown Lands Department of extensive forest fires near the head waters of the Mississiquo river. It is estimated that 35,000,000 feet of lumber have been burned.

—Jean Dansereau, millwright, has taken an action for \$1,999 against Hercule Dansereau on account of an accident which happened to him while working in the latter's saw mills at Vercheres, Que.

—Mr. S. Hayakawa, of Japan, who is Councillor of the Ministry of Finance, and Government Inspector of the Bank of Japan, states that there is an excellent market in that country for machinery of all kinds.

—The Cascapedia Pulp and Lumber Company has been incorporated, with a capital stock of \$500,000. The promoters are: J. M. Fortier, James Stubbs and Thomas Harkness, of Montreal, and Alphonse Charlebois and C. H. J. Maguire, of Quebec.

—The Cant Bros.' Manufacturing Company, of Galt, Ont., have purchased the old Carbon Works building at Lancaster, N. Y., and are making arrangements to remove to that city. They are putting the building in shape to receive their machinery for manufacturing woodworking machines.

—A dispatch from Washington says: Acting-Secretary Hamlin has decided lumber may be shipped from Canada to Syracuse, N. Y., in bond, and entered for immediate transportation, Syracuse having been recently designated as a port of entry, with immediate transportation privileges.

—At a meeting of the members of the firm of E. D. Davison & Son, Limited, of Bridgewater, N. S., Francis Davison was chosen as president, to fill the vacancy caused by the death of the late Charles Henry Davison. Archie L. Davison was appointed secretary for the remainder of the present year.

—Mr. Thos. Callaghan, agent for the Rathbun Co. at Campbellton, who has recently returned from a trip through the north country, reports that the company's limits in the townships of Stanhope and McClintock have escaped damage by fire so far, although severe conflagrations have raged in the vicinity.

—The Port Arthur Pulp Timber Company, Limited, composed of R. A. Manning, Marquet, D. A. Nease, Philadelphia, R. A. Hazlewood, Jas. Whalen and Jas. Connee, Port Arthur, are applying for incorporation, to manufacture and deal in all kinds of timber and pulp, etc. The head office is Port Arthur, Ont., and the capital stock \$200,000.

—Mr. W. A. Howell, of Jarvis, Ont., has taken out a patent for the United Kingdom relating to a guide for band saws. The guide consists of a disc with grooves of different widths, into one of which the back of the band

saw fits. The disc turns on centres in a fork which can be adjusted laterally by a screw being made to slide in the block. The block is fixed to a bracket, adjustable on a rod, which again is supported adjustably in the socket.

The pulp factory in process of erection at Windsor Mills, Que., comprises two large buildings, each 172 x 32 feet, situated near the dam constructed last year. One of these is already finished and workmen are placing the machinery in it. They will have a capacity of sixteen tons of pulp a day, with 8,000 horse-power as a motor, and when finished will give employment to between 150 and 200 men.

CASUALTIES.

—Judson Broadway had one of his hands badly injured while running a jointer in Howry & Son's mills at Fenelon Falls, Ont.

—George Gavott was killed in C. Gates' chopping mill at Houghton Centre, Ont., while engaged in putting a belt on a pulley.

—Wallace McDonald, while putting a lath saw in place on a machine at McDonald's Corner, N. B., accidentally sawed his hand almost off.

—A. J. Hughes, lumber merchant of Souris, Man., fell over a precipice while prospecting in British Columbia, and was seriously injured.

—J. Marshall, son of the night-watchman at the Royal City Mills, New Westminster, B. C., was drowned by being drawn off the log he was guiding to the chute.

—While engaged in placing some lumber in position on a saw in Gilmour & Hughson's mill at Hull, Albert Bedard was instantly killed. The board flew back, striking him on the chest.

—Thomas Barry was severely injured in a saw mill at West Frampton, Que., by coming in contact with a circular saw. A wound sixteen inches in length and seven inches in depth was inflicted.

—A boiler exploded in Pettis Bros.' hoop and stave mill four miles from Comber, Ont., on the 16th inst., instantly killing Alfred Jacobs, night fireman. Deceased had put in a new pipe leading to the safety valve, and evidently neglected to open the valve before getting up steam.

—Elijah Wisner met his death in the saw mill of Chas. E. Nayloc, Essex, Ont., on the 15th inst. His work was to equalize the length of the bolts by running them between two saws, and it is supposed he placed his side against the log, and the saw passed through it unnoticed, cutting him terribly from the knee up to the armpit, and severing the ribs.

—What might have been a much more serious accident occurred to Mr. G. L. Parker, manager of Ross Bros. estate at Buckingham, Que. While walking over the ruins of the old mill, the debris gave way, and precipitated him about fifteen feet to the bottom of the mill. He was severely bruised and one of his hands dislocated.

PERSONAL.

Mr. William Gillies, of the lumber manufacturing firm of Gillies Bros., Braeside, Ont., left a fortnight ago on a two months' visit to British Columbia.

Mr. J. W. Todd and his son, of the firm of Watson & Todd, Liverpool, Eng., and Montreal, have arrived in Canada to look after their interests on this side of the Atlantic.

On the 22nd ultimo the death occurred in Toronto, after a lingering illness, of Senator John Ferguson, M.D. Deceased was at one time a prominent contractor, and established the first wood pulp mill at Sherbrooke, Que.

The Northeastern Lumberman says: "Political economists in Europe claim that growing timber and gold are the only articles which have not declined very greatly in value during the last decade. The yearly value of the timber consumed in Europe is estimated at \$951,250,000." To this may be added two comments. First, for timber, like gold, there is an ever-growing use and demand. Secondly, timber, unlike gold, is decreasing in quantity. Those of our lumbermen who conserve their forest limits have an assured wealth to leave to all generations to come.

LARGE TIMBER RAFT.

The largest raft of logs ever floated into San Francisco bay, containing nearly 600,000 linear feet of piling, was towed down from the Columbia river by the Southern Pacific collier Mineola.

The raft was built at Stella, on the Columbia river, and is constructed on the cigar-shaped plan and forms a structure 500 feet in length, with about fifty feet beam and thirty feet depth. It will draw twenty-five feet of water and contain 560,000 linear feet of logs, and if the latter were laid out in a straight line, ends together, they would form a rail 217 miles in length, and be sufficient to build a pontoon bridge seven piles broad to the Farallones, if such an undertaking were possible.

Between fifty and sixty tons of chain have been used in the construction of the immense raft, and it is said to be stronger and better built than any other log raft ever launched in the world. The piles are principally of fir and spruce and have been carefully selected.

RED AND WHITE CEDAR SHINGLES.

A CORRESPONDENT of the New York Sun says: "There are in Michigan white cedar shingles now doing good service on roofs in that state that have been in full exposure and wear for over seventy-five years. It is thus seen that climate affects the durability of shingles, and the fact that white cedar is the natural product of Michigan and red cedar of the Pacific coast is held to be proof that the red cedar is naturally adapted for use on the Pacific coast and the white for use in such sections as the middle and north-western states, etc. A peculiar objection is brought against the red cedar by some, namely, that there exists in that wood an acid which is, in the climate of certain sections, so acted upon by water as to corrode rapidly the nails with which the shingles are fastened onto roofs, the rust extending to the wood around the nails, and soon causing a leaky roof—this action explaining the holes so often to be seen around the nails in red cedar roofs. Another point offered for consideration in this connection is the fact, as stated, that a shingle is ruined by kiln-drying, and that no kiln-dried lumber can be regarded as of equal value for outside work to that which is air-dried."

KEEP AT IT.

If you expect to conquer
In the battle of to-day,
You will have to blow your trumpet
In a firm and steady way.
If you toot your little whistle
Then lay aside the horn,
There's not a soul will ever know
That such a man was born.

The man that owns his acres
Is the man that plows all day,
And the man that keeps a-humping
Is the man that's here to stay.
But the man who advertises
With a sort of sudden jerk
Is the man that blames the printer
Because it didn't work.

But the man that gets the business
Uses brainy printer's ink,
Not a clatter and a sputter,
But an ad. that makes you think:
And he plans his advertisements
As he plans his well-thought stock,
And the future of his business
Is as solid as a rock.

SOME HINTS ON SAWING.

I HAVE said something, some time or other, to the effect that all logs saw easiest and with less liability to pinch if sawed butt foremost. There are other considerations also in favor of this proposition; the slabs handle easier over the rollers, and if the log is tapering the boards can be handled best wide end foremost and can be edged to best advantage; the edgings will go out of the mill with less danger of catching in the machinery, and where there are edge pieces worth trimming to clips, they come handiest to the trimmer butt end first. But once and above all, the sawyer can see better from the butt how much good stock he is likely to get off the log before striking heart defects. Any way you can put it, a log will handle easiest from stump to lumber stock, butt end foremost.

There are hundreds of small mills throughout the country with only a single hand edger or none at all, the bulk or the whole of the edging being done on the big circular. Here is a chance for pretty nearly making or breaking the owner. In the majority of cases it rubs pretty close to the latter. It is impossible to edge with the big saw and do anything like justice to individual boards and get anything like a day's work done. There must be inevitable waste and making of poor grades. But if the sawyer knows anything about edging to advantage he can save a good deal. His first duty should be to saw everything so as to leave as little edging to be done as possible. No set of rules can be laid down to govern this part of the sawyer's work. It can only be a question of good judgment, to be varied with pretty much every log. There are sawyers who have good judgment in everything else, but who utterly fail in this work and waste much more than their wages every day. Such sawyers should be employed only where there is a gang edger and a skilled edgerman. It is poor economy to run a small portable without a gang edger, as the waste of stock and lowering of grades will pay for a pretty good one in a season's run.

Never crowd a saw so as to lower its speed if you want it to do uniformly good work. All saws are hammered, or should be, to stand up at a certain speed per minute, and if run below that it is not the fault of the saw if it makes wedge-shaped or snaky lumber. This does not apply to the old five and six-gauge boiler plates made for butchering wood with inserted teeth.

In all saw mill practice the sawyer and the setter should be in complete accord, and as a general rule the setter should be under the absolute direction of the sawyer. As has been stated in these papers, the sawyer ought to be a good practical lumber inspector, at least to the extent that he should know what kind of lumber each cut is going to make when he sees the surface presented to the saw. After the slab is once off he should know whether the next piece ought to be cut into graded stock, whether it should be an inch or into something thicker, or, where lumber thinner than inch is being cut, whether it is good enough for that class of stock, or whether the log should be run through and through into something for dimension and gotten out of the way as quickly as possible. He should know whether a log is worth spending time over in order to get out lumber better than common. Where his experience teaches him that there is nothing better than the lower grades in the log, he should only spend time enough in turning the log to get all the sound common out of it that is possible. If the setter and sawyer can not agree fully, and the sawyer is granted the general direction of the work, provided he is capable, then the quicker a new setter is employed the better for the pocket of the owner. My experience has always been that in sawing ordinary stock lumber, beyond certain points which are clearly the setter's prerogative, the latter should be entirely subordinate to the sawyer. But on the other hand, no matter how good a mechanic the sawyer may be, how well he may handle his saw, if he does not know at a glance from the time the log is rolled on the carriage just how to place it for every turn and cut, he has no business there, for that part of the work can not be delegated to the setter with any certainty of economy, as he can not see the face of the log and make the necessary decisions without losing time. Of course there are some exceptions to this general rule, as in all others. In cutting bill stuff, especially to fractional sizes,

and for special purposes, the setter may be allowed some degree of discretion, as he is supposed to know just exactly what the bill calls for, and to check it off as sawed; and he should be capable of judging whether a piece wholly or partly finished is up to the quality of the order, and should be checked off or turned back on the carriage to be run into stock. At the same time it is quite necessary in order that there be no waste, and no loss of time, that the sawyer should know fully as much about what is required for the given lot of bill stuff as does the setter. There are some pretty good sawyers engaged in the business who allow themselves to be practically run by the setter who happens to be a man of more force of character, and perhaps better knowledge of how the lumber should be sawed. —O. S. Whitmore, in The Wood-worker.

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Valencia raisins. 4c.
Evaporated apples (choice brights) 5 1/2 c.
Dried apples. 3 1/2 c.
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1/2 brls fine quality rich syrup. 2c.

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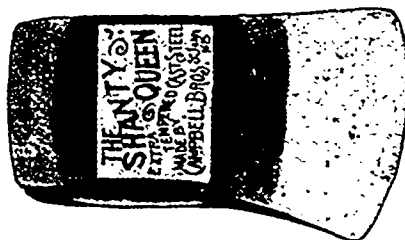
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During July, this year, 83,661,000 feet of lumber was imported from Canada to the United States, valued at \$892,414, as compared with 80,960,000 feet, valued at \$890,446, during July, 1895. For the seven months ending with July the imports this year amounted to 407,788,000 feet, valued at \$4,321,589, and for the same period last year the imports were 378,211,000 feet, valued at \$4,148,079. The imports of wood

pulp from Canada for July this year amounted to 3,850 tons, valued at \$54,836, against 1,577 tons, valued at \$24,746, for July last year. For the seven months ending with July this year 22,273 tons of wood pulp were imported from Canada, valued at \$302,820, against 9,712 tons, valued at \$174,482, for the seven months ending with July last year. Imports of log and round timber for July this year amounted to 96,836,000 feet,

valued at \$773,410, and for July last year 71,907,000 feet, valued at \$575,407. For the seven months ending with July the imports of logs amounted to 213,475,000 feet this year, valued at \$1,606,887, and 175,157,000 feet last year, valued at \$1,373,493.

McNair Bros., of Vancouver, B. C., have re-built their burned shingle mill.

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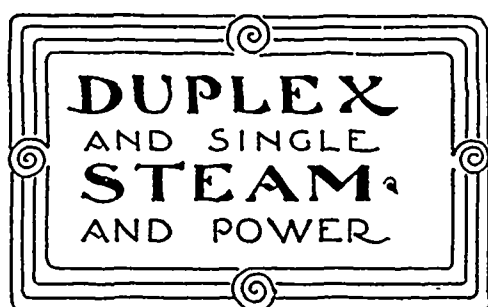
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A NOVELTY in electric applications is the timber stacking crane. A London firm of timber importers found that stacking by manual labor was too slow and inefficient to meet the demands of their business. As steam was pronounced impracticable on account of the greatly increased rate charged for insurance, an electric motor was installed. The usual run of timber stacked is deal, battens and board ends, varying from one foot up to six feet in length, and of deals and

battens from six to sixteen feet long. A means was also required of suitably raising and delivering loads of short lengths, so as to reduce handling to a minimum, after delivery of each load upon the stack. Wire rope slings were used at first, and they answered well for deals and planks, but with boards the pack sagged and became so distorted that it was awkward to handle. The difficulty was overcome by a set of slings having a stiff steel rod along the bottom, and so adjustable that they would lift both thick and thin timber. The electric motor does the

work with such ease that a six-foot cube of wood, weighing three tons, can be loaded by it in four lifts of 1,500 pounds each up to the height of sixty feet, or directly into vans or wagons. The crane is available also for loading vans from any part of the stack. An unique feature of this installation is the fact that the firm intends to ascertain the net profits made by the electric crane over hand labor, and to distribute 50 per cent. of these among the men who are employed upon the work. The number of laborers engaged is about 200.

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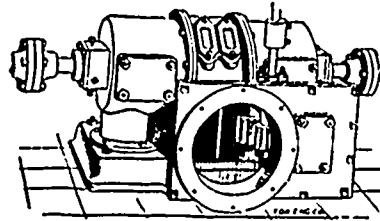
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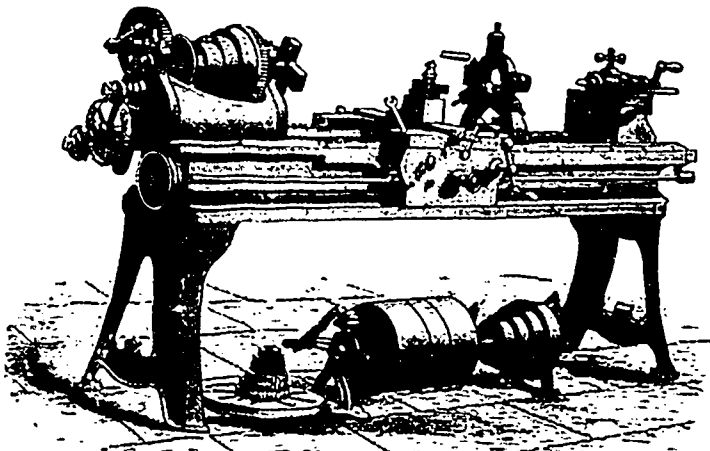
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A quantity of standing pine timber upon unsold and unlicensed lands of the Crown, lying south and west of Biscotasing Station, on the main line of the Canadian Pacific Railway, estimated as follows:

| | |
|---------|----------------------|
| Block 1 | 4,000,000 feet B. M. |
| " 2 | 15,000,000 " |
| " 3 | 12,000,000 " |
| " 4 | 14,000,000 " |
| " 5 | 16,000,000 " |
| Total | 61,000,000 " |

having been damaged by fire during the past summer, the undersigned hereby calls for tenders for the right to cut the damaged timber.

Tenders will be received up to and including the 20th day of October next, and may be for any block or for the whole, and must state the amount per thousand feet cubic, if made into square or waney board timber, and per thousand feet board measure, if made into sawlogs, which the parties making tender are willing to pay for the burnt timber, in addition to the Crown dues of \$25.00 per thousand feet cubic for timber and \$1.25 per thousand feet B. M. for logs. Parties are at liberty to make, and the same will be considered, an alternative tender of a lump sum as bonus for the timber on each block, in addition to the Crown dues as above stated.

The above figures represent only the Department's estimate, and intending purchasers must satisfy themselves as to quantities and all other particulars. The Department does not bind itself to accept the highest or any tender.

For conditions, maps of the territory, and further particulars, applications should be made to the Crown Lands Department.

Tenders should be marked "Tender for Burnt Timber" and addressed to the Hon. Commissioner of Crown Lands.

Mr. A. W. Helling, Forest Ranger under the Department, will be at Biscotasing Station on and after the 20th of September to give information to parties desirous of examining this timber.

J. M. GIBSON,
Commissioner of Crown Lands

Department of Crown Lands,
(Woods and Forests Branch),
Toronto, September 15th, 1896.



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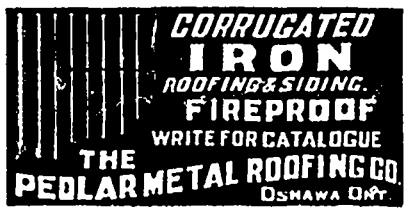
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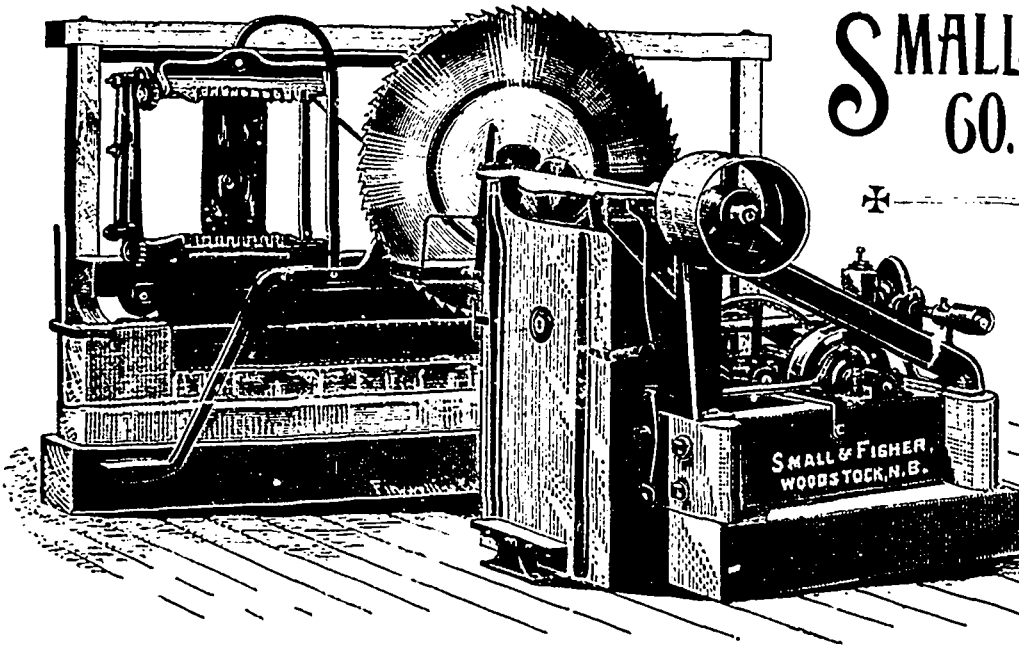
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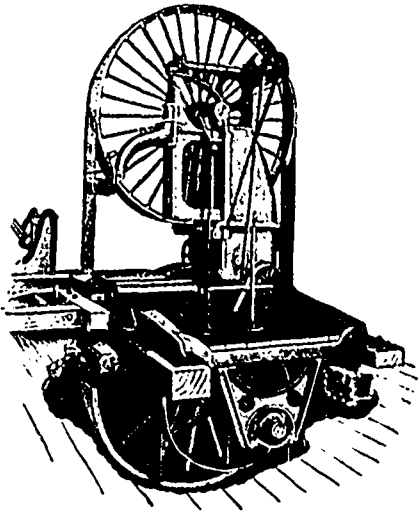
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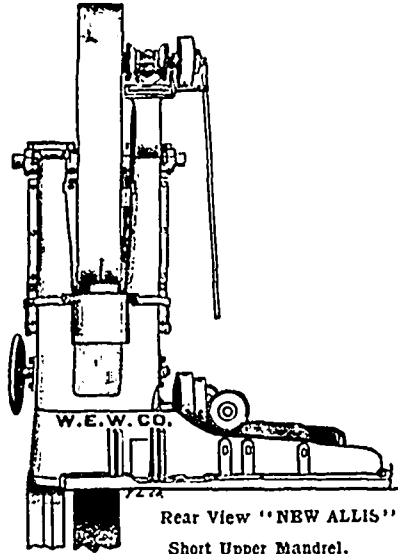
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Lumber Machinery

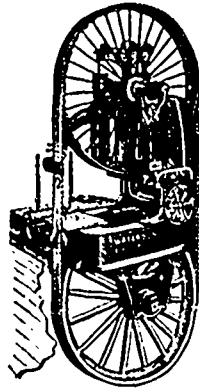
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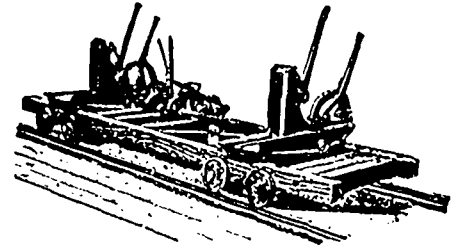
Right Hand - Front View.
"NEW ALLIS"
It surpasses all others in many points.



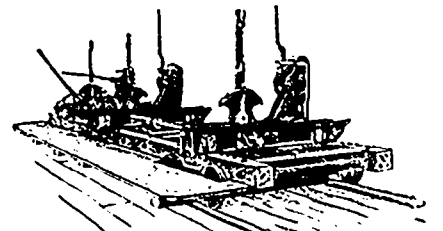
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NOTE Short Upper Mandrel.
Wheel Centrally Hung.
Lower Wheel Inside Frame.



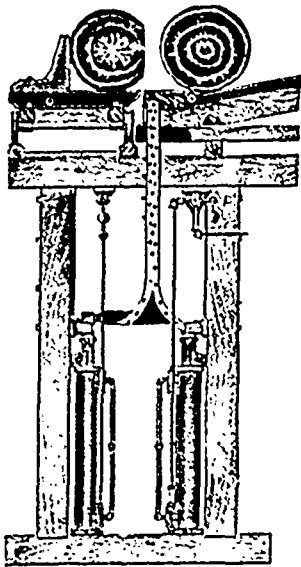
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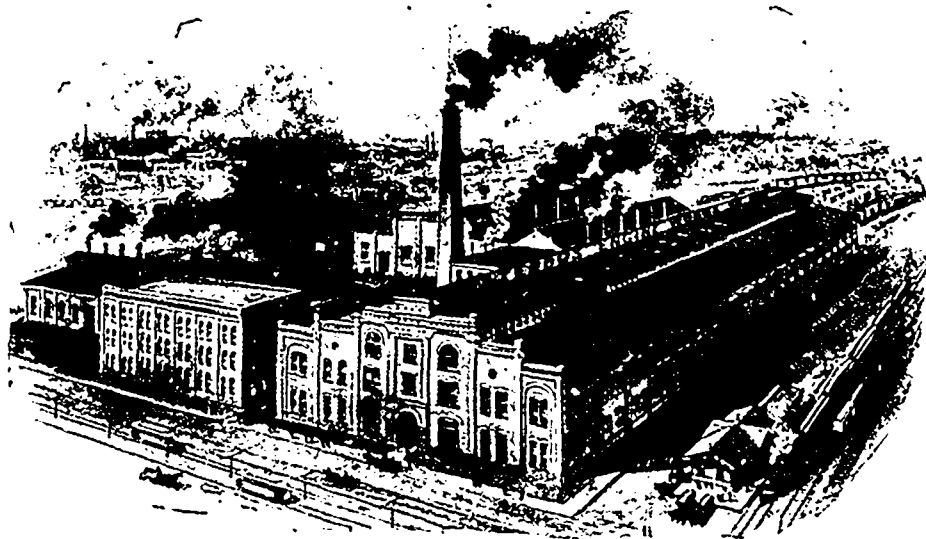


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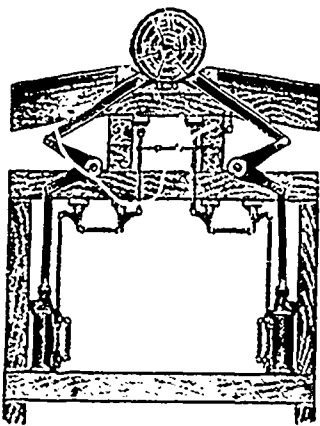
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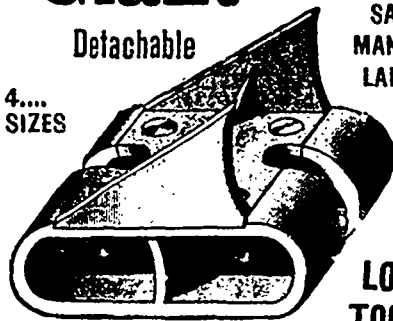
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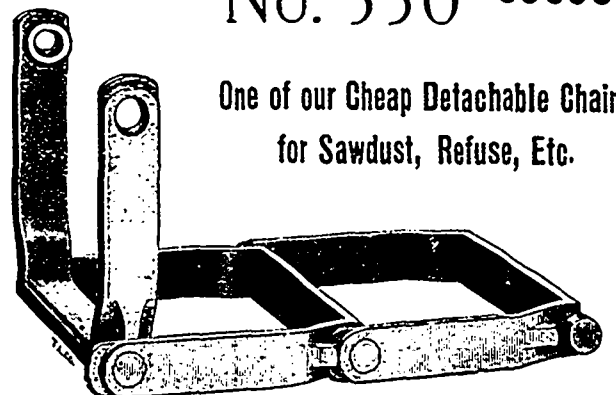
LOG
TOOTH

On 6.0-1050-1075.

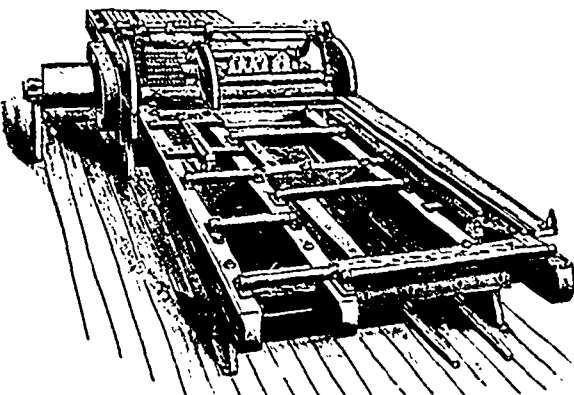
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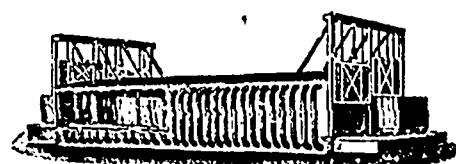
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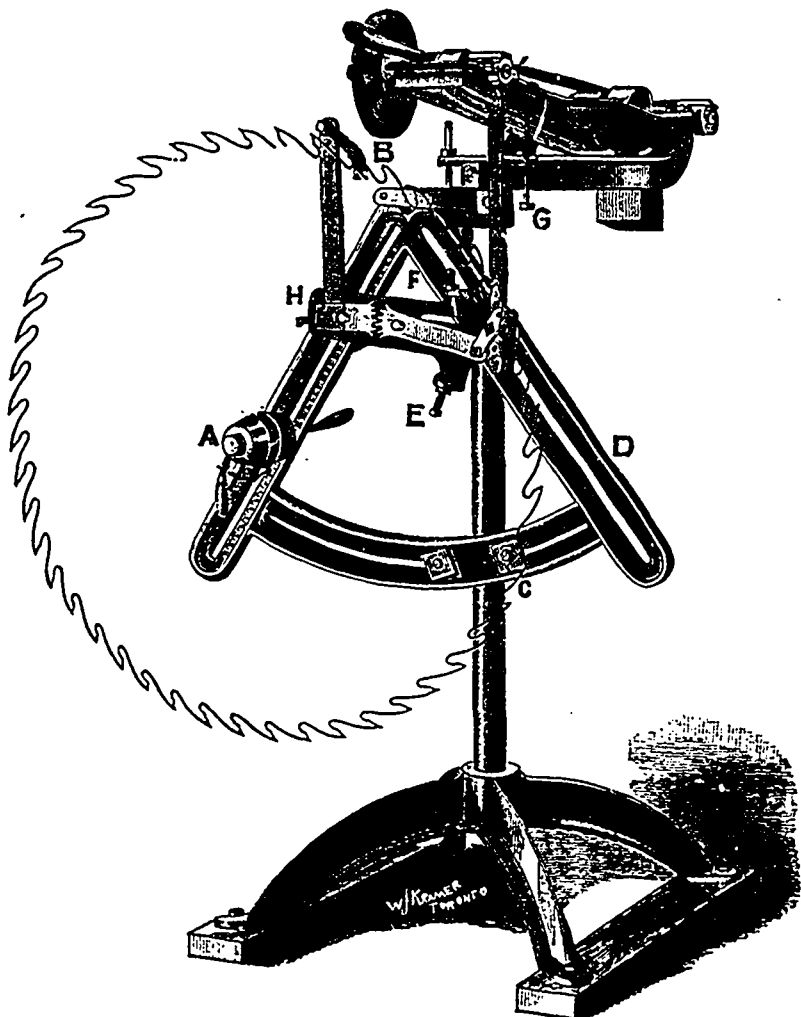
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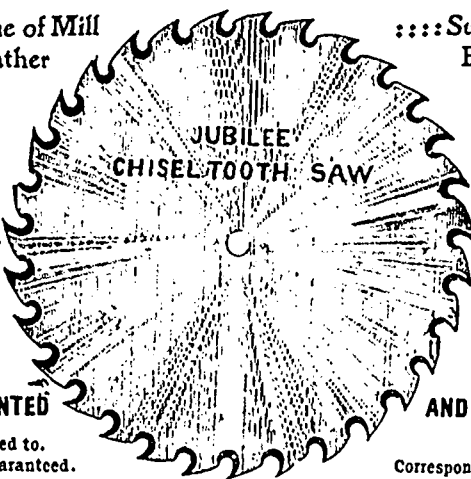
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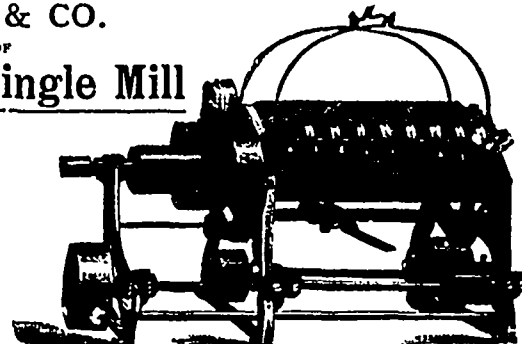
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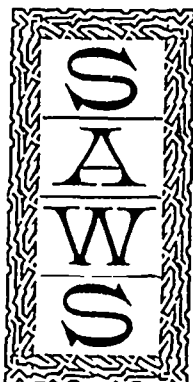
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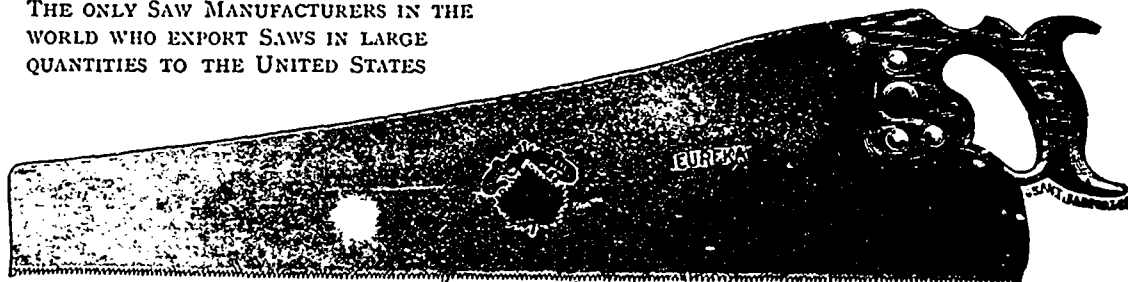


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