

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from: /
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments: /
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



PUBLISHED
SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION
\$2.00 PER ANNUM

VOL. 3.

PETERBOROUGH, ONT., SEPTEMBER 1, 1883.

NO. 17.

AMERICAN WOODENWARE IN NEW ZEALAND.

REPORT BY U. S. CONSUL GRIFFIN, OF AUCKLAND.

Nearly all the woodenware imported into New Zealand is of American manufacture, and it is gratifying to me to be able to state that about three-fourths of it is brought here direct.

The value of the imports of woodenware into the colony of New Zealand for the year 1881 was \$45,075 against \$25,015 for the year 1880, an increase of \$30,030. This of course, is exclusive of certain articles of ironmongery combined with wood, doors, window-sash, and all kinds of office and household furniture, such as chairs, writing desks, tables, &c. If the latter articles were included in the imports the amount would be increased to about \$620,000. The woodware trade proper embraces such articles as tubs, pails, buckets, washboards, oars, axe handles, brush and broom handles, shoe-pegs, wooden screws, clothes-pins, rolling pins, butter churns, cheese molds, step ladders, bread boards, trays, platters, mallets, croquet and lawn tennis sets, chessmen, checkers, checker-boards, shafts, oak rings, felloes, poles, shade and blind rollers, &c. It is now very generally admitted by dealers and importers that, with few exceptions, all these articles can be manufactured much cheaper in the United States than anywhere else. The choicest wood for such purposes can be obtained in America at very low prices, and there is no other country in the world that has so many ingenious machines for the manufacture of all kinds of woodenware. There are several firms in the United States that have extended their trade here with very little effort.

All the adjustable wooden shades used in Auckland are of American manufacture. Hartshorn's patent shade roller has been introduced in every city and town in the colony.

GERMAN AND ENGLISH WOODENWARE.

The small fracture of woodenware imported from England and Germany into New Zealand consists of bread platters, butter prints, egg cups, forks, spoons, wooden faucets, knife cleavers (cylindrical and board), cricket and lawn tennis bats, ninpins, chessmen, checkers, checker-boards, pepper grinders, &c. Of the articles named above the chessmen, checkers, and boards come from Germany, the rest are of English manufacture. The chief characteristic of English and German woodenware is that they indicate a maximum of labour with a minimum of material, which, of course, is just the reverse of those made in the United States.

PRICES OF WOODENWARE.

The cost of freight, customs duties, and other charges make the price of woodenware here much higher than in the United States. The duty, however, on woodenware, is only 15 per cent ad valorem, and some articles, such as brush, woodware, buggy shafts, bent wheel rims, carriage shafts, spokes, felloes and navels,

saddle trees, butter churns, axles, axle arms and boxes, ship's blocks, &c., are admitted free. There is no demand here for wooden buckets; galvanized iron ones are used instead.

NEW ZEALAND WOODWARE.

New Zealand has developed the largest timber industry in the southern hemisphere. The immense forests of kauri, kahikatea, puihi, and rimu, in the Province of Auckland, are fully appreciated by her enterprising inhabitants. The annual output of sawn timber in this province alone is about 70,000,000 feet in addition to 2,000,000,000 feet of planed timber, 6,500 doors, and about \$75,000 worth of other products. Of the different kinds of timber for manufacturing purposes, the kauri pine is the most valuable. The kauri forests of the province of Auckland cover over 26,000 acres, exclusive of the land still in the possession of the Maoris or natives. The kauri tree, as I have mentioned in former reports, is not found outside of the province of Auckland.

There are 43 saw mills in the province of Auckland, and about 250 in the colony. The value of the lands and buildings in connection with these mills and factories is set down in the last government returns at \$1,885,420. Over 8,000 persons are employed in connection with the timber industry of the colony.

The kauri pine, of which the chief products are made, is more apt to shrink than the pine imported from America. The factories excel in the manufacture of doors, window sash, and various kinds of household furniture, but make only limited quantities and to special order which is known to the trade as woodenware. Their articles of coopers are worthy of praise, especially their butter kegs, which are made of kauri, totara, and pariri (the last is known as New Zealand oak). Amongst the native woods suitable for the manufacture of woodenware may be mentioned tawa (Larus tawa), used like ash, taraire (Laurus taraire), white birch, rowarowa, honeysuckle (Kinghtia excelsa). These goods are used in considerable quantities for axe-handles and small cabinet work. Agricultural implements and oars are sometimes made of mangia, but these articles are not as good as those imported from America. Mapau is another excellent New Zealand wood; it is very tough, and is occasionally used in the manufacture of carpenters' tools.

The great disadvantage the wood manufacturers experience in New Zealand is the high price of labor, and the duties charged on American pine and other timbers.

AMERICAN WOODWORKING MACHINERY.

American woodworking machinery is employed to a greater or less extent in all the principal timber and wooden factories in New Zealand. The Auckland timber company uses by far the largest number of American machines in the colony. It would require a good size volume to enumerate all the various kinds of American

machinery used in these establishments.—*Lumberman's Gazette.*

ANCIENT PLEA FOR THE FORESTS.

The *Lumberman's Gazette* of Aug. 8, says:—In the sixteenth century we find a note warning against the evil consequences likely to follow the wasteful destruction of the forests "An Historical Description of the Island of Britain, by Mr. Hamsen," given in Hollnshed's *Chronicles*—of which a reprint appeared in 1807. In a curious chapter on Woods and Marshes, the author complains of the rapid decrease of the forests, and adds:

"Howbeit thus much I dare affirm, that if woods go so fast to decay in the next hundred years of grace, as they have doone and are like to doo in this, * * * it is to be feared that the ennie bote, broome, turfe gall, heath, firze, brakes, whinnes, ling, dies, hassacks, flags straw, sedge, reed, rush and al o seacole will be good merchandise euen in the citie London, wherunto some of them euen now haue gotten readie passage, and vp their innes in the greatest merchants' parlours. * * * I would wish that I might liue no longer than to see four things in this land reformed, that is: The want of discipline in the church; the couctous dealings of some of our merchants in the preterfer of the commodities of other countries, and hindrance of owne; the holding of fairs and market upon the sundaie to be abolished and referred to the wednesdaies; and that euery man in whatsoever part of the champaine soile enioieth fortie acres of land, and vpwards, after that rate either by free deed, copie held or fee farms, might plant one acre of wood, or sowe the same in oke maat, hasell, beech, and sufficient provision be made that it may be cherished and kept. But I feare me that I should liue too long, and so long, that I should either be wearie of the world, or the world of me.

Again, in the time of Charles II., the importance of conserving and replenishing the woodlands in the forests, as a means of saving timber for the navy, was perceived, and were adopted accordingly. And in 1664 was published the first edition of Evelyn's *Silva*, a work which contributed much to the extension of arboriculture in England.

Hitherto it was chiefly the demand for wood for naval purposes which excited the anxiety of statesmen, but several authors in the 16th century expressed fear of serious evils following the wasteful destruction of woods for domestic fuel, and meanwhile there was gradually manifesting itself a new source of danger. In the forest of Dean and elsewhere, mines of iron ore were being exploited with more and more energy. For the smelting of the ore fuel was at hand, and trees were recklessly felled for the work. Coal had been found, but coal fires were not found appropriate to the purpose, and the consequent destruction of the woods threatened to bring the

country into a condition not unlike what is now the case in many districts of the Ural mountains in Russia—what were richly wooded lands being devastated.—[Brown's "Forest of England."

ENGLISH LUMBERMEN IN FLORIDA.

The new company just promoted, says the *London Timber Trades Journal*, under the title of the "East Florida Land and Produce company (limited)," to acquire land in that profitable region of the great American continent. In their prospectus dwell on the large resources of timber. The property they are about to acquire contains yellow pine, cypress, orange, and other valuable wood being distributed over its surface. The swamps so intimately connected with Florida are stated to be absent from this property, which lies in the northern part of the state, the swamps being in the southern portion. The cypress is said to be very valuable for railway timber, sleepers, ties, &c., and the so-called yellow (pitch) pine, from the nature of the soil, presents a fine color. That the resources of the southern timber lands are comparatively in their infancy we have plenty of evidence of, and a contemporary, writing about Texas, says: "The timber lands of Northern Texas will be, in the course of a few years, the most valuable of any lands in the state. Lumber can be bought, delivered at our doors for \$1.50 per 100 feet, while in the western counties the same will bring from \$4 to \$6. Thus far little timber has been called beside the pine and walnut, while the thousand of acres of white oak ash, hickory, bois d'arc, sweet gum, etc., remain in their virginity, not a stump showing that the destroying hand of man has ever been lifted against them. As the state develops it is believed that these forests will necessarily be drawn upon to supply a demand for building purposes, railroad ties, etc., which the timber of the north would be totally unable to meet."

An \$80,000 Fire.

RAT PORTAGE, Aug. 20.—The Rainy Lake Company's mill here was destroyed by fire on Saturday midnight. It was caused by fire working through the brickwork of the boiler-room into the sawdust. The watchman must have been asleep, as he got burned getting out. A fire caught in the same place before. Loss, \$80,000; insurance, \$30,000.

In Olympia, Washington territory, the nights are made lurid on nearly every side by the roaring forest fires now raging in that immediate vicinity. The atmosphere is so loaded with smoke that the sun at noonday is shorn of its glare, and assumes the appearance of a great ruby in the sky. As a law has been passed whereby parties who carelessly or otherwise set fire to government timber may be punished, wouldn't an example or two cause a decrease in the frequency of forest fires?

ANNUAL MEETING OF THE AMERICAN FORESTRY CONGRESS.

St. PAUL, Aug. 8.—The annual meeting of the American Forestry Congress commenced to-day in the capitol building, President George B. Loring in the chair. The Congress was welcomed to the state by George L. Becker, president of the State Forestry Association, and Governor Hubbard.

President Loring, in his annual address, treated of the State Forestry in the United States. He stated that clearings in the old settled parts of the country were being filled up with trees, so that in Ohio, Maine, New York, and other states, the acreage of forest was constantly growing. In other states where the subject of forestry gained some attention it is also gaining. In states where an Arbor Day has been established the number of trees planted increases yearly. There is need of further encouragement of this enterprise.

Concerning the extent of forestry in the United States at present the president said the forest acreage was less than one-fourth of the total surface, a less proportion than in east, west and north Europe.

The address treated of the decrease of pine timber, showing that the supply would be exhausted in the northern states in a few years at the present rate of cutting, so that much would depend in the near future upon the pine forests of the Gulf States for lumber.

Much remains to be done for the care of forests. Much timber was being wasted for want of care in burning and cutting. Public minds should be aroused to the importance of the subject. The president endorsed the suggestion of the land commissioner in his report for 1882, in which he speaks of the difficulty of suppressing the unlawful cutting of timber, and asks for some general and comprehensive law regulating who may cut timber on Government lands, for what purpose it may be cut, and providing a penalty for unlawfully destroying forests. He pointed out the effect of the forests on the rainfall, and closed by saying the United States, which had been so busily engaged in lumbering for the last 40 years, should devote itself now to forestry.

The following officers were elected:

PRESIDENT—George B. Loring, of Massachusetts.

VICER PRESIDENTS—H. G. Joly, Quebec; George L. Becker, St. Paul.

RECORDING SECRETARY—N. H. Eggleston, Washington.

CORRESPONDING SECRETARY—B. E. Fernon, Pennsylvania.

TREASURER—Charles Mahe, Alabama.

EXECUTIVE COMMITTEE—B. G. Northrup, Connecticut; Marion Higby, Ohio; J. G. Knapp, Florida; J. S. Hicks, New York; J. L. Budd, Iowa.

At the evening session Mr. Burson, of Topeka, Kas., read a paper on the profit of planting forest trees. He gave an example of a man investing \$5,000 in 400 acres of land, the trees on which in 16 years bring a profit of 800 per cent on the sale of the trees alone.

The rest of the evening was consumed in considering the subject of education in forestry. Members spoke warmly endorsing the Ohio plan of establishing experimental stations, and having forestry as a science admitted into the common schools, and especially the agricultural colleges.

Aug. 9.—This morning the Committee on Forest Experimental Stations reported, commenting on the decrease of State forests for want of trained foresters. None were in existence. There were no forest academies, and comparatively little importance was attached to experiments in forestry. The committee recommended that members from the respective states urge the necessity of establishing forestry experimental stations; that this congress memorialize the legislatures of the different states, urging upon them the practicability of establishing these stations; that the Ohio plan is recommended as the most suited to our circumstances. The report also recommends experimental stations in agriculture, and that a committee on forestry experimental stations be appointed. The report was adopted.

The committee on memorializing State Legislatures upon the establishment of a State for-

estry commission reported a memorial calling attention to the importance of giving early attention to measures for the maintenance of forest supplies, and to the relations existing between the woodlands and the agricultural welfare of the country, water supply, etc. In view of the fact that most of the settled portions of the country are owned by individuals, the report says that the most effective way of promoting tree culture is the diffusion of correct ideas among owners of land. This end can best be achieved by the appointment of a State commission to introduce a new variety of trees, keep the people informed of the best methods of tree culture, establish nurseries and experimental stations, and holding meetings.

The Committee on Forestry Education reported that the business openings for trained foresters were not such as to encourage sufficient numbers of students to support schools in this study. They should be taught, however, in schools for the promotion of agriculture. It might be desirable for State institutions to employ lecturers and co-operate with local societies in their work. The report was adopted in connection with the following resolution, offered by Mr. Minier, of Illinois:—

Resolved.—That the Forestry Congress earnestly urge all our Industrial colleges and Normal schools to begin at once testing tree planting, and as soon as possible the introduction of both the science and art of forestry in the public schools.

The congress discussed forestry legislation. Congressman Dunnell, of Minnesota, stated that people generally did not appreciate the alarming rapidity with which the forests were being destroyed.

In the afternoon the congress discussed the importance of planting and maintaining groves of trees, and accepted an invitation from the Northern Pacific to take an excursion over the road. In the evening a committee was appointed to report at the next meeting the form of a memorial to Congress on the subject of establishing forestry experimental stations.

The discussion was continued on the need of forestry education in agricultural colleges. Also a paper was read by Professor Saunders, of London, Ontario, on insects injurious to white pine.

A resolution was adopted recommending the establishment of Arbor Day in all the States of the United States and Provinces of Canada.

Committees on Forestry Experimental Stations and on Forestry Schools were appointed, and the congress adjourned.

THE CANADIAN PACIFIC RAILWAY.

A special correspondent of the Montreal Star writes as follows:—

The C. P. R. own two steamers which run between the "Depot" on the Spanish River and Algoma mills. One is an ordinary small tug and the other a handsome river steamer with good accommodation for short trips. Both are used to bring supplies from Algoma Mills to the head of navigation on the Spanish River, whence they are taken by teams to the various camps on the construction line. Lumber, provisions, clothes, fodder, cattle, horses, carts, picks, shovels, wheelbarrows, powder, and all that is necessary for building the line are landed at the spacious stores there to await transportation inland to various points of destination on the way. The rapids which cross the barriers of the stream a little higher up are about as large as one of the chutes at the Sturgeon, and they bar navigation to everything except bark or Peterborough canoes. The "Depot" is thus made the distributing point for the construction line all the way to Sudbury Junction or rather now to the Vermillion crossing, where the jurisdiction of Mr. Abbott ends and that of Mr. Worthington begins. Westward, however, there are more facilities for bringing up supplies. Here the line runs parallel to the Spanish River, and small depots have been established at intervals all along the water side. At these depots the two steamers land their cargoes, and it is but a short distance from the different landings to the construction line. This is considered a great advantage by railway men, many of whom think the question of feeding the men and carrying in the supplies sometimes more serious than spanning a river or bridging

a chasm. The navigation is easy, the river being free from shoals and snags, while green timber lines it, on both sides to the water's edge. Along the margin of the stream there are at places, ranges of irregular rocks, conical, table and undulating, and it is to avoid these that the railway line is laid at a little distance from the shore. There are I think between 1,500 and 2,000 men working on Mr. Abbott's portion of the C. P. R. Unlike the men at the other end of the line they all boarded by the company, and those in authority appear to think that this system secures better food and better accommodation for all. Contentment, that parent of do-little, appears to be general, and it is only fair to add that the men speak in terms of generous praise of the gentleman who is entrusted with authority. But the land through which the railway runs is poor. It is nearly all marsh or rock. I only walked over a small part of it, but no attempt is made to conceal the barren nature of the soil, all along the way. It is a wilderness of boulders, turf and evergreens. Close to the margin of the river, however, I saw some fair land. Alluvial deposits have mixed with the sand, and at places give evidence of nutriment and warmth. There is, too, a flourishing settlement on the north side of the stream, and I saw potatoes well advanced and other crops healthy. On the south side we passed an Indian reserve where "Yellow Thunder" lords it over his swarthy tribe. I saw some of them at one of the landings.

LITTLE DETROIT AND WINDSOR.

We soon left the Indian reserve and the river widened into the north channel of the Georgian Bay where we were soon ploughing through a gentle swell which rocked us in the cradle of deeper and more picturesque waters. I then heard that we were to stop at Little Detroit, and we headed for some narrows where even so small a steamer as the Eclipse could hardly turn with safety. On one side of the narrows there was a store and I think a shanty—that was Little Detroit; on the other side there was a shanty and no store and that was Windsor. People say that there are 90 fathoms of water in that narrow gut, which we soon left and stopped at the Spanish Mill a little further on. Here barges flying English and American flags attracted our attention and I was told that the mills belonged to an American firm whose timber we saw scattered over the river higher up the stream. There was a dock made out of refuse boards from the mill and which appeared to be loosely piled on each other, but which had withstood the wind and weather of the bay for many a year. Returning through the narrow channel we once more passed Little Detroit and Windsor, and we were soon treading our way through the rocky groups of the North Channel. Except an odd gull there was not a bird to be seen, and all the way from the "Depot" to Algoma Mills we only passed one boat with an Indian doctress and a sick child on board. Rocks of all sizes and all shapes stand firm, cold and weird looking, out of the water, and the spray dashed up their slippery sides and frothed and foamed in caves which they had eaten with their fury. The wind rose a little and the Eclipse rocked while the waves leaping at her weather bow made her rise with each succeeding wash and dash off the sea like a boxer warding off a blow; and still wriggle through the islands which here are as thick as plums in a pudding.

IN THE NORTH CHANNEL.

The North Channel is the Thousand Islands on a larger scale, and while it loses some of the charms which comes from a close inspection yet it gains in magnitude and depth and greater volume. More than 27,000 islands, large and small, dot the waters of the bay between Collingwood and Sault Ste. Marie, and at places where they narrow, there is a variety and beauty of outline equal to the most attractive spots on the far famed islands of the St. Lawrence. At some places there are sharp pinnacles like the aiguilots of the Alps, and at others denudation has broken the granular rock into "tors" such as may be seen on the coast of Cornwall or Devon. The rounded hills are scantily clad with vegetation, and a close inspection of the stone shows where the quartz has filled up the space between the crystals of feldspar and of

the stone. Beautiful fossils are found embedded in a limestone quarry which has been discovered on an island in the bay. They are found in masses as at Saarbruck, and some interesting remains may be dug from the stone. To our left the great Manitoulin Island looms through a somewhat misty atmosphere, and at 5 o'clock that evening we saw Algoma Mills ahead.

ALGOMA MILLS.

This is town in these parts. There are eight or ten houses, including stores, a handsome cottage for the use of Mr. Abbott, a C.P.R. workshop, a dock and wharf, and a railroad track. We are now at the other end of the iron. This is to be the present terminus of the branch line of the C.P.R. There are two docks to be built, a large hotel and a train elevator put up, and these will give Algoma Mills an importance not possessed by any place in the region. Whether the C.P.R. will be continued to the Sault or not, no one appears to know. The company own 600 acres about the Mills, and the iron is laid about 20 or thirty miles along the road from here to Sudbury Junction. There is yet about 100 miles of iron to lay before the branch to Algoma is completed, and it is confidently expected that all that will be done and the boats running from Algoma Mills to Thunder Bay in May next. A walk along the track showed how well the ballasting had been done, when suddenly snakes ran across my path and made me experience the horrors of which De Quincy spoke when recording the visions of his opiated dreams. But the reptile is harmless. There are no rattlers here, and there is no evidence of anyone ever having been poisoned by a bite from a serpent. They are numerous but harmless. After a while one can even come to like to see them gracefully raise the body into arches and glide over the ground. The thing is as incapable of doing harm as an eel. I can understand a man skipping about when he sees a Naja in India, a crotalus in Carolina, or hears a rattler on the plains, but these little things out here are as harmless as worms. Returning to town, I see the men lounging on the wharf, and learn that some are coming to and some are going from the woods. A band of Italians headed by a bagpiper who was droning out something with no melody and but little of the harmony of art. They have come from the States and are going up the line. Not one of them can speak a word of English and they gesticulate wildly as they pass along. Meanwhile the shadows grow longer, while flies get troublesome, and rather than to apply more tar to keep them off I seek my room, smoke a pipe and think of—to-morrow.

MIDLAND.

MIDLAND, Ont., Aug. 11.—The estimated loss given this morning on the British Canadian Lumber Co's mill fire is \$130,000. The mill machinery and eight dwellings and about five and a half million of lumber were totally destroyed. Two hundred hands are thrown out of employment by the burning of the British Canadian Company's new mill. This was one of the most complete in the world, and had a capacity of 75,000 feet per day. The total amount of insurance is \$63,000, of which the Commercial Union hold \$30,000.

On Thirty Days Trial.

The Voltaic Belt Co., Marshall, Mich., will send Dr. Dye's Celebrated Electro-Voltaic Belts and Electric Appliances on trial for thirty days to men (young or old) who are afflicted with nervous debility, lost vitality and kindred troubles, guaranteeing speedy and complete restoration of health and manly vigor. Address as above.—N.B.—No risk is incurred, as thirty days' trial is allowed.

Do not delay, if suffering any form of Bowel Complaint, however mild apparently may be the attack, but use Dr. Fowler's Extract of Wild Strawberry. It is the old reliable cure for all forms of Summer Complaint that require prompt treatment. Ask your druggist and all dealers in patent medicines.

THERE is no excuse for suffering from Headache, Constipation and all the wearying train of symptoms of a disordered liver, when Burdock Blood Bitters is an unfailing remedy, and only costs One Dollar a bottle. Why suffer on without a trial? 25,000 bottles sold during the last three months, with almost universal satisfaction.

EDDY'S ENTERPRISE.

Since last November, building operations have been carried on with great energy at Mr. E. B. Eddy's mills in Hull, but till very recently the whole plan of buildings had not been decided on. Hearing that the plan for all the establishments had been settled, a FREE PRESS reporter went over there yesterday and got the full particulars about every establishment. As is well known, the match and pail factories are in the same buildings as before the fire, with some improvements made since then. With the match factory Mr. Eddy says that he can supply three Dominions, and glut the market too. The building now occupied as a machine shop will be occupied by the pail factory and the machine shop transferred to the building just west of that now occupied as a planing mill, which is 50 by 60 feet. As has been stated before, the new large mill is 120 by 140 feet, and is fitted up with two slabbers, two gangs, twin circular, two splitters, three edgers and three butting tables. The water power used in this mill is 1,300 horse power, and the capacity is 250,000 feet every 12 hours. In arrangement this is the most complete mill in every way in the world, the logs entering the mill being turned out graded and sized, and all the old pieces are turned to the best advantage, and sent by shoots to the proper places, where they are carted away. Not a cart of any kind enters the mill, all lumber being carried out by a perfect system of rollers. Mr. Eddy is having a system of waterworks arranged by which the whole mill can be flooded by the chief watchman, if necessary, in three minutes. There are now five very powerful fire pumps, run by water, and with these, the premises always being well watched, it seems impossible for a fire to gain any headway. Immediately north of the large mill, the planing mill and the box shop have been under way for some time, and are so far advanced that it is thought they will be ready for occupation in two weeks. This building, as all the others, is of stone, and is 185 feet in length by 60 in width, two storeys in height and covered by an arched roof which has not a pillar to support it, the immense arched trusses resting on the wall being all that hold it. On the south side the building is three storeys high, and well lighted in the lower one, a flume being on the north. The small mill to the south of the large one is 60 by 70 feet, and will be used for filing and splitting. The blacksmith's shop will remain in the building where it now is, which was constructed specially for the purpose. The foundry will be where the planing mill now is. At the west end of the machine shop is the office, under the same roof and on the site of the old office. It will be entered from Maine street and be 24 feet front by 74 deep. In this is a brick covered vault, seven by nine feet and about twelve high; the inside of which is of half inch boiler plate iron. There will be double doors with fire and burglar proof combination locks. The vault is on a solid foundation of stone built up from the solid rock, and will be able to withstand any heat it might be subjected to. In rear of the office is a long fire proof heater, by which the office, machine shops, and store room 110 by 60 feet above both will be heated. The store room will be used for storing the goods made by the firm. The office building, as before indicated, is two storeys in height, and will be surmounted by a mansard roof. The power used by the various departments besides the mills, is as follows; Wooden mill, 350 horse power; machine, 100; match factory, 100; box shop, 200; pail factory, 100, and small stone mill about 100. The capacity of the small wooden mill is 150,000 feet per day. With the immense establishments already erected, one would imagine there was nothing wanting, but Mr. Eddy thinks differently and will commence shortly the erection of a sash, door and blind factory, 60 by 60 feet, two storeys high, at the south west corner of Bridge and Maine streets, or just the blacksmith shops.

All the above buildings are, or will be, covered by arched roofs of galvanized iron, which is more lasting, strong and better able to resist the fire than any other known. The buildings will all likely be finished by fall and will then present a great contrast, as Mr. Eddy said, to the appearance of their site on the 3rd of November last.—*Ottawa Free Press.*

FIRE AT RAT PORTAGE.

RAT PORTAGE, Ont., Aug. 20.—The new mill of the Rainy Lake Lumber Company was entirely destroyed by fire early this morning. Whether the result of accident or design cannot now be determined, but circumstances point to incendiarianism as the cause. The watchman about three in the morning noticed fire in the conveyor for carrying the sawdust from the mill to the yards, and says that the fire was in the sawdust at the opening of the conveyor in the well of the boiler-house, and that on going inside he found the roof of the boiler-house in flames, rapidly extending to the mill proper, which in a few minutes became a sheet of fire. He gave the alarm to the foreman and another man who sleeps in the mill, and they had barely time to escape with their lives. The foreman rushed for the cord which blows the whistle, but found it was not there, having apparently been cut off. This gives color to the suspicion of foul play. The hose, which had been thoroughly tested and found efficient the night before, was burnt away, and was useless. No human aid could now avail to save the mill, and in an hour it was burnt to the ground. The morning was calm, and the lumber, which was piled across a swamp at a distance, was saved. It required, however, great exertions later in the day to save it, as a storm came on and the wind was at times like a hurricane. The mill was the finest in the North-West. It had been two months in operation, and was fitted up with most approved American and Canadian machinery. Its capacity was 200,000 feet per day of twenty-four hours. The company had made over 20,000,000 logs, only a small quantity of which had been sawed into lumber. The shareholders are Hugh Sutherland, M. P., Simon J. Dawson, M. P., Wm. Buckingham, John Ross, (contractor) and James Corcoran, Stratford. The loss will be a severe one to them, as the property destroyed is not half covered by insurance, and their operations are at an end for the season. The companies who carried the risk are Imperial, Commercial Union, London, Liverpool, London & Globe, Citizens', Phoenix, of London, Queen's, Western, and British America, each \$2,000; the Phoenix of Brooklyn and Northern each \$4,000; City of London, \$6,000. Total \$30,000. The occurrence is a severe blow to this place, as it stops the principal industry in Rat Portage. It throws out of employment from one hundred to two hundred men.

REVIEWS.

FORESTRY.—We have before us the August number of *Forestry*, a monthly magazine edited by Mr. F. G. Heath and published by Wm. Rider & Son, 14 Bartholomew Close, London, England. One of the contributions is by Mr. Wm. Little, of Montreal, on the subject of "The Alarming destruction of American Forests." There are many other papers on forest lore, one of the most valuable and interesting being that on "Re-afforesting of Ireland." It is a periodical that should be read by all who take an interest in forestry.

RAFTS ARRIVED.

The *Chronicle* gives the following list of rafts, etc., arrived at Quebec:—

AUG 9.—Jos. Bolduc, deals, Bay St. Lawrence and Beauce.

E. C. Baker, timber, Woodfield Cove.

A. & J. White, white pine, etc., St. Lawrence Docks.

Perley & Pattee, white pine, etc., Hadlow Cove.

R. & A. Conroy, white pine, etc., Cap Rouge.

A. & J. White, white pine, etc., St. Lawrence Docks.

J. & G. Bryson, white pine, etc., Cap Rouge.

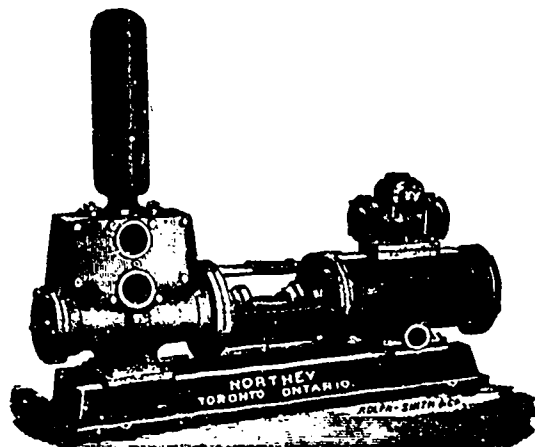
Ancient Circular Saws.

That the hard basalt and granite, used in Egyptian buildings of some 4,000 years ago, were cut by circular saws of some sort, is proved by recently examined specimens with the tool marks fresh upon them. The circular marks are as distinct on these imperishable stones as on a fresh pine plank. The proof of the existence of ancient circulars is curious, for that form of saw has been believed to be of modern invention. *The Wood-Worker.*

**NORTHEY & COMPANY,
STEAM PUMPS**

FOR ALL DUTIES.

ILLUSTRATED CATALOGUE AND
PRICE LIST ON APPLICATION.



ALL WORK ABSOLUTELY
GUARANTEED.

Combined Steam Fire Pumps and Boiler Feed Pumps for Saw Mills, Etc., a Specialty.

WORKS AND OFFICE:

Corner FRONT and PARLIAMENT Streets, TORONTO.

SAW MILLS!

Having POLE ROADS to their Timber keep up the Mill Stock and run the year round.

Pole Roads are Cheap, Durable and Speedily built. The Cars can be built by any handy man in a couple of days, and will carry 2,000 feet of Hardwood Logs at a Load, drawn by one Span of Horses.

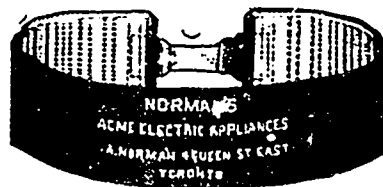
The Wheels are adjustable on the Axles to accommodate themselves to any bend in the poles.

The Iron Work complete, including Bolts and Washes, with a diagram of Car, are supplied by the undersigned. Prices on Application.

As to cost and utility of Pole Roads we will refer without permission to E. WATT, Gesto, P.O.; W. EDGAR, Kilroy, P.O.; DUNSTAN & IRWIN, Essex Centre, and JAMES NAILOR, Oil City, who are now running respectively 10, 8, 5 and 3 miles, and are stocked with our Cars.

**C. NORSWORTHY & CO.,
ST. THOMAS, ONTARIO.**

Patentees and Manufacturers of Moore's Improved Taper Cone Feed Saw Mills



Established 1874.

Established 1874.

NORMAN'S ELECTRO CURATIVE APPLIANCES

RELIEVE AND CURE

Spinal Complaints, General and Nervous Debility, Nervousness, Rheumatism, Gout, Liver, Kidney, Lung, Throat and Chest Complaints, Neuralgia, Bronchitis, Incipient Paralysis, Asthma, Sciatica, Sprains, Consumption, Sleeplessness, Colds and Indigestion.

Ask for NORMAN'S ELECTRIC BELTS and you will be safe against imposition, for they will do their work well and are cheap at any price.

A. NORMAN, ESQ.—Dear Sir,—Please send me a waist belt. Enclosed find price. Head band I got for my wife has almost cured her of neuralgia. Yours truly,

C. L. TILLEY, WATERVILLE, N.B.

Numerous of such testimonials can be seen at my office, proving that they are doing a good work as worthy the attention of all sufferers. Circulars free. No charge for consultation.

A. NORMAN, 4 Queen Street East, Toronto.

NORMAN'S ELECTRO CURATIVE THERAPY is the best in the world. Guaranteed to hold and be comfortable. Circulars free. N.B.—Trusses for Rupture, best in America, and Electric Batteries always on hand at reasonable prices.

FORESTS AND THEIR MANAGEMENT.

We continue our extracts from Mr. R. W. Phipps' report to the Ontario Government:—

FORESTS OF LUSS AND THE HARZ.

Another gentleman, M. Gustav Mann, Conservator of forests in Bungal, has proceeded to Germany for the same purpose as Capt. Walker, and gives some further important information relative to the German forests.

In the plain of North Germany the Scotch fir is the principal forest tree, and better suited for deep, loose, sandy, than for heavy loaming soil.

The great "Lunoberg Heath" is mentioned as having been covered with wood, but the indifference of the inhabitants to the existence of forests, originating in the common belief that they will continue to exist, no matter how recklessly treated, the desire of the villagers to get grazing ground for their cattle by burning the forests, the indiscriminate usage of the wood and method of felling in vogue, have destroyed hundreds of miles of forest, and have left the greater part of the Lunoberg Heath barren, covered almost exclusively with heather, and of little use to any one. Now the evils are seen, and with a view of restoring these forests large sums of money, and much skill and labor, are being expended.

I will quote here a short description of the method used in planting the Scotch fir in such localities. The land is first ploughed, after which a man proceeds along the bed, making holes at distances three feet by five, with a wedge spade (one quite straight, made all of wood except the edge, which is shod some inches high with iron, and is two inches thick at the top of the blade). This he forces into the ground, withdraws it, and passes on, while two women follow him, who plant by holding the seedling against one side of the hole, while with their foot they press the opposite earth against the plant. The material for planting consists of one-year old seedlings of Scotch fir, and occasionally a two-year old seedling of spruce, which are raised in the ordinary way by sowing in furrows. The Scotch fir requires more light and air than any other, and does not thrive at all in the shade of other forest trees. For the same reason natural reproduction (in forests) is very difficult, and not attempted here. As a tree affording some shade to other trees which require it the Scotch fir is well suited. If sown or planted very close, early attention to thinning out also is necessary, as plants early stunted never fully recover their strength. The soil not being rich, the trees are not allowed to grow older than sixty to eighty years, this being the age at which the comparative yield of wood is best. Spruce is planted in small numbers with the Scotch fir, and even where the soil is not good enough for it to grow up into large trees with the fir, it becomes beneficial by the cover of its dense foliage, which facilitates decomposition of the soil, and keeps it moister and cooler than the fir alone could do.

It will, perhaps, be as well here to give Mr. Mann's very lucid description of beech culture:—

Seed beds for beech are prepared in the ordinary way, and the seed is sown in autumn as well as in spring. If the former time is preferred, care has to be taken that the seed does not germinate too early, so as to be exposed to spring frosts. This is prevented by covering over the beds after the surface gets slightly frozen, and by removing the covering in spring so late that the young seedlings have nothing more to fear from the frost. If sown in spring, the seed has to be carefully stored during the winter. Steaming, as well as excessive drying, must be guarded against. The first is avoided by turning over the seed or even keeping it spread out; the second by slightly watering it and turning it over afterwards, so as to distribute the moisture equally. A cool, moist room on the ground floor is preferable to a warm dry one.

From the seed beds the plants are either removed at once into the forest, or into other nurseries for transplanting and keeping until they reach a height of three or four feet. If they are to be planted in open ground, without the protection of old trees, they are sometimes kept in the nursery until they reach a height of ten or twelve feet, which however is a very ex-

pensive measure. In this care is taken that the young shoots are not removed from the stem, as the bark of the beech is very easily burnt by the sun, and otherwise apt to be damaged by the weather. Unnecessary exposure of the roots of the young beech is carefully avoided, as they are sensitive, and demand special care during the removal of the plants. Where it can be done some of the soil is left on the roots for the same reason.

Ordinarily the beech forest trees get re-established by natural production, i. e., the shedding of seed from old trees. When the beech gets mixed with other kinds, as in the coppice with standard, its regeneration is furthered or checked according to circumstances, but planting is seldom resorted to.

In the pure, high forests of beech the natural reproduction is brought about by gradual and well considered fellings, which tend to effect this as completely as possible. In hilly or mountainous localities fellings are commenced at the top of the hill. These fellings take place when the trees have reached maturity, and are three to four in number, and distinguished according to the immediate effect they are intended to have on the forest.

The first felling called in Germany the preparatory cutting, is intended to facilitate the decomposition of the dry leaves and branches which cover the surface, and thus prepare it for the reception of the seed, which latter, without this precaution, frequently germinates without being able to penetrate with its roots the comparatively hard and leathery leaves lying on the surface, and often dies in consequence, while weeds and scrub easily get up in it, and cover the surface soon, thus adding to the difficulties to be overcome by the young plants. It is commenced several years before the intended regeneration, and carried out gradually; but where the air and light thus admitted are not sufficient to render the surface fit for the reception of the seed, a timely permission to villagers to remove some of the dead leaves is resorted to. Besides the preparing of the soil, this opening out of the forest induces the tree to flower and bear seed more frequently than when standing very close.

The second felling—the so-called seed-cutting—is carried out as soon as the bearing of the seed becomes probable, which can be judged of beforehand by the appearance and shape of the buds during the preceding winter. An abundant seed-bearing season generally occurs with the seed after longer or shorter intervals, but sufficient seed for the regeneration of the forests may be reckoned on every second or third year. Precaution is used not to remove too many trees at once, as in the case of the flowers being destroyed by spring frosts or other causes, the restocking of the ground with young plants does not succeed. Too much light would dry up the surface of the soil, and induce the weeds to overrun the ground, both circumstances seriously interfering with the germination of the seed at a future season. Where at this time the suitability of the soil remains doubtful, a timely loosening and preparing of it in stripes and patches is resorted to to insure success.

When the expected seeding of the trees turns out a failure, further clearing is carefully avoided, to prevent the deterioration of the soil or overgrowing with weeds. If, however, the season is a favorable one, and produces sufficient seed, and the young plants germinate, this felling is soon extended to a greater number of trees to admit more light and dew to strengthen the young plants.

For the purpose of getting the seed worked up to the ground, herds of swine, cattle, etc., are often driven through the forest with good effect.

Seed beds are sometimes established in the neighborhood of a forest at the same time, to furnish young plants for the filling up of vacancies, which, however, are also obtained nearly as good out of the forest itself from places where the plants stand thick enough. Although the aiding of the natural reproduction by artificial means, either sowing or planting, is at the present time generally resorted to at once, as such measures always lead to a more satisfactory accomplishment of the desired regeneration, and save time.

The third felling is called cutting for light,

as its chief purpose is to admit light and air in greater abundance as the young plants require it. This is generally commenced when the seedlings are two years old. It is also regulated very much by circumstances, and while in the one case the forest trees may be required longer on account of the spring frosts, so very injurious to the young beech, in others their early removal is necessary, even if an increase in size be sacrificed, for the establishment of the young trees. Neither do partial failures prevent the removal of the old trees, but are resorted to at once by sowing or planting as the safest and quickest mode of securing the establishment of the young forest.

After the third or light felling follows the gradual removal of the old trees, or final clearing, which is regulated in the first instance also by the requirements of the young trees, and after this by the fixed yearly out-turn, as laid down in the working plan. As a general rule, all these fellings are carried out gradually, without causing sudden changes in the forests. The aiding of natural reproduction is either accomplished by sowing, if failures are perceptible early, such as non-germination of the seed or death of the seedlings; or by planting, if the seedlings get destroyed later by spring frosts or are choked by weeds. The sowing is carried out in the forest in strips two feet wide, in furrows, or in patches two to three feet square, prepared by hoeing for the purpose, and by loosening and levelling of the soil; while planting is done by seedlings two to three feet in height taken from adjoining nursery beds, or from spots in the forest where there are more than are necessary.

"It is evident," says Mr. Mann, "that if, with all this care and attention to aid natural reproduction, still occasional failures occur, how unreasonable it is to expect forests in India to keep in an equally rich and thriving condition when left to themselves, or worked only with a view of extracting the timber from them." I would also apply the remark to Canada, and observe also that Captain Clarke respecting India, and the Hon. M. Joly concerning Canada, make precisely the same statement, to the effect that the forests in both countries, cut over and carelessly managed, are often, so far as any available supply of good timber is concerned, only in appearance.

It may be noticed that the beech of all other trees, is said to improve the land, forming a rich vegetable mould, to gain the benefit of which other trees—oak, ash, maple, larch, Scotch fir—are planted among the beeches and do well. I may notice here that in Canada, while clearing the forest this did not appear to me. I generally found the maple on the richest land, and where beech were intermixed a lighter loam.

One description of forest much used in Germany is called "Middle Forest." It contains a number of high trees cut at long intervals for timber, and below them a coppice (smaller trees growing from roots of previously existing trees, and which will themselves, when cut, be succeeded by similar ones) cut at much shorter periods for firewood. In cutting the coppice, young trees are left to replace the tall ones when cut.

A method of planting used here should be noticed. A small spade of solid iron, about 20 pounds in weight, 14 inches long, seven inches broad at top, five at bottom, with a handle four inches long, is driven in the ground and bent to all sides then drawn out. The plant, three or four years old, of beech, spruce, or oak, etc., is dipped into a thin mixture of loam and water, which adheres easily. In this state it is pushed with its roots into the hole as far as possible, and with continual shaking, by which the roots get straight right down into the hole, drawn up to the level at which the plant should stand. Here it is held by one man, while another drives in the spade a second time, about three inches from the first hole and parallel with it, and first presses with its point towards the first hole, and then with the broader part, by which means the plant gets very firmly pressed into the soil. If necessary the spade is driven in a third time, to close up the second hole slightly. The soil is then beaten firm with a mallet all around the plant, but not striking closer than three inches. This mode is very

successful; it is carried on without preparing the soil, and answers in stony ground, on account of the strength of the spade.

On the Harz Mountains (the scene of many a supernatural legend) are vast forests of spruce, kept with much care. One remarkable point in the management is the Government seed-dying kiln at Westerhof, for getting the spruce seed out of the cones and cleaning it of wings, which is carried on here extensively, the spruce being plentiful, of excellent growth, and producing exceptionally good seed. The cones are collected by contract work, and varies according to the seasons, if plentiful or otherwise, and generally enables the workmen to earn 50 cents to 75 cents per day. After all the Government stores are filled, private persons are allowed to collect, for which the person has to pay a small sum per season. In the cones the seed remains good from seven to eight years. The Government kiln turns out about 180 cwt. per season, while private parties in good seasons have turned out as much as 1,600 cwts. besides. The cones, when first brought in, are stored in large rooms, with perforated walls, so as to admit a free current of air through them.

The kiln itself consists of three rooms, the centre one of which is heated by means of a large oven, from which large iron pipes, six inches in diameter, pass twice through the room before they enter the chimney. This room is separated by walls, in which there are holes of nine inches, from the two outer rooms, in which the cones are being dried. By means of these holes, which can be closed at pleasure, the temperature in the drying room is regulated, and kept between 122 and 128 Fahrenheit. The drying is done in large wire dums, out of which the seed falls on the floor of the room. There are twelve in each room, and are turned from the outside of the room, where it is cooler. They are filled in the evening, the temperature got up, and so left for the night. The next morning the fire is lit again, and the drums being turned every half hour, by night the cones are empty. Half the cones are used to heat the kiln; the rest sold for fuel. It costs the Government about six cents per pound. What is not needed is sold at nine.

It is noticeable that the spruce wood, among other uses, is ground up into pulp for paper manufacture, several mills in the Harz Mountains being employed in this manner. It might be worth consideration whether, under an improved system of forestry, the waste wood left in such quantities in hewing and score-hacking could be, in our great Canadian spruce forests, so employed.

It will be well to give an account of the method of reproducing and caring for spruce forests, both because our own forests will soon need replanting, and to give some idea of the care taken in maintaining woodland property in foreign lands.

Natural reproduction of the spruce is seldom attempted, as too slow and uncertain; but if there are thriving naturally some clumps of any extent, they are kept up. Almost all spruce forests are regulated high forests, with complete clearings, either re-sown, which is still preferred by some, or planted, which is by far the most general mode of establishing or re-establishing spruce forests. If sown, lines about two feet in width are prepared by clearing the weeds, etc., off the ground, and placing this at edge of the lines to prevent the wind blowing among the seed, or rain washing them off. The soil on these strips is sometimes loosened and left as it is if the seed is to be sown broadcast. If the seed is sown in rows, small furrows are made. Between the strips, ground twice as wide is left. For plantations, the seed is sown in seed-beds, which are good, even, and sheltered pieces of land, about half an acre in size, and well dug up, afterwards levelled and occasionally slightly manured by the ashes of the weeds, remains of wood, etc., collected on the surface, brought together and burned, and afterwards mixed with the soil. These seed-beds are usually in the immediate neighborhood of the ground to be planted, and have to be fenced in. If the seedlings, after they are three or four years old, have to be removed from here at once to the spot where they are to remain, the seed-beds have to be larger, especially if the young plants are to be planted out in numbers,

i. e., three or four in one hole. In the latter case the seed is sown generally in furrows, one foot apart, as being more convenient, and requiring here in the hills about seventy five pounds of seed for half an acre, which is sufficient to plant fifty acres of forest. The better plan, however, is to have the plants from seed-beds, after they are two years old, transplanted singly in a nursery at about seven inches distance, where they remain until they are four or five years old; this, however, requires as much space again for the nursery as for the seed camp. Not unfrequently four to six year old seedlings are taken from the adjoining forest, where they are generally so close as to permit of the removal of many of them; and this is the most inexpensive way of procuring seedlings in limited numbers. Where there is a demand for thinnings, the planting of three or four plants in one hole recommends itself. If it is likely that the ground get run over rapidly with weeds, or the soil dried up by the sun, the re-planting is done as soon after the removal of the old forest as possible, whilst where the danger from insects, especially the small beetle, is great, the ground is left two or three years first. Planting is done in autumn as well as in spring, but the latter is preferred. Spruce is planted four or five feet apart.

To protect the spruce forest against damage from insects the forester has to be constantly on the alert, as they are many, and if not checked in time, great damage is done by them. The most destructive noticed was the ordinary spruce bark beetle, which attacks the bark of living trees, and had, in some of the localities visited by the commissioner, destroyed so many trees that, when the diseased were removed the forest had become so open that the wind would soon have removed the rest had they not been felled. Experienced men are told off to guard against this danger, by going through the forest to search for the trees attacked by the beetle, and fell and bark them to prevent the spreading of the insects. In most cases, they are quite able to hold the insects in check. These generally attack trees loosened in the roots by wind, known after the beetle gets in by their foliage turning yellow. In spring, when they are worst, healthy living trees are felled at the southern margin of the forest in sunny spots, for the purpose of attracting the beetle. Such trees are often full of them three or four days after being felled. The trees attacked are barked, which destroys the larvæ if not too far advanced; if so, the bark is burned. To prevent any escaping while barking, a cloth is spread under the stem. The timber beetle, which attacks new felled trees, going deep into the wood, is also common there, and is watched for closely. For the young plantation of spruce the first mentioned is the most dangerous, as it eats off the bark above the roots, and kills the tree. Fresh pieces of bark a foot square, inner side down, are laid around before or after planting. The beetles go under, and are caught and killed. The bark is examined every morning.

To be Continued.

TRADE IN PREPARED LUMBER.

There is a boom in the lumber trade of God-erich, and dockage facilities are greatly in demand. Are our lumbermen making a bid for the new trade in prepared flooring that has sprung up in England? It is the custom there to saw out a bill of lumber to order from the raw material in the shape of deals. Recently a sample cargo of prepared flooring was received in London, and bought by some merchants of a speculative turn. At present this trade, should the English dealers tackle kindly to it, gives a prospect of being chiefly controlled by the Swedish and Bothnian dealers. In this connection, the question arises as to how Canadian dressed and matched flooring would fare over there. Such exports are already proposed among American dealers. How many obstacles there are in the way has not yet developed, but if the cost of yellow pine flooring, dressed and matched, is not excessive, when laid down across the water, it ought to compare favorably in quality and service with the foreign prepared article, since in what the preparation consists is a rather obscure proposition. The question of superior manufacture is an important one in this country, and doubtless is in England. Canadians are al-

ready exporting ready made dwellings, doors and sashes; some going to Manitoba and others to the West Indies. Should there arise a trade with Great Britain in prepared lumber, in this country, it might be the means of adding largely to an already great and profitable industry.

THE REVIVAL OF CHERRY.

Those to whom fifty years is a memory readily recall the cherrywood tables, bureaus, drawer chests, that were then in fashion, when the more gaudy and more costly mahogany had but lately come in. It is an evidence of a return to good taste that the cherry tree is again in favor, not only as it exists in old furniture, but in its new requirements. It is largely used in cases for musical instruments—melodeons and organs—and in furniture—chairs and tables—after being "ebonized," or blackened by acids and dyes. But it is also coming again into use in its natural color. One of the finest banking houses in the Eastern States is finished entirely in cherry and it is beautiful. The wood, filled and not varnished, has a soft glow not possessed by any other. It has none of those distortions of grain that are so unpleasant in mahogany.

The timber is chosen from the wild cherry, which in New England and the North generally does not usually grow to a girth of more than twenty inches, but in some of the Western States and in the South frequently attains a diameter of twenty-four inches. The domestic fruit cherry gives some good specimens of small timber, but as the tree is rarely sacrificed until it is bearing and is decayed, this source of supply is precarious. Like all close grained timber, the best specimens are those which grow singly in exposed situations and not in a dense forest. The facility with which cherry can be worked makes it a favorite with the cabinet maker.

A NEW INDUSTRY.

Under this heading the St John Globe reminds its readers that there is an extensive demand in the Mediterranean for hardwood box shooks, birch and maple, and a large and growing trade is being done by Bangor in them, that city ships over \$200,000 worth a year. The shooks shipped from that port are manufactured in the northern part of Maine, and this is an industry to which some New Brunswick people might turn with advantage. The supply of suitable lumber is abundant enough. Indeed, every year, says the Globe, thousands of dollars worth of hardwood, fit to be made up into shooks, is burned up in the process of the clearing land. "If mills were erected in the interior of the Province for the manufacture of shooks and other articles of commerce from hardwood, a great impetus would be given to the settlement of new land, as one of the obstacles at present is the disposal of the hardwood trees, in any other way except by burning them. During the time the iron mines of Carleton county were in operation the demand for charcoal led to the clearing of immense areas of new land, and gave Jackson-town and the adjacent districts an impetus, which made their agricultural progress very remarkable. A similar effect would be produced, though, perhaps, in a less degree, by the erection of mills for the utilization of the different varieties of hardwood

The fine forest along the Adriatic at Ravenna, Italy, celebrated by Dante and Byron, and which furnished the shipyards of Rome and Venice, are to be cut down, because an excavation for a railroad has so drained the soil that the trees have died.

If you would escape the ravages of that scourge of the summer season, Cholera Morbus, keep Dr. Fowler's Extract of Wild Strawberry at hand for use. In that and all other forms of Bowel Complaint it is infallible.

READER, if you suffer from any disorder of the Liver, Stomach, Bowels, Kidneys, Skin or Blood, try Burdock Blood Bitters, Nature's specific medicine for acting on those organs for the outlet of disease. 25,000 bottles sold in the last three months.

W. A. EDGARS, of Frankville, was cured of Liver and Kidney Complaint after life was despaired of. He had remained from ten to fifteen days without an action of the bowels. Burdock Blood Bitters cured him, and he writes that he is a better man than he has been for twenty years past.

The American Hotel,
BARRIE, ONT.

Collier Street, Adjoining the Market.
RATES REASONABLE, CENTRAL LOCATION,
FREE BUS TO AND FROM ALL TRAINS.
Every accommodation for Commercial and LUMBERMEN.
W. D. McDONALD, Proprietor.

J. K. POST & CO.
LUMBER MERCHANTS

And Shipping Agents,
OSWEGO, N. Y.

J. T. LAMBERT,
Lumber and Commission Agent.

ORDERS FOR DIMENSIONS AND ALL OTHER KINDS AND GRADES OF

American Lumber

PROMPTLY ATTENDED TO.
Timber Limits and the Square
Timber Trade a Specialty.

Office, Wellington Street, OTTAWA.

FITS EPILEPSY

OR
FALLING SICKNESS

Permanently Cured—No Humbug—By one Month's use of Dr. Goulard's Celebrated Infallible Fit Powder. To convince sufferers that these powders will do all we claim for them we will send them by mail, post paid, a free Trial Box. As Dr. Goulard is the only physician that has ever made this disease a special study, and as to our knowledge thousands have been permanently cured by the use of these Powders. We will guarantee a permanent cure in every case or refund you all money expended. All sufferers should give these powders an early trial, and be convinced of their curative powers.

Price for large box \$3.00, or 4 boxes for \$10.00, sent by mail to any part of the United States or Canada on receipt of price, or by express, C. O. D. Address

ASH & ROBBINS,
360 Fulton Street, Brooklyn, N. Y.

CONSUMPTION
POSITIVELY CURED.

All sufferers from this disease that are anxious to be cured should try Dr. Kiser's Celebrated Consumption Powders. These powders are the only preparation known that will cure consumption and all diseases of the Throat and Lungs—indeed, so strong is our faith in them, and also to convince you that they are no humbug, we will forward to every sufferer, by mail, post paid, a Free Trial Box. We don't want your money until you are perfectly satisfied of their curative powers. If you're life is worth saving, don't delay in giving these Powders a trial, as they will surely cure you.

Price for large box \$3.00, sent to any part of the United States or Canada, by mail, on receipt of price. Address

ASH & ROBBINS,
360 Fulton Street, Brooklyn, N. Y.

DR. FOWLER'S
EXTRACT-WILD
STRAWBERRY
CURES
CHOLERA
CHOLERA INFANTUM
DIARRHÆA.
AND
ALL SUMMER COMPLAINTS
SOLD BY ALL DEALERS.

E. S. VINDIN,
Commission, Shipping, Forwarding and General Agent.
LUMBER MERCHANT
Office, Tempest's Block, Port Hope. 111

DODGE & CO.
Pine & Hardwood Lumber

Office.—Cor. East Falls Avenue and Stiles Street,
BALTIMORE, MD., U.S.A.
Correspondence Invited. 1yt12

GRATEFUL-COMFORTING.
EPPS'S COCOA
BREAKFAST.

"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well selected cocoa, Mr. Epps has prepared our breakfast tables with a delicately flavored beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—Civil Service Gazette.

Made simply with hot water or milk. Sold in tins and packets only (4 lb. and 2 lb.) by Grocers labelled thus:
JAMES EPPS & Co., Homœopathic Chemists,
181ly London, England.

REST not, it is sweep up by, so and dare before you die, something mighty and sublime have befallen to conquer time." \$80 a week in your own town. \$5 outfit free. No risk. Everything new. Capital are making fortunes. Ladies make as much as men, and boys and girls make great pay. Reader, if you want business at which you can make great pay all the time, write for particulars to H. HALLETT & Co., Portland, Maine.

A MAN
WHO IS UNACQUAINTED WITH THE GEOGRAPHY OF THIS COUNTRY WILL SEE BY EXAMINING THIS MAP THAT THE



CHICAGO, ROCK ISLAND & PACIFIC R.R.
By the central position of its line, connects the East and the West by the shortest route, and carries passengers, without change of cars, between Chicago and Kansas City, Council Bluffs, Leavenworth, Atchison, Minneapolis and St. Paul. It connects in Union Depots with all the principal lines of road between the Atlantic and the Pacific Oceans. Its equipment is unrivaled and magnificent, being composed of Best Comfortable and Beautiful Day Coaches, Magnificent Horton Reclining Chair Cars, Pullman's Practicable Palace Sleeping Cars, and the Best Line of Dining Cars in the World. Three Trains between Chicago and Missouri River Points. Two Trains between Chicago and Minneapolis and St. Paul, via the famous "ALBERT LEA ROUTE."
A New and Direct Line, via Seneca and Kankakee, has recently been opened between Richmond, Norfolk, Newport News, Chattanooga, Atlanta, Augusta, Nashville, Louisville, Lexington, Cincinnati, Indianapolis and Lafayette, and Omaha, Minneapolis and St. Paul, and intermediate points.
All Through Passengers Travel on Fast Express Trains.
Tickets for sale at all principal Ticket Offices in the United States and Canada.
Baggage checked through and rates of fare always as low as competitors that offer less advantages.
For detailed information, get the Maps and Fold ers of the
GREAT ROCK ISLAND ROUTE,
At your nearest Ticket Office, or address
R. R. OGLE, **E. ST. JOHN,**
Vice-Pres. & Gen'l Mgr. Gen'l Trk. & Pass. Agt.
CHICAGO.



DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY
TOKER & Co. PETERBOROUGH.

Terms of Subscription:

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

Advertising Rates:

Per line, for one year..... \$0 00
Per line, for six months..... 50
Per line, for three months..... 30
Per line, for first insertion..... 10
Per line, for each subsequent insertion to 3 mo's..... 05
Cards not occupying more than 12 lines (1 inch) per annum..... 8 00
Cards not occupying more than 12 lines (1 inch) for six months..... 5 00
Cards not occupying more than 6 lines per annum..... 5 00
Cards not occupying more than 6 lines, for 6 mo's..... 3 00

Special rates will be made for page, half page and column advertisements.
Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion.
All communications, orders and remittances should be addressed and made payable to TOKER & Co., Peterborough, Ont.

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

The CANADA LUMBERMAN is filed at the Offices of MESSRS. SAMUEL DEACON & Co., 154 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

PETERBOROUGH, Ont., SEPT. 1, 1883.

It is estimated that 58,000,000 trees have been planted in Nebraska, which cover 100,000 acres of land.

H. HOWARD & Co., Port Huron, Michigan, are filling a large order for sawed timber to be used in the locks of the Welland canal.

SEVERAL million feet of logs belonging to Thomas Nester are hung up on Baraga stream, in Baraga county, upper peninsula, Michigan.

LUMBERMEN in Ottawa are all extending their piling grounds. Trade is very dull, but they want to cut the winter's log harvest and require more storing room.

A 7,000,000 drive from Otter Tail Lake, Minn., has arrived for Messrs. J. R. Sutherland & Co.'s mill, St. Boniface. This, it is believed, is the largest drive that has ever arrived there.

A 7,000,000 drive of lumber from Otter Tail Lake, Minn., has arrived for Messrs. J. R. Sutherland & Co.'s mill, St. Boniface. This, it is believed, is the largest drive that has ever arrived here.

RAT PORTAGE council has passed a by-law bonusing the Rainy Lake Lumber company \$15,000 towards erecting a new mill. The company promises a better mill than the one recently destroyed.

A LARGE toothpick factory is to be started at Harbor Springs, Michigan, that will consume the poplar and birch that grows in Emmett county. Eight or ten men, and 15 to 20 boys and girls will be employed.

A KINGSTON gentleman thoroughly conversant with the subject gives the following estimate of the value of the timber production in this district, which has been developed by the local railway:—Square timber, \$50,000; sawn lumber, \$75,000; other products, such as wood, ties, telegraph poles, saw logs, shipped to other places, etc., \$25,000. Total, \$150,000. This is nearly all shipped to Kingston, and has been added to the trade of the city during the last two years.

In a list of the rich men of Eau Claire, Wis., appear the names of W. A. Rust, \$150,000; J. S. Owens, \$160,000; three Rust brothers, \$300,000. These are all lumbermen. The Rust brothers and J. S. Owen formerly resided in East Saginaw.

The Selkirk correspondent of the Winnipeg Commercial of Aug. 21st, says:—The North-West Lumbering Company are sending large quantities of lumber to Winnipeg. One day last week they shipped twenty cars over the new railway.

MR. HERMAN COOK, of Quebec, has sold to Mr. A. T. Townhouse about 350,000 feet Michigan board timber, 22 inches average, at something over 38 cents. A lot of Chaudiere pine deals has been sold at \$106, \$32 and \$25, 75 per cent. regular and 25 per cent. under size.

S. J. MURPHY, of Detroit, has just consummated the purchase of 40,000 acres of timbered lands on the eastern slope of the White Mountains. The price paid is said to be about \$1 per acre. The timber is largely spruce, inferior to pine, but available as the latter becomes scarce.

A SHIPMENT of 300 bushels of red oak acorns has been made to Germany for planting on untillable lands and hillsides. This tree has been found to do well in Europe, and its wood is there considered to be very valuable. The acorns for shipment were gathered in Missouri at an average cost of \$1 a bushel.

The Canadian Manufacturer says:—The supply of standing timber on the Pacific coast is large, and soon supplies for the Prairie country will be carried east, in Canada as well as in the United States. The product is now ten million dollars worth annually, of which British Columbia may want perhaps half a million's worth.

THE destructive tornado that swept over the country in the vicinity of Rochester, Minn., August, 21, demolished John M. Cole's large planing mill at Zumbrota. Mr. Cole, the proprietor, was passing from the mill to his residence, when he was caught by the wind, carried several rods, and dashed to the earth a mangled corpse.

WILLIAMS BROS., Manton, Wexford county, Michigan, manufacture harness hames out of tree stumps, the crook of the roots forming a natural crook of the hames. The stumps are cut just above the ground, including the crook, but avoiding the grit of the ground. The enterprise is said to be profitable both to the manufacturers and stump owners.

The Minnedosa correspondent of the Winnipeg Commercial of Aug. 21, says:—Jermyn & Bolton's saw logs are now all down, and their sawmills will be run night and day for the remainder of the season. In anticipation of the introduction of pine lumber as soon as the railway is completed, the lumbermen here have arranged a new schedule of prices averaging about \$6 per M less than the one hitherto in force.

In a white oak log over 3ft in diameter, which was sawed up lately in Sauer & Baird Bros. saw mill, Plattsville, a two inch oak pin was found, and that pinned to the tree again with a § pin, the whole had again been overgrown with solid wood five inches. It must have been put in a good many years ago. The hole was bored with a pot augur, the point showing very plain yet. The tree was cut on the farm of Thomas Bond, of Brantford.

The Northwestern Lumberman says:—Hardwood flooring is being used in Massachusetts factories instead of southern pine. In the Flint mill, at Fall river, 300,000 feet has been used, and in an addition to the Pacific mills at Lawrence, Mass., as much more is being put in. Hardwood, like stone, for building purposes to which it is adapted, will always hold its own against all rivalry, and the owners of good hardwood in the tree should remember this and withhold the axe and firebrand.

The Northwestern Lumberman says:—They tell a joke on a tug captain at Cheboygan, Michigan. He wanted to tow a boom of logs down the river during the night. The boom boys objected to the night work, and when the captain insisted and handed the crew the tow-line, they fastened it around a solid spile instead of to the movable boom. The tug pulled and pulled all night without budging an inch. A captain that would tug at a fixed post all night like that must have "spiled" considerable bad whisky.

The Canadian Manufacturer says:—It is rightly pointed out by several of our contemporaries that Canada, a large exporter of lumber, exports far too much of it in a condition nearly approaching the natural one. Much of what we send over to England in the shape of deals and square timber ought to go as planed flooring and boards; and no small quantity should go as doors, sashes, and frames. The men and the machinery for this business we have in plenty, but the necessary money and enterprise appear to be holding back.

The Ludington Appeal says that the largest logging contract ever made in those parts was consummated last week between the Danaher & Melendy Lumber Company on the one side and J. S. Stearns and John Dolan on the other. By the terms of the contract Messrs. Stearns & Dolan agree to put into the north branch of Pore Marquette river during the next three consecutive years 30,000,000 feet of logs, from a tract of land owned by the D. & M. Co. on sections 16 and 17 t. 17 n., r. 14, in Lake county. The consideration for performing the work is in the neighborhood of \$20,000.

The Northwestern Lumberman says that Henry Gamble, at Grand Marais, Schoolcraft county, upper Michigan peninsula, has dug a canal two miles long, as an outlet for Gravel river logs. He formed the canal by first dredging the channel, after which piles were driven 10 feet apart to a depth of eight feet. Brush was then laid between the piling and bank, slanting a little down stream, on which an embankment of earth was thrown. Boom sticks were chained along at the side, in a manner to permit them to rise and fall with the water, for the purpose of keeping the logs on the way down from sticking and impairing the embankments. The canal will hold from six to eight feet of water. The logs from Gravel river are flooded out through this canal into the bay for boomage.

MR. HUTCHINS, of Montreal, is now at Bolton Centre, examining facilities and supplies which may exist in the line of birch, maple, basswood, and some other woods for the purpose of manufacturing barrels, kegs, etc., also of veneering, for which purpose a company has been formed, who are making a preliminary examination of the material and facilities, as well as inducements to be had at the different sections in the township. Roxton Falls has offered the company exemption, from taxation for ten years, three acres of land to build on and possibly other good things, but unfortunately the best kind of timber is not to be had there although the other facilities are acceptable. The central point appears to rest between Bolton Centre and Eastman. Mr. Hutchins states that when his machinery is in full operation it will cut about one million feet of lumber per annum, which is to be manufactured into barrel kegs and veneering of various kinds and patterns for the Canadian market.

THE LUMBER TARIFF.

Elsewhere we make room for a lengthy letter, addressed to Sir John Macdonald, on the subject of protection to the lumber trade, which will no doubt be read with interest, even by those who, like ourselves, cannot indorse all the views of the writer.

TREE PLANTING.

The following letter appears in the Toronto Mail:—
SIR.—As farmers and others owning large tracts of land are beginning to seriously consider the necessity of planting trees for timber,

the first thing to consider is what to plant, and therefore I wish to show the merits of the European larch. The larch is a cone bearing tree, belonging to the pine family, but differing from that genus in the annual shedding of its leaves. It is a native of Switzerland, growing principally in the Alps and Appennines. We have two natives in Canada, larch microcarpa and black larch (L. Pandula), commonly called tamarack or hackmatack, growing mostly in swamps, and for this reason they are not so suitable as the European larch. I will give some idea of its value as a tree for timber. The larch was first introduced into Scotland in the year 1738, when eleven plants were given to the then Duke of Athol, who was so pleased by the rapidity of their growth and the quality of their timber that he afterwards planted thousands of acres. In the year 1744 a small plantation, of some twenty trees were made at Blair, and in the year 1804, sixty years after, their average girth at 3 feet from the ground was from eight to ten feet. The total measurement of this lot of twenty-two trees was 2,645 feet, which, if placed at the moderate value of fifty cents per foot, would give \$1,174. If from four to five hundred could be grown to the acre, then the timber would be worth from \$16,000 to \$20,000 in 60 years. It must be remembered that the larch can be grown on the poorest land, in fact on land that would not grow enough pasture to feed a sheep. Being a close observer of the merits of the different varieties of trees or timber, I think I am safe in saying that there is no tree that grows equal to the larch for quick growth and durability of the timber. While the heart wood is not formed at all in the other resinous trees till they have lived some years, the larch, on the contrary, begins to make it as soon as planted. To prove the durability of the larch as timber, several experiments were made on the banks of the River Thames, posts of equal thickness, some larch, others oak, being driven down, where they were alternately dry and covered with water by the effects of the tide, a most trying test for timber. The oak posts decayed, and had to be renewed twice in the course of a few years, while those made of larch remained altogether unchanged. Larch is largely used in ship-building; in fact, it is the principal timber used in both naval and mercantile dockyards in Scotland. Larch is propagated by seed, which the trees furnish in great abundance.

Should the Government wish to encourage tree-planting, perhaps the best means that could be employed would be to get seed and establish nurseries to raise the stock for planting. It takes about three years to raise plants from seed large enough for transplanting. It takes about three years to raise plants from seed large enough for transplanting, hundreds of thousands of forest trees are annually sent out from the Grant Edinburgh nurseries, and I do not suppose there could be got enough suitable plants in all the Canadian nurseries to plant a five-acre patch.

Yours, &c.,

ALEX. ROBERTSON,
679 Yonge street.

Toronto, Aug. 22, 1883.

THE OUTLOOK AT PHILADELPHIA.

A very encouraging outlook is presented to lumber dealers by the increasing number of building permits taken out in the city for buildings, large and small, dwelling houses and shops. The industries are expanding, and a large volume of business will be transacted, in spite of much talk to the contrary.

The railroads are making heavy improvements, all the way from bridge building to station houses. Large contracts have been made lately for Virginia oak ties, which are in special request in this section. A few parties have invested in timber lands along the lines of Virginia railroads, with a view to an early rapid development to meet the enlarging southern and northern Atlantic coast demand. Two or three of our larger firms are now making heavy deliveries to New York roads, and some specifications are coming to hand for next spring delivery on account of Pennsylvania and Maryland railroads.

Railroad companies are likely to be as large buyers next spring as they were last year.

Vanderbilt has 400 miles of road under construction, practically. Garrett is about placing grading contracts for his proposed Baltimore & Philadelphia road. Besides this, between 400 and 500 miles of road are projected. Ship timber is under heavy contract for fall work, and deliveries this month are larger than usual. Houses are wanted everywhere. Contractors are busy, but yardmen are making bitter complaints against the former, who buy from first hands. A good deal of building is being hastened to completion in Chester, Norristown, Reading, Pottstown, Coatesville, Camden and in a dozen smaller towns.

Some large transactions have just been closed in yellow pine. Freight rates are from \$6 to \$6.50. There is more enquiry, and heavy consumptive requirements are in sight. Prices are stationary. Oak is strong, and good qualities in active demand for August, but some sales show sellers ready to sacrifice for cash.

Walnut is scarce. Some parties who have large tracts will not cut until prices are better. Kentucky shipments are light. Some buyers are prowling around through Indiana. Some parties here needing money are selling walnut cheap—cheaper, in fact, than it can be replaced, according to all indications.

Mahogany is a coming wood among the furniture men. The leading dealer reports sales in one month now to exceed those in six months a few years ago. Mexican mahogany is coming in in larger quantities, and some large orders have been recently secured for winter and spring deliveries. Stocks are increasing.

The scarcity of good cherry is still spoken of. Nothing new is to be said as to poplar, ash and hemlock. Williamsport white pine men are holding for good prices. Hemlock shipments will be large during September. Several yard men are rearranging to accommodate larger supplies. Lath are active and scarce—Spruce is quiet. There is on all sides a confidence in an active fall.—*Northwestern Lumberman.*

ALPENA ALLOTMENT.

A correspondent from Alpena, to a Saginaw newspaper, states that the mill men there, as well as at Tawas and Au Sable, have determined to hold their Norway logs for the present, as they are dissatisfied with prevailing prices. It has been observed all the season that more than the usual Huron shore Norway was being offered on the Chicago market, and lately it has moved off rather slowly at slight concessions, since shippers to the West prefer white pine dimension to Norway, on account of the difference in weight. It is stated that the mills at Alpena have, as a rule, sold close up to the cut, so that the determination to hold the logs is for the purpose of avoiding cross piling, as would be necessary if the mills were kept running on Norway logs. The Prentiss Lumber Company has this season sold 5,900,000 feet of lumber ahead of the cut. The entire cut of the season by W. H. & E. K. Putter's mill has been sold and is being shipped as fast as cut, 5,000,000 feet having already been shipped. Fletcher, Pack & Co., last week sold to Ohio parties 400,000 feet of Norway stumps at \$11 a thousand. W. L. & H. D. Churchill lately sold to Chicago parties 2,000,000 feet of white pine at private terms. The Minor Lumber Company last week sold to Chicago parties 1,000,000 feet of bill stuff, 18 and 20 feet long, at \$9 and \$9.50 a thousand, kind of timber not stated. The Prentiss Lumber Company lately sold to Ohio parties 700,000 feet of Norway at \$9, 350,000 feet of common stock white pine, at \$7.50, \$15 and \$35, and 500,000 selected stock, at \$25 a thousand.—*Northwestern Lumberman.*

A MAINE WOOD INDUSTRY.

Ranger Brothers, of East Wilton, are carrying on a kind of wood manufacture which is thus described by a local journal. It is the process of stripping lumber for veneering sleigh-backs and dashers, picture-frame backs, etc. The wood used by them is principally basswood, and is prepared for stripping by sawing the logs into the length required. These are stowed into the steaming room, which will contain 2,000 feet of lumber. The logs are steamed about 13 hours, and it is a very particular job, as the lumber must neither be steamed too much nor too little. The logs are now turned out perfectly round

and then placed in the cutter, the log being held as in a turning lathe and the knife held down upon the revolving log by means of a long lever purchase. The wooden sheets, as they are cut, pass along upon a table, until the log is used up. Out of a log two feet in diameter they will average about 112 square feet, three-eighths of an inch in thickness—a strip 28 feet long and four feet wide. The sheets are cut into squares and dried in the sun. If the weather is favorable, it will take about eight days to dry and prepare the sheets for market. The Ranger Brothers now employ five men, and think of enlarging in the fall. They have not taken an order for two years, and still have on hand more old orders than they can easily fill this year, and yet they will do double the work of any previous year—using some 100,000 feet of lumber. They have orders from Germany and from all parts of America.—*Northwestern Lumberman.*

LAKE HURON LUMBER FREIGHTS.

The Alpena, Mich., *Argus* says in reference to lumber freights from that port: "The freight on lumber from Alpena to Ohio ports is \$1.25 per thousand, but there is prospect of an advance to \$1.50. At the former rate vessels could not pay expenses. The rate to Chicago, Tonawanda and Buffalo is \$1.75 per thousand, and on timber to the two latter places the freight is \$2. At these figures vessel men do not get rich. A lumber barge has to give one-third of her freight to the steam barge that does the towing, and the longshoremen at Tonawanda demand 30 cents per thousand feet as remuneration for their services in unloading. This leaves the vessel owner about 87 cents per thousand to pay all his other expenses—such as harbor tow bills, clearances, cost of loading, wages and board of crew, and repairs, and it is no wonder that vessels are often tied up for debt. The prospect is not very glorious for owners of lumber barges."

ANCIENT FOREST LAWS.

The first forestry laws were enacted not at all for the preservation of the timber but only to prevent the destruction of woods in which wild beasts might find shelter—that is, they were, strictly speaking, game laws, rather than forestry. The earliest law of this sort of which we have any record is that promulgated by King Canute, of England, in the year 1016. One of its provisions is as follows: "Let no one cut any of our wood, or underwood, without leave of the chiefs of the forest; which, if any one do, he shall be adjudged guilty of an infringement of the royal chase. But if any one cut down an oak (*ilicem*) or any tree that furnishes food for the beasts of the forest, beside infringement of the royal chase, he shall pay to the king twenty shillings." Not until the reign of Henry VIII did laws looking towards the preservation of timber begin to be enacted. One passed in the thirty-fifth year of his reign begins as follows: "The king, our sovereign, perceiving and right well knowing the great decay of timber and wood universally within the realm of England, and that, unless a speedy remedy in that behalf be provided, there is great and manifest likelihood of scarcity and lack, as well for houses and ships, as for fire-wood, etc."—*Lumber World.*

ALASKA TIMBER.

The rapid destruction of American forests is a subject which is attracting the attention of our economists. Some startling figures upon this subject were submitted to the people in the recent discussion of the tariff bill in Congress. All authorities agree that Alaska could furnish timber for the world. Norway pine, spruce, hemlock and cedar predominate. Possibly the eyes of our great lumber barons will be turned to Alaska when the forests of the north-west and the Rockies shall have disappeared before the rapidly advancing and ruthless axe of the pioneer.

The most valuable wood of the coast is the yellow cedar peculiar to that country. It closely resembles hickory. It is recommended for ship-building, and the forests of Maine and the south will soon be denuded of their ship timber. This wood is also susceptible of a high polish, and is adapted to fine furniture. William H.

Seward was so much impressed with it that he had book-cases made of it and his library panelled with it. Moths are said to shun it more than they do camphor. These vast tracts of timber lands are not in the market. They are part of the public domain of the United States which has not yet been surveyed. The Public Lands Commission recommended that the government make a survey by competent persons, and considered that the timber resources of Alaska would be likely to prove a source of great wealth.

Alaska has an area of 577,390 square miles, estimated to be 369,629,000 acres. This is all subject to the control of Congress, except certain grants made by the Russian government. The land laws of the United States have not yet extended over Alaska, nor have any of the lands been surveyed. Probably one of the next steps of the speculators will be to urge upon Congress that these lands may be surveyed. Undoubtedly there are great fortunes for those who first obtain a valid title to the vast tracts of timber which are immediately accessible to the ocean. Navigation to San Francisco, or to the western terminus of the Northern Pacific road, is easy. Land costs only one and nineteen-twentieth cents per acre.—*Lumber World.*

New Hampshire Timber Purchase.

The *Saginaw Courier* says concerning a purchase of a tract of timber land in New Hampshire by S. J. Murphy, of Detroit: "The tract embraces 47,000 acres, S. J. Murphy, of Detroit, and C. E. Dole, of Bangor, Me., being the purchasers. The land is estimated to cut 250,000,000 feet, about one-half of which is pine the balance is spruce. The price paid was about twenty-five cents stumpage, and the low figure paid is owing to the rough region in which the timber is located, it having been considered almost inaccessible by the usual methods of lumbering in that section. T. E. Dorr, of this city (East Saginaw), business partner of Mr. Murphy, and an experienced lumberman, recently visited the tract for the purpose of determining the improvements necessary to get the timber out, and the probable expense. The understanding here is the purchasers have made a fairly good investment."—*Northwestern Lumberman.*

Utilizing Sawdust.

Numerous methods have been devised to utilize sawdust, thousands of cords of which are annually consigned to the flames for the purpose of getting rid of it. Compressing machines have been invented to press it into solid substances for use as fuel, and for other purposes, and the inventive genius of the country is still engaged in the attempted solution of the problem, "what shall be done with the sawdust?" A new idea has lately materialized, according to an exchange, which says: Pine sawdust, highly compressed, has been successfully used to make up center frames of carriage wheels. It is said to be so solid that it will bear a pressure equal to 23 tons per square inch. As sawdust has also been used for partition and bricks, its application to the production of complex carvings and mouldings does not seem to be far off. This opens up quite a new market for sawdust, which has hitherto been a comparatively waste product.

MANAGER.

Wanted Engagement to Manage a Lumbering Business in the woods. Large experience in Logs and Square Timber. Refers to Sixteen Years Service with late Employers. Address

MANAGER,
Office of this Paper.

LUMBER

Shingles, Doors, Sash, Flooring, &c.,
WANTED,
STATE QUANTITIES AND PRICE TO
SHORE & DAVIS
Head Office, 614 Main Street, Winnipeg, Man.

ROCK ELM WANTED.

A Few Car Loads of good ROCK ELM, cut into 1, 2, 3 and 3 inches thick, 12ft. length preferred.

DUFRESNE & JODOIN,
Lumber Dealers,
6112 493, St. Joseph Street, Montreal

WATER POWER

TO LEASE.

THE UNDERSIGNED having largely extended their operations at Lakesfield, are desirous of corresponding with parties who wish to go into manufacturing, and they are prepared to sell or lease water power on the most favorable terms, or would erect buildings of any size suitable for factories.

R. & G. STRICKLAND
1888 LAKESFIELD, ONT. W16L9

McCracken, Gall & Co.,

WHOLESALE AND RETAIL

LUMBER MERCHANTS

And MANUFACTURERS,

Dealers in WALNUT, BUTTERNUT, CHERRY, CHESTNUT, ASH, OAK, WHITEWOOD, and all kinds of Hardwood and Pine Lumber. PICTURE BACKING, HOLLY, EBONY, LIGNUM VITAE, RED CEDAR, &c. American and French VENEERS.

Orders for Lumber and all kinds of Factory Work promptly attended to. Lumber Kiln dried to order. Yard: Cor. Wellington & Strachan Aves. FACTORY: Corner Soho and Phoebe Streets. Office: 39 Adelaide Street East, (First Floor, nearly opposite the Post Office.

15 TORONTO, ONT. 17

How Many Miles Do You Drive!

The **ODOMETER**

Will Tell.

This instrument is no larger than a watch. It tells the exact number of miles driven to the 1-100th part of a mile; counts up to 1,000 miles; water and dust tight; always in order; saves horses from being over-driven; is easily attached to the wheel of a **Buggy, Carriage, Sulky, Wagon, Road Cart, Sulky Plough, Reaper, Mower,** or other vehicle. Invaluable to **LIVERYMEN, PLEASURE DRIVERS, PHYSICIANS, FARMERS, SURVEYORS, DRAYMEN, EXPRESSMEN, STAGE OWNERS, &c.** Price only **\$5.00** each, one-third the price of any other Odometer. When ordering give diameter of the wheel. Sent by mail on receipt of price, post paid. Address

McDONNELL'S ODOMETER CO.,
2 North La Salle St., Chicago.
Send for Circular. 16L10

SAW MILLS

AND **TIMBER LIMITS**

WITH **Logs, Lumber, Store Goods, &c FOR SALE**

In the District of Algoma, Ont.

Eighty-Five Square Miles (54,400 Acres) of Limits, Good Pine, First-Class Water Power, Large New Water Mill, Steam Mill, Store and Dwellings.

Canada Pacific Railway now running through part of the property.

For full particulars address:—
WILLIAMS & MURRAY,
1711 GODERICH, ONT.

\$72 A week made at home by the industrious. Best business now before the public. Capital not needed. We will start you. Men, women, boys and girls wanted everywhere to work for us. Now is the time. You can work in spare time, or give your whole time to the business. No other business will pay you nearly as well. No one can fail to make enormous pay, by engaging at once. Costly outfit and terms free. Money made fast, easily and honorably. Address **TAYLOR & CO., Augusta, Maine.**

THE LUMBER TARIFF.

The Honorable Sir John A. Macdonald, K. C. M. G., Minister of the Interior, Ottawa, Canada.

HON. SIR,—In the interests of the lumbering industry, I respectfully beg leave to bring to your notice and to that of your colleagues, the anomaly and injustice of the National Policy tariff, in the way in which it is at present constituted; that while all other branches of industrial establishments and interests in Canada have received the thoughtful consideration, and the fostering and quickening influence of the Government, through the tariff, the lumbering industry has never received any material benefit more than that which it received under the tariff of 1878.

Under the present tariff, everything used and consumed in the mills, and in the forest, necessary to the prosecution of this most important Canadian industry have increased in price, thereby causing its products to cost more when ready for delivery, and at the places of shipment, than when under the old tariff.

The following comparative statement will show the exactness of the tariff as bearing on the lumbering interest; for the years of 1878 and 1883, respectively, on articles of prime necessity, and which are imperatively necessary to the efficient prosecution of the industry, viz.—Pevies (canting bars), pick hand-spikes, steel and iron shod sleds, boom and binding chains, harness, oats, hay and cornmeal, boots, woollen clothing, duck jumpers and overalls, flour, pork, beef, beans, dried apples, lard, butter, molasses and tea, steam engines and boilers, machinery, water-wheels, axes, mill saws and files and machinery oil.

Articles.	Revenue Tariff, 1878.	Protective Tariff 1883.
Steam Engines and Boilers	17 1/2 per cent.	25 per cent.
Machinery and Water wheels	Free.	5 per cent.
Millsaws and Files	Free.	\$5 00 per ton.
Machinery Oil	Free.	20 per cent.
Chains	Free.	10 per cent.
Steel, for shoeing sleds, for Hand-spikes and Pevies	Free.	10 per cent.
Harness and Boots	Free.	10 per cent.
Hay	Free.	10 per cent.
Woolen Clothing	Free.	10 per cent.
Duck, for Jumper and overalls	Free.	10 per cent.
Duck Jumper	Free.	10 per cent.
Pork and Beef	Free.	10 per cent.
Oats	Free.	10 per cent.
Flour	Free.	10 per cent.
Butter	Free.	10 per cent.
Lard	Free.	10 per cent.
Tea	Free.	10 per cent.
Axes	Free.	10 per cent.

It will be seen on an examination of the foregoing comparative statement, that the present customs tariff (excepting on tea and molasses) is excessive, and must, therefore, bear more heavily on the lumbering industry than the previous tariff.

It is a contradiction of the meaning and spirit of the National Policy, as the people have been educated in understanding it, to admit woods of foreign countries free of duty into Canada in competition with those of our forests—of which injustice the following paragraphs, copied from the customs tariff now in force, will serve to show:

“Lumber and timber, plank and boards, not shaped or otherwise manufactured, of boxwood, cherry, chestnut and hickory, mahogany, oak, pitch pine, rose-wood and sandal-wood, Spanish cedar, walnut and white-wood.

“Woods not further manufactured than sawn or split, viz.—African teak, blackheart, ebony, lignum-vitæ, red cedar and satin wood.”

The admitting of the woods of foreign countries into Canada free of duty, in competition with the produce of our forests—excepting those which cannot be done without in the manufacturing of ships' blocks—is opposed to the general interests of advancing the prosperity of the country, and is decidedly contradictory to fostering and encouraging the lumber industry. We have in our forests an abundance of valuable

and most beautiful woods, suitable for the finest of manufactures for which wood is used. We have walnut and white-wood, oak and most beautiful varieties of maple and birch and ash, elm and hickory; this being the fact, all woods should be on the duty list.

The American Government and people are not as generous nor as partial to our lumbering interests as we are to theirs. While we admit their timber into Canada, duty free, and give them the privilege of using our market as well as their own, they exact a heavy tax on the value of our woods on entering their territory.

From a careful perusal of the following paragraphs, which were copied from that portion of the American customs tariff particularly dealing with the importation of foreign woods, it will be observed that the statesmen in the Government of the United States have recognized in an eminent degree the policy of protecting its lumbering interests:

“Timber hewn and sawed, and timber used for spars and in building wharves, 20 per cent. ad valorem.

“Timber squared or sided, not specially enumerated or provided for by this Act, one cent. per cubic foot.

“Sawed boards, plank, deals and other lumber of hemlock, whitewood, sycamore and bass-wood, one dollar per thousand feet, board measure. All other articles of sawn lumber, two dollars per thousand feet, board measure. But when lumber of any sort is planed or finished, in addition to the rate herein provided, there shall be levied and paid for each side so planed or finished fifty cents per one thousand feet, board measure.

“And if planed on one side, and tongued and grooved, one dollar per thousand feet, board measure.

“And if planed on two sides, and tongued and grooved, one dollar per 1,000 feet, board measure.

“Staves of wood of all kinds, 10 per cent. ad valorem.

“Pickets and palings, 20 per cent. ad valorem.

“Laths, 15 cents per one thousand pieces.

“Pino clapboards, two dollars per one thousand.

“Spruce clapboards, one dollar and fifty cents per one thousand.

“Wood, unmanufactured, not specially provided for in this Act, 20 per cent. ad valorem.” In addition to the many disadvantages existing against the profitable prosecution of the lumbering industry I may mention the export duty—on shingle bolts, one dollar per cord of 128 cubic feet; and on spruce and pine logs, one dollar per thousand feet. If there was a scarcity or an insufficiency of timber in our forests in supplying the wants of our people, this tax then might be considered excusable. No such argument, however, can be successfully advanced in favor of its continuance, as we have an inexhaustible supply of timber in the forest, sufficient for the wants of the country for all time to come.

All other industries in Canada, without exception, are protected and fostered, and are in various ways encouraged, and receive full privilege under the tariff, without let or hindrance, to export their products where they please; and why, therefore, the lumbering industry should be singled out to be restricted and hampered in its export, I must confess that I cannot understand.

In support of the statement that all industries (excepting lumbering) in Canada are protected and fostered, and otherwise receive the benign influence of the Government, through the tariff, I respectfully beg leave to mention the iron industry. My reasons for singling out this trade to make a comparison is that it more recently received the generosity of the Government than others. In addition to the generous manner in which this industry was considered in the past, when framing the new tariff your colleagues were pleased, during the last session of Parliament, in further protecting it, by placing the duty on steel at five dollars per ton, and in making an appropriation of a sum, presumably in the estimates, sufficient in giving this highly favored industry a cash bonus of one dollar and fifty cents per ton on all the

ore that would thereafter be extracted from the soil.

The following statement will show the number of tons of iron ore raised from the pits in the year ending April, 1881, and respectively by Provinces:—

Provinces.	Tons.
Ontario.....	91,877
Quebec.....	74,242
Nova Scotia.....	63,878
British Columbia.....	2,560
New Brunswick.....	600

Total tons..... 223,057

The number of tons of ore, as shown in the foregoing statement, was the output of the iron mines in Canada for one year. The bonus will, no doubt, have the effect of largely stimulating this industry, and it is possible the present year may record the output to be 500,000 tons. If this figure is reached, it will mean that this industry will receive from out of the treasury (\$750,000) seven hundred and fifty thousand dollars.

In the Province of Nova Scotia there was raised from the pits 53,878 tons, and of this quantity 38 tons was for Cape Breton County, and the balance, 53,840 tons, was the output of mines in the County of Colchester, which are owned and worked by the Londonderry Iron Works Company and others. This bonus, then, would mean for the proprietors of these mines the receiving of a sum, annually, of, at the least, eighty thousand dollars. An amount sufficient in paying the interest at four per cent on a capital sum of two million of dollars,—which is a larger sum than that which is at present invested in the iron industry there.

It is not for me to say that this princely generosity of the Government should not be continued towards encouraging a larger development of the iron industry—not at all—but merely to give an idea to the representatives and thinking people of Canada of the great difference there is in encouragement given to this and other industries as contrasted with lumbering interests.

From all these circumstances it must be admitted that the lumbering industry suffers under great disadvantages compared with other industries, and never received that measure of consideration and encouragement from the Government to which, from its great importance as a labor-giving industry, it is justly entitled.

To give you an idea of its present proportions, and its great importance as a source of national wealth, I beg to direct your attention to the perusal and close examination of the subjoined statistical statements which were made up from the report of the census of 1881, and from the trade and other returns of Canada which were available, and must, therefore, be reliable.

The gross value of the produce of the forest for the year ending the 4th April, 1881, was \$38,541,752. This amount was credited among the various Provinces as follows:

Ontario.....	\$ 16,601,176
Quebec.....	10,542,649
New Brunswick.....	6,632,820
Nova Scotia.....	3,094,132
Manitoba.....	885,173
P. E. Island.....	240,163
Territories.....	95,318
	\$38,541,752

The value of the product of this industry for 1881, if divided among the people, the population now being 4,344,810, would give nearly nine dollars to each inhabitant.

The following statement will show on examination the number of saw mills, large and small, inclusive, engaged in manufacturing in the various Provinces in 1881, and, besides, the number of stove and shingle mills in operation, and also the number of hands employed.

Provinces.	Lumber Mills.	Shingle Mills.	Stove Mills.	Men.
Ontario.....	1701	204	27	18,010
Quebec.....	1729	377	1	13,312
New Brunswick.....	478	85	1	7,494
Nova Scotia.....	1190	114	3	4,435
Manitoba.....	81	1	1	582
P. E. Island.....	165	10	1	469
British Columbia.....	27	6	1	404
Territories.....	9	1	1	44
Grand total.....	6390	801	31	44,740

It will be seen in the foregoing statement

that 44,740 persons were directly employed in 1881 in the mills manufacturing the produce of the forests into deals, inch and other lumber, shingles, staves, &c. This number does not include the lumbermen in the woods nor the log drivers on the rivers and streams, if they were enumerated and added, it would be found that the number of hands directly employed through the lumbering industry in the mills and in the forest, and on the rivers and streams in that year was not less than 100,000 people.

The census returns show that for 1881, there were 812,136 distinct families in the Dominion, and the population numbered 4,324,810 souls, which makes the average number of persons in each household to be five and a fraction. It is therefore reasonable to infer that, taking each family, including the wage-earner, to be composed of five persons (man and wife and three children), the lumbering interest, as one industry, has been equivalent in 1881 to the giving of a livelihood to about 500,000 of our people—being about one-ninth of our whole population.

The amount of capital invested in the industry, including mills, machinery, &c., was estimated at \$25,059,680, and credited respectively to the Provinces as in the following:—

Provinces.	Capital.
Ontario.....	\$11,597,689
Quebec.....	7,673,603
New Brunswick.....	3,053,439
Nova Scotia.....	1,704,183
Manitoba.....	699,350
British Columbia.....	344,350
P. E. Island.....	217,919
Territories.....	64,000

Total capital..... \$25,059,680

In the following statement will be seen the total value of the export of the produce of the forest, manufactured and otherwise, for the year ending 30th June, 1883, and respectively by Provinces:—

Provinces.	Export.
Quebec.....	\$ 9,280,233
Ontario.....	8,016,485
New Brunswick.....	4,724,422
Nova Scotia.....	1,587,041
British Columbia.....	302,871
P. E. Island.....	20,098

Total export..... \$23,991,053

When it is considered that the total sum of capital invested in 1881 in all of the industrial establishments in the country was \$165,302,622, and of this great sum the lumbering interests shared \$23,959,680, and that its produce exported in this last year, 1883, ending 30th June, reached twenty-five per cent. of the sum total of all Canadian produce exported to foreign countries, it must therefore be conceded, without cavil or doubt, that the lumbering industry is, in extent and in value, the greatest and most important of our industries.

The foregoing comparative statements give but a faint idea of the immense wealth that can be gleaned from our forests.

The Dominion has in its unexplored forests an inexhaustible supply of various kinds of wood, and which is in extent and in quantity sufficient, when developed, of giving a livelihood to more than a million of our population; and I have no hesitation in stating that this much to be desired result can be arrived at within the next decade by the Government encouraging the industry.

The encouraging of the lumbering industry, with a view of facilitating its greater development, is a broad question and worthy of the gravest consideration of the Government. It is a national question of the first importance. It not only affects one Province, but all the Provinces, and if the Dominion is ever to become rich and powerful, and to rank and be respected as one of the great nations, it must in a large measure be through the opening up of our vast resources, which can be done by a judicious encouragement being given to our industries—to utilize and work up, in manufacturing and otherwise, the resources of the soil.

This question of fostering and facilitating a greater development of the lumbering industry is not a new subject; it was the one great plank in the platform of argument made by candidates seeking Parliamentary honors in 1878, and by the press favoring the (so-called) National Policy, that so soon as that policy would be confirmed by the people the first caucus of the Government—its promoters—

would be the consideration of developing our industries.

It is now five years since the inauguration of that policy, and particularly now, that nearly all of the industries of Canada have in various ways received marks of encouragement from the Government, it must be admitted, therefore, that it is about time the promises made to those interested in lumbering in this connection were fulfilled.

There is no class of people in the Dominion of Canada who has greater claims or deserves more encouragement of the Government than the lumbermen. It is a fact that their interests have been ignored and neglected, never receiving but small recognition from any of the Governments in the past nor under the present regime, notwithstanding they pay tribute, as it were, to every homo industry, and, besides, paying as much, if not more, revenue into the treasury per capita, than of that received from those prosecuting other industries.

It is a difficult problem to figure out, or to state with any great degree of reliability, as to how much more revenue is paid by one class of our population than another, as there are no statistics at present to be found in the blue-books of the Parliament treating on such a subject. But, if we carefully examine the revenue statistics of Nova Scotia for the year 1866, it being largely a non-producing Province, some information may be gleaned on the question which may serve to arrive at, fairly, a correct conclusion.

The Province of Nova Scotia previous to Confederation, was not an agricultural nor a manufacturing country, to any extent. The occupations of the people consisted principally in mining, fishing, shipbuilding, and in lumbering, and hence their imports were larger than Provinces in which the people earned a livelihood through other avocations. The average of the customs tariff of this province at that time was small, not exceeding ten per cent., still the *per capita* tax of the people on this average reached (\$3.76) three dollars and seventy-six cents (vide the Auditor-General's Report to Sir John Rose, the then Finance Minister, on the letter of Hon. A. W. McLellan, dated September 17th, 1873, asking that Nova Scotia receive better terms). The present Dominion tariff, when figured to make a general average, will be found to equal an ad valorem duty of twenty-five per cent. Now, if we apply this average of our tariff to the imports of Nova Scotia for 1866, it will be found that they would be paying under such a tariff, a *per capita* tax of at least nine dollars and forty cents; the same rule applies to the lumbering industry as to Nova Scotia.

It may, therefore, be safely estimated that under the National Policy tariff, the lumbering population of Canada, numbering about 500,000 people, pay nearly five millions of dollars in customs and excise towards providing for the expenditures of the country, and in giving protection and bonuses to the various industries. It is therefore unreasonable to expect that the lumbermen will be satisfied any longer in being thus treated, without receiving, in some measure, a countervailing benefit.

In this connection, and with a view of assisting the Government in devising a scheme for the better development of the lumbering industry, I beg respectfully to offer for your consideration some ideas that have presented themselves to my mind, which are as follows:

The repeal of the export dues on Canadian spruce and pine logs, and from off shingle and stave bolts; the removal from the free list to the duty list of all foreign woods, excepting those kinds which are imperatively necessary and cannot be done without in the manufacture of ships' blocks; the exporter or shipper of deals or other lumber, whether of pine or spruce, when being exported to foreign countries (to offset, in some measure, their import duties), to be paid an export bounty or bonus, per standard on deals, and per thousand feet on boards.

The policy of encouragement as foreshadowed in the foregoing suggestions, if acted upon by the Government, would, in my humble opinion, work beneficially, causing a larger development of the industry. It is a question in which the people of the country from Cape

Breton on the Atlantic to British Columbia on the Pacific, are largely interested. The Government, however, might think it better to refer the matter to a commission, composed of gentlemen from the several provinces having a knowledge of the subject, who would give their most earnest consideration to the question, and report on a policy which could be acted upon by your colleagues.

It is unnecessary for me to tell you that there are certain duties developing on and expected from the Government under the National Policy, and that the principal one of which is to legislate and so frame the tariff that it will foster and build up uniformly the various industries. The majority of the people declared in favor of that policy on two occasions (1878 and 1882), believing the principles on which it is based to be sound, and best suited to advance the industrial and other interests of the country, and they expect it to be applied and carried in its entirety.

Trusting that this great question of the lumbering industry will receive the earliest and most earnest consideration of yourself and colleagues, and hoping that the result arrived at will be the placing of it in the rank of equality to which, from its great importance as a labor-giving industry, it is entitled, with other Canadian industries.

I have the honor to remain, Sir,
Your obedient servant,
JOHN A. MACKASEY.
Halifax, N. S., July 23, 1883.

TIMBER LOSSES FROM FIRES.

To the Editor of the Monetary Times.

DEAR SIR,—My attention has been called to an article in your paper of the 27th July, entitled "Our Forest Wealth," in which you say "we would hesitate to accept as accurate the statement of Mr. Thistle at a Forestry convention—on which Mr. P... bases some calculation that fire destroys ten times as much timber as the axe." As my name has been given as the maker of this somewhat sweeping assertion—unsupported by any data—an explanation as to how the error may have occurred in connecting it with my name, if in the report of the Forestry convention, is necessary. The opinion I expressed then, and of which I was satisfied from extensive explorations when practising as a land surveyor, and since in connection with my lumbering business, was "that the amount of timber so destroyed was far in excess of that manufactured." The same day on which I saw your article, meeting Mr. Peter White, M.P.P., for North Renfrew, an extensive and observant lumberman, who had taken an active part in the discussion mentioned, I asked him if he remembered it, and how such a mistake could have arisen. He informed me that the Hon. Geo. Bryson, also a very experienced lumber merchant, in the course of the debate had expressed it as his opinion that in the valley of the Ottawa, in the country that had come under his observation, the proportion of pine destroyed by fire would be about ten to one manufactured.

The very large fires that have burnt over the country extending from Lake Nipissing and Sturgeon River, to the meridian of the Sault St. Marie, and also from the head waters of the northern tributaries of the Ottawa to the watershed of the Hudsons Bay, which fires took place long prior to the commencement of timber manufacturing, would impress one, when included with more recent fires in our pine, arising from settlers' carelessness in clearing lands, and from hunters and river drivers, that the estimate given by Mr. Bryson from his own observations, may be generally nearer correct than one likes to suppose. It must be borne in mind that a country once burnt over is destroyed from the seedling up—while in manufacturing, as the operator is always seeking for the best article his limit will produce, the thinning out tends to the more active growth of younger timber. And if fire could be avoided the natural seeding and growth would, in my opinion, support a very considerable manufacture.

In this connection I am satisfied that any efforts to draw public attention and educate the people to the importance of protecting the forest will be thoroughly appreciated by the lum-

bering interests. And so highly do the license holders regard the necessity for caution that very few would take the risk of clearing up new lumber farms, or increasing old ones, if they are at all near their pine forests. I think it is safe to say that bush fires are becoming much less frequent, and that the efforts of the various governments towards establishing some system of forest fire police in connection with the present staff of forest rangers will be productive of further benefit, more especially when aided by the better information of the public in such matters, that must result from their discussion in the press.

I am truly yours,
WM. R. THISTLE.
August 1st, 1883.

Great Sale of Timber Limits.

MONTREAL, Aug. 16.—It is stated that Mr. Senecal has made another grand coup of half a million by selling the timber limits of Hull estate to his new colonization company at the meeting in Quebec yesterday for two millions and a half, leaving him master of a considerable portion of the property, the whole of which cost him about a couple of months ago exactly two millions. The purchase includes the mills, wharves, and houses. It covers an area of 2,700 square miles of land. The timber wharves at Montmorenci extend eight miles, and are reported to be the finest on the continent. An English expert who examined the property estimates the annual production of timber at eighty millions of feet. The stock books of the new company, which were only opened here at the beginning of the present month, contain subscribers, it is reported, for \$1,500,000. This looks as if there are lots of capital in the province for investment.—Mail.

Cause of Boiler Explosions.

A fruitful source of damage done to boilers, and one which has ruined thousands, is the practice of blowing a boiler off, and immediately refilling it with cold water, while the brickwork is red hot. The *Age of Steel* believes that nothing will tear a boiler to pieces quicker than this. Boilers have exploded with disastrous effect from this cause after the fire had been drawn. Probably most persons not familiar with the matter would be surprised to know the pertinacity with which cold water will cling to the lowest point of a boiler under these circumstances. Local contraction of such severity is thus induced that nothing can withstand its effects, and a few repetitions are generally sufficient to ruin any boiler.

Big Blaze in Chicago.

CHICAGO, Aug. 15.—The United States Rolling Stock Co.'s buildings were burned last night. The fire began in the planing mill. The loss will reach half a million. The stock destroyed included 60 complete cars, valued at \$500 each, and a million feet of lumber. The company employed 500 hands.

COTTONWOOD lumber seems to be coming into large use, and for dry goods cases, starch boxes, and similar purposes it is said to be well adapted. One establishment in Ohio, it is said, works into boxes as many as two million feet of lumber annually. For building purposes it is not well adapted, as it apt to swell and shrink with the condition of the atmosphere.

DOWN'S' ELIXIR

N. H. DOWN'S'
VEGETABLE BALMAM
ELIXIR

Has stood the test for FIFTY-THREE YEARS, and has proved itself the best remedy known for the cure of
Consumption, Coughs, Colds, Whooping Cough and all Lung Diseases in young or old. SOLD EVERYWHERE.
Price 25c. and \$1.00 per Bottle.

DOWN'S' ELIXIR

IRWIN & PHILP
Commission
Lumber Dealers
FORWARDERS,
Shipping & General Agents
PORT HOPE,



BARRON'S LUMBER DRYER
J. J. CURRAN, Inventor.
CURRAN & WOLFF, Proprietors for the U.S.
39 & 41, Franklin Street, Chicago.
A. F. BARRON,
Patentee and Builder for the Dominion of Canada,
Office, 9, Corn Exchange,
MONTREAL.

Send for descriptive Pamphlet containing list of parties using this Dry Kiln in the United States.
Dryers built and in working order by the following Companies:
James Shearer, Montreal; James Crossen, (car out-
der), Cobourg, Ont.; Canada Pacific R.R., Perth, Ont.;
Kingston Car Works, Kingston, Ont.; Pike & Richard-
son (Cooperage Co.), Chatham, Ont.; and in course of
construction, Grand Trunk R.R., London, Ont.; Stein-
hoff, Schnoor & Co., Staves and Heading, Wallaceburg
Ont. 1271

Burdock
BLOOD
BITTERS

Market Reports.

TORONTO.

From Our Own Correspondent.

Aug. 23.—There is a fair amount of trade being done by all the retail yards here at present. Nothing rushing and still little to complain of. The stocks at nearly all the yards are extremely light, most of the dealers preferring, whenever possible, to fill orders direct from the rail. This method saves long hauls to their yards, and in a majority of cases amounts to a saving of 50 cents per M, which in itself gives a living profit in cases where prompt payment is made. Dealers are enabled to adopt this course at the present time owing to the large quantity of lumber owned by wholesale dealers piled off the cars alongside the rails. On enquiry I find there is some disposition on the part of retailers to cut down on figures previously quoted you, but mainly in cases where direct delivery can be made from the rail, and to good mon. Laths have receded in price and may now be quoted at \$2 per M in car load lots, and \$2.50 per M from the yards. Shingles remain firm at previous quotations, choice lots of clear and picks have been sold during the past week at \$35.00 by car load lots. Shipments from our docks move off slowly, something like 3,000,000 feet having left here since my last letter, but it would look more cheerful had 10,000,000 feet passed off in the same time, which could have easily been done had there been the demand for it. Choice lots will sell readily enough, it is the coarse common that accumulates on our hands, and when we take into account the fact that only few stocks will pan out more than 10%, clear and picks, you will be able to form some idea of the large amount of common that accumulates, unless it can be worked off at paying figures, owners of large stocks must come out behind at the close of the season. Allowing only 100,000,000 feet of mill run lumber as likely to find its way to this market for the season of 1883, we have eighty to ninety millions of coarser grades to get rid of by some means, and with a limited local market, this means a glut. It must be borne in mind that the above is a low computation, and, in placing it thus low, I do so believing that by reason of the present slack demand a larger amount will be held over at the mills during the coming winter than for some years past. In consequence of the late starting up of the mills this was at any rate a foregone conclusion, and the present condition of the market will tend to make the quantity to be wintered over still larger than was anticipated. We have only a little over two months on which to depend for safe navigation and I fear there is no chance to crowd a good season's work into so short a space.

Table listing prices for Mill cull boards and scantling, Shipping cull boards, cantling and joist, etc.

Table listing prices for 1 1/2-inch flooring, 1 1/2-inch rough, 1 1/2-inch dressed, etc.

MONTREAL.

From Our Own Correspondent.

Aug. 25.—We have little or no change to note in our lumber market. Prices keep steady and unchanged for seasoned lumber, but there is an easier feeling for new cut stuff, and a decline is said to have taken place in Ottawa for that description, but no concessions will be made as yet for dry. The enquiry for ash and cherry on American account is well maintained,

and holders are firm. Shipping demand for deals has been good and a considerable quantity are being shipped. Local demand for building purposes is fairly active. We continue to quote dry lumber ex yard as under.

Table listing prices for Pine, 1st quality, Pine, 2nd, Pine, shipping culls, etc.

FREIGHTS AND SHIPPING.

Since the date of our last report only two vessels have been loading for South America and no clearances as yet reported. Another vessel was taken up to-day for the River Platte at \$15.50. A considerable quantity has been shipped to the United Kingdom at rates averaging from 65s. to 67s. 6d., and there is a still fair demand for room on board outgoing steamers. The shipments since the date of our last report recorded at the custom house are as follows:—To London, SS New York City, 19,256 pcs deals; SS Avonia, 9,055 pcs deals; SS Erl Lung, 4,391 deals and 761 ends; Brig Mathilda, 7,829 deals and 129 ends. To Liverpool, SS Lake Huron, 5,225 pcs deals, SS Anjer Head, 297 1/2 std. deals and 45 std. boards; SS Ontario 10,875 pcs boards and 5,932 pcs deals; SS Circassian 4,068 pcs deals; SS Hanoverian, 6,037 deals; SS Lake Nipigon 2,519 pcs deals; SS Oregon, 2,886 pcs deals and 21,779 deal ends; SS Lake Winnipeg, 6,073 boards; SS Texas, 9,760 boards and 4,778 ends. To Glasgow, brig Limpio, 4,16: pcs deals; SS Lucerne, 189 pcs boards. To Gloucester, Bk. Spencer, 8,053 pcs deals and 300 ends; Bk. Hero, 3,639 white pine deals and 880 deal ends. To Bristol, SS Dorset, 5,738 pcs deals.

COLDWOOD.

There have been fair arrivals and the stock on the wharf is ample for all requirements as the demand at present is not very active. Maple is a little dearer, and we advance quotations half a dollar. We quote on the wharf ex cartage as follows:—

Table listing prices for Long Maple, Short, Long Birch, Long Beech, Short, Long Tamarack.

LIVERPOOL MARKETS.

Late advices by mail note an improved consumption and spruce deals have advanced about 5s. per standard. 1st quality Quebec pine deals are quoted £21 to £22; St. John's N. B., spruce, £7 5s. to £7 7s. 6d.; Lower Port spruce, £7 to £7 5s.

OSWEGO, N. Y.

From Our Own Correspondent.

No change in quotations. Since our last the arrivals have been very light; receipts up to date for 1883 have been 99,000,000, for 1882 123,000,000, showing a falling off of 24,000,000 feet.

Table listing prices for Three uppers, Mill run lots, Sidings, selected, 1 inch, Mill run, 1x10, 12 inch, Shippers, Strips, 1 and 1 1/2 inch mill run, etc.

WINNIPEG.

The Winnipeg Commercial of Aug. 21, says: On account of several large building contracts being let in the city, lumber trade has been brisker during the week than for some time past. Quotations, however, remain as they were. The price is not a fixed one, and a cash customer can generally get a big discount from the rates given. Quotations are:—Pine lumber, 1st, common boards dressed, \$26.50; 2nd do. dressed, \$25.50; 1st do. rough, \$26.50; 2nd do. \$25.50, sheathing, rough, \$25; timber 15 feet

and under, \$24; do. over 16 feet, for each additional 2 feet, \$1; dimension and joists 18 feet and under, \$24; do. over 16 feet for each, \$1; fencing, \$25; 2 and 3 inch battens, \$30; A stock boards, all widths, \$30; B do \$35; O do. \$40; D. do. \$35; 1st clear, 1, 1 1/2, and 2 inch, \$60; 2nd do. \$56; window and door casings, \$50; base boards, dressed, \$50; 1st pine flooring, siding and ceiling, \$40; 2nd do. \$35; 3rd do. \$32; 1/2 inch split siding, dressed, \$30. Spruce lumber—timber 16 feet and under, \$23; do., over 16 feet for each additional 2 feet, \$1; dimensions and joists, 16 feet and under, \$23; do., over 16 feet for each additional 2 feet, \$1; boards, \$23; 1st flooring, siding and ceiling, \$32; XX shingles, \$5.50; Star A shingles, \$5.50; X shingles, \$5.50; A do. \$5; lath \$4.50.

ALBANY.

Table listing prices for Pine, clear, Pine, fourths, Pine, selects, Pine, good box, etc.

BOSTON.

Cotton, Wool and Iron of August 17, says:—There is a quiet demand, but trade is about as good as is usual at this midsummer stage. Stocks in the yards are quite moderate, but there is a disposition to proceed in a very cautious and limited manner. Eastern lumber has arrived quite liberally, with hemlock steady, pine boards in fair request, spruce lower, and laths scarce, firm and in good demand. Western pine is rather dull, with light arrivals, but ample stocks to supply the present limited demand. Southern pine is quiet, with few orders on the market for timber. Flooring and steps are steady with a moderate supply. Hard woods are moving fairly. Walnut of good grades is in fair demand. Cherry of choice descriptions is in good request. Whitewood is dull, with an overstock, especially of second quality and culls. Ash and oak are quiet and in moderate demand at about previous prices.

CANADA PINE.

Table listing prices for Selects, Dressed, Shelving, Dressed, 1sts, 2nds, Dressed Shippers, Dressed Joist, Sheathing, 1st quality, 2nd.

BUFFALO.

Table listing prices for We quote cargo lots:— Uppers, Common, Culls.

CHICAGO.

The Northwestern Lumberman of Aug. 23, says:—The past week has been one of the duller of the season. Arrivals have been meagre compared with the two previous weeks and at that cargoes have stuck to the market with surprising pertinacity considering the fewness of the offerings. The total of arrivals at this port for the week ended on Wednesday were 187 as compared to 240 for the week before. Of all coming, a regular proportion go to the yard docks without stopping at the market, whether the total of arrivals is great or small; so in case

there is a meagre total there is a smaller than usual proportion of offerings on the market. This has been the condition for the past week. The wind has blown a gale from the west and southwest a large part of the time, thus preventing the fleet from reaching port, and it is probable that this adverse condition will be succeeded by one directly opposite, and that the time this report is in print the river will be blocked by loaded vessels. In fact, at the writing the wind has veered to the northwest, and frequenters of the market are looking for a big squadron of luggers.

It might have been supposed that since the arrivals were few the inquiry would have been urgent and prices a little better than when the market was crowded. But such has not been the case. The market has sluggish all the week, and trading has been done at the recent decline in values. The wholesale dealers continue to go slow about purchasing.

Receipts of lumber, shingles, etc., for the week ending Aug. 23, as reported by the Lumberman's Exchange:—

Table showing receipts of Lumber, Shingles, etc. for 1883 and 1882, and from January 1, 1883, to August 23, 1883, inclusive.

Table showing stock on hand Aug. 1, 1883, and 1882, for Lumber, Shingles, etc.

Table showing stock on hand Aug. 1, 1883, and 1882, for Cedar posts, etc.

TONAWANDA. CARGO LOTS—SAGINAW INSPECTION. Three uppers, Common, Culls.

ABENDEEN. The Timber Trades Journal of August 11, says:—Imports here and along the coast have been comparatively light during the past month, while the spurt in the building trade is quiet. At Messrs. Milne & Co.'s sale last week of waney pine deals and hardwoods there was a good attendance of buyers, and prices on the whole were pretty good. These sales, however, of American goods are felt to be a necessity in the north, and are generally well patronized, and value given for the goods exposed; with manufactured stuff this cannot be said. Waney pine fetched from 2s. 3d. to 3s., according to girth; deals, 3s. 2d. to 3s. 6d.; elm, 2s. to 2s. 4d.; birch, 2s. to 2s. 2d.; hickory also sold well.

CARDIFF. The Timber Trades Journal of August 11, says:—This week has been a very dull one here; only one steamer cargo of about 400 standards has come to land from the Baltic, and a sailer from Wyborg, and one from Miramichi. Respecting engagements of tonnage the market has been exceedingly inanimate. Canadian goods, we hear, are pretty stiff, and a rising tendency is apparent both in prices and rates of freight. Buyers, as a rule are not pushing matters, but it is reported that some c.i.f. transactions have been effected by Liverpool and London merchants. There is no doubt that Canadian goods are considerably firmer than they were some weeks ago, which is more than can be said about Baltic material.

Mining timber and props remain in much the same condition. We have seen a slight rise in French props, but Norwegian mining timber has not advanced equivalently, although buyers ought to pay more than is the case at present.

GLASGOW. The Timber Trades Journal of Aug. 11 says:—The imports of wood to the Clyde for the past week include five cargoes of Quebec timber and deals at Greenock, the tonnage of the vessels employed in conveyance aggregating 9,900; and at Glasgow the imports of Quebec deals have been about 1,800 loads. Imports at Grange-

mouth are represented by a carrying tonnage of 2,041 tons.

In the meantime the market is fairly furnished with all the ordinary useful descriptions of wood; but as yet it is quite safe to say there is no appearance of a glut in the market. The Quebec arrivals have been comparatively moderate. Of lower port birch there has been rather a sparing supply at Glasgow this year, the yards at present being quite bare. There is an opening also for Tabasco mahogany, with prospect of fair prices being realized.

Imports of pitch pine have been considerable, but not up to last year's total at date; tonnage employed, say 1882, 33,000; 1883, 28,000 tons.

The amount of work on hand specially in shipbuilding is very large. Although housebuilding is still quiet with us, 1st quality Canadian deals of good dimensions would be a safe import, as the stock on hand is moderate, and the demand by machine makers and millwrights considerable, besides what is required by builders and for general joiner work.

LEITH.

The *Timber Trades Journal* of August 11, says:—The import list for the past week only contains four cargoes deals and battens two of which are from Archangel and consignments of wainscot and walnut. Other four of the Quebec fleet came into the Roads on Tuesday, but their cargoes are not passed at the Custom House at the time of writing.

On Tuesday last Messrs. Ferguson, Davidson & Co. offered for public competition their cargo of American goods ex Garibaldi. For the waxy pine not a single bid was forthcoming, notwithstanding its undoubtedly superior quality. This, taken in conjunction with the very few lots sold by Messrs. Wm. Thomson & Co., at their sale on the previous Tuesday, does not seem to give a very bright outlook in face of the unusually heavy shipments from Quebec to this port. Only 14d. was offered for the 3rd yellow pine deals, a price which the auctioneer did not deem fit to accept, although fully 1d. per foot above the same stuff bought on the previous Tuesday. A good portion of the deals, which are of very fine quality, were sold privately at the close of the sale at a substantial advance on the price offered at the sale.

On Tuesday first Messrs. Mitchell, Somerville & Co. will offer an assortment of prime deals and battens for public competition, while the following week Messrs. A. Garland & Roger will expose their Quebec cargo.

LONDON.

The *Timber Trades Journal* of Aug. 11, says: Among the 66 timber and partly timber-laden ships reported in London between the 2nd and the 8th instant inclusive, 14 were from our North American colonies, a rather large importation thence in a single week; but there were 21 from Russia and Russian Finland. There were 31 steamships in the list, several with small parcels of staves, &c., and upon the whole the supply was varied and ample for the state of the demand. The abundance of steam vessels at present seeking employment is thought likely to keep freights for the chief timber depots from rising this year so early as they did last summer, but small handy sailing vessels, from 100 to 140 standards, are likely to be in demand for the outports, and will probably obtain some advance on the first open-water rates ere the present month expires.

LIVERPOOL.

The following appears in the *Timber Trades Journal* of August 11:—Since the auction sales held during the latter part of last week there has been little of moment to remark upon, as the import has still continued light, and the consumption has naturally been interfered with by the intervention of the holidays. We may, however, look forward for several arrivals, as a strong southwest breeze has sprung up, which will bring up many vessels now due, not only from Quebec but from other ports in the Dominion. Freights in St. John, N. B., fluctuate but little, and with a continuance of the low prices obtained for spruce deals on this side there is no disposition to charter; in fact, it is reported that several mills have shut down

rather than continue cutting at the prices now going at the ports in the United Kingdom.

On Thursday, the 2nd instant, Messrs. A. F. & D. Mackay held one of their periodical auction sales of deals and whitewood. The catalogue was, however, somewhat more limited and unattractive than usual and owing to these causes, and probably to the influence of the holidays, neither the attendance of buyers, nor the competition for the goods submitted for sale, was equal to what was expected. About 3,600 pieces of the St. John, N. B., cargo were withdrawn, as the prices bid were not up to the brokers' limits; the other goods sold realized the following prices:—

St. John, N. B., spruce deals—

	£ s. d.	£ s. d.
10 to 24 ft 3x11	7 15 0	7 17 6
12 " 15 " 3x11	7 10 0	" 7 12 6
9 " 11 " 3x11	7 5 0	
10 " 26 " 3x9	7 5 0	" 7 7 6
12 " 15 " 3x9	7 2 6	
9 " 11 " 3x9	7 5 0	
10 " 25 " 3x7	6 17 6	" 7 0 0
12 " 15 " 3x7	7 0 0	
9 " 11 " 3x7	6 15 0	
9 " 20 " 3x15	7 5 0	
9 " 21 " 3x14	7 2 6	
9 " 23 " 3x13	7 5 0	
9 " 25 " 3x12	7 5 0	
9 " 25 " 3x10	7 2 6	
10 " 23 " 3x8	7 0 0	
12 " 15 " 3x8	6 17 0	" 7 0 0
Deal ends—	5 15 0	

Shediac spruce deals—

10 to 19 ft 3x11	7 7 6
12 " 15 " 3x11	7 7 6
10 " 25 " 3x9	7 7 6
12 " 15 " 3x9	7 0 0
9 " 11 " 3x9	7 2 6
10 " 27 " 3x7	6 15 0
12 " 15 " 3x7	6 15 0
9 " 11 " 3x7	6 12 6
9 " 27 " 2 1/2 x 7	6 12 6
9 " 10 " 3x13	7 5 0
9 " 20 " 3x12	7 5 0
9 " 25 " 3x10	7 2 6
9 " 27 " 3x8	6 15 0
9 " 20 " 3x6	6 15 0
9 " 27 " 2 1/2 x 6	6 12 6
Deal ends—	6 10 0

BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of July, and for the first seven months of the year:—

MONTH ENDED 31ST JULY, 1883.

Timber (Heaven).	Quantity.	Value.
	Loads.	£.
Russia.....	63,048	116,657
Sweden and Norway.....	54,868	94,935
Germany.....	35,888	100,763
United States.....	18,783	69,799
British India.....	1,738	25,766
British North America.....	49,192	230,182
Other Countries.....	24,341	33,334
Total.....	247,816	671,216
Timber (Sawn or Split, Planed or Dressed).		
Russia.....	219,719	499,756
Sweden and Norway.....	305,666	679,215
British North America.....	201,672	506,990
Other Countries.....	33,646	38,546
Total.....	760,703	1,803,567
Staves, (all sizes).....	16,454	71,263
Mahogany (tons).....	5,178	54,966
Total of Hewn and Sawn.....	1,012,304	2,474,606

SEVEN MONTHS ENDED 31ST JULY, 1883.

Timber (Heaven).		
Russia.....	124,241	247,083
Sweden and Norway.....	329,770	614,978
Germany.....	171,776	474,207
United States.....	74,548	252,845
British India.....	32,837	459,807
British North America.....	69,644	279,644
Other Countries.....	219,912	311,239
Total.....	1,021,727	2,560,803
Timber (Sawn or Split, Planed or Dressed).		
Russia.....	333,500	763,491
Sweden and Norway.....	813,091	1,866,263
British North America.....	392,711	891,117
Other Countries.....	203,671	266,235
Total.....	1,743,973	4,190,306
Staves (all sizes).....	63,967	274,121
Mahogany (tons).....	26,496	272,233
Total of Hewn and Sawn.....	2,740,300	6,751,109

THE COMING TIMBER.

There seems to be no denial of the statement that hemlock will succeed pine lumber in the early future, and the Muskegon mill men should

JONES & SON,
Wholesale Lumber & Timber Dealers

39 Broadway, NEW YORK.

Oak, Ash, Cherry, Black Walnut, Poplar, Butternut

And all other kinds of HARDWOOD LUMBER.

White and Yellow Pine Lumber and Timber.

Oak Ship Plank and Timber. Pine Deck Plank and Ship Stock Generally.

keep their eyes on the hemlock timbers on the Muskegon rivers and tributaries. Throughout most portions of the North-west hemlock is abundant. It can be bought for a song almost. The price of hemlock at ten cents a thousand is nothing, when compared with pine that will produce nothing but coarse lumber at \$3 per thousand, and plenty of it has been sold at that. There are a very few manufacturers in Michigan who mix their hemlock with their pine dimension, and get the same price for it. Others make \$1 per 1,000 difference. Hemlock dimension is certainly as good as Norway, and the latter sells on the cargo market here at not more than 50 cents less than white pine, and often not so much difference as that is made. Hemlock, at present prices, is a good investment, much better than pine, the way they have been booming the latter in certain sections.—*Muskegon News.*

CENSUS FIGURES.

The following comparison of forest products in Ontario, Quebec, Nova Scotia and New Brunswick, is taken from the Dominion census return:—

	1881.	1871.
	Cubic Feet.	
Square white pine.....	17,358,245	55,236,921
Square red pine.....	2,871,328	1,954,372
Square oak.....	5,734,042	3,302,013
Tamarac.....	4,685,563	5,695,063
Birch and maple.....	4,294,916	1,939,357
Elm.....	3,092,224	1,832,654
Walnut.....	808,350	220,570
Hickory.....	356,428	197,857
All other timber.....	47,045,450	20,290,264
Total.....	83,876,467	69,670,471

Of logs the output was, in the two years:—

	1881.	1871.
Pine logs.....	21,501,128	12,416,408
Other logs.....	23,055,706	9,314,587
Masts, spars, &c.....	191,078	121,655
Tanbark, cords.....	398,239	162,521
Firewood, cords.....	10,493,165	8,713,083

Increased Speed Between New York and Liverpool.

After many sleepy years of slow boat employment the Cunard Company now begins to show hopeful signs of wakefulness to enterprise and appreciation of the public wants. During the past year it has put into service two new and splendid steamers, the *Servia* and *Aurania*, which are almost equal in speed to some of the fast boats long used on rival lines. The company has now made a contract with Messrs. John Elder & Company, of Glasgow, for the building of two additional steamers of a character and power far in excess of anything that hitherto been devised for the Atlantic mail and passenger service.

They are to be vessels of 8,000 tons burden, and are to have engines of 13,000 horse power indicated, their dimensions being 500 feet long by 75 feet in breadth of beam, by 40 feet in depth of hold; and what is perhaps the most striking fact of all is, that they are to be guaranteed to steam at the rate of nineteen knot per

hour, thus crossing the Atlantic, between Liverpool and New York, in less than six days. These two ships are to cost three millions of dollars.—*Scientific American.*

QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c. measured and culled to Aug. 10:—

	1881.	1882.	1883.
Waxy White Pine.....	1,170,677	1,051,029	1,521,408
White Pine.....	3,765,810	3,750,505	2,028,558
Red Pine.....	711,465	601,601	162,362
Oak.....	1,739,040	730,657	1,151,290
Elm.....	856,081	489,540	246,255
Ash.....	289,893	180,173	178,705
Basswood.....	3,350	593	1,326
Butternut.....	1,087	2,004	959
Tamarac.....	9,163	2,661	4,592
Birch & Maple.....	127,710	272,417	137,060
Masts.....	— pcs	33 pcs	— pcs
Spars.....	— pcs	33 pcs	— pcs
Std. Staves.....	150.3 0.14	237.3 2.15	429.7 2.9
W. I. Staves.....	301.0 0.25	604.1 0.0	372.0 3.9
Bri. Staves.....	10.0 3 4	87.1 1.27

Quebec, Aug. 10. JAMES PATTON, Supervisor of Cullers.

LAKE WINNIPEGUSIS.

Mr. McLean, of Toronto, a capitalist widely known in financial circles, has been prospecting among the timber limits at the northwest end of Lake Winnipegosis during the past month. He believes that the timber on the slopes of the *Porcupine hills* is unequalled in any other part of the Northwest, and is not surpassed on the whole continent. There is an abundance of trees measuring from 4 to 8 feet in circumference, and some of them measure 18 or 20 feet. The scenery in some parts is spoken very highly of by Mr. McLean. He was particularly charmed with the portion of the *Red Deer river* between Red Deer Lake and Lake Winnipegosis. The river is about two hundred yards wide and studded with small islands, which Mr. McLean describes as perfectly fairy-like. Salt springs are to be found here and there, marked by the peculiar greenness and luxuriance of the surrounding vegetation. At the mouth of the *Red Deer river* there are some springs from which Mr. McLean manufactured a quantity of excellent salt. He mentioned the vicinity of *Deep Rock river* and *Salt river* as other places where he had found salt springs. Ducks, geese, and gulls, as well as pelicans, abound on Lake Winnipegosis at its northwest end. What particularly struck Mr. McLean was the immense size of the pelicans. Some of them, he says, measured nine feet between the extremities of the wings, while others would not have been less than nineteen feet.—*Winnipeg Sun.*

Manufacturing Spoils.

The spool factory at Piccadilly, eight miles from Smeax, N. B., employs fifty hands. Twelve cords of wood per day are used, and spools of all sizes are made. The factory is turning out now about 19,000 gross per month, but it is equal to 17,000 gross per month, if necessary. Clark & Co., of Paisley, and other English thread manufacturers, are supplied.

DESTRUCTION OF THE B. O. CO'S MILL AT MIDLAND.

On Friday evening the 10th inst, the inhabitants of this prosperous village were thrown into a state of intense excitement when it became known that the new mill was on fire. About half-past six many persons in different parts of the village noticed a small blaze as if some rubbish was on fire in the mill yard. In a few minutes, however, it proved to be the engine house on fire. From there it spread rapidly to the fine mill, which soon disappeared. Few expected when the mill was burning to see the lumber go also, but by ten o'clock the last pile of 6,500,000 feet was enveloped in the flames. Several attempts were made to make a break in the immense rows of lumber, but the fire raged so fiercely that the workers were driven back each time without accomplishing much. When the fire burned furthest the illumination was so great that many at a distance supposed the whole village was on fire, and a great number hitched up their teams and drove into the village. The reflection of the fire was seen over thirty miles away. Had there been a north-west wind at the time the greatest portion of Midland would have disappeared as rapidly as did the immense piles of lumber. The mill property, after the fire, was visited by hundreds who felt keenly the loss of so great an enterprise. The scene of the fire is a desolate spot, the fire having swept over four acres and in its course consumed seven dwellings with the mill and lumber.

At present it is not known that the mill will be rebuilt, as the board of directors in the Old Country will have to be consulted. In the meantime, however, the men who were employed in the new mill will not be long out of employment, for as soon as the electric lights can be got ready the old mill will be kept running day and night. This will take place about Monday next, and then the whole of the men will be employed. It is hardly possible to estimate what the loss will be to the village.

The loss on the mill, trams, &c., is estimated at \$60,000, and the lumber in the yard at the time of the fire was valued at another \$60,000. On the mill there is an insurance of something like \$30,000, and on the lumber about \$45,000. We understand that the dry lumber in the yard belonged to Messrs J. & F. N. Tennant, of Toronto, but we have not been able to ascertain the exact amount of their loss.

The fire it is supposed was caused by a spark from the boiler house.

THE GAME LAW.

The game laws have been so mixed and muddled by the Legislature that but few laymen can understand them. The following compilation of their provisions, however, may be relied upon, as it has been prepared by a lawyer of eminence, who is a keen sportsman as well:

The only season during which the following game may be hunted, taken, or killed, is as follows:

- Deer—1st October to 15th December, inclusive.
- Partridges—1st September to 1st January.
- Quail—1st October to 1st January.
- Woodcock—1st August to 1st January.
- Snipe—14th August to 1st January.
- Grey, black and wood ducks—15th August to 1st January.
- Other ducks and geese—15th August to 1st May.

Hare—1st September to 1st March.
These may be exposed for sale for twenty days after expiration of time for killing. No eggs taken or destroyed at any time. No traps, nets, or snares, baited lines, or similar contrivances to be used. These may be destroyed by any person without liability. No contrivances described or known as batteries, swivel guns, sunken punts, or night lines to be used for killing wild fowl.

Fur-bearing animals may be only taken, hunted or killed as follows:
Beaver, muskrat, sable, marten, otter or fisher—1st November to 1st May. No shall any snare or other contrivance be set outside this season. No shall any muskrat house be cut, broken, or destroyed at any time. Any person may destroy such traps, snares, etc., so set, without any liability.

N. B.—No poison to be used in killing the

animals named, and no poisoned bait to be exposed in any locality where dogs or cattle may have access to the same.

No deer dog to run at large from the 1st November until the 1st October.

FINES AND PENALTIES.

- Deer—\$10 to \$30 each offence.
- Fur animals—\$5 to \$25.
- Birds or eggs—\$3 to \$25 each bird or egg.
- Any other breach of this Act—\$5 to \$25.

No fine can be less than the minimum fines above. The whole fine goes to the informer.

Insectivorous Birds Act, R. S. Ontario, page 2,009, and amendment 1878, page 82:

These acts do not apply to birds mentioned in the game act, or to birds commonly known as poultry.

It shall not be lawful to shoot, destroy, wound or injure, or attempt to do so, any bird whatsoever, except eagles, falcons, hawks, owls, wild pigeons, kingfishers, jays, crows, ravens, plovers, and blackbirds, but rails may be shot between 1st September and 1st January. Nor shall the birds protected by these acts be taken, captured, bought or sold, or exposed for sale, or had in possession, nor shall any trap or snare be set for them, nor shall it be lawful to take, injure, destroy, or have in possession, any nest, young, or egg of the same. Any person may seize on view any such bird unlawfully possessed, and take the same before a magistrate.

For violation of any provision of these acts a fine of \$1 to \$20 is imposed, the whole going to the informer, and on nonpayment, imprisonment of from 2 to 20 days.

These acts do not apply to anyone having a written permission from the Commissioner of Agriculture authorizing him to obtain such birds or eggs for bona fide scientific purposes only.

1881. Page 284. Act to amend, etc.

Any person may, during the fruit season, for the purpose of protecting his fruit from the attacks of such birds, shoot or destroy on his own premises the birds known as the robin and cherry bird without being liable to any penalty under the act.—*Belleisle Intelligence.*

Noah's Ark Discovered.

A Constantinople correspondent announces the discovery of Noah's Ark. Turkish commissioners appointed to investigate the avalanches on Mount Ararat, suddenly came upon a gigantic structure. The Ark was in a good state of preservation. An Englishman saw that it was made of gopher wood which only grows on the Euphrates. The interior was divided into partitions. Into three of these only could they get, the others being full of ice, and how far the Ark extended they could not say. Says the *Pall Mall Gazette*, an American was soon on the spot, and negotiations have been entered into with the local Pasha for its transfer to the United States.

Advice to Mothers.

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

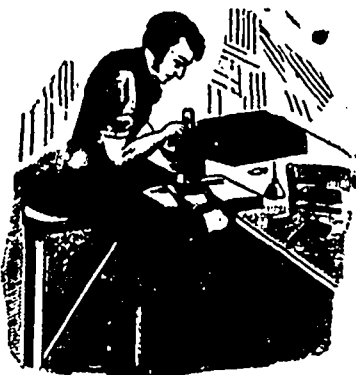
Convincing Proof.

Having suffered from rheumatism for a long time I was induced to try your Arnica and Oil Liniment. The first application gave instant relief, and now I am able to attend to business, thanks to your wonderful medicine.

I am yours truly,
W. H. DICKISON,

218 St. Constant St., Montreal.
To Henry, Johnson & Lord, Montreal.
Arnica and Oil Liniment is sold by all Druggists.

"LEAVES have their time to fall," says the poet, but Wild Strawberry leaves are on the rise just now, being utilized in such enormous quantities in making Dr. Fowler's Extract of Wild Strawberry—the infallible remedy for Cholera Morbus, Diarrhoea and other Summer Complaints.



THOS. GRAHAM & Co.,
File Manufacturers
ETC.,
150 FRONT STREET EAST
TORONTO.

FILES FOR SALE. FILES RE-OUT.

F. E. DIXON & CO.

MANUFACTURERS OF



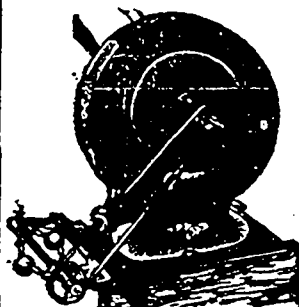
70 King Street East, Toronto.

SPECIALTY:—Belting made from J. B. HOYT & Co's American Oak Tanned Leather.

Send for Price List and Discounts.

TUERK'S
WATER MOTOR.

Patented November 8th, 1881.



View of Tuerk's pressure motor, with Tuerk's Improved Governor Attachment.

For running Sewing Machines for families or for manufactories; also, for running Dental Lathes and Engines, Telephone Generators, Coffee Mills and Roasters, House and Church Organs; also for running one Printing Press or six, at the same time. Paper Cutters, Sausage Machines of any make; or size; GRAIN, FREIGHT OR PASSENGER ELEVATORS, Straw Cutters, and all kinds of Machinery by Water Power.

HYDRANT PRESSURE.

Cheaper, Quicker and Safer than Steam.

Over Fifty Motors of other makes have been taken out and replaced with the TUERK MOTOR; among the list are the Backus, the Sabin, the Little Giant, the Hayward, Clark's Piston Engine, and others.

Names of a few who have taken out Backus Motors and put in the Tuerk Motor in their place:

- | | |
|---|--|
| C. W. Melkel, Indianapolis, Ind. | Lemon & Co., Waverly, N. Y. |
| Columbus Telephone Co., Columbus, Ohio. | Braun & Jones, Cedar Rapids, Iowa. |
| James Egan, Chicago, Ill. | Gates, Douglas & Co., Cedar Rapids, Iowa. |
| H. C. Hawkins, Cleveland, Ohio. | Village of Rutland, Rutland, Vt. |
| Printing Office, Hannibal, Mo. | W. L. Randall, Chicago, Ill. |
| A. Solmens, Hat Manufactory, So. Norwalk, Ct. | A. J. Stoll, Sandusky, Ohio. |
| Lake Shore & Mich. So. R.R. Shops, Elyria, O. | Killits & Wayland, Chillicothe, Ohio. |
| Index Printing Office, Evanston, Ill. | S. A. Morrow, Springfield, Ohio. |
| Republican, Johnstown, N. Y. | R. Putnam, Chillicothe, Ohio. |
| Tribune, Salt Lake, Utah. | N. Shelton, Omaha, Neb. |
| Alton Printing Co., Alton, Ill. | H. J. Lewelling, St. Helena, Cal., and others. |
| A. F. Worthington & Co., Cincinnati, Ohio. | |

Do not fool your time away trying other Motors, but send for the Tuerk Motor, which is warranted to do better work with less water than any other Motor or Water Engine made.

Send for Catalogue, and state what you want to see,—give full particulars and Water Pressure per square inch.

TUERK BROS. & JOHNSTON,

86 and 88 Market Street, Chicago, Ill.

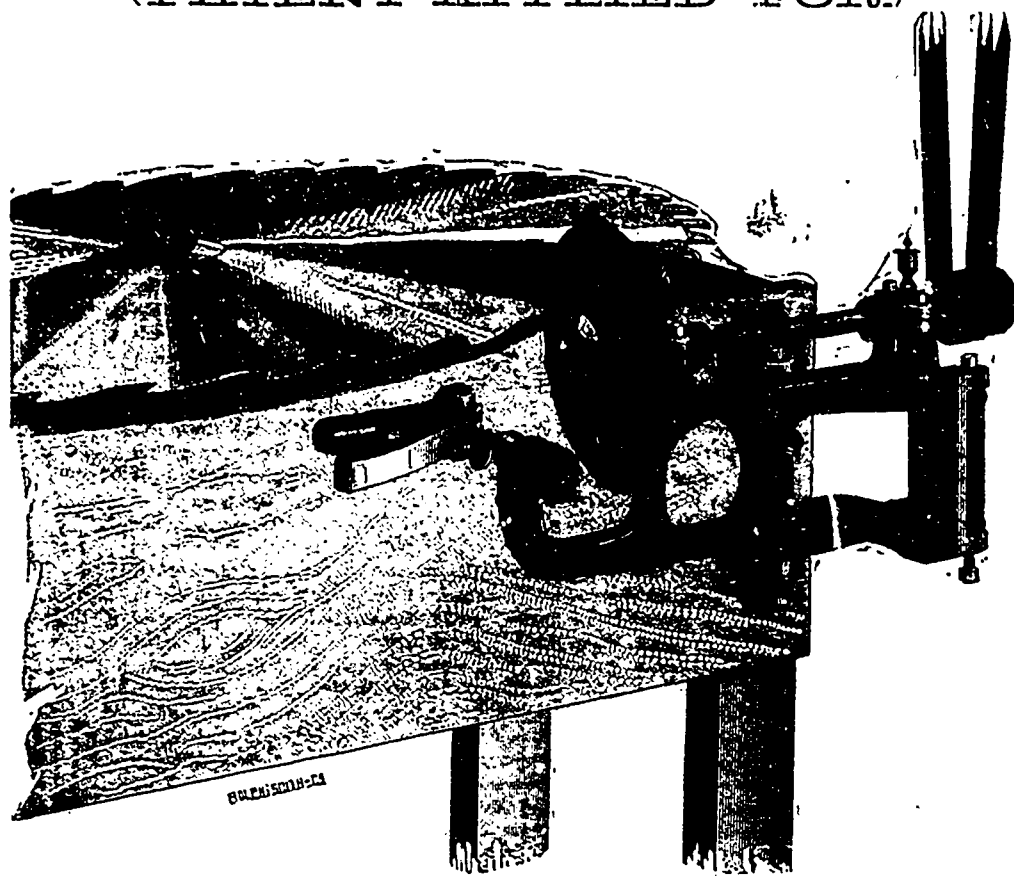
ROGERS' SAW GUMMER

(PATENT APPLIED FOR.)

No Heating!

Quick!

Simple!



Exact Work!

Cheap!

Complete!

POSITIVE STOPS! ADJUSTABLE GUIDE! Every Tooth made exactly alike!
JUST WHAT IS WANTED in every Saw-mill in Canada!

A REVOLUTION IN GUMMING SAWS WILL BE EFFECTED WHEREVER

ROGERS' SAW GUMMER

Is Introduced to replace Burr Gummers, or Grindstones, or where Emery Wheels have been run in the usual way. Every Machine Guaranteed to work as represented or No Sale. It works EASILY; is so SIMPLE and COMPLETE that Sawyers can keep their Saws CONSTANTLY in FIRST-CLASS ORDER and thus LARGELY INCREASE the DAILY OUT-PUT.

Price Complete, with Countershaft - - \$40.00.

HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

Manufacturers of HART'S PATENT EMERY and CORUNDUM WHEELS.

AXE AND AXEMEN.

The axe is the emblem of pioneer-ship, and the precursor of settlement and development. It builds the cabin and levels the forest, making way for the plow, the farm and the city. Its antiquity is untraceable. It was known to our primal ancestors of the stone and bronze ages in the form which comes unchanged to us. Though the progress of mechanics and metal working has brought many advantages in the process of making, it is yet the axe that our great grandfathers hammered out at the anvil, with only the hammer marks ground out and a polish added. Contrary to the general supposition, the axe is an instrument of skill, and the expert axeman looks as closely to the fitness of the bevel of his blade, the form of his helve, the length and shape of blade and pole and the weight of his axe for the purpose contemplated, as the fencer to his foil. The weight of the axe is arbitrary and dependent upon the choice of the axeman for the purpose intended. If the object to be cut is small timber which may be severed at from one to half a dozen blows, an axe with a long, thin blade and as little bevel as is compatible with strength is chosen, and at every stroke the blade is buried to the helve. If the purpose be to fell large trees or cut heavy timbers, and this same axe is used, it bites deeply in its strokes, but the chip remains in the timber after the incisions and many more blows are required to dislodge it than were necessary to its formation; therefore, for this purpose an axe having a thick, heavy bevel and cutting much less deeply is selected. The bevel, now acting as a wedge, forces out the chip at the same stroke by which the incision is made.

Many manufacturers ignoring the full value of this principle, have attempted to make an axe for general purposes with an average bevel. This, as well as the introduction of double-bitted axes, is a doubtful improvement. Experience teaches that the poll is not only useful in itself, but the essential in giving the proper force and direction to the blade.

The most important essential to a good axe is the helve, which, by its proper form and flexibility, not only secures skill, but adds materially to the ease and endurance of the workman. In general, machine-made handles do not possess the qualities requisite to good helves.

The axe, like its cousin german, the sword, has fallen from its high estate, and no more is borne as the emblem of power and unity, dangles, formidable, at the saddle-bow of chivalry, or rushlessly crushes through crested helm and cap of steel. The saw, too, has robbed the broad axe of its glory, and the hewers are fast becoming things of old. But even yet a reverence is paid their skill, and when some great timbers which must be true in every line and straight in form and grain are wanted, some one of the "now always an old man, is hunted up, and his skill, his truth of eye and hand, and the long, thin shavings that fall from the broad edge of his axe as from a plane, are themes of wonder to the younger generations of artisans.

Observation develops the fact that large men are as a rule inferior to small ones as axemen, and it is no unusual thing to find the address of the latter accomplishing feats which baffle the more powerful efforts of the former. A true eye and the ability to strike each alternate blow in precisely the same place are the highest qualifications, and, with a moderate amount of strength and great endurance, make in the end the chopper's skill—an acquirement which happily bid fair to possess an active market value in our country for generations to come.—C. G. T. in Industrial world.

A SAW LOG'S STORY.

A correspondent of a New York paper has evidently been going the rounds of a Saginaw saw mill. He thus describes what he saw:—Up the Saginaw in a wide region reached either by the river or its tributaries, the great pine saw log, often three feet in diameter, has its birth. Pine forests, now rapidly thinning out, once covered several thousand square miles around the head-waters. Entering that lumber region in the late autumn, the lumbermen establish camps, round which during the whole winter long the axes resound, the tall trunks fall, and in sections are rolled to the adjacent

streams for the spring floods to bear away. Floating down the main river, the "boom men" pick out each owner's logs, as identified by the brand, and gather them inside the booms, which may be curiously described as long tree-trunks chained together at the ends, often enclosing a smooth water surface of several acres. The coves of the Saginaw—called locally "bayous," a term borrowed from the lower Mississippi—are especially adapted for the gathering and organization of these log armies. The military metaphor, indeed, has peculiar fitness here, for the logs are mustered, side by side in companies, held together by a rope fastened to each log by a device not unlike the domestic clothespin. As these logs down the stream are worked up by the tireless mills, these upper booms are drawn upon for more, until the freezing river finds them quite empty, and another winter comes on to yield its fresh supply.

But the saw log's story becomes most dramatic as it nears the mill and, loosed from the restraining rope, is steered into the glade of open water that leads up to the wooden slide. Enter now the great lumber mill, and we shall be in the saw log's death. Down the slide on a wooden railroad runs a heavy truck, fitted with two cross lines of heavy iron teeth. With a plunge it dashes below the water, still holding its place on the rails. Then three giant logs are floated above it. At a signal the steam is let on, the machinery reversed, the strong chain holding the truck tightens, and the truck itself begins to ascend. The sharp teeth catch the logs, which in a trice, are lifted dripping from the water, whirled up like twigs 100 feet to the mill, and rolled off opposite the first set of saws. These saws are two in number; one set below is of the buzz variety, perhaps six feet in diameter, and cutting, therefore, through a three-foot log; but as this semi diameter is often insufficient for a big log, a second and a smaller "buzz," placed above and in front of the first, cuts the slice which otherwise might still hold fast the slab. One of the largest logs weighs a number of tons, and human strength alone would never suffice to turn it after one of its sides has been "slabbed."

Just here comes in a beautiful piece of powerful mechanism. At the touch of a lever a stout beam, armed with iron teeth, rises by the forest Titan's side. It snatches the wood, and in less time than words can tell it the log is tumbled over, and the framework rushing back and forth with amazing speed, has driven the edges of the tree athwart the saws, until the once rough stick stands forth a symmetrical square. Then, in another instant it is shifted before the "gang," a set of ordinary upright saws placed an inch apart, and often with 30 or even 35 blades. Below an ordinary circular planer revolves in front of the gang and smoothes the lower edges of the boards. The immense piece of timber is run through in a few moments, and what was five minutes before a rough tree trunk is transformed into the inch boards of commerce. Nor does the work end here; for the slabs are passed to a new machine which grasps them with almost human intelligence, and whatever part of them can be made so become laths. Other machines take the harder woods, ash, elm, or oak, and convert them with equal speed into staves, barrel heads and shingles; and finally the otherwise useless debris passes to the furnace to feed the fires of the engine. There is seen little or no sawdust around the Saginaw lumber mills for the reason that it is all used for the furnace flames; and, in general, the cycle of utilities by which one branch of the great industry is made to feed or supplement another seems as rounded as human ingenuity can make it.

Sometimes, particularly in the more modern mills, the routine as described is varied by lifting the logs from the river on an endless chain; and a number of minor mechanisms fill out the devices by which the lumber is cut and distributed. One ingenious machine working double emery wheels, sharpens the buzz saws on both sides of the teeth during a single revolution, and requires no attention beyond simply the fastening of the saw upon it and unfastening after the work is done. Another flattens out, by a clever mechanical expedient, the teeth of the saw, so as to cut a wider rent and prevent

clogging as the cut becomes deeper; finally, a system of elevated railroads takes the lumber-laden trucks and distributes the boards at the points in the yard or on the wharf whence they are to be shipped. Some additional conception of the size and importance of the industry may be derived from the fact that the Michigan Central railway company takes away from one station here one hundred car loads of lumber for each day of the working season, to say nothing of the large quantities shipped from the river by the Flint & Pere Marquette Railroad line, and even large shipments by the lake barges.—The Wood-worker.

HARDWOOD FLOORING.

The use of beech, birch, and maple has been restricted to a few specific purposes, but the example of the builders of the new Flint Mill at Fall River, in flooring with these woods, will probably be followed by others. The narrow Southern pine planks that have been so long and extensively employed for flooring require to be culled with great care to insure an even floor. They must be straight grained, or they will bend and splay by use, splintering into short slivers dangerous to the feet, and collective of all the stuff and fibrous dirt with which they come in contact. The heart of the pine is especially open to this objection. But a beech or maple floor will wear evenly and smoothly, and has greater endurance for heavy rolling weights than that of the Southern pine. It is more cleanly, and is not so readily inflammable.

The birch when properly seasoned under cover, or kiln dried at a heat not sufficient to vaporize its contained oil, makes a durable and evenly wearing floor. This cheaply estimated wood is really elegant also for furniture purposes. It shows well in cabinet work alternated maple or apple, and it is fully as valuable for drawers and chests in defending the contents from moths as is the red cedar. The best qualities of birch timber come from the black birch or the yellow birch, the white birch wood being too open or porous for fine finish or durability; and the yellow and black birch grows also to a larger size generally.

The New York Evening Post says that the new building of the Pacific Mills at St. Lawrence, Mass., is to be floored with hard wood, some 300,000 feet to be used, and that other mills throughout Massachusetts, Rhode Island, and Connecticut, have also ordered this hard wood flooring, and it is very evident that Southern pine flooring will find a serious competitor. A good hard pine mill floor board, free of sap and coarse knots, will cost about \$28 per thousand feet in large lots, according to the quality, while hard wood flooring will cost from \$30 to \$32 per thousand feet all dressed and delivered.—Scientific American.

THE POWER OF WATER.

The properties of water are only partially understood by those who have never seen it under high pressure. The Virginia City Water Company get their supply from Marlette Lake on the Tahoe side of the mountain. They get it through by a long tunnel, and are then on the crest of a high mountain opposite Mount Davidson, with Washoe Valley between. To cross this valley by a flume would be almost impossible, so the water is carried down the mountain side to the bottom, and crosses under the V. & T. Railroad tract, on the divide between Washoe and Eagle valleys, then up again to the required height in iron pipes. The depression created in the line of carriage is 1,720 feet, and the pressure on the pipes is 800 pounds to the square inch. One pipe is 11 inches in diameter, and is quarter inch iron lap welded, and 18 feet long, with screw joints. There is little trouble from it, but the other, which is twelve inches diameter, and is riveted pipe, makes more or less trouble all the time. The pipe is laid with the seam down, and whenever a crack is made by the frost or sun warping it, or from any other cause, the stream pours forth with tremendous force. If the joint is broken open, of course the whole stream is loose and goes down the mountain, but usually the escape is very small. The break last week was less than five-eighths of an inch in diameter, and yet the water in the flume was lowered an inch and a half by it, and the pressure went down fifteen or twenty pounds.

Captain Overton says that fifty inches of water went through it. It has been probably a year in cutting out, and was made by a little stream hardly visibly to the naked eye, that escaped through a joint and struck the pipe two or three feet off, eating away the iron until the pressure inside broke it through. When such a break occurs the noise can be heard for half a mile, and the earth shakes for hundreds of feet around. A break the size of a knitting needle will cut a hole in the pipe in half an hour. Such breaks are repaired by putting a band around the pipe, pouring in melted lead, and tamping it in. Such a stream bores through rock like a sand blast. The flying water is as hard as iron, and feels rough like a file to the touch. It is impossible to turn it with the hand, as it tears the flesh off the bones, and if fingers are stuck into the stream, with the point up, the nails are instantly turned back, and sometimes torn loose from the flesh.—Reno Gazette.

G. B. HALL & Co., Quebec, have sent out a member of the firm to explore the island of Newfoundland with the view of ascertaining the extent of its timber wealth, and its adaptability for utilization.

\$500 Reward!

We will pay the above reward for any case of Liver Complaint, Dyspepsia, Sick Headache, Indigestion, Constipation or Costiveness we cannot cure with West's Vegetable Liver Pills, when the directions are strictly complied with. They are purely Vegetable, and never fail to give satisfaction. Sugar Coated, Large Boxes, containing 30 Pills, 25 cents. For sale by all Druggists. Beware of counterfeits and imitations. The genuine manufactured only by JOHN C. WEST & CO., "The Pill Makers," 81 & 83 King St. East, Toronto, Ont. Free trial package sent by mail prepaid on receipt of a 3 cent stamp. ORMOND & WALSH, sole authorized Agents for Peterborough Ont. wed112179

Health is Wealth.



DR. E. C. WEST'S NERVE AND BRAIN TREATMENT, a guaranteed specific for Hysteria, Dizziness, Convulsions, Fits, Nervous Neuralgia, Headache, Nervous Prostration, caused by the use of alcohol or tobacco, Weakness, Mental Depression, Softening of the Brain, resulting in Insanity and leading to misery, decay and death, Premature Old Age, and Spematorrhoea, caused by over-exertion of the brain, self-abuse or over-indulgence. One box will cure recent cases. Each box contains one month's treatment. One dollar a box, or six boxes for five dollars; sent by mail prepaid on receipt of price. We guarantee six boxes to cure any case. With each order received by us for six boxes, accompanied with five dollars, we will send the purchaser our written guarantee to refund the money if the treatment does not effect a cure. Guarantee issued only by ORMOND & WALSH, sole authorized Agents for Peterborough, Ont. JOHN C. WEST & CO., Sole Proprietors, Toronto.

HILL'S English Extract of BUCHU, One of the Best KIDNEY INVESTIGATORS IN USE.

It is a specific in the cure of all diseases of the Kidneys, Bladder, Prostatic Portion of the Urinary Organs, Irritation of the Neck of the Bladder, Burning Urine, Gravel, Gonorhea, in all its stages, Mucous Discharges, Congestion of the Kidneys, Brick-dust Deposit, Diabetes, Inflammation of the Kidneys and Bladder, Dropsy of the Kidneys, Acid Urine, Bloody Urine, Pain in the Region of the Bladder, PAIN IN THE BACK, Urinary Calculus, Renal Colic, Renal Colic, Retention of Urine, Frequent Urination, Gravel in all its forms, inability to retain the Water, particularly in persons advanced in life. IT IS A KIDNEY INVESTIGATOR that restores the Urine to its natural color, removes the acid and burning, and the effect of the excessive use of intoxicating drink.

PRICE, \$1: or, Six Bottles for \$5.

Send for Circular. Sold by all Druggists.

W. JOHNSTON & CO., 161 Jefferson Ave., DETROIT, MICH.

WISE people are always on the lookout for chances to increase their earnings, and in this become wealthy; those who do not improve their opportunities remain in poverty. We offer a great chance to make money. We want many men, women, boys and girls to work for us right in their own localities. Any one can do the work properly from the first start. The business will pay more than ten times ordinary wages. Expensive outfit furnished free. No one who engages fails to make money rapidly. You can devote your whole time to the work, or only your spare moments. Full information and all that is needed sent free. Address BRIMSON & Co., Portland, Maine.

IRON FRAME GANG MILLS.

The gang mill is regarded as possessing material advantages in the rapid and economical manufacture of lumber. Among the recent improvements tending to perfect such mills, those which are shown in the iron frame Stock Gang manufactured by Wickes Bros., East Saginaw, Mich., are eminently valuable. Our large and elegant engraving represents one of these mills, constructed to be driven by belt, friction or direct engine, as may be desired. The important requisite in this class of mills is such design and proportion of parts as will insure durability and continued movement at the highest speed, safely increasing the quantity and improving the quality of work done at a lesser feed, and admitting the use of thinner saws than is practical in the slower moving sash. These are among the advantages gained in the iron frame machine, overcoming the necessity of an expensive mill frame, saving time and expense in setting up, and avoiding the liability of decay or change of position.

Many improvements have been made in the mechanism of oscillation, and from these the builders of this mill have adopted what is known as the Wilkin movement, which oscillates the top and bottom slides. The top slides are pivoted at the top end, and the bottom ones from the bottom end, both being operated by one rock shaft from the centre. This movement when properly adjusted gives an easy clearance and the easiest cut yet obtained. It adds no extra weight to the sash, and avoids the cumbersome rock shaft and its attendant joints, usually weighing from three to five hundred pounds, which have been found so objectionable in many other movements. The feed is continuous, and is made variable from $\frac{1}{2}$ to $1\frac{1}{2}$ in. to each stroke, controllable by the sawyer. Power is applied to the press rolls in the double screw form with pivot point, also operated by the same hand. A special feature of this machine is the spreading of the lower frame so that its base rests upon an independent portion of the foundation from the main pillow block or crank shaft. The solidity of the structure is thus increased, both by the increased width at the base and the prevention of connecting vibrations, which necessarily communicate when resting upon the same part, as in other forms of such machines heretofore in use.

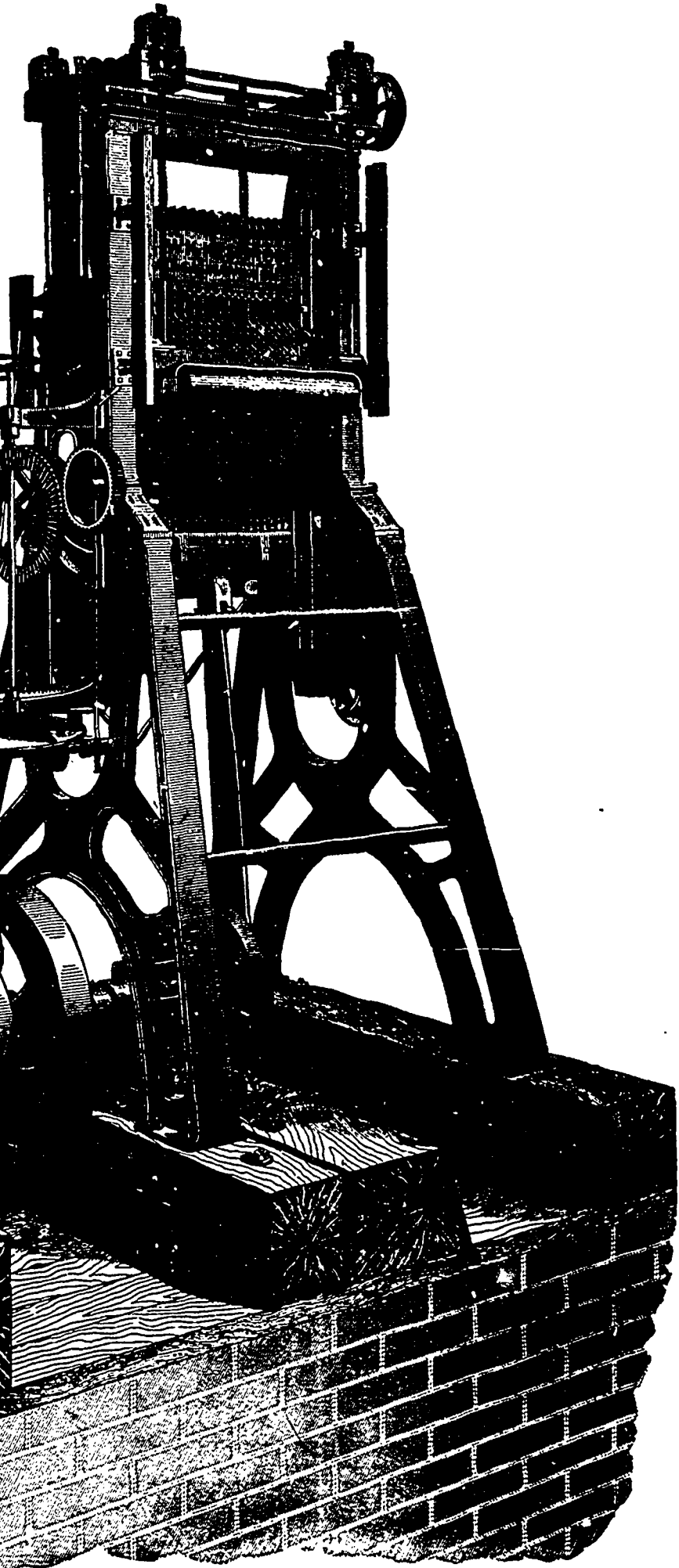
The mill shown is one of 26 saws, $4\frac{1}{2}$ feet long, sash 38 inches wide in the clear, and stroke 20 inches, capable of making 230 strokes per minute. The crank shaft is 9 inches in diameter, the main pillow block has a base 6 $\frac{1}{2}$ feet long by 21 inches bearing, weighing 2,800 pounds. The cap is secured by two forged bolts, 3 $\frac{1}{2}$ inches in diameter, and by this arrangement no unequal strain upon the cap is possible. A disk crank is used with suitable counterbalance, expressly adapted to the weight and speed of sash; a hammered steel wrist pin 5 inches in diameter, and a forged pitman of the most approved pattern, with best composition cores. The iron drive pulley is 4 to $4\frac{1}{2}$ feet in diameter and 24 inches face; the fly-wheel, 6 feet in diameter, weighing 4,700 pounds, turned off at rim. When a wider and heavier sash is required, a proportionate increase is made in all these parts.

In the construction of the sash the slides are made of steel; the lower girt and upper heads are made in one solid piece, without rivets, giving greatest strength possible, with the least weight. The outfit also includes eight iron rollers for the floor, 8 $\frac{1}{2}$ inches in diameter, with iron stands, and geared as live rolls when desired, a full set of Lippencott's steel saw hangings, and gauges for one-inch lumber. The weight of the machine here shown is 18 $\frac{1}{2}$ tons. They are, however, built in larger or smaller sizes, adapted to any locality, quality or quantity of work desired.

A Ship Canal

The bill for a ship canal to Manchester, England, has passed the House of Commons, burden-

ed however with conditions which will make it a very uncertain enterprise. The promoters are required before commencing work to go to Parliament for a fresh bill showing exactly what work they intend to carry out in the estuary of the Mersey, they are also forbidden to do anything at the canal proper or to deviate any railways until they have progressed so far with the works in the estuary as to show what the effect on the regime of the channel and the approach to the Liverpool docks is likely to be and these



IRON FRAME GANG MILL.

works are to be so constructed that they can be removed if any detrimental effects are likely to be produced. The House of Lords will probably pass the bill in this form, but it will, we should think, be difficult to raise the large capital required, under such burdensome conditions.

A Half Million Fire.

WILLIAMSPORT, Pa., Aug. 27.—A fire started this evening in the sawmill of Finley, Young &

Co., and destroyed it. The flames spread to the lumber yards of Merriman & Son and others, burning over a square and destroying a large quantity of lumber. At midnight it was still burning, but with prospects of being subdued. Several dwellings and barns were burned. Twenty-five to thirty million feet of lumber were destroyed. The loss is estimated at half a million.

Subscribe to the CANADA LUMBERMAN,

AMERICAN SAWS: We represent Four of the Best American Saw Factories

SAVE YOUR TIMBER By using THIN Saws.

VIZ.

AMERICAN SAW Co.
Emerson, Smith & Co.
R. HOE & Co.
Hubbard, Bakewell & Co.
 Inserted Tooth,
BIT TOOTH,
 AND
SPECIALLY THIN SOLID SAWS

McLAUGHLIN Bros., Arnprior, run two 66-in. Brooke Bit Saws, 800 revolutions per minute, on 6 to 10-inch feed.

They use Steam Feed

No. 1 TOOTH.



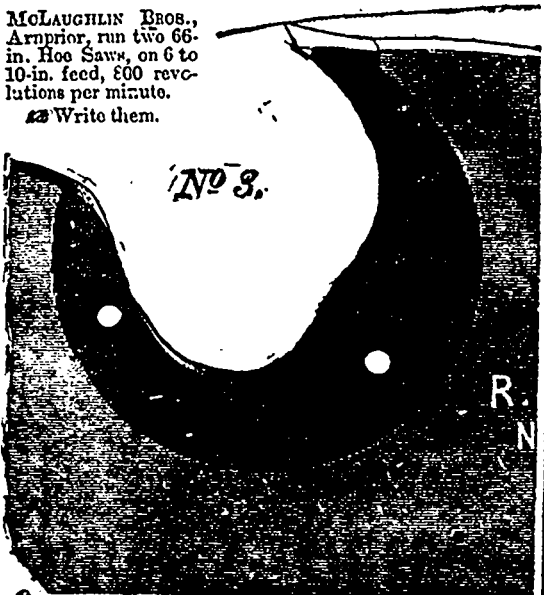
It will be noticed this Tooth Socket is exactly the same as the TRENTON TOOTH, and is interchangeable with the Trenton Saw.

With this Saw you have either a Bit Tooth Saw or ordinary Inserted Tooth Saw, with teeth two-and-a-half inches long, both fit same socket and are interchangeable in a few minutes. These Bits require no gumming, and very little filing; are so firmly held that they will stand all necessary swaging, and can be worn down to dotted line shown in cut; they rest on lugs, saving the strain on the rim of the saw. For these reasons they will cut more and better timber at less cost than any other tooth. **EXTRA BITS (per 100) No. 1, \$9; No. 2, \$8.— (per 1000), No. 1, \$80, No. 2, \$70.**

We run 60-inch to 72-inch Solid Saws, as thin at center as 10 gauge at rim—saving, over a 7 gauge saw—1000 feet of lumber in every 25,000 cut.

Two sets No. 1 Bits have cut 500 m. feet pine, in 60-inch saw, running 800 revolutions per minute, on 6-inch feed. E. E. PARSONS, Arnprior.

McLAUGHLIN BROS., Arnprior, run two 66-in. Hoe Saws, on 6 to 10-in. feed, 800 revolutions per minute. Write them.



HOE'S PATENT BIT SAWS.

One of the best Bit Saws made, above cut represents usual size tooth, one size larger and smaller made. Send for particulars and prices.

SAVE TIMBER



GROW RICH

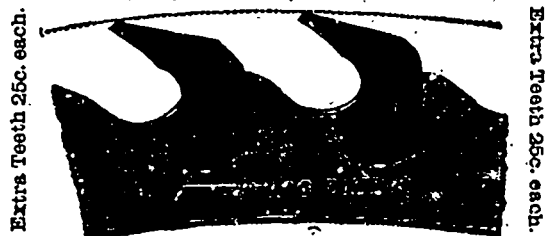
EMERSON'S EXTRA THIN SOLID SAWS

Having special facilities for the manufacture of extra thin saws for board mills, we are prepared to receive orders for Circular Saws as follows:—54 inches in diameter, as thin as 12 gauge at rim and 11 at center, 64 to 66; 11 gauge at rim, 10 at center, 66 to 72; 10 at rim, 9 at center. Our unparalleled success with thin saws during past few years has induced us to recommend them to our customers. Our superior facilities are—1st, Evenness of Temper; 2nd, Perfect Accuracy in Thickness, Saw balances perfectly; 3rd, Properly Hammered, to have equal strain in all its parts and at same time run true. This department is under the special supervision of J. E. Emerson, who has had 30 years experience and is without doubt the most successful circular saw maker in the world.

NO EXTRA PRICE FOR THIN SAWS.

EMERSON'S LUMBERMAN'S CLIPPER SAW

Can insert one tooth for every inch in diameter of Saw.



Designed specially for Thin Saws not thicker than 6 gauge at rim, or thinner than 15 gauge at rim.

The CLIPPER FLANGE SAW

EXPRESSLY FOR HEAVY FEED.



Extra Teeth 50c. each.

Two and a half inches long.



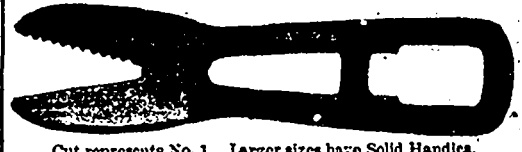
SAY BOB WHAT DO YOU THINK OF MIXER'S PATENT GUMMER! THEY SEEM TO BE ALL THE SAME NOW?

I HAVE USED ALL KINDS OF GUMMERS, BUT NEVER SAW ONE EQUAL MIXER'S SELF FEEDING CHAMPION.

MIXER'S PATENT IMPROVED SELF-FEEDING CHAMPION SAW GUMMER, MAKES THE IMPROVED GULLET TOOTH

Alligator Jaw Wrenches

5 sizes, grip from 1/2 to 3 inches. Iron. Solid Steel Jaw. Price 50c. to \$5.00.



Cut represents No. 1. Larger sizes have Solid Handles.

WE KEEP IN STOCK ALL KINDS OF

Saw Mill Furnishings

SAW GUMMERS:—Stone's Original, large and small size Mixer's Self-feeding Champion; Emery Wheels and Stands.
SAW SWAGES:—Hoe's, Emerson's, Mixer's, and American Saw Co.; from \$1.50 to \$3.00.
SIDE FILES, BELT STUDS, Detachable Belt Fastners.

JAREOKI'S PATENT SCREW, PLATE, and PIPE CUTTER, 1/2 inch to 2 inches, \$23.00, smaller ranges in proportion
Band Saws, Scroll Saws, Rainbow Saws for felling trees, **American Shingle Saws, Lace Cutters, Cant Hook, Flue Scrapers, Leather, Cotton and Rubber Belting.**
SPECIAL AGENTS FOR GANDY'S PATENT MILL BELT, runs wet or dry; the best and cheapest main driver.
WORTHINGTON and BLAKE'S PATENT STEAM PUMPS, ECONOMIST PLANER and MATCHER COMBINED, large range of work, light, handy, durable, cheap.

Ewart's Detachable Chain

For Log Jacks, Refuse Carriers, Sawdust Carriers, Live Rolls, Transfers, Slow Speed Driving Belts, Tie Loaders, Saws, Trimmers, Lumber Sorters, Shingle Block Elevators, and many uses about a saw mill.

HIGH CLASS HEAVY and PORTABLE SAW MILL MACHINERY our Specialty.

Waterous Engine Works Co., Brantford

Send for New Price List and Chain Circular.

Mention this Paper.