

**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.

- |  |  |
|--|--|
| <input type="checkbox"/> Coloured covers/<br>Couverture de couleur   | <input type="checkbox"/> Coloured pages/<br>Pages de couleur   |
| <input type="checkbox"/> Covers damaged/<br>Couverture endommagée  | <input type="checkbox"/> Pages damaged/<br>Pages endommagées   |
| <input type="checkbox"/> Covers restored and/or laminated/<br>Couverture restaurée et/ou pelliculée  | <input type="checkbox"/> Pages restored and/or laminated/<br>Pages restaurées et/ou pelliculées  |
| <input type="checkbox"/> Cover title missing/<br>Le titre de couverture manque   | <input checked="" type="checkbox"/> Pages discoloured, stained or foxed/<br>Pages décolorées, tachetées ou piquées   |
| <input type="checkbox"/> Coloured maps/<br>Cartes géographiques en couleur   | <input type="checkbox"/> Pages detached/<br>Pages détachées  |
| <input type="checkbox"/> Coloured ink (i.e. other than blue or black)/<br>Encre de couleur (i.e. autre que bleue ou noire)   | <input checked="" type="checkbox"/> Showthrough/<br>Transparence   |
| <input type="checkbox"/> Coloured plates and/or illustrations/<br>Planches et/ou illustrations en couleur  | <input checked="" type="checkbox"/> Quality of print varies/<br>Qualité inégale de l'impression  |
| <input checked="" type="checkbox"/> Bound with other material/<br>Relié avec d'autres documents  | <input checked="" type="checkbox"/> Continuous pagination/<br>Pagination continue  |
| <input checked="" type="checkbox"/> Tight binding may cause shadows or distortion<br>along interior margin/<br>La reliure serrée peut causer de l'ombre ou de la<br>distorsion le long de la marge intérieure  | <input type="checkbox"/> Includes index(es)/<br>Comprend un (des) index  |
| <input type="checkbox"/> Blank leaves added during restoration may appear<br>within the text. Whenever possible, these have<br>been omitted from filming/<br>Il se peut que certaines pages blanches ajoutées<br>lors d'une restauration apparaissent dans le texte,<br>mais, lorsque cela était possible, ces pages n'ont<br>pas été filmées. | <p align="center">Title on header taken from: /<br/>Le titre de l'en-tête provient:</p> <input type="checkbox"/> Title page of issue/<br>Page de titre de la livraison |
| <input type="checkbox"/> Additional comments:<br>Commentaires supplémentaires:   | <input type="checkbox"/> Caption of issue/<br>Titre de départ de la livraison  |
|  | <input type="checkbox"/> Masthead/<br>Générique (périodiques) de la livraison  |

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
										✓	



PUBLISHED  
SEMI-MONTHLY.

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

SUBSCRIPTION  
\$2.00 PER ANNUM.

VOL. 2.

PETERBOROUGH, ONT., SEPTEMBER 15, 1882.

NO. 18.

**PRUNING FOREST TREES.**

At the recent Forest Congress at Montreal the following paper was read by Mr. John S. Wolfe, of Roslyn, N. Y., entitled

**"THE COMMERCIAL VALUE OF PRUNING.**

I would call attention to pruning for the benefit of the lumber product of trees, not for beauty, only the increased value of the sawn lumber. The value of clear in comparison with knotty lumber is well known. The defects of loose knots and much of the rotten lumber is due to the want of pruning.

Trees when quite young have branches extending to the ground, as it grows these, if not pruned, will die and in time produce a black knot that will continue to extend through the tree as long as the branch is attached, causing the tree when sawn to produce lumber with black or loose knots.

Often when the tree has been standing a long time the branch will decay, this decay extending to the centre of the tree, causing it to be worthless while it looks sound on the outside, and its condition is only known when sawn, involving a loss of all expenses and costs.

Clear lumber of all kinds is only obtained on the outside of the log. All logs having a center of knots, if this can be made small and the few knots kept sound, as they will be by being cut off when alive and quickly overgrown.

With the hickory and the oak there is still more difference, as the knotty lumber has no value over firewood, and as the large knotty oak and hickory logs are scarcely worth cutting and splitting small enough for firewood.

I have now in mind a hickory tree nearly two feet in diameter, that for the want of pruning was not worth the labour to split into firewood; had it been pruned early and with but a few hours' labour expended, it would have been easily worth \$30 to \$50.

White oak timber, if knotty, will so check and warp that it is worthless.

The chestnut invariably shows the decay of the dying branches in the centre of the log and rendering the timber of but little value.

In most if not all of our more older woodlands, trees are allowed to grow as nature starts them. The worthless ones are not cut out and replanted with those of value. It has been the thought of many that nature attends to all this, and the trees that are best suited to the soil will grow. This error is plainly shown by the fact that two locust trees are now growing at Roslyn, L. I., that originally were brought from Virginia by Capt. John Sands, of Sands Point, in 1785. From these two trees and another at Oyster Bay, L. I., have grown all the valuable locust timber on Long Island.

When we notice that the value of clear pine has nearly doubled in value in the past ten years, and is higher now than black walnut was then, and is still increasing in value each year, while the common or knotty pine is worth but

a few dollars more now than then. Hard wood shows the same increase in value.

When we realize that the old growth of forests are melting away so fast, and that will not long have the old century growth of trees to cut clear lumber from the outside, caring but little for the centre, even if it is knotty for a foot or more in diameter, it being of so little cost at the stump that it might make but little difference.

But when timber has been planted and each year of its growth matched, the value of pruning will at once be seen as an element of profit.

Forests showing a sound growth of smooth trees, no dead and decaying branches will at all times have a value that will repay all the expenses of pruning and replacing trees of value for worthless ones.

The fact is we have never cultivated our woodlands, and do not now realize their value, or what would be their value if in proper condition. But we will soon learn. With clear pine selling at wholesale for \$65 per thousand feet; black walnut, \$100; oak, \$65 to \$85; hickory, \$35 to \$120.

We will then scarcely believe that we have devoted so much time to crops of a yearly growth, and done nothing for those that take a lifetime to harvest.

**CEDAR FOR BLOCK PAVING.**

Now that cedar is likely to come extensively into use for block paving, it is necessary to apply some test which will prevent bad or decaying cedar being used. The Corporation of Toronto, in its specifications for this kind of work, requires that none but live cedar be put in; but this condition is far from being adhered to in practice. There can be no doubt that this restriction is a proper one, and we fail to see on what authority corporation officials authorize a departure from it. It is clear that they have no authority to waive one of the essential conditions of a contract. Cedar dies from various causes; from an excess of moisture, from the ravages of worms, which get below the bark and which eat a slight distance into the *alburnum* or sap-wood; occasionally the roots rot, probably from being lifted up by the frost. No cedar which is cut after it has died is as good as one cut while living, and some are quite rotten when they die. Small cedars which die first at the root are almost invariably rotten by the time the foliage withers. Cedars killed by worms are in a state of decay when they die. Sometimes a tree will stand erect years after it is dead, and those years take so much out of the wood it had in it when it died, yet we see such cedar as this used in Toronto as short posts to support the planks that mark the line between the boulevards and the cedar block roadway. The intention of the corporation has been to reject them, and though the restriction is founded on good reasons, this kind of cedar is very much

used for this purpose. It is useless to say that live cedar cannot be got, anyone can get it if he is willing to pay for it.

A distinction should be made between live cedar and green cedar, though the tree should be felled when it is alive, it ought to be allowed some time to dry before it is used. None, however, seems to have been made by the City Council of Toronto, perhaps because if we had to get dry cedar, cut when alive, we should have to postpone the making of some of our cedar roads. But the error is one which ought to be corrected when opportunity offers.

We are satisfied that the rejection of every kind of dead cedar rests on substantial grounds—not that some kinds of dead cedar have not considerable wear in them—and for some purposes they are useful; but if dead cedar were allowed to be used in making block pavements, we should bargain for rottenness and decay, and could not complain when we got them.

Of live cedar, that is best in which the *duramen* or heart wood forms the greatest proportion of the whole, and the sap-wood the smallest part. The heart-wood is permeated by a secretory matter of a resinous nature, insoluble in water, while the mucilaginous ingredient of the sap-wood is soluble in water. The general and well-known tendency of sap-woods to decay is not less in cedar than other kinds of wood. Round cedar posts decay on the outside, but in small posts the decay is greatest, because the thickness of the sap-wood relatively to the diameter of the trees is greater. The heart-wood of the cedar is peculiarly liable to decay, under some conditions of growth or age. When this decay manifests itself and proceeds far, the sap-wood is the best part of the tree. By the process of kyanizing, which consists of injecting some preservative substance, such as creosote, the sap-wood can be made as durable as the heartwood; but where this is not done, the less the proportion of sap-wood bears to the heart-wood the better. Very small blocks are almost certain to be, in this way, objectionable; and a good rule would be to establish a minimum size, below which no block should be used for paving.

The mechanical decay of cedar, which commences in the live tree, and is carried on by grubs or worms below the bark, probably ceases soon after the death of the tree; for, unlike the operations of the furniture beetle, the ravages of this grub are superficial, and can be traced in a kind of graving on the outside of the tree when the bark is taken off. But when mechanical decay ceases, natural decay, the work of low forms of parasitical vegetation, is very likely to commence, and this is more likely to happen in a tree which dies a natural death, than in one which is cut down in a healthy state.

The part of such block most liable to decay is the outside, which is also, when laid in a road bed, liable to the greatest pressure when struck,

say by the point of a horse's shoe at an unfavorable angle. The tendency of these two causes must be to make the blocks decay on the outside first. When the proportion of sap-wood is large, the chances of decay are increased from two causes instead of the one which exists where there is no striking or pressure to resist.

But surely cedar is not the only wood in which we ought to experiment in block paving our streets. Several other kinds are used in England, and some not used there might be tried here. *Monetary Times.*

**FIRST CIRCULAR SAW IN AMERICA.**

R. O. Hussey writes as follows to the *Builder and Woodworker*: 'I have long known that it was a very old invention, and have sought very diligently to learn who first used the saw in this country. Without presuming to certainly know about it, I will say that the first to use it of which I have any information was Constant Wyatt. In the early years of the present century Mr. Wyatt worked at cart and wagon making in the neighborhood which is now embraced in the town of Pawtucket, R. I. At the time I received the information he was still living, and I sought him and received from him in person this statement: 'About the year 1800 I heard by an Englishman that there was in England a round saw in use for sawing plank, and it seemed to me that such a saw would save much hard work. I went up to a shovel factory and got a plate that had not been bent to shape, and from it I cut out a saw and filed up the teeth as well as I could and set it to going in my shop. It was rather a rough affair but it saved me much labor. Afterwards I made a better one and used it several years, and when the war was over I sent and got one from England.'

'I had the above statement from Mr. Wyatt many years ago and as I have not been able to learn of any one in this country who used one before him I have believed him to be the first maker, user and importer also, of circular saws in America, and that to the bright town of Pawtucket belongs not only the credit of running the first cotton mill, but also that of the first circular saw.'

**Quebec.**

It is reported that Richard White's white pine timber, about 52 feet average, 16½ inches girth, has been sold at 31½c per foot, and from two to three drams of Muskoka waney board pine, 19½ inches, at 35½c per foot.

The *Northwestern Lumberman* says about 30 workmen were brought from Ottawa, Canada, by the American Lumber Company, the other day, to begin operations at Nowberry, Mich. Another year the company expects to have about 1,000 men in its employ at Nowberry and in the Ontonagon region.

## CANADIAN LUMBER.

CHICAGO, Sept. 9.—The lumbermen had a hearing before the Tariff Commission to-day. The Saginaw men and others had urged a duty of two dollars a thousand feet of lumber. Mr. Dean, of Chicago, a wholesale and retail dealer, took an opposite view. He could see no reason why a duty of two dollars a thousand feet should be paid on lumber from the neighboring Dominion; but he could see many reasons why there should be no such duty. The Saginaw men the other day had estimated their supply of lumber at only enough for ten years. If that were so, it was the part of prudence to draw from other sources. He himself was not in full sympathy with the idea that there was but ten years' supply of lumber on hand in Michigan, but still the supply was growing rapidly less. The "stumpage" men had formed combinations, and the effects was to "bull" the price of lumber, which had been advancing for the last two or three years out of proportion to former years. He had been in the business many years, and up to the time of the fire lumber had cost him an average of \$14.46 per thousand. The year after the fire the rebate which was allowed on iron, glass, etc., not having extended to lumber, it cost him \$16.80 per thousand, so that the lumbermen made a profit of over two dollars per thousand by the great fire. In 1873 it fell to \$12.72, in 1875 to \$11.78, and in 1876 to \$9. It remained at about the same figure from 1877 to 1879, but in 1880 a little "boom" started, the stumpage being confined to a small number of owners, and the average cost of the lumber in that year was \$11.62; in 1881, \$13.92, and in 1882, so far, between \$14 and \$15. That was the direction which things had been taking in consequence of the manipulation of stumpage. He could see no earthly reason why the American lumber interest should have any protection. Corn, pork, and beans were what entered into the lumber business; Illinois produced them. As to the difference in the cost of labour he had no faith in it. He did not see why a fool across the imaginary line would work for \$15 a month when he could cross that line and get \$20 a month. He believed that the labour in Canada was as well paid as in the United States. Besides, the Canadians had to pay at least \$1 more a thousand for freight on lumber than the Michigan lumbermen. Another advantage which the Michigan men had was that they could utilize their slabs and sawdust. With these advantages on the side of the American lumberman he could not see why they should be further protected by a duty of \$2 a thousand.

NEW YORK, Sept. 10.—To-day's *World* says: "The duty on Canadian lumber, as Mr. Dean, of Chicago, showed yesterday, is one of the greatest scandals of the whole tariff. The Michigan lumbermen had testified before the commission that the supply of Michigan lumber would be exhausted in ten years at the present rate of diminution, and they had at the time insisted that a duty should be retained for the purpose of restricting the importation of Canadian lumber and of confining American buyers to the rapidly dwindling American supply. A more greedy, selfish, and scandalous demand was never made. Europeans look with horror upon the recklessness with which we are using up our national inheritance, and wonder that there is not enough foresight in the country to adopt some measure for keeping a constant supply of forest timber. Our children will know what we have thrown away, and while the Canadian forests can yield us the product of all products that it is to our advantage to import as much of as we can, since many generations cannot reproduce the timber which one reckless generation can destroy, the men who profit for the time by this recklessness are allowed and encouraged to argue in behalf of a duty which insures that the denudation of our forests shall soon at a more breakneck pace than ever."

## THE PROTECTION OF TIMBER LIMITS.

The following letter appeared in the *Toronto Globe*—

SIR,—Among the practical results of the Forestry Congress has been the directing of public attention to the timber supply of the Dominion and the United States. We find

from the official reports now being issued of Professor Sargeant, the United States special commissioner, that, practically, white pine can no longer be looked for in quantity except in five States, and in these he gives the following estimates of available standing timber, and the cut for 1881:—

	Still standing. Feet.	Cut for 1881. Feet.
Maine.....	475,000,000	128,000,000
Pennsylvania.....	1,800,000,000	280,000,000
Wisconsin.....	41,000,000,000	2,100,000,000
Michigan.....	35,000,000,000	4,400,000,000
Minnesota.....	6,100,000,000	540,000,000
	84,375,000,000	7,658,000,000

In other words the results of his investigations show that, taking into account all white pine timber whether profitably accessible or not, there now remains less than twelve years' supply; and what deductions follows from these facts? It is not difficult to see that the demand instead of lessening will, with continuing prosperity, and enlarging population there, still further increase, and that very soon the Canadian source of supply must be looked to. We have been told by some lumbermen that there is still a fifty years' supply in Canada. That, however, does not take into consideration the certainty, ten or fifteen years hence, of this immense United States demand, which, added to that from Great Britain and South America and to our own local consumption, will soon tell on our forests. It is very doubtful if, in view of these facts, we have twenty five to thirty years' supply. It may be said that the pine tree is constantly growing, but very few are aware that it takes between seventy-five and one hundred years for a pine to attain a merchantable size sufficiently large for square timber. But this is not all. The general opinion among lumbermen prevails that more pine has been burned by forest fires than has been cut by the lumberman's axe. These fires are the more serious in this respect that small as well as large trees are burned, and that the soil beneath them is largely ruined by the vegetable mould being as it were eaten away. The question as to what we are to do under the circumstances is very grave. The provinces of Ontario and Quebec at present derive a large annual revenue from timber lands, and therefore have an important interest in seeing that our forests are not exhausted, and that these sources of revenue are not gradually cut off. The Dominion at large, again, is interested in continuing in future years our export trade in timber and lumber, and so conserving our forests that the sources of supply will remain undiminished. If we further recall the facts that no industry in the Dominion requires as much private and banking capital, employs as many men and is as widely distributed, as an industry, over the whole Dominion as that of lumber and its products, we see forcibly how the question of the conservation of our forests is one which must interest every section of the country. How is this question, then, to be settled?

The Forestry Congress discussed the subject of forest fires and made recommendations, some of which, I trust, will be taken up by Parliament. But has the Congress gone far enough? Even if forest fires are entirely stopped, still the supply of white pine remaining is insufficient to carry us over very many years unless steps are taken to promote the growth of the younger trees. The true and most feasible plan would seem to be to strictly preserve all seedling pines from injury, to prevent the cutting down of any under about fifteen inches in diameter at the base, and to curtail the leases of limits to lumbermen to a fixed period of five or seven years, after which the limit should have a rest of twenty to twenty five years. This rest would give an opportunity to the younger pines to attain a merchantable size, and if followed under a regular system over the whole country in which pine timber limits occur, could be arranged in such a way as to afford a continuous supply of lumber in the future and a perpetual source of revenue to the Governments of our different Provinces. The grave objections to the present systems are that they subject the public lands to unrestricted waste for just such length of time as the lumbermen find it profitable, without any regard to the future, and that they place the Governments in the position of owners desirous of making the largest possible

immediate return, regardless of the impoverishment of their possessions in the near future. Now if the regulations for the prevention of forest fires be made more stringent and a system of police protection inaugurated with a view to the detection and punishment of offenders, and if, following this, the forests are, under an organized plan, given periodical rests, there is no reason why the lumber trade should not continue in the far future, as it is now, a large and important industry.

Yours truly,  
A. T. DRUMMOND.

Montreal, Sept. 2, 1882.

## FOREST FIRES.

The *Montreal Herald*, of Aug. 23rd, in an article on the Forestry Congress then in session says:—"One topic broached on Monday, and judged of such commanding importance as to head the list of subjects to be taken up, namely, Forest Fires, was by general consent, held for yesterday, the members, doubtless, feeling that, in a matter of such magnitude, of such vital interest to the Republic and Dominion alike, and involving so many delicate questions, and such a variety of conflicting opinions, it would be well—not exactly to "sleep over it," but to discuss the matter conversationally before dealing with it formally. The wisdom of this postponement was fully proved by the tone of the debate when the topic was brought up yesterday. Members had evidently come prepared to discuss the whole question in a practical spirit, and it was simply astonishing to observe the concurrence of opinions as speaker after speaker unfolded his views. Some of the statistics offered will, we are sure, be startling to the general public. Those which show the enormous value of the forest's products, eclipsing that of every other industry, are second in startling interest to those representing the fearful waste which has been going on for years, and the means of checking which have yet to be devised. By a coincidence which is more than curious, for it is as nearly demonstrated as could be, those who took part in the debate one after another placed the value of woods destroyed by fire at ten times that of timber felled by the lumbermen. One gentleman, it is true, modestly alleged that for every tree another was burned, but this was generally put aside, as not even an approximation to the actual facts.

The causes of these fires were gone into to some extent, among those specified being the carelessness of hunters and tourists, the ignorance of new settlers, the recklessness of shanty-men in some cases, and, though it is difficult to bring oneself to believe that such rascalities are frequent, the deliberate firing of the forest by lumbermen's employes with a view to providing themselves with the chance of work in the prospect of slack times. The remedy the Congress evidently felt was harder to get at than to ascertain the causes of the mischief. One suggestion, the appointment of a forest constabulary, paid by the Government or by the Government and the lumbermen jointly, met with general favor, and unanimous approval was stamped on a resolution offered by the Hon. Mr. Joly, to the effect that it was the duty of the Congress to press on the governments the necessity of taking precautions for the prevention of forest fires. Among the many sagacious suggestions offered by the President, the Hon. Mr. Loring, United States Commissioner of Agriculture, there was the excellent one of appointing a mixed committee of Canadian and American delegates to make this resolution effective.

## GOOD WORK.

The work of the American Forestry Congress recently held at Montreal, doubtless accomplished much good. This will eventually be realized, not so much in the direct benefits accruing from its deliberations as by the interest which it arouses and the attention it will call to matters of vital importance alike to Canada and this country. To the active lumberman whose energies are devoted to securing the most logs and making the most lumber that the character of the season and the extent of his resources will permit, the reading of essays on forestry; how most effectually to conserve them; the best methods of working timber lands in the interests of the holders, of the public, and of the

revenue; the duties of governments in regard to forestry; how to promote the extension of timber bearing lands in districts where timber is scarce, and how best to introduce it into treeless regions of the west; the protection of forests from fire; forests in relation to the water supply; utility of roadside planting, and the other kindred subjects which received the attention of this congress, may seem but visionary and impracticable, but there are important considerations involved in all these questions and it is only by agitation and persistent work that the worthy aims in view can be successfully brought about. An appreciation of the importance of these matters and the necessity of caring for the great interests involved can be secured only by forcing them before the people through such efforts as are being made by this congress.—*Lumberman's Gazette*.

## SIBERIAN FORESTS.

Some examinations have recently been made by exploring parties, of the character of the immense forests of Siberia. The most important timber stretch begins a little south of Dudino, and still far north of the Arctic Circle, the pines become tall. Here is a veritable forest, the greatest the world has to show, extending with little interruption from the Ural to the sea of Ochotsk, or about 650 miles, and 4 times as much from east to west. This primeval forest of enormous extent is nearly untouched by the axe of the woodman or cultivator, but in many places devastated by great forest fires. The forests consist principally of cembro pine, valued for its seeds, enormous larches, the nearly awlshaped Siberian pine, the fir and scattered trees of the common pine. Most of these trees north of the Arctic Circle reach a large size, but are often far isolated from all others, gray and half dried up with age. The ground between the trees is covered with a labyrinth of fallen branches and stems which are frequently covered and almost concealed by luxuriant beds of mosses. The pines, therefore, lack the shaggy covering common in Sweden and the bark of the birches scattered through the pines is distinguished by an uncommon whiteness.

## FIRE-PROOF JOISTS.

A Philadelphian paper notes the use of wood joists in the construction of a fire-proof building in that city, on Walnut street, above Fourth. It says that, strange as such a statement may appear, it is a matter of fact that many New England builders, contend that the wood joists, encased in plaster, are proof against any ordinary fire, and for many reasons are much preferred by them to the ordinary regulation fire proof joists. The joists are "stripped" on the outside, and over these strips irons are run, and on these the plaster is spread. The theory is that in an ordinary fire these joists thus treated will be fire-proof, and only when the fire has reached such a fury that the building must go anyway will they be affected. Here comes in one of the advantages claimed for them. When a building is being burned by a furious fire the iron joists expand and crush out the walls and do other damage. The wood joists would simply be burned up without injuring the walls at all.

An Ottawa dispatch says:—During the week ending the 2nd of September there passed Calumet slide 4,616 pieces of timber; Madawaska 5,935 pieces of timber and 5,183 sawlogs. There left Ottawa on the 6th and 7th of September two rafts containing 3,661 pieces of white pine and 2,004 pieces of red pine.

BAXTER'S MANDRAKE BITTERS never fail to cure Costiveness and regulate the Bowels.

THERE is no more wholesome or delicious fruit on earth than the Wild Strawberry, and there is no more effectual remedy for Cholera, Dysentery, Cramps and other summer complaints for infants or adults, than Dr. Fowler's Extract of Wild Strawberry.

BAD BLOOD.—The blood is the true essence of vitality, without pure blood there can be no healthy action in the system. Boils, blotches, pimples and the various humors and eruptions of the skin are only symptomatic of bad blood—that needs purifying at its fountain head, to render its tributaries pure. Burdock Blood Bitters effectually cleanse the blood from all humors, obtains a healthy action of the liver, bowels, kidneys, skin etc., and strengthening while it regulates and purifies.

# E. E. DIXON & CO.

MANUFACTURERS OF PURE BARK TANNED

## LEATHER BELTING



First Prize, Provincial Exhibition.....Ottawa, 1875  
 First Prize, Provincial Exhibition..... Hamilton, 1876  
 First Prize, Provincial Exhibition..... London, 1877  
 First Prize, Industrial Exhibition..... Toronto, 1879  
 First Prize, Industrial Exhibition..... Toronto, 1880  
 International Medal, Centennial Ex..... Philadelphia, 1876



None genuine unless with a STAR on the head of rivets. Send for Price Lists and Discounts.

121  
**81 Colborne Street, Toronto**

### WOOD IN PAPER.

An exchange complains of the use of wood pulp in paper-making and says that a reaction is now setting in, and that consumers are beginning to protest against so much wood. This reminds us of an amusing incident which came to our knowledge. It seems that the proprietor of a prominent newspaper had a strong prejudice against wood pulp, and he was unaware of the fact that the manufacturers who supplied him with paper had gradually introduced the objectionable material into their production until he was receiving a very considerable proportion of wood. There came a time, however, when the manufacturers found occasion to use more rag-stock and less wood pulp. The result was that the newspaper man demanded to know why his paper had deteriorated in quality. The manufacturer, being assured that every lot previous to the last had been satisfactory, kept his own counsel, and the result was that afterwards the journal was printed on paper containing a goodly percentage of wood in its composition and that no dissatisfaction resulted.

The fact is that a certain, and by no means small proportion, of wood in paper does not impair the value of the product, but gives it body and adapts it to receive the ink impression. Of course much depends on the way pulp is manufactured, and here a very marked advance has been made in recent years. Instead of chopping the wood into fine bits and destroying its fibre, the most approved processes now crush the wood in such a way as to preserve a strong fibre of sufficient length to felt well in the sheet. One of the most prominent dailies in the country, if not the most prominent, is printed on a paper composed of 75 per cent of poplar wood. We have seen paper containing 90 per cent of wood, which was by no means an inferior article, and we have seen the fly-leaves of costly books made from wood-paper, which the expert eye could not distinguish from rag-made material.

Among competent judges wood-pulp is not coming into ill-repute, but is growing in popularity; and it is well that this is so, for the ever increasing demand for paper has made a raw material cheaper than rag imperative. Every innovation on long established methods is viewed with apprehension by the conservative ones, and wood-pulp will naturally come in for its full share of abuse from those who know little of its true character and who are only too ready to attribute to it any defect in the product. Substitution is, nevertheless, the order of the day in manufactures.—*Lumberman's Gazette.*

### The Endurance of Woods.

In tests made as to the durability of woods results have varied. Pieces of wood two and five-eighths inches square, buried one inch in the ground decayed in the following order: Linn, American birch and aspen in three years; willow and horsechestnut in four years; maple, red beech and birch in five years; elm, ash, hornbeam, Lombardy poplar in seven years; robinia, oak, Scotch fir, Weymouth pine and silver fir decayed to a depth of a half inch in seven years; larch, common juniper, Virginian juniper and arbor-vitæ were uninjured at the expiration of seven years.—*Northwestern Lumberman.*

As a cure for all diseases of the Lungs Down's Elixir has no equal.

### The World's Iron Trade.

A critical estimate of the annual iron product of the world shows the yield to be close upon nineteen and a half million tons a year. Statistics for the more important countries are obtainable as late as 1881. For the others it is assumed that the yield has not fallen off since the latest figures reported. Under "other countries," in the table below, are included Canada, Switzerland, and Mexico, each producing about 7,500 tons a year, and Norway, 4,000 tons a year.

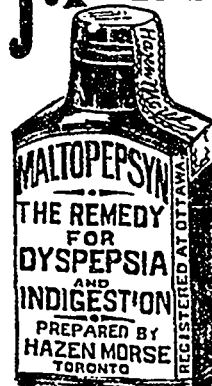
	Year.	Gross Tons.
Great Britain	1881	8,377,204
United States	1881	4,144,254
Germany	1881	2,863,400
France	1881	1,860,433
Belgium	1881	622,238
Austro-Hungary	1880	448,635
Sweden	1880	399,623
Luxemburg	1881	259,212
Russia	1881	231,341
Italy	1876	76,000
Spain	1873	73,000
Turkey	—	40,000
Japan	1877	10,000
All other countries	—	46,000

Total.....10,467,610

The first four countries produce 88 1/4 per cent of the world's iron supply; the first two 64 3/4 per cent; the first 43 per cent. The chief consumer is the United States, 29 per cent; next Great Britain, 23 1/2 per cent; these two using more than half of all.

A DRIVE of 9,000,000 feet of logs and 180,000 ties for the Northern Pacific railroad is about starting down the Yakima in Washington Territory. They were attached to satisfy a claim of \$50,000 by the government for stumpage, the timber having been cut on government lands. At last accounts the railroad had rebanded the logs, but the ties remained in the hands of the Sheriff.

## MALTOPEPSYN



Artificial Gastric Juice.

A WONDERFUL FACT, proving the remarkable digestive power of Maltopepsyn.

Two doses (30 grains), of Maltopepsyn will digest the entire white of a hard boiled egg in a bottle of water, in from 3 to 4 hours. How much more will it digest in the stomach assisted by that organ? About twenty times the quantity.

Test this for yourselves.—It is an interesting and useful experiment.

Get from your druggist ten drops of Hydrochloric Acid in a four ounce bottle, fill bottle half full of tepid water (distilled water is best, though soft water will do), then add the finely cut white of a hard boiled egg, then add two doses (30 grains) of Maltopepsyn and shake bottle thoroughly every 15 or 20 minutes, keep the bottle warm, as near the temperature of the body (100° Fahrenheit) as possible, and in 3 to 4 hours the egg will be entirely dissolved or digested.

Maltopepsyn is endorsed by the leading Physicians and Chemists throughout the Dominion of Canada.

Send for Pamphlet, 24 pages, giving full treatment of Dyspepsia with the RULES of Diet, etc., mailed free upon application by HAZEN MORSE, TORONTO.

Price per bottle, with dose measure attached, 50 cents, contains 48 doses or about one cent per dose.

# THE MONTREAL SAW WORKS

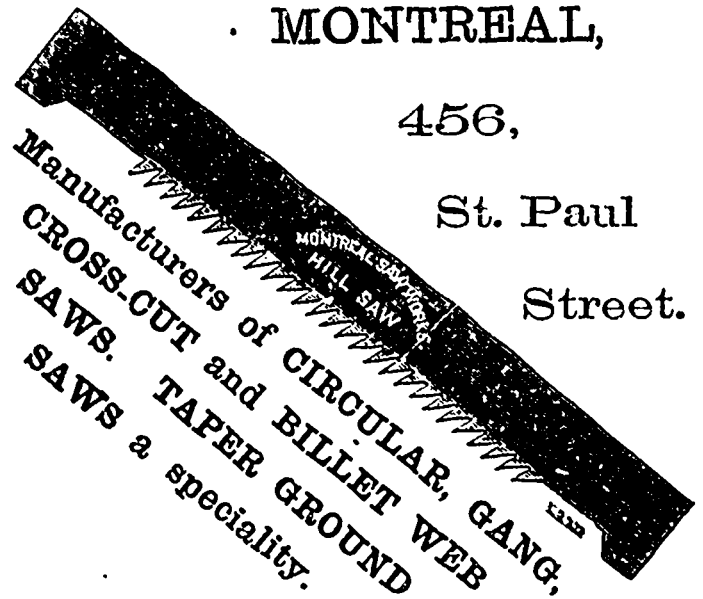
MONTREAL,

456,

St. Paul

Street.

General Mill Supplies always on hand.



General Mill Supplies always on hand.

Address all correspondence to Chas. M. WHITEAW, M. NAGER.

## J. L. Goodhue & Son

MANUFACTURERS OF

## Leather Belting!

Patent Lace Leather.

DANVILLE, P. Q.

## CENTRAL IRON WORKS.

## Law, McLean & Brayshaw

Simcoe Street,

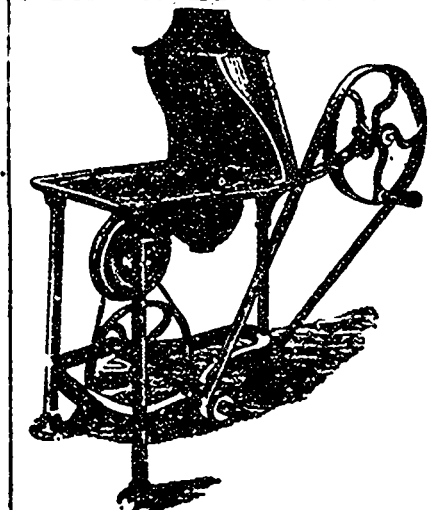
PETERBOROUGH.

CASTINGS of every description in Brass and Iron.

All sorts of MACHINERY for Saw and Grist Mills.

STEAM FEED for Circular Saws. Also Saw Gummets, Cutters, Double Upset Swages, and all Saw Tools. Send for Price List.

## PORTABLE FORGES



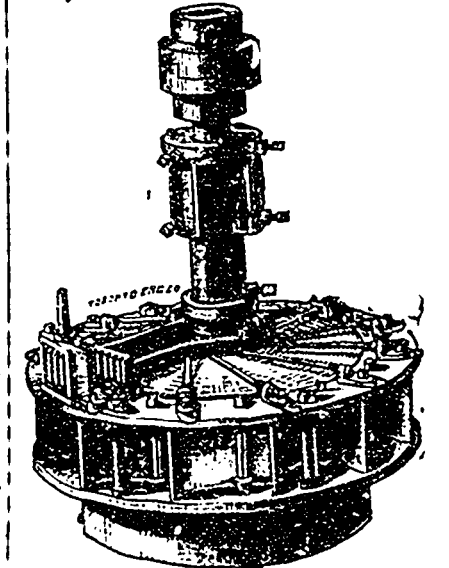
Send for Circulars and Prices to

H. R. IVES & Co., Montreal

## S. S. MUTTON & Co., Wholesale Lumber Dealers TORONTO.

We have for Sale a large quantity of PINE, OAK, WHITEWOOD, ASH, CHESTNUT, CHERRY, BUTTERNUT, BASSWOOD, &c. SET S.—A SET OF TUB MACHINERY FOR SALE. CHEAP—OR EXCHANGE FOR LUMBER.

15,000 IN USE!



## JOSEPH HALL Mfg. Co., (ESTABLISHED 1851.)

OSHAWA, ONTARIO.

## MANUFACTURE THE CELEBRATED JAMES LEFFEL'S Double Turbine Water Wheel,

All Sizes of Stationary and Portable Engines and Boilers, Shuttling, Pulleys, Hangers, Gearing, latest Improved English and American Gears.

The Stearns Circular Saw Mills with Fractional Head Blocks and Ring of Dege this Mill is acknowledged in the United States and Canada to be superior to all others—also a very complete Circular Saw Mill with Iron Frame and cheaper Head Blocks for Small Mill. Saw Mill, Flour Mill, Paper Mill and Water Works Machinery a Speciality.

For further particulars address, JOSEPH HALL Manufacturing Co., 12112 OSHAWA, ONTARIO



## FORESTS SACRIFICED TO LEATHER.

One of the handsomest trees in California, is generally known by the common name of chestnut oak. It is a tall, slim tree, having limbs like the chestnut tree; it is evergreen, and never grows in open grounds. Its habitat is nearly limited to that of the redwood, or more accurately to that of the madrono. It is the only oak in that vicinity which furnishes a bark suitable for tanning leather. At least, it is the only oak bark that has ever been used in that state. Now, the leather business has been unusually good in that state for the two or three years last past. Over large districts this beautiful chestnut oak is slashed down for the bark. The trunk is peeled and then left to decay; great openings are made in the forests and the sun is let in, evaporating the moisture so rapidly that these trees do not propagate. The result will soon be that this immense waste will terminate with the destruction of this tree, and decay of the fallen timber.

What will the tanners do when the tree disappears, or is so remote and inaccessible that it cannot be reached? In the Eastern States hemlock is extensively used for tanning, but the latter is not found in California. For at least a quarter of a century experiments have been in progress to find some substitute for the tanning of leather. Various chemical processes have been introduced. But none of them have taken the place of bark, either because they were too expensive, or did not make a good quality of leather. There are many barks and many drugs which have astringent properties, but the discoverer has not yet hit upon the cheap and satisfactory process by which bark can be dismissed, and the chemical can be substituted. When all the chestnut oak of the Pacific coast has disappeared, as it will within a dozen years at the present rate of destruction, what are the tanners going to do? Will they find a new and satisfactory process? Why not find it now, and so let a few of the trees stand over for the benefit of another generation?

The price of tan bark in the coast counties has advanced more than fifty per cent in the last three or four years. It is still advancing. The barkmen now go twenty or thirty miles from the coast, or from the nearest railroad. They climb almost inaccessible mountains, strip the bark and draw it out on sleds, or chute it down the mountains in troughs. With the greater labour of getting it, of course, the price must advance. But when there is no more, then will necessity become the mother of invention? Surely, a satisfactory preparation for tanning leather ought not to be beyond chemical discovery. That it has not yet been reached is evident from the fact that tanners in California are paying the largest price for bark ever paid, and that they have not yet adopted any one of the chemical processes which from time to time have been introduced. The chemist is now wanted at the front who can show tanners how to make good leather without the use of tan-bark. — *The Lumber World.*

## FOREST PRESERVATION.

At the recent meeting of the American Forestry Congress at Montreal, the following paper entitled "The Preservation of Forests from Wagon Destruction, and Tree planting," was read by Mr. John Duggan, editor of the *New York Witness* —

The greater part of the North American continent was covered with forests when first invaded by Europeans. These forests had stood for many ages undisturbed, except by the slow decay of one generation of trees, if we may so speak, and the slow growth of another. These operations had been going on simultaneously since the creation, or since the last great convulsion of nature, and the annual falling of leaves and the gradual decay of branches and trunks had covered the earth with a vegetable mould of considerable depth.

## A UNIVERSAL MINE OF WEALTH.

This mould, possessing all the elements of fertility, was an immense treasure, everywhere abundant, and tempting the settler to clear away the trees and reap the benefit of the virgin soil. When trees were cut down, a crop, which had probably required several hundred years to grow was reaped in a few weeks or years, there

by leaving the earth bare, and the vegetable mould was used up in a few years by continued cropping in wheat, corn and potatoes. The settler knew an excellent bush-plot which produced great crops at first to be reduced in less than ten years to mere rocks and stones. And this process of exhausting the vegetable soil went on everywhere as fast as settlements advanced. Of course where the subsoil was good and turned up in part to mix with the vegetable mould fertility continued much longer, but, in course of time, all, except prairie lands, were reduced so much in fertility as to require the application of fertilizers at great expense. Had the soil at first required these fertilizers the progress of settlement would have been exceedingly slow or more probably there would have been no progress at all.

## WAR AGAINST TREES AND ITS EFFECTS.

The labor of cutting down great trees, cutting them into short logs, and piling them up in log heaps to burn, was, however, so great, that a feeling of dislike to trees as the settlers' natural enemy became general, and the vengeance against them so great that in extensive regions the land was completely barred, and thus rendered not only unsightly but unsheltered. Bleak winds had full play and droughts parched the earth. What was even worse, the clearing on the hills and mountains by the settlers, the lumbermen and forest fires left the snow of winter exposed to the spring sun; and the sudden melting and running off of this accumulation of frozen water made dangerous floods in the streams in early summer and left those streams nearly dry in the hot season.

## CALLING A HALT.

At length the evil results of indiscriminate cutting down of trees began to be perceived. The improvidence of previous generations was lamented, and efforts to conserve what forests were left and to plant trees gradually became popular. The first class of efforts was directed to preserving a few acres of the original forest in each farm where that still could be done, and merely thinning the trees for firewood, fencing, etc., thus leaving the smaller trees room to grow more rapidly. The grove thus preserved became one of the most necessary and valuable portions of the farm, and that without any labor of ploughing, sowing or cultivating. It also afforded a delightful shade in hot weather for man and beast.

## FORESTS IN THE TERRITORIES.

The preservation of the vast forests in the Territories belonging to the nation attracted attention also, and laws were enacted to protect them from wanton waste. Secretary of the Interior Schurz distinguished himself for endeavoring to enforce these laws, which was very difficult of execution on account of the opportunities lumbermen have in an almost uninhabited region for cutting trees on Government land, and the frequency of forest fires kindled by careless Indians, hunters and trappers, lumbermen and settlers. These fires often do more damage to forests in a few days than lumbermen could do in as many years, and how to prevent them is yet an unsolved problem.

## FOREST LAWS.

The only remedy and that only a partial one that can be suggested, for the wanton destruction of forests is a national system of Forestry laws somewhat similar to those of France, Germany, Austria, Norway, and other European countries, which prohibit under severe penalties the injury or destruction of trees by unauthorized persons; and also the kindling of fires, or even smoking in the woods. A forest police was created to see to the execution of these laws, and at the same time providing for the utilizing of forests by gradual thinning out and selling the largest trees, so as to leave more room for the smaller ones. In this way the public forests are an annual source of revenue, and after centuries of such management they are in as good condition as they were at first.

## JUDICIOUS THINNING.

In passing through Plattsburgh, N. Y., once the writer saw the Saranac thickly covered with sawed lumber, and he asked an old gentleman if that river was not yet lumbered out. The reply was "I have known it for sixty years, and the quantity of lumber coming down has been pretty much the same all the time. There is as much now as there was sixty years ago." This

shows the result of a judicious system of thinning forests.

## A COMMISSIONER OF WOODS AND FORESTS.

If the United States, and each State had a department of woods and forests with a suitable head and the necessary subordinates, much could be done, not only for the preservation of forests belonging to the public, but to persuade settlers to leave a suitable portion of their farms in wood; and to counsel from time to time in public documents, not only care in husbanding present forests, but some general system of tree planting by States, corporations, and individuals, so as to provide a supply of timber for the future.

## TREE PLANTING.

The second branch of this great subject is tree planting, and here credit must be given to the U. S. Government for its encouragement of this necessary work in the prairies. The law giving 160 acres to anyone who will plant and maintain for a few years 40 acres of trees, has had a great effect already in providing for a future supply of timber in the prairie States, those groves will also break the terrible prairie blizzards, and, probably, to some extent, attract rain-clouds to mitigate prairie droughts. A fine spirit of tree planting has also been manifested in many cities and villages; and "Arbor Day," or a day set apart in spring for tree planting, has become, in some parts of the country, an institution for the purpose of beautifying streets and public and private grounds.

## PLANTING TREES ON PUBLIC ROAD-SIDES.

The public roads should be lined on both sides with trees, which, when grown, would do something towards sheltering and beautifying the country everywhere; but along the railroads there should be something more than isolated trees. There should be a rather broad belt on the windy side, thickly planted with the various kinds of trees needed for repairing the roads. This belt would shelter the railway from storms, catch and retain the winter's snows which give us so much trouble, and, before many years, supply much useful timber when the supply from other sources might be exhausted.

## TREES-PLANTING ON FARMS.

Every farm should have a belt of timber planted all along its windy side, this belt, not less than fifty feet wide, should be planted thickly with the various kinds of trees that grow best and fastest in the neighbourhood, the thinning of which for useful purposes would soon be valuable, whilst the shelter it would give from prevailing winds would be invaluable. All swamps not covered with trees should be planted with red and white cedar and tamarac, all of which grow best in damp ground, and produce most excellent timber for various purposes. The leaves also of these trees would absorb the unwholesome air which swamps generate.

## STONY GROUND.

There is on many farms more or less of ground so rocky that it will not repay the expense of cultivation, and all such spots should be planted with trees. These may be got out of the woods or farm nurseries; or what would be easier, cheaper and probably more effectual, the seeds of various kinds of trees could be sown, imitating as nearly as possible the natural processes which have produced all the forests of the country. The seeds of different trees should be gathered in the woods just at the time that they fall naturally, and they should be immediately planted in little shallow holes among the stones, and covered with a little earth. There the rains of autumn, the snows of winter, and the sunshine of spring would bring up quite a crop of young trees, which should be fenced in from cattle and left to themselves. They would require no labor after the first sowing and fencing except subsequent thinning out from year to year of those that were too crowded or most valuable for economic purposes. If hickory nuts, black walnuts, butternuts, chestnuts, and the seeds of sugar maples, pines and spruces were any of them or all of them sown every here and there over the place intended for a grove the most valuable kinds and those that thrive best could be ultimately let to become great trees. After ten years the annual thinnings of this grove for wood, fencing, hop poles, railroad ties, etc., would probably make it as valuable a part of the farm as any other, and when the black

walnut and butternut trees become large enough to be sold to cabinet-makers the value of the grove would be very great. The present race of farmers may say they would not live to see the trees become fit for the cabinet makers, but none the less would the growth of that grove increase the value of the farm every year and that whether the owner sold it or left it to his children.

## A FORESTRY COMMISSION.

What is very much needed as a preliminary to the covering of a considerable portion of the land with these groves is the advice of scientists and experts as to the kind of trees suitable to different soils, the rapidity of their growth and the relative value of their wood. This information could be collected and scattered by a judicious commissioner of woods and forests in each state, just as the fish commissioners now give information about fishes. To plant or sow millions of trees is just as necessary as to hatch and distribute millions of food fish.

## THE DOMINION.

With respect to the Dominion of Canada there is great need for tree planting in the fertile valley of the St. Lawrence for a considerable distance around Montreal, and still more need in the prairies of the North-West. In the latter region of vast capabilities, to which much attention is now turned, a system of granting land on condition of planting trees might be most advantageously introduced now, as every year will render such an arrangement more difficult. The other provinces of the Dominion are still well supplied with timber, and the system of selling "timber limits" to lumbermen is conservative of the forests, but there is need for great precaution against forest fires or wasteful uses of valuable timber. A capable commissioner of woods and forests for the Dominion would therefore prove a very valuable functionary, if he were not only an expert, but an enthusiast in Forestry, as otherwise his appointment would merely add another salary to the expenses of Government.

## THE GREAT NORTHERN FOREST.

The *Toronto Globe* says:—The great forest which bounds Hudson Bay on the east and extends up the interior of East Main and Labrador to Ungava Bay and Hudson Straits, six hundred miles north of Moose Factory, attains its greatest characteristic development just south of James' Bay, which lies nearly midway between the northern and southern limits of the peculiar trees which compose the great northern woods. Some trees, such as the Banksian pine and the spruce, which along their southern limits in Central Ontario are almost valueless commercially, here become giants of the forest, and are valuable for timber. The list of trees which flourish at James' Bay or in its drainage basin includes, according to Professor Bell, the spruce (two feet or more in diameter), the tamarac, balsam poplar (luxuriant), Banksian pine, silver fir, arbor vitae, elm, white pine, and red pine, and of lesser importance the poplar, mountain ash, and mountain maple. As James' Bay is as near to Liverpool as is Quebec, the future of the district as a lumbering country looks hopeful.

## STEAM OR SAIL.

The *London Timber Trade Journal* says:—With the absorption of the Atlantic wood carrying trade by steamships we shall get the colonial goods here at a freight charge that will bring them much nearer to those from the Baltic. The fact that large steamers can partly load up with other commodities in addition to deals much readier at the North American ports than they can in the Baltic will influence the rates in that direction considerably. The great drawback to low quality deals from the westward has been the heavy freight charge on them, but with this reduced to a trifle more than from the north of Europe ports a great impetus will be given to the consumption, and we shall see fresh sources of supply developing in every direction. Places that are now too remote to cut from, owing to the heavy cost of carriage, will be brought within paying distance of Quebec and the other ports when the Atlantic freights are some 40 per cent. less than now rule, which will probably be the case before many seasons pass over our heads.

To the Canadian ports, with few exceptions, sailing ships offer no inducements to charterers that can entitle them to a preference over steamers. The small out-ports here as a rule do not import pine, as the Atlantic voyage necessitates large vessels being employed in the trade, and to the large central ports here it is not so material the size of the cargo that is imported, but with steam vessels of great size bringing part cargoes all objections to their employment are removed, and it can be only a question of time as to the total extinction of the old class of vessels in the pine and spruce trades.

The *Carmona* arrived this week from Quebec, though over 2,000 tons, discharged into the Surrey Commercial Dock under 700 standards of pine deals (of course being loaded up with other goods), and is, we believe, the largest ship, steam or sail, that has ever entered the docks mentioned. We alluded to the fact last year, when she brought then as now a portion of her cargo of deals, which she delivered into the Victoria Docks, whence they were barged into the Surrey Commercial, that the latter were capable of accommodating vessels of even larger tonnage than the *Carmona*. We understand the Dock Superintendent guaranteed 23ft. of water on the ledge at the main entrance at Rotherhiths. Wh. vista opens up for the timber trade of the metropolis in the contemplation of the timber fleet being composed of vessels of this large class!

**STEAMERS IN THE WOOD TRADE.**

A correspondent of the *London Timber Trades Journal* says:—

Sir,—I think it just as well to make answer to the letter contributed last week by "W.V.," although all the arguments he urges have been replied to.

Reference is made to the relative carrying powers of steamers and sailing vessels. Doubtless sailing vessels carry as much in proportion to their bulk as do steamers, but they are not capable of carrying anything like so much in proportion to the cost of working a voyage. The matter of bulk then is one of no consequence.

There can be no doubt but that timber importing as it is now carried on at the small out-ports is practically a doomed branch of commerce. So long as the existing sailing vessels will swim it may be possible to charter them to bring over wood, but, as wood freights are sure to cheapen very much, it will be almost impossible to work sailing vessels at steamer freights without loss. The foreign shipowner has had to submit to the inevitable whenever steam has entered into competition, and the wood-carrying trade will afford no exception to this rule. The force of the competition which steamers will offer in the near future will lie in the low freight that will be accepted. Another important feature is that foreign shippers will prefer to load steamers. It is better that merchants at the outports should speedily recognize the altered state of affairs, and be prepared to gradually conform their business to the changed conditions, rather than to persevere in what can only be a losing game.—Yours,

SHIPOWNER.

**RAFTS AT QUEBEC.**

The Quebec *Chronicle* give the following list of rafts, etc., arrived—

Aug 25—Richard Nagle, white and red pine, Cap Rouge.

Aug 26—J. R. Booth, white and red pine, Woodfield Harbour.

Bell & Hickey, white and red pine, St. Lawrence Docks.

Aug 28—Sundry lots, deals, &c., South Quebec.

Aug 29—J. L. Lyon and Son, pine and oak, Indian cove east.

Aug—Roas & Co., white pine, &c., Cap Rouge.

TRABERRY whitens the teeth like chastoned pearls. A five cent sample settles it.

MR. R. W. CARMICHAEL, Chemist and Druggist of Belleville, under date of May 31st 1892. Writes as follows:—"Your Burdock Blood Bitters have a steady sale, are patronized by the best families here and surrounding country, and all attest to its virtues with unqualified satisfaction."

**J. K. POST & CO.**  
**LUMBER MERCHANTS**  
And Shipping Agents.  
**OSWEGO, N. Y.**

**CHOPPING AXES**  
(Made to Order and on hand.)

**MILL PICKS DRESSED** in a first-class style. Those shipped by rail will be returned promptly.  
**Lance Tooth Saws Gummed. AXES WARRANTED.**

**W. HERLIHEY, Lindsay.**

**J. T. LAMBERT,**  
Lumber and Commission Agent.

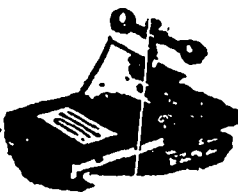
ORDERS FOR DIMENSIONS AND ALL OTHER KINDS AND GRADES OF

**American Lumber**  
PROMPTLY ATTENDED TO.

Timber Limits and the Square  
Timber Trade a Specialty.

Office, Wellington Street, OTTAWA.

**ZUCCATO'S PAPHYROGRAPH**



is a new invention for the rapid production of fac-simile copies of any Writing, Drawing, or other work which can be done with pen and ink.

**Autograph Letters**

Circulars, Music, etc., are first written upon a sheet of paper, in the usual way, and from this written sheet

**500 COPIES PER HOUR**

may be printed upon any kind of dry paper, or other material, in a common Copying Press.

**This is the Most Simple, Rapid and Economical Process yet Discovered.**

THOUSANDS are already in successful use in Government Offices, Colleges, Academies, Public and Private Schools, Railway and Insurance Offices. Also by Business Men, Lawyers, Clergymen, Sunday-school Superintendents, Missionaries and others.

The Simmons Hardware Co., of St. Louis, says of it: "Our Papyrograph, purchased sometime since, gives entire satisfaction. Would not be without it for \$1,000 a year."

For specimens of work, price-list, etc., address with stamp.

**THE PAPHYROGRAPH CO.,**

43 and 45 Shtucket Street, Norwich, Conn.

LOCAL AGENTS WANTED.

**EARS FOR THE MILLION**

**Foo Choo's Balsam of Shark's Oil**

Positively Restores the Hearing, and is the only Absolute Cure for Deafness known.

This Oil is abstracted from peculiar species of small White Shark, caught in the Yellow Sea, known as *Carcharodon Kowalevskyi*. Every Chinese fisherman knows it. Its virtues as a restorative of hearing were discovered by a Buddhist Priest about the year 1410. Its cures were so numerous and many so seemingly miraculous, that the remedy was officially proclaimed over the entire Empire. Its use became so universal that for over 300 years no Deafness has existed among the Chinese People. Sent, charges prepaid, to any address at \$1.00 a bottle.

**Hear What the Deaf say!**

It has performed a miracle in my case. I have no unearthly noises in my head and near much better. I have been greatly benefited. My deafness helped a great deal—think another bottle will cure me.

"Its virtues are UNQUESTIONABLE and its CURATIVE CHARACTER ABSOLUTE, as the WRITER can PERSONALLY TESTIFY, BOTH FROM EXPERIENCE AND OBSERVATION. Write at once to HAYLOCK & JENNEY, 7 Day Street, New York, enclosing \$1.00, and you will receive by return a remedy that will enable you to hear like anybody else, and whose curative effects will be permanent. You will never regret doing so." *Editor of Mercantile Review.*

To avoid loss in the Mail, please send money by REGISTERED LETTER.

Only imported by **HAYLOCK & JENNEY.**

(Late Haylock & Co.)

SOLE AGENTS FOR AMERICA: 7 Day St., N. Y. York.

**Simcoe House,**  
CORNER FRONT and SIMCOE STS.  
**TORONTO, ONT.**  
Best accommodation in the City. TERMS \$1.50 and \$1.00 per day, according to Location of Rooms. The Most Convenient House to all Trains.  
GREEN & SON, Proprietor.

**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. & F. N. TENNANT**  
Dealers in all kinds of  
**Lumber, Lath & Shingles,**  
Office, Union Loan Building,  
Toronto Street, Toronto.

**BARRIE SAW WORKS**  
JAMES HAGUE.  
Circular, Cross-Cut & Machine Saws  
Gummed and Hammered on Short Notice.  
Shop in Sewrey's Foundry, BARRIE, Ont.

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

**D. S. BRIGGS,**  
9 TORONTO STREET, TORONTO.  
WHOLESALE DEALER IN  
Clear, Pickings, Common and Hardwood Lumber, Lath, Shingles, &c.  
**BILL STUFF OUT TO ORDER.**  
7 YEARS' EXPERIENCE.

**HOWIE'S DETECTIVE AGENCY**  
OFFICES, 32 KING STREET EAST, TORONTO ONT.  
All legitimate Detective business attended to for Banks, Fire and Life Insurance Co's, also for private parties. This agency does not operate for reward.

**UNION FOUNDRY**  
Union Street, - - - Carleton,  
Warerooms, Water Street,  
**ST. JOHN, N. B.**

**Allan Brothers**  
(Late of Harris & Allen)  
MANUFACTURERS OF ALL KINDS OF  
**Steam Engines**  
AND  
**MILL MACHINERY.**

Ships Windlasses, Iron Capstans  
and Ships CASTINGS of all kinds.  
**Ships Cambooses & Cabin Stoves**  
COOKING AND HEATING  
**STOVES,**  
Shop, Office and Parlor Stoves, and Franklins

**Agricultural Implements.**  
BRASS CASTINGS.  
Tin, Sheet Iron and Copper Ware for SHIP and HOUSE use.

**A CURE GUARANTEED.**  
**MACK'S MAGNETIC MEDICINE.**



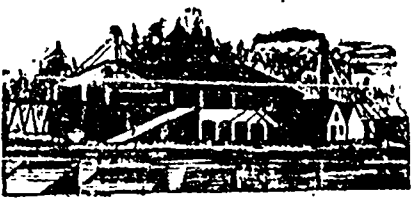
For Old and Young, Male and Female. Positively cures Nervousness in all its stages, Weak Memory, Loss of Brain Power, Sexual Prostration, Night Sweats, Superstition, Seminal Weakness, and General Loss of Power. It restores Nervous Waste, Rejuvenates the Jaded Intellect, Strengthens the Enfeebled Brain and Restores Surprising Tone and Vigor to the Exhausted Generative Organs in either Sex. With each order for the medicine, accompanied with five dollars, we will send our Written Guarantee to refund the money if the treatment does not effect a cure. It is the best medicine in the Market. Full particulars in our pamphlet, which we desire to mail free to any address.  
Mack's Magnetic Medicine is sold by Druggists at 25 cts. per box, or 6 boxes for \$2.50, or will be mailed free of postage, on receipt of the money, by addressing MACK'S MAGNETIC MEDICINE CO., Windsor, Ont.  
Sold by all Druggists in Canada.

There is no excuse for suffering from **CONSTIPATION** and a thousand other diseases that owe their origin to a disordered state of the Stomach and Bowels, and inaction of the Digestive Organs, when the use of

**DR. HENRY BAXTER'S MANDRAKE BITTERS**

will give immediate relief, and in a short time effect a permanent cure. After constipation follows Biliousness, Dyspepsia, Indigestion, Diseases of the Kidneys, Torpid Liver, Rheumatism, Dizziness, Sick Headache, Loss of Appetite, Jaundice, Apoplexy, Palpitations, Eruptions and Skin Diseases, etc., all of which these Bitters will speedily cure by removing the cause. Keep the Stomach, Bowels, and Digestive Organs in good working order and perfect health will be the result. Ladies and others subject to **SICK HEADACHE** will find relief and permanent cure by the use of these Bitters. Being tonic and mildly purgative they **PURIFY THE BLOOD** by expelling all Morbid Secretions.

**PRICE 25 CTS. PER BOTTLE.**  
For sale by all dealers in medicine. Send address for pamphlet, free, giving full directions.  
**HENRY, JOHNSON & LORR, PROP.**



# THE CANADA LUMBERMAN

DEVOTED TO THE LUMBER AND TIMBER INTERESTS OF THE DOMINION.

PUBLISHED SEMI-MONTHLY BY  
TOKER & Co. PETERBOROUGH.

### Terms of Subscription:

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

### Advertising Rates:

Per line, for one year..... \$0 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..... 3 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.

PETERBOROUGH, Ont. SEPT. 15, 1882.

WASHINGTON territory boasts the widest gauge railway yet reported. It is an eight-foot gauge logging road running back from Skagit river. The rails are wood, eight by eight inches. The cars are large and are carried on twelve wheels of nine inches face with double flanges.

A LARGE quantity of first quality of pine timber is in the railroad yard at Chateaugay, N. Y., awaiting shipment to England. It was cut during last winter by Canadian parties at the head of Chateaugay lakes, floated down to the forge, and thence hauled by teams to the station. Some of the sticks are two feet square and 20 feet long.

THE *Timber Trades Journal* says:—The market for spruce deals on the west coast continues to steadily advance, and every probability of a further rise is presented to us. Doubtless many of the large buyers inland hold considerable stocks of spruce, but the feeling abroad is that the supply is likely to be limited, and consumers are naturally enough anxious to secure themselves against any such contingency as running short of the stuff.

The *Northwestern Lumberman* says:—Up in British Columbia, contiguous to the Puget Sound lumber district, where the enormous fir grow plentifully, there are some pretty tall trees cutting in more senses than one, as well as on the Sound. Recently Angus C. Fraser took a contract for getting out \$12,000 worth of spars. It took just 37 days by the telephone to get out these spars, and during the same period 1,200,000 feet of logs was gotten out.

The *Northwestern Lumberman* says:—There are now five logging camps on the Snoqualmie, in Washington Territory, putting in an average 60,000 feet of logs daily. The camps are operated mainly by settlers who are unable to work full crews. The water is low, and nothing in the way of driving can be done till there is a rise. The drives on the Yakima have been clean and successful, and are finished for the season. The railroad operators have taken 7,000,000 feet of logs to Ainsworth, W. T.

LEATHEN & SMITH, the Sturgeon Bay, Wis., lumbermen have a new and important enterprise under way. They will erect a mill shortly on the west shore of Green Bay, which will cut cedar shingles exclusively. The intention is to have the mill in operation this fall, and keep up work all winter. There is an abundance of cedar in the vicinity. It is intended to turn out 20,000,000 shingles the coming winter.

W. T. PRICE and N. O. Foster, are building a railroad from Fairfield, Wis., which penetrates east for 15 miles into the extensive tracts of pine land owned by them. It will be of the usual gauge and run a locomotive and cars direct from the stump to the mill, a plan much in vogue in Michigan, but little adopted in Wisconsin. The northern lumbermen will no doubt continue to get down to business in this fashion.

### THE FORESTRY CONGRESS.

To the Editor of the *Canada Lumberman*.

DEAR SIR,—Your paper of Sept. 1st has come to hand with the report of the Forestry Congress at Montreal. Allow me to suggest, and it may be gracefully added in another issue, that the success of this very successful meeting in the interests of forestry were mainly due to the untiring efforts and thoughtful provisions that had been made in advance by Mr. Wm. Little, of Montreal, who had notified all he could reach, had arranged with the transportation lines for concessions, had secured elegant rooms and accommodations for the meetings, and, in a word, had devoted himself wholly to the cause of the *Forestry Congress* ever since the adjournment of the Cincinnati meeting.

The selection of such a man to be our corresponding secretary, with the honest and earnest vote of thanks which was heartily passed, are but an expression of the feeling of obligation under which the society universally feels to our worthy corresponding secretary, Mr. W. Little. So says  
A MEMBER.

### OUR WANING FORESTS.

Under this heading a Connecticut correspondent of the *American Agriculturist* takes a more hopeful view of the subject of the demolition of our forest than other writers on the subject. He claims that only one-fifth of the area of a country need be left in wood to secure its highest productivity in farm crops, and says that this point has not yet been reached in some parts of the seaboard States, yet in other parts it has been somewhat passed, and there is a deficiency of wood for fuel and timber. "The alarmists overlook the most important fact that very much of the timber land that is cleared in the older States is very soon renewed by natural agencies. There is a regular system of growth and clearing, and timber and fuel are as much reliable money crops as corn and potatoes. On fair, average, soil, a forest will renew itself once in 25 years. It would probably pay better to stand 30 or 40 years, but it is available, and can be turned into ready money every twenty-fifth year. A farmer with twenty-five acres of forest can clear an acre every year, with no diminution of woodland. In the rural districts of Connecticut, with which we have been familiar for the last fifty years, there has been no waning of forests. Ship-timber, near seaports, has grown scarce and high, but the price of wood for fuel is no higher, and in some markets is even cheaper than 50 years ago. The census shows that in the exclusively agricultural towns there has been no increase of population, and in some of them a decrease during the last 40 or 50 years, so that there is no more demand for fuel and timber to-day than there was in the days of our grandfathers. Wood for fuel, except in the shape of kindling and charcoal, has gone out of use in our cities and villages on the seaboard and along the line of our railroads. Farmers, not a few, within four or five miles of these villages, are beginning to use coal, and the base-burner, once in the parlour or sitting room, soon drives out the wood fires and stoves from the rest of the house. Coal is found to be far cheaper, and a cleaner and more convenient fuel than wood, even for those who own wood lots. Kerosene is also becoming available for heating, and we see no prospect in the future that wood for fuel will ever be any more in demand than

it is to-day. It is doubtful if it ever will be dearer for lumber. Iron is taking its place in ships, bridges, machines, houses, and public buildings, and the demand for iron, stone, and brick, as the most desirable materials for buildings, is likely to increase as the country increases in wealth. In some of these rural districts there is more danger of a relapse into barbarism, than of exterminating our forests for the the advance of high farming and civilization. In 75 of our farming towns there was a decrease of 12,000 in population during the last decade, which means an increase of woodland."

This writer lives in the rural districts of Connecticut, where decreasing population and convenience of coal and lumber markets render a resort to the forests unnecessary, except to gather switches for the common school-room and bean poles for the garden.—*Lumberman's Gazette*.

### THE STUMPAGE TAX IN NEW BRUNSWICK.

Mr. David Wark, in a letter to the *St. John's Globe* complains that, in the future sale of timber berths, in New Brunswick, the \$3 mileage now deducted from the stumpage tax will not be allowed. He gives a historical sketch of the growth of the stumpage tax, with a view of showing the New Brunswick lumbermen are now subjected to greater burdens than ever before. He points out that the export duty on lumber was substituted for stumpage in 1843.

It was fixed at 1s. per M. on sawn lumber and 1s. per ton on pine timber; 10s. mileage was not so much intended as a source of revenue as to give the operators a legal control over the ground, but the late Mr. Rankine from Northumberland, who, from his great experience, was better able to judge than any other member of the House, estimated that it would yield from 2jd. to 3d. per M., supposing the average timber lands would yield 40 M. or 50 M. per mile annually. Thus the only burthen imposed on the trade, was not more than 1s. 3d., say 25 cents per M. Many years after the mileage was raised to \$4, making the whole impost thirty cents.

"When the Washington Treaty rendered the repeal of the export duty necessary, the Dominion made us a permanent grant in lieu of what we collected on the U. S. timber, of \$150,000 annually. It must be admitted that this was ample for the sacrifice we made, and left no deficiency to be provided for, even by continuing the 30 cents impost, yet the government at once imposed 60 cents stumpage, which they soon after advanced to 80 cents, and now they give notice that the \$3 mileage heretofore credited in the stumpage will no longer be returned. Therefore, if Mr. Rankin's estimate made forty years ago that, that 10s. mileage was equal to 5 cents per M., there can be little doubt that the \$3 now to be imposed will be equal to 20 cents per M., raising the actual cost to \$1. Parties well acquainted with the subject have estimated that the changes in the Dominion tariffs have added 60 cents to the cost of getting out 1 M. of lumber. This added to the local tax make \$1.60, a remarkable contrast to the 25 cents of former years."

Mr. Wark admits that lumbermen are willing to pay even a higher stumpage on private land; but then he contends that no comparison can be drawn between the partially exhausted crown lands and such lands as are in possession of the N. B. Railway. If New Brunswick lumbermen are subject to higher imposts than the lumbermen of other provinces, the disadvantage they labor under must work seriously against their success.—*Monetary Times*.

### HEMLOCK LUMBER.

The *Northwestern Lumberman* says:—Hemlock is not coming to the fore as fast as it should, considering the high price of pine. Hemlock lumber would materially lessen the expense of building if it could be obtained, and would be used. There exists some silly objections to its use, which should be speedily overcome. If the builders in the west were fully acquainted with the merits of hemlock for dimension, siding and fencing, there would be a demand for it that would bring it into the market. Not long ago it would have been thought a reckless business enterprise to stock a yard in

Chicago with yellow pine exclusively, but now that it is done, the demand is such that at all times it has not been easy to meet it. There is no reason why a yard that sold nothing but hemlock should not thrive equally well if the proprietors of it used the necessary push. Hemlock stumpage is so cheap that the lumber could be sold for several dollars less per thousand than pine, and for many uses the preference should be for the former. No better wood could be used for corn cribs, the construction of which consumes an immense amount of lumber every year. Carpenters in the west will be the first ones to raise serious objections to the use of hemlock, on account of the unpleasantness of handling it, but their ilk have used it in the east for many years, and still survive. The men who do the building are the ones who should have their say about it, as it is their money that settles the bills, and their interests all around that are at stake. In the meantime, men with business foresight are buying large quantities of hemlock, and will hold it until the demand comes, which is certain to, sooner or later.

### LOOTING LOGS.

The Muskegon, Mich., Booming Company's patrol force of about a dozen men, whose business it has been to scour the lake shores for a distance of 35 or 40 miles, beaching Muskegon logs that had gone astray, often finding large numbers scattered about at different places, finally struck a batch of Muskegon marked logs in the Grand Haven harbour, where they had got mixed with the other logs, and many of them had no doubt been investigated by Grand Haven saws. The company and the interested Muskegon log owners amassed their forces, boarded some tugs and set off for Grand Haven. There they found 78,000 feet of lumber cross-piled and 368 logs, all of which was claimed as the property of the Muskegon parties. The expedition very coolly went to work to load the lumber on the propeller McDonald, when the sheriff put in an appearance and demanded, officially, that the lumber loading should cease. On being questioned he admitted he had no writs or documents, but said a man named Willard had charge of the logs which have the Muskegon marks, and that Sid Clark had charge of the lumber, which had been sawn by the thousand at Bowers' mill. The campaign was executed on a recent Sunday, and the Sheriff could not well obtain the papers he wanted. However, on having the facts in the case presented, he concluded not to interfere. The property, to the amount of about \$1,000, was secured and safely taken to Muskegon. It was to have been sold, and the avails divided *pro rata* among the Muskegon log owners of last season, and the looters will probably suffer.—*Northwestern Lumberman*.

### COTTONWOOD FOR PULP.

The *Southern Lumberman* advocates the erection of numerous pulp-mills along the Mississippi and other streams, to utilize the immense quantity of cottonwood which grows in the South, and can be had in many instances almost for the asking. This is upon the ground that it is the cheapest and best material for the purpose, and quite likely to take the place of poplar and the loblolly pine of North Carolina in this industry. The cottonwood, it is thought, could be prepared similarly to poplar. It has a stronger, tougher fiber, is a whiter wood, and is therefore better suited for paper making. Its cheapness, and the enormous quantities which are found along the banks of navigable streams, particularly the Mississippi river, would cause it soon to displace every other material used for this purpose. It is instanced that the cost of transporting the poplar used to the more northern points where the mills are located is considerable, yet the profit of paper making is large. Delaware mills go clear to North Carolina for wood, whereas if the operations were in the midst of the timber, the cost of manufacture would undergo an important reduction. According to the figures given, woods which could be had for a dollar per cord, when transported to the northern mills reaches the sum of \$10 per cord. There is market enough in the South to support such enterprises, while the cheap cost of manufacture and the reduction



in the transportation of raw material, would place the southern mills in lively competition with northern industry.

**NEW SECOND FOREST GROWTH.**

A correspondent of the *Northern Lumberman* from Pottsdam, N. Y. says:—Before leaving this section I must say a word about its forests—not the standing timber in the mountainous region to the southward, from whence the mills derive their supplies, but the forests that remained after the farms had been partially cleared. Twenty years ago there was plenty of the primeval growth still standing, and the maples that were "tapped" for sugar making were mostly old trees. Now the original hardwood growth has nearly disappeared, but the forest is still there, a second growth having taken the place of the first. In one "sugar-bush" that I remember as a boy, the ancient maples have either fallen before the winds or been cut down; but where once stood one tree that used to furnish sap, three have taken its place. The same number of acres of forests are there, but the old woods that I knew as a boy have disappeared. The sizeable maples that have taken the place of the old ones were mere "staddles" 20 and 30 years ago. This shows that the fear that the country will eventually be denuded of forests is largely groundless. I should say that northern New York is better supplied with hardwood timber to-day than it was 20 years since. The trees, it is true, are smaller, but they are much more numerous, and are growing rapidly. This is a country natural to timber, and is better adapted to forest culture than any I know of, for the reason that it is fit for nothing else, while trees flourish on the rocky soil finely.

In speaking of the second forest growth of this section it must not be inferred that pine, cedar and hemlock are as abundant as they once were. These merchantable woods have nearly all disappeared before the consumer's demand. There is still considerable cedar and tamarack in the swamps, but the majority of it has been cut off. A thick second growth has succeeded, which is being used for hop poles to a large extent. Getting out hop poles is a leading industry here in the winter. They sell for five and six cents each, and, on some farms, furnish a considerable revenue. Cedar and tamarack grow rapidly in the swamps, and even at this early day, two and three crops have been cut off the same land. Cedar is, of course, preferred, but tamarack is much used.

Judging from the fact that there are apparently as many acres covered with forest in northern New York as there were two decades since, backed by the fact that farmers manifest a disposition to preserve their trees, especially maple, on account of the sugar making industry, I can see no mission here for the American Forestry Congress. The population need no education to make them understand the importance of the forests. They have common sense enough to see that they need fuel, timber and sugar trees, and to know the profit of them. Actuated by this knowledge they are preserving their woods, and doubtless will for generations to come. Fifty years from now there will be more forest in New York than there is now. Dr. Loring stated at the forestry congress, at Montreal, that there is now a greater area of forest in Massachusetts than existed 30 years ago. The same may doubtless be said of this state 30 years hence.

**A Saint at the Zoo.**

Capt. Harry Piper, Alderman and Superintendent of the Zoological Garden, lately communicated the following facts to a reporter of one of Toronto's most influential papers: "Some time ago we purchased from the collection of animals at Central Park, New York, a monstrous Russian bear, which we have named 'Peter the Great,' on account of his tremendous size. Not long after 'Peter' arrived we found that he was suffering from the rheumatism, and in a pretty bad state. Peter was not the only one in the 'Zoo' which had a touch of that delicious torture; the lion likewise had it, and in fact I was just being cured of a bad case of the rheumatism, myself, by the use of St. Jacobs Oil, the Great German Remedy. I found St. Jacobs Oil an excellent remedy, for it cured me in a short while, and my case was a very aggravated one. I argued that if it cured men it must be good for animals as well.

**The Stranger in London.**

That the great City will ere long be hardly recognizable by its former denizens, all the world has heard. The visitor passing up the Thames now finds his eye gratified by the many handsome edifices recently erected. As he reaches the famous Victoria Embankment, there rises over him on the right hand the new *Times* office, and on the left hand the new tower-crowned works of Messrs. James Epps & Co., both phases of Italian architecture. It may be said that these two buildings are types of the far reaching business energy of the nineteenth century, for it has resulted from such means that these two establishments have brought themselves to the fore, and that the annual issue of each has come to be estimated by millions. During the last year, the number of copies of the *Times* issued is estimated at 16,276,000, while the number of packets of Epps' Cocoa sent of in the same period is computed at 14,749,695. The latter is a large total, when it is borne in mind that in 1830 the consumption of Cocoa throughout the whole kingdom was but 425,382 lbs., there then existing no preparation of it such as this, which by the simple addition of boiling water would yield a palatable drink. Truly time may be said to work many changes.

**MACHINERY FOR SALE.**

The Engine Boilers and all the Machinery in an Extensive Sash, Door and Furniture Factory for Sale, separately or in bulk. Catalogue on application to

T. W. CURRIER,  
Canal Basin, Ottawa

2L18

**A Syndicate of Limit Holders**

Represented by the Undersigned, offers

**FOR SALE**

**On the Upper Ottawa,**

600 Square Miles Virgin Forest of Pine, comprising 13 Licenses, nearly all Front Limits, on the main stream of the River Ottawa itself, on reasonable terms.

The Proprietors will sell either the whole, or, if preferred, a part interest to Capitalists who will furnish the requisite means to work this valuable property on an extensive scale.

The extension of the Canadian Pacific Railway westward towards Manitoba, the establishment of steam boats on Lake Temiscamingue, Upper Ottawa, and other recent improvements, have made this property, formerly considered remote, very accessible to the operator for the United States as well as the European markets, both as regards getting in supplies and in driving the lumber to market. A raft of large board pine timber cut in the immediate vicinity of this property reached Quebec this year long before timber cut on limits only half the distance away, but forced to rely on the precarious height of water of creeks and subsiding streams, while the timber on this tract has the large volume of the "Grand" River itself to float it to market.

Full particulars will be promptly sent on application to

E. J. CHARLTON,  
QUEBEC, P. O.

17L6

**CRATEFUL-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 provided our breakfast tables with a delicately flavored beverage which makes 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 boiling water or milk. Sold in tins and packets only (5-lb. and 2-lb.) by Grocers labelled thus:

JAMES EPPS & Co., Homoeopathic Chemists,  
London, England.

**WILLIAM CAMPBELL**

(Late CAMPBELL & FOWLER.)

MANUFACTURER OF

**Edge Tools, Axles, Springs,**

AND OF EVERY DISSCRIPTION.

1L19

Robertson Place, Smythe Street : ST. JOHN, N.B.



Has Facilities

—FOR—

DOING as GOOD WORK

—AND AS—

PROMPTLY

As any Engraver in Canada

ESTIMATES FURNISHED.

**PARKER & EVANS**

SOLE PROPRIETORS OF THE

FAMOUS INTERNATIONAL

**BOILER FLUID COMPOUND.**

Patented 5th March, 1877.

This Compound will save its Cost many times in one year by saving fuel. It eradicates scale, and when the Boiler is once Clean a very small quantity keeps it Clean and Free from all Incrustation.

It is perfectly harmless to Iron, and emits a clear pure Steam.

In ordering, mention the CANADA LUMBERMAN.

1L19

504 St. Paul Street, MONTREAL.



**J. F. LAWTON**

**Alexandria Saw Works**

SAINT JOHN, N.B.

Saws of all kinds manufactured from the BEST CAST STEEL that can be procured in any Market.

EVERY SAW WARRANTED.

SAWS REPAIRED in the best manner and on Short Notice.

Send Address for Price List, Terms, &c.

1L17

J. F. LAWTON.

**CURRIE BOILER WORKS**

ESTABLISHED 1852

MANUFACTURERS OF

**STEAM BOILERS.**

NEW and SECOND HAND ENGINES and other Machinery

on Hand and for Sale.

**CURRIE, MARTIN & Co.**

Esplanade, Foot of Frederick Street, TORONTO.

July



**THE CENSUS AND THE TIMBER SUPPLY.**

To the Editor of the *Northwestern Lumberman*:  
It is becoming evident to the most obtuse understanding that the lumber market of the future is to be one of comparatively high values as compared with the past, and that the immediate season is to be one of great activity and small profit to the Chicago dealer.

Regarding the former proposition, two important and perfectly true statements may be urged. First, the recuperation of the timber supply from new and unknown sources is out of the question while the timber stock of the country is rapidly being depleted. Second, the population of the country is rapidly augmenting, and the demand for lumber will, in the very nature of things, increase with the growth of the population. Here, then, is the statement in a nutshell. With an increasing demand, there is a rapidly decreasing stock with which to supply it. The census of 1870, showing a population of 35,000,000, gave a consumption of lumber amounting to 12,000,000,000 feet for the year 1869-70. The figures of population were undoubtedly correct; those of lumber consumption were but approximate, as no careful endeavor was at that time made to get at the bottom facts. The census of 1890 showing a population of 55,000,000 in the country, and a more careful estimate of lumber consumption, withal taking cognizance of no production in communities of less than 8,000 population, gives a total for the census year of 1879-80 of 18,000,000,000 feet of lumber, and other forest products summing up fully 2,000,000,000 feet additional. But when it is remembered that the lumber producing localities are in but a comparatively few instances included in the populous centres, no candid and well informed mind will assert that an addition of 50 per cent. to the figures is inordinate or unjustifiable. Assuming, therefore, 30,000,000,000 feet as the yearly production of lumber to satisfy the wants and demands of 55,000,000 people, we find an average consumption of 64½ feet per capita of population per year. This, while including the consumption of all kinds of timber, is, in a great measure, of white pine, and it is safe at least to say that 300 feet per capita will not more than represent the demand for this variety of timber. The average increase in population for the ten years from 1870 to 1880 was about 5 per cent. of the census of 1870, and the same average maintained for the coming decade will add 2,750,000 souls per year to the consuming element of the nation, requiring, at the average of 300 feet per capita, a production of 17,250,000,000 feet for 1881; 18,075,000,000 for 1882; 18,900,000,000 for 1883; 19,725,000,000 for 1884, and with a population of 68,500,000 in 1885, a requirement for 20,550,000,000 feet of pine lumber; or continuing the ratio to 1890 upon the same basis, we shall find a population at that time of 82,250,000 souls, requiring for that year no less than 24,675,000,000 feet of pine lumber, while the total demands of the decade will have aggregated no less than 210,000,000,000 feet. Where is this vast production to come from?

The census reports assure us that the total supply of the three chief white pine producing states aggregate but 81,000,000,000 feet, which if the figures be doubled, will still fall short of the demands of the decade by 43,000,000,000 feet, or more than the needful supply for the two years 1889-90. That the population to consume will decrease, no man in his senses will dare to assert; that it will cease to consume, as long as pine can be obtained, is an equally preposterous proposition. That white pine will in a measure be supplanted by the consumption of northern hemlock and southern pine may with safety be asserted, but a resort to substitutes neither increases the reserve of white pine or renders its value any less. We can therefore come to but one conclusion, that the market value of the white pine of the North must inevitably advance with its destruction, and with the figures before us, who shall doubt that much higher prices than now prevail are inevitable from a mere commercial standpoint of supply and demand. If the figures are reliable white pine lumber at present prices is the cheapest commodity in general use. If the figures of available white pine be raised from the estimate of 81,000,000,000 feet to quadruple that amount, or 320,000,000,000 feet, a proportionate increase of population would demand

the whole of it in less than 10 years. We are told, therefore, to forget with what rapidity this country is growing, and as well how limited is the area of white pine production. There is no timber which can fill its place with equal benefit or equal advantage when it is gone.

In our calculation we have made no note of the Canadian resources, or of the Canadian population. It is safe to say that the Canadians cannot spare enough to the United States to any more than offset the demands of her people upon United States forests, and we may therefore offset the one item against the other. It were well for those who express the belief that lumber is now held at figures above its actual value to weigh well the statements herein contained, and after making all the allowances which the most exacting critic can demand, to give careful heed to the results which shall be deduced from his researches.

Chicago, August 15, 1882.

TAURUS.

**FOREST TREES IN THE WABASH VALLEY.**

In an interesting paper published in the "Proceedings of the National Museum," Mr. Robert Ridgway gives the result of long and careful observations made by himself and other naturalists upon the forest growth of Southern Indiana and Illinois. This region is of special interest, because here many of the peculiarly Southern trees, like the pecan, the water locust, the overcup oak, and the bald cypress, reach their Northern limits, and because this forest is hardly surpassed by any other in the number of species of which it is composed, and the magnificent development attained by many individuals. Nowhere in the whole of Eastern America have as many large specimens of as many species been recorded as Mr. Ridgway finds in the lower Wabash Valley. Nearly all of our largest and most valuable broad-leaved trees are here found associated together; and in a single square mile of woods seventy-five species of trees, nearly all of the first class, were detected by him, or nearly as many as grow on the whole European continent. By actual measurement, thirty-four species are found to occasionally exceed 100 feet in height, while seventeen others, although not measured, are believed to attain a height of at least 100 feet. The tallest specimen measured, a tulip-tree, was 190 feet in height, and individuals of ten other species, exceed 150 feet.

Mr. Ridgway calls attention to the fact that the numerous small prairies which were common in the Wabash Basin at the time of its first settlement have become transformed into wood land, and that, owing to this gradual change of prairie to forest, the actual area of forest in Wabash and the adjoining counties in Illinois is greater than fifty years ago. Extensive woods of oak and hickory more than eighty feet high, and with trunks nearly two feet through, are now growing on what was open prairie within the memory of some of the present owners of the land. "This is interesting as a slight indication of the solution of the mystery which involves the origin of the prairies; while the rapidity with which these new woods have sprung up shows that the reproduction of our failing forests can be accomplished in a shorter time than is generally supposed, if proper consideration and attention can only be given to the subject."—*Boston Journal of Chemistry.*

**A MAGNIFICENT PRIZE.**

In an article on the recent Forestry Congress the *Toronto Globe* says:—The question of the supply of white pine was one upon which a good deal of information was given. The standing pine under license in Ontario and Quebec is estimated to be sufficient for 50 years at the present rate of consumption. The quantity on land not under license is unknown, and opinions differ as to whether the quantity is greater or less than that on land already under license. In the United States the supply of pine is given by the census at seven years in Michigan, ten years in Minnesota, twenty years in Wisconsin, and sixteen years in Maine. Large quantities of white and yellow pine exist in the South, and the method of logging by railways, now in use in Michigan, will render this southern pine easily accessible. But what we in Canada are concerned with is the fact that the Michigan and Minnesota pine is almost gone. It is true

that the census figures are laughed at by lumbermen of those States, but it is no very difficult task to find a probable motive for their unwillingness to admit the imminence of the exhaustion of their pine forests. If they did admit as much, their case for protection against Canadian lumbermen would be gone. The American people would at once see that there is no particular object in their paying taxes in order to hasten the exhaustion of American forests and to husband the supply of Canadian pine. At the same time it must be remembered that statistics about the exhaustion of Michigan and Minnesota forests, similar to those given by the census, have been circulated any time during these last twenty years, and yet the yearly supply increases. That the pine in Michigan and Minnesota is disappearing goes without saying, and no effort whatever is made to foster a new growth. Come soon or late the day must arrive when the supply from these two States—our principal competitors in the West—will begin to decrease. All the more reason why, by guarding our forests against waste, we put ourselves in position to make the best use of our opportunities when at length our chance comes. If there is any truth whatever in American census figures, it is certain that, before ten years are up, the Chicago market will lose two-thirds of the supplies it receives from the two States named. As the Chicago market absorbs an amount of lumber equal to three times the cut of the whole of Canada, it will be seen that the prize certain some day to fall into our hands is a magnificent one. In view of these facts it will be seen how important it is that the lessons of the Forestry Congress concerning the preservation of pine timber should be applied.

**INDIANA WALNUT IN 1834.**

In the course of a recent conversation concerning Indiana timber in general and walnut in particular, with one of our pioneer settlers who came to this country in 1834, the old gentleman remarked:—"The walnut timber used to be a great deal of bother to us in those days. In clearing our lands we usually felled the trees, then rolled them into log-heaps and buried them. Walnut was the meanest wood of all, as it was almost impossible to burn it. I know a neighbor who spent the best part of some three weeks trying to reduce an immense walnut tree to ashes. Some years later there was a saw mill erected a few miles away, and the owner bought a great deal of timber, some of which he sawed up, but most of it he shipped in the log to Cincinnati. I had sold him considerable timber, when one day he came to me and asked what I would take for a large walnut tree that had fallen in a swamp a year or two before. I told him he might have it for nothing if he would take it out of the way. He told me afterwards that he made quite a little sum out of it, but had I that tree now I could sell it for \$400. Many and many a fine walnut tree did we cut for a 'coon. We had no particular use for walnut then. It was in the way; and we took the quickest and best methods to get rid of it. Sometimes we made rails of it, but it was frequently so curled and twisted that it was impossible to split it. We would probably have ridiculed the idea then that these curled and twisted logs might some day have made us wealthy, or that a big walnut knot would ever have any value."—*Wood Worker.*

**SENSIBLE FORESTRY TALK.**

A Michigan journal takes occasion to discuss the forestry question as follows:—While there is much said and written in regard to forest tree cultivation, very little attention is paid to the preservation of native forests. In the timbered sections we have been too busy trying to get rid of the timber to think of any measure of preservation. Yet in some sections that were formerly timbered, there is now felt to be a scarcity of timber, particularly of that kind which is useful in manufactures. The only remedy mentioned is the planting of forest trees for this purpose. But this is a work that we are hardly prepared for in this state, and it is probable that only necessity will compel artificial planting. The time seems too long to wait for an investment of this kind to begin to pay, and there are very few who will undertake the work. At least very little has been done in this line. At the

agricultural college an experimental arborum of four acres has been growing a few years; and a farmer in Monroe county has this year set out 1,500 black walnut trees with a view to grow them for timber. Would it not be well to study more closely the possibility of improving the timber lands that still remain. The woods still standing contain a vast amount of material which is susceptible of development in far less time than would be required for the planting and growth of new forests, the neglect of which furnishes a striking proof of the general ignorance of forest culture. The timber is ruthlessly cut from many places that are nearly useless for cultivation after, and would be worth far more for growing timber than for any other purpose, more beautiful to the eye and more profitable. In many instances the native woods have been so much neglected or so injured as to be past redemption, yet there are still large areas of forest and smaller groves and wood-lots now yielding no revenue which might be developed into timber forests of very great value and at the same time yield an annual crop of fire-wood in the process. Cut out the dead and least valued timber for fire-wood, preserve the small growing trees that are of the best varieties for timber, mingled with a great number that are worthless or only fit for fuel. In many cases they have been neglected and cannot be improved, but in most cases intelligent work in thinning and pruning will be followed by profitable results.—*Northwestern Lumberman.*

**ANCIENT OAKS.**

Among the ancient oaks of England few are most interesting than the gigantic ruin now standing in an arable field on the banks of the Severn, near Shrewsbury. It is the sole remaining tree of those vast forests which gave Shrewsbury its Saxon name of Schobbesburgh. The Saxon seized this part of the country A. D. 577, when they burnt the Roman city of Uriconium, where Wroxeter now stands, four miles from the village of Cressage; and underneath this now decrepid dotard it is said that the earliest Christian missionaries of those times—and possibly St. Chad himself—preached to the heathen before churches had been built. The Cressage Oak—called by the Saxons Criste-ache (Christ's Oak)—is probably not less than fourteen centuries old. The circumference of the trunk was about thirty feet, measured fairly at a height of five feet from the ground; but only about one half of the shell of the hollow trunk now remains. It still bears fifteen living branches, each 15 feet or sixteen feet in length. A young oak grows from the centre of the hollow. The noted oaks of England, thanks to those who have preserved them, thanks to the universal veneration for timber, and to a stirring and lengthened history, are innumerable. Windsor Forest is particularly rich in historic oaks, and Sherwood Forest, though disafforested, still contains some memorial timber, like Nestwood, once a crown forest, now a fine estate of well farmed land. Dryden's

"Three centuries he grows and three he stays,  
Supreme in state, and in three more decays."  
is a poetical statement, and some of the dates on trees cut down in Sherwood Forest, and marked 600 years before, in the time of King John, prove that it is an under-estimate. The great Winfarthing Oak, in Norfolk, was called the "Old Oak" in the time of the Conqueror, and has been supposed to have attained the age of 1,500 years. The King Oak in Windsor Forest is upward of 1,000 years old.

**ROUGH JUSTICE.**

Many logs have been stolen from the Muskegon booming company. Logs escape from the booms, and float into the lake; and a man was detected regularly employing a steam tug to gather them up and tow them to Grand Haven, where he had them sawed up as his own before the booming company's tug got around. The other day the booming company loaded a tug with a gang of men, chartered a barge for Chicago, and went to Grand Haven and loaded the barge with sawed lumber bearing their marks before the Sheriff of Ottawa could get out a warrant, and sent out the barge with 78,000 feet. This makes things nearer even, and if the man who had the sawing done goes to law he will be arrested for stealing the logs.

**Chips.**

The new handle factory at Chattanooga, Tenn., started up Aug. 7. About forty hands are employed, and the capacity will be from two hundred and fifty to three hundred dozen handles daily.

Loos and planks split or crack at the ends for the reason that the exposed surface dries faster than the inside. Where a saturation of muriatic acid and lime is applied to the ends in a thin coat, the chloride of calcium formed attracts moisture and prevents splitting.

A REPRESENTATIVE of H. K. Porter & Co., Pittsburg, Pa., was in Menominee, recently, for the purpose of selling a logging locomotive to the "windfall" syndicate that is pondering on the project of building a logging road to the down timber. The agent looked over the ground with the possible object of inducing his company to put in a road, if the operators don't do it themselves.

REPORTS from Eau Claire make it absolutely certain that nearly one hundred million feet of logs are hung up on the South Fork of the Flambeau and Jump rivers, seventy-five million on the former and about twenty-two millions on the latter. Some of the Eau Claire mills are already shut down on account of the scarcity of logs, and mill men generally are quite despondent over the prospect.

The Quebec press state that a number of Americans have been in the city for some days past engaging men for lumbering operations in Michigan, and offering very advantageous terms which are not complied with. The unfortunate Cauucks once in the interior of the State, being unable to return to Canada for the want of funds, are therefore compelled to remain there at wages much below those they earn in Canada.

FORESTRY is taking hold of the thinkers in the New Northwest. Witness the following from a Dakota paper: "All trees set out by our farmers seem to be doing well. When each tree claim has a fine grove upon it, and the homes of the settlers are surrounded by shade trees, as they soon will be, the appearance of our prairie country will be changed greatly, and for the better. The presence of the thrifty young trees and large timber in the gulches along the river banks, where the prairie fires cannot reach them, is evidence that the climate and soil both are favorable to tree culture here. No farmer should neglect to plant seeds and set out young trees or cuttings in abundance. No crop will bring larger returns."

THE Tonawanda Herald says: "This season will foot up the heaviest receipts of lumber ever known in the annals of Tonawanda's business career. A prominent dealer, well posted, predicts that it will reach fully 500,000,000 feet, which is at least fifty millions more than any previous year. This result doesn't look as if we were retrograding any in reputation or otherwise. The increase of new dockage this year is a sure indication that even more will be needed in the near future. The extension of the Erie track along the river road will cause every foot of the water front in that vicinity to be eventually docked. The contemplated track to reach the south side river front will also materially increase facilities. Tonawanda has really only commenced its great career as a lumber depot."

VANNOY and Co. are running three steam saw mills and a shingle and planing mill, at Beaver canyon, Utah. They get out 30,000 feet of lumber a day, mostly railroad bridge timbers. Besides the mills of Vannoy and Co., W. N. Thomas has two, and two more are run by Stoddard and Sons, the combined capacity of the mills of the place being 80,000 feet daily. Vannoy and Co. have 1,000,000 feet of lumber on hand and the rest combined another 1,000,000 feet, all awaiting shipment, being detained on account of the cars of the Utah and Northern Railroad being mostly engaged on the Oregon Short Line construction. Vannoy and Co. are also conducting a very thrifty mercantile business. The settlement is prosperous, there being between 300 and 400 men employed in the lumber and tie business within a radius of ten miles.

THE British American Lumber Company is soon to put up a new mill at the head of Bay de Noque, Mich.

THE will of the late Jesse Hoyt, of New York, lumberman and capitalist, bequeaths to the city of Saginaw, Mich., four lots on which to erect a public library, \$50,000 to erect the building, and \$50,000 to endow the same; and also some property on Washington avenue for use as a public park.

The London Timber Trades Journal says:—We hear that orders for a considerable quantity of timber have already been issued by the Government for Egypt, and contracts entered into for the supply of the same by a London firm; this, coupled with other operations that are now taking place in the market, ought to impart fresh vigour to trade, and we shall not be surprised to see a favourable change shortly.

The Lumberman's Gazette says:—The Rose-common lumber company are building twelve miles of logging railroad and will put 40,000,000 feet of logs into Houghton lake to be run to Muskegon. They are already at work in the woods. R. E. Cade & Son have just started in for an operation in the vicinity of Otego lake, proposing to skid 8,000,000 feet of logs before snow flies. T. J. Miller proposes to put in 40,000,000 feet of timber in the upper peninsula for Alger, Smith & Co., and has already started in to make his camps, etc.

**Water Elm.**

An important use for water elm has presented itself in the making of sewing machine tables, the American Sewing Machine Company using 30,000 feet per month in this way. The elm is laid one layer on another to the required thickness and then veneered with walnut. The process does not diminish the expense, but is rendered feasible by the scarcity of Illinois and Indiana walnut, which is hard to obtain, while that from Missouri and other southern states warps so badly that its use has been abandoned. Water elm has in the past been a much despised wood, being thought almost worthless, except for use in making baskets or in some other trivial way, and not worth the cutting, but it appears to have a value, after all.



**THE GREAT GERMAN REMEDY FOR RHEUMATISM,**

*Neuralgia, Sciatica, Lumbago, Backache, Soreness of the Chest, Gout, Quinsy, Sore Throat, Swellings and Sprains, Burns and Scalds, General Bodily Pains,*

*Tooth, Ear and Headache, Frosted Feet and Ears, and all other Pains and Aches.*

No Preparation on earth equals St. Jacobs Oil as a safe, sure, simple and cheap External Remedy. A trial entails but the comparatively trifling outlay of 50 Cents, and every one suffering with pain can have cheap and positive proof of its claims.

Directions in Every Language. SOLD BY ALL DRUGGISTS AND DEALERS IN MEDICINE. **A. VOGELER & CO.,** Baltimore, Md., U. S. A.

**Drake Brothers' Box Mill,**

Provost Street Extension, New Glasgow, Pictou County, N. S.

**SPRUCE, PINE & HEMLOCK SHINGLES**

F. H. DRAKE.

1117

N. H. DRAKE.

**ROBERT W. LOWE,**

**AUCTIONEER AND COMMISSION MERCHANT**

81 SANDS BUILDING, PRINCE WILLIAM STREET.

Cash advanced on Goods put in for sale. No Storage charged. All kinds of Merchandise Bought and Sold. New and Second-hand Furniture always on hand. Agent for Hasselhurst & Co's WINTHROP COOKING RANGES, WATERLOO WOOD STOVES, FRANKLIN, &c., &c.

1117

SAINT JOHN, NEW BRUNSWICK.

**MILL SUPPLIES.**

Extra Stretched and Patent Smooth Surface

**RUBBER BELTING**—in Stock, 2, 3, 4, 5, and 6 Plies.

**HOYT'S CELEBRATED LEATHER BELTING.**

**COTTON BELTING**, for Flour Mills. &c., Superior Quality.

**DISSTON'S CELEBRATED MILL SAWS.**

Steam Packing of all kinds, Rubber and Linen Hose, Silk Bolting Cloth, Emery Wheels, Lacing Leather (Page's Genuine), Lard, Seal, Cylinder, Spindle, West Virginia and Wool Oils. Our Stock includes Mill Supplies and Rubber Goods of all kinds. Quotations furnished for any part of Canada. 1121

**ESTEY, ALLWOOD & CO., SAINT JOHN, NEW BRUNSWICK.**

**MACHINE OILS, ETC.**

**McCOLL BROS. & Co.**

**TORONTO,**

MANUFACTURERS and WHOLESALE DEALERS IN

**Machine and Illuminating Oils**

Four (4) Medals and Three (3) Diplomas awarded to them in 1881, by the Leading Exhibitions of the Dominion.

SEND FOR PRICES, ETC.

5024

**ROBERTSON'S**

**LIGHTNING CANT-DOG**

**STEEL RING,**

*The Lightest, Cheapest and Most Durable Cant-Dog in the World.*

**PETER ROBERTSON,**

**Chaudiere - - - Ottawa.**

5124

Market Reports.

TORONTO.

From our own Correspondent.

September 9.—There is still little worthy of record in connection with the local trade here since last writing you, and retailers with whom I have conversed say they have never experienced as dull times as the present, however, there is one good feature worthy of note in this connection, and that is prices hold up, whereas in the period of depression, formerly experienced, prices went away down to zero, this goes to show that our home market has but little to do with ruling prices, it is the foreign market that we mainly look to, and although American buyers are shy at present and are evidently holding back somewhat in the hopes of a break in prices, the holders of stocks feel confident that the close of the shipping season will find them with no surplus stocks to winter over, and the fact that so many dealers from the American side are feeling around in fair evidence that the eastern markets are not overstocked at the present time, and my firm impression is that holders of stocks need not be under any apprehension as to the ultimate result of this seasons business. Small as the demand is for dimension stuff it is difficult to obtain bills, and for such stuff cut to order prices rule high. Considerable lumber is passing over the docks, in fact quite an improvement over that of four weeks ago, and considerable good lumber is now coming forward.

QUOTATIONS FROM YARDS.

Table listing lumber prices for various types like Mill cut boards, Shipping cut boards, Scantling and joist, etc.

MONTREAL.

From our own Correspondent.

SEPTEMBER 9.—General business continues very good here and prices, though unchanged, are firm and well maintained. In Ottawa manufacturers of lumber are working day and night, and find a ready market for all they can turn out as the American demand is very good just now. Freight for local and American traffic remain very firm. The receipts of lumber here up to this date are believed to be considerably larger than for the same period of 1881; and foreign shipments are also larger. We continue to quote yard prices as follows:—

Table listing lumber prices for Montreal, including Pine, Spruce, Hemlock, etc.

SHIPMENTS.

The shipment from this port since the 25th ult., have been as follows:—To Liverpool, 38,976 yds deals and dead ends; To London, 8,475 yds spruce deals; to Buenos Ayres 1,505,459 feet lumber; to Montevideo 1,901,626 feet lumber. The total shipments to South America from the opening of navigation to this date amount to 11,568,157 feet, against 9,645,373 feet, being an increase of 1,922,784 feet. There has been very little doing in freights.

CORNWOOD.

There has been a better demand for cordwood

and it is likely to improve; the weather has got suddenly cold, and the stock in the yards is not large, many dealers having put off buying in hopes of lower prices, but there is no appearance of any change, as the quantity coming in still continues light. We still quote ex cars and on the wharf.

Table listing lumber prices for Toronto, including Long Maple, Short, Long Birch, etc.

QUEBEC.

The Chronicle of September says: There is not much animation in the market this week, though more timber has changed hands than during the previous ones.

Oak has been sold in considerable quantity at about 44 to 46 cents, while for choice wood 50 cents is about the current rate.

Some elm has, we understand, changed hands at prices which have not transpired.

In white pine some four or five rafts have been sold. One good lot of fifty feet average, 16 1/2 inch girth, with some waney board of 19 inches at 31 cents. A choice raft 46 feet, with waney board at 29 cents. And two rafts of about 37 and 45 feet, at 18 1/2 to 20 cents. We also learn that some choice waney, St Lawrence wood, 19 to 19 1/2 inch, changed hands at 25 cents. In other woods there is little doing.

ALBANY.

Quotations at the yards are as follows:—

Table listing lumber prices for Albany, including Pine, Spruce, Hemlock, etc.

BOSTON.

The Journal of Commerce of September 9th says:—The demand is very good, and rather improves as the season advances. There is a firm tone to the general market, and if there is any change, it is in the direction of higher prices. Stocks all around seem to be in a very encouraging shape, and the prospect is for a good steady fall trade.

CANADA PINE.

Table listing lumber prices for Canada Pine, including Selects, Dressing, etc.

BUFFALO.

Table listing lumber prices for Buffalo, including Uppers, Common, Culls.

CHICAGO.

Sept. 9.—The Northwestern Lumberman says:—Nothing very marked has transpired in the general lumber trade of the country since our last issue. At all the principal points, east and west, a steady demand is recorded, with generally firm prices. In New York and Philadelphia the tendency is to increased firmness,

and in some instances a slight advance. Dealers at the east are stocking up more liberally than they were, the advance at Chicago and elsewhere having the effect to discourage the hope hitherto entertained that prices would go lower. Latterly quite a number of buyers from the eastern points have been in Canada, and not content with the figures given by the Toronto magnates, they have gone up to the mills. There they have generally found that the stocks were controlled at the lake ports, having been pre-occupied, as is the custom to a great extent, in Canada. The stiffness of tone still maintained at Saginaw, added to the solid condition of things in Canada, has convinced eastern buyers that the day of concession has been deferred for an indefinite time. For this reason the general movement of lumber is thought to have improved a little. Still, dealers are moving cautiously, no rush prevailing. Mill men at the east and in Canada seem well satisfied with the condition of things. They say that while the demand has not been quite equal to their expectations in the spring, it has been steady and in fair volume, so that about all they have had to offer has been taken at good prices. Trade, the country over, has been healthy all the season—not so overwhelming as to induce inordinate speculation, but real and strong, the mill product being wanted for actual consumption.

CARGO QUOTATIONS.

Table listing cargo quotations for Short dimension, Long dimension, Boards and strips, etc.

Receipts, and stock on hand, of lumber, shingles, etc., for the week ending September 7, as reported by the Lumberman's Exchange:

Table showing receipts and stock on hand for Lumber, Shingles, and other materials.

TONAWANDA.

Table listing cargo lots for Tonawanda, including Three uppers, Common, Culls.

OSWEGO, N.Y.

Table listing lumber prices for Oswego, N.Y., including Three uppers, Pickings, Fine, Common, etc.

GLASGOW.

The Timber Trades Journal of Aug. 26th says:—The public sales of American timber held during the week have been giving indications of a rather improved demand. The sale at Greenock on the 17th inst. was partly without reserve and attracted a good company. The wood, which was of a varied description, was disposed of at the rates noted in the appended report.

The sales held here on the 23rd inst. were well attended. The bulk of the deals disposed of consisted of Miramichi, N. B., and Quebec spruce, prices offered for the Quebec pine deals not being up to brokers' limits. Prices realized appear to be about what they have reached at public sale for some time past for a similar class of wood. After the sale of deals there were disposed of various lots of walnut, &c. As the day was very fine, a large proportion of the company remained, and the brokers (Messrs. Edmiston & Mitchell) experienced very fair

competition for the wood offered, results under noted.

AUCTION SALES.

On the 17th inst., at Greenock, Messrs. Edmiston & Mitchell, brokers:—Quebec yellow pine timber—55 c. ft. av. per log. 10d. per c. ft. Do. 3rd yellow pine de. 10 to 16 ft. 8 1/4 x 3 1/2 "

Table listing auction sales for various types of lumber and shingles, including Do. 3rd yellow pine de., Do. waney boardwood, etc.

LIVERPOOL.

The Timber Trades Journal of Aug. 26th says:—There has again been a steady and progressive business done during the week, and, although buyers are loth to pay the advanced prices, now demanded, they find they have no chance of bettering the present position. Even at the present advance in rates, shippers are not making as much money as they were early in the summer, the advance in prices now current being less than the increase in freights. The scarcity of freightage is becoming more apparent every day, and this together with the increasing rates of insurance afford but little hope that the present prices will long continue.

It would by no means be surprising to find spruce deals advance at least 10s. during the next fortnight, for there are comparatively few vessels of suitable tonnage now offering suitable for the requirements of the lower ports.

In Quebec freights are very firm, and holders of all kinds of timber and deals maintain a firm attitude, and are not sellers except at price that will satisfy them.

Table listing prices for Spruce deals, New Richmond, including 9 1/2 ft., 12 1/2 ft., etc.

**LONDON.**

The *Timber Trades Journal* of Aug. 20th says:—There are not wanting indications that the present is the turning-point of what promises to be a very active fall trade. The harvest seems now almost assured as being above the average, and prices of wood have come down to a level, below which it is hardly probable they will sink; a rise is therefore evident, and it is only as to the time at which it will make itself felt that there are any doubts. Stocks of flooring boards in the docks are undergoing considerable reductions, and it is just on the cards that the end of the year may find us with very little more of this commodity in the docks than we had to record last Christmas. It is possible, however, that the present shipments will be supplemented to a much greater degree than we are yet aware of.

**AUSTRALIAN TRADE.**

Messrs. Geminell & Co., in their report dated Melbourne, July 3rd, state:—The amount of business recently carried through shows a considerable falling off from the average, and we do not look for much improvement during the present winter. American lumber.—Prices realized at auction show a reduction on last months rates. Shipments have been beyond our requirements, and as the trade are fully stocked, no improvement may be expected.

**WOODEN IMAGES.**

A New York paper says that the wood used for figures, no matter what use they are put to, is white pine. The butt end of a new spar serves the purpose best, and is generally used. When green the wood cuts much easier than when dry, and is not so liable to split. The carving is done mostly by the eye. Chalk or pencil lines are drawn on the log in making the general contour. If the figure is that of a man or woman, it is made eight times the length of the head. Ordinarily, the image is one solid block of wood, but if the arm is extended a separate piece is put on, so that the grain will run the right way, to prevent its breaking off. Regular carver's tools are employed, such as chisels, gouges, etc. It takes from a week to a month of steady work to make a figure, and the prices of images range from \$50 to \$250, according to size. A mermaid three and a half feet high costs \$100. The tug boats mount eagles on their pilot houses. These are worth from \$40 to \$75. Figures have been known to last 200 years. If a thick coat of paint is kept on them they will last much longer than if neglected. The paint closes up the checks and cracks, and prevents decay to a great extent. The figures are fastened to ships' bows with bolts. There are only four or five places in New York where the figures are carved.

**Useful Facts.**

Weights of logs and lumber are given as follows in a book recently issued by H. K. Porter & Co., Pittsburgh, Pa.: "Weight of green logs to scale 1,000 feet, board measure—Yellow pine (southern) 8,000 to 10,000 lbs., Norway pine (Mich.) 7,000 to 8,000 lbs.; white pine (Mich.) off of stump, 6,000 to 7,000 lbs., white pine (Mich.) out of water, 7,000 to 8,000 lbs.; white pine (Penn.) bark off, 5,000 to 6,000 lbs.; hemlock (Penn.) bark off, 6,000 to 7,000 lbs. Weight of 1,000 feet of lumber, board measure—Yellow or Norway pine, dry 3,000 lbs.; green, 5,000 lbs.; white pine, dry, 2,500 lbs.; green 4,000 lbs. Weight of one cord of seasoned wood, 128 cubic feet per cord—Hickory or sugar maple 4,500 lbs.; oak, white, 3,850 lbs.; beech, red oak or black oak, 3,250; poplar, chestnut, or elm 2,300 lbs.; pine, white or Norway, 2,000 lbs.; hemlock bark, dry, 2,900 lbs. (One cord bark got from 1,500 feet logs."

**Bobbins' Over the Line.**

The *Northwestern Lumberman* says:—A manufacturer of bobbins in Massachusetts, finding that he was receiving a large number of orders from Canada, in order to avoid the customs duty of 20 per cent., has set up a factory on the upper flat of a Lachute, Que., saw-mill. He has received a large number of orders in the Dominion as a basis of his new enterprise.

**THE U. S. TARIFF.**

Before the United States Tariff commission Mr. Arthur Hill, of Saginaw City, stated that the existing tariff of \$2 a thousand increased the cutting capacity of Michigan lands 80 or 40 per cent. by giving the operators in that state a chance to work off their coarse pine. If the tariff did not exist the coarse stock of Canada would flood the markets in the East, to the exclusion of Saginaw lumber. This would be so for the following reason: The tariff does not affect the pine of the better quality. In Canada lumbermen skim through the woods and cut the best trees for the purpose of sawing them into deals for the English market. The poor stuff is left for a future cutting. If it were not for the tariff this coarse lumber would be cut and shipped to the States, where it could be sold at such prices as would drive the common stock of the Saginaw valley out of the market. This would come particularly hard on the Michigan business, since the operators there have latterly been obliged to cut their stumpage pretty close, the larger trees having disappeared. Under the tariff the Michigan operators are able to utilize their coarse stumpage, which adds an income of about \$3,000,000 to the people of the state, which otherwise would be burned up and lost. True there is but little profit in it, to the dealer, but the aggregate amount going into the hands of the people from this source is considerable. Such coarse lumber brings an average of \$9.50 a thousand, and costs \$8 to produce it. With low freights, by lake and canal, such as prevail this year, the Saginaw lumbermen continue to make a small profit. Saginaw stands in an unfavorable position compared with Ottawa, which lays down lumber usually at \$1.50 a thousand less than it can be done for in Saginaw. But when freights are low and prices are fair the difference is overcome.

**Putting Away Tools.**

The wearing out of farm implements is, as a rule, due more to neglect than to use. If tools can be well taken care of, it will pay to buy those made of the best steel, and finished in the best manner; but in common hands, and with common care, such are of little advantage. Iron and steel parts should be cleaned with dry sand and a cob, or scraped with a piece of soft iron, washed and oiled if necessary, and in a day or two cleaned off with the corn-cob and dry sand. Finally paint the iron part with rosin and bees-wax, in the proportion of 4 of rosin to 1 of wax, melted together and applied hot. This is good for the iron and steel parts of every sort of tool. Wood work should be painted with good boiled linseed oil, white lead and turpentine, colored of any desired tint; red is probably the best color. Keep the cattle away until the paint is dry and hard, or they will lick, with death as the result. If it is not desired to use paint on hand tools, the boiled oil with turpentine and "liquid drier" does just as well. Many prefer to saturate the wood work of farm implements with crude petroleum. This cannot be used with color, but is applied by itself, so long as any is absorbed by the pores of the wood.—*American Agriculturist.*

**IRWIN & PHILP**

Commission

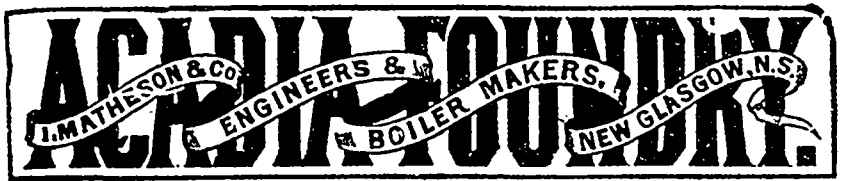
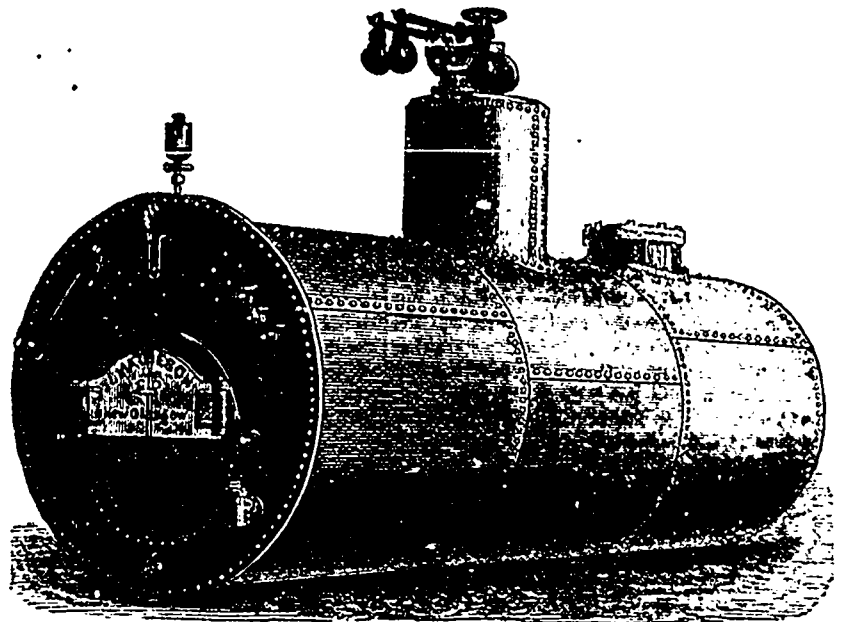
Lumber Dealers,

FORWARDERS,

Shipping & General Agents

PORT HOPE.

1117



1117

**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.

117

**A. L. UNDERWOOD**

WHOLESALE DEALER IN

White Pine, Basswood & Hardwood,  
82 King Street East,  
TORONTO, ONT.

1117

**LUMBER**

Shingles, Doors, Sash, Flooring, &c.,  
WANTED,  
STATE QUANTITIES AND PRICE TO  
**SHORE & DAVIS,**  
Head Office, 514 Maine Street, Winnipeg, Man.

1117

**ROBERT SMALLWOOD**

MANUFACTURER OF

The Patent Lever Feed Shingle,  
Box Board & Heading Machine

(Always takes First Prize.)

Rotary Saw Mills

IN FOUR SIZES, and other

MACHINERY for SAW and  
GRIST MILLS.

SEND FOR CIRCULAR.

CHARLOTTETOWN,

PRINCE EDWARD ISLAND

**LEATHER BELTING.**

Chipman, Renaud & Co.

MANUFACTURERS OF

LEATHER BELTING,  
FIRE ENGINE HOSE  
LACE LEATHER, &c.

124 & 126 Queen St.

MONTREAL

1129



## FLOATING DRIFTS.

To the Editor:

We come to you for advice, and perhaps among your numerous subscribers and correspondents we can be enlightened. We are troubled with two heavy drifts, which have caused us lots of trouble in rafting logs, and we would like to know which is the best method to remove them, as we have not had any experience in removing such obstructions. The two drifts are each 190 steps long and about a mile apart, and are what we call a packed drift; that is, they rise and fall with the river, so it does not make any difference how high or how low the river is, the drifts are on top, and stop all rafting or running of logs. One party tried burning them, but that did but little good. Some have advised us to chop them out, but that seems too expensive and rather slow work. What we want is the easiest, quickest and cheapest method, and we would like to hear from some one that has had some experience in removing such obstructions. We thought of blowing them out with dynamite or Hercules powder, but would wait until we heard from some one else. Anyone giving us information will greatly oblige

## TWO SAW MILLS.

Fairfield, Ill., Aug. 14, 1882.

From the description given, we imagine that a few days' work of a gang of good choppers would be the most effective remedy. The rise and fall of the drifts with the changes in the volume of the river indicates a key log, or logs, holding the masses and preventing them going down the stream. If these key logs can be found and broken up, probably the mass will at once move. If it should move in a body the key logs, probably whole trees, will soon come to a stop and again the jam will form about them. By chopping and detaching portions of the drift at a time, the detached portions will probably get wholly out of the way and no further jam be formed, after the key is reached and cut down to safe dimensions. It is usually a tedious job to remove such a drift as is described by our correspondent, but oftentimes it is cheaper to chop and wholly get rid of it, piece by piece, than to move it in a body, unless advantage can be taken of a heavy freshet. We think we should risk a few charges of Giant powder on the lower edges of the drift, and see what effect it had, but think a few days' chopping would not be labour lost. Perhaps some of the readers of the *Lumberman*, who have had experience with such drifts, will give their views on the subject.—*Northwestern Lumberman*.

## The Barrel.

A gentleman who has been reading upon the subject says that the invention of the barrel, made of strips of wood and rendered tight and strong by hoops, finds in history no notice of origin or inventor. Pliny attributes it to the Gauls of the Po, in Lombardy. There is, however, good reason to believe that the barrel was in use before the Gauls reached Italy, perhaps before their existence as a people. In one of the inscriptions copied by Wilkinson from Egyptian monuments may be seen two slaves emptying grain from a wooden-hooped vessel, while a scribe keeps tally and a sweeper stands by to sweep in the kernels. Close by, a poor victim is undergoing the bastinado, for short measure or petty theft. The measure is barrel-shaped, precisely like the *laye* of modern Egypt, and would apparently hold about a peck. The age of this inscription is not indicated.—*Northwestern Lumberman*.

## It has Entered the Capitol Buildings.

It has finally gained its point and no less a personage than the Sergeant-at-Arms of the House of Commons. Mr. D. W. McDonnell, Ottawa, thus endorses the Great German Remedy. "St. Jacobs Oil is a splendid remedy. I used it on my left hand and wrist for rheumatism, and found all that it is claimed to be. Mrs. McDonnell used it for a most severely sprained ankle; by a steady use of the article for a few days a complete cure was effected. St. Jacobs Oil does its work very satisfactorily and also rapidly; such at least is my opinion."

A GENTLEMAN aged 65, writes: "I heartily thank you for the great boon I have obtained through the use of your wonderful rejuvenator, known as Mack's Magnetic Medicine, advertised in another column of your paper."

## THROUGH A BURNING FOREST.

Mr. Newton H. Chittendon, of Portland, Oregon, recently encountered a burning forest, and writes as follows regarding it: Before leaving the coast great volumes of smoke were seen rolling over the forests in the direction of Olympia. Near Elma a horse-man cried out that the whole country ahead was on fire; that several families had been burned out; that the roads were so blocked with fallen timber that it would take weeks to remove it. The mail messenger passed us mounted, having left his wagon behind for fear of detention; and before leaving Hicklin's, the crash of fallen trees, sounding like the roar of heavy artillery in the distance, as well as the thickening smoke, gave much ground to fear that the worst reports were not exaggerated. A few miles beyond, reinforced by the road overseer—a broad shouldered brawny man—armed with saw and axes, we found ourselves face to face with, and breathing the hot breath of, the raging, devouring, element. It is impossible for those who have never seen the forests of western Washington to imagine the grandeur and desolation of the spectacle they present when these great fires are sweeping through them. Magnify the fiercest prairie fire a hundred times; add the thundering roar of the rapid downfall of monster fires, big and long enough for an effectual breastwork for 300 men; pile these black burning giants one above another from 10 to 15 in. height, over hundreds and thousands of acres; let great burning limbs descend, whizzing and glaring like meteors shot from the heavens; and the cracking of advancing flames through the undergrowth sounds as the musketry of an advancing army, then envelop the whole scene with an atmosphere glaring with heat, stifling with smoke and full of cinders, driving all animals and birds before it in great alarm; witness the consternation of threatened and retreating inhabitants and the picture is still incomplete.—*Northwestern Lumberman*.

## Large Belts.

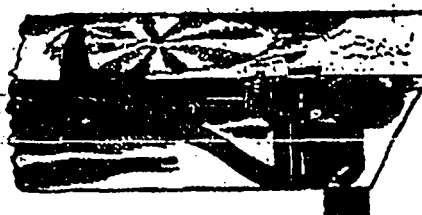
The *Iron Age* says:—  
"Messrs. P. Jewell & Sons, of Hartford, Conn., have acquired an enviable reputation for making large belts. According to an item in the *Buffalo Express*, the largest belt ever made from a single width of hide was recently produced by this firm for a New York flouring mill. It was 48 inches wide, 96 feet long, and weighed 1,000 pounds. We learn that this firm are at present making two belts larger than the above, to be used in one of the largest rubber factories in the country. One is 48 inches wide and 120 feet long, and the other 44 inches wide and 150 feet long, both double thickness. These are the largest belts that can be made from a single hide, as no hide can be solid and thick more than 4 feet in width. It is comparatively few years since belts of these proportions could be made, or pulleys on which to run them. No country except the United States is making use of articles of this kind of the dimensions given."  
We understand that Mr. Geo. Stethem, of Peterborough, is the only dealer in Ontario who keeps a stock of this belting.

NEVER BE WITHOUT IT.—Tourists and all who are subjected to a change of climate, water, diet &c., should never be without Dr. Fowler's Extract of Wild Strawberry, the infallible remedy for all Summer complaints.

"AND FOOLS who came to scoff remained to pray."—We receive many letters from those having tried while doubting, yet were entirely cured of dyspepsia and liver troubles with Zoposa. Clerymion write us earnestly as to its wonderful effects.

A WISE PRECAUTION.—During the Summer and Fall people are liable to sudden attacks of bowel complaint, and with no prompt remedy or medical aid at hand, life may be in danger. Those whose experience has given them wisdom, always keep Dr. Fowler's Extract of Wild Strawberry at hand for prompt relief, and a Physician is seldom required.

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



TO MILLMEN

HODGSON'S  
Patent Saw Grinder

is a new, efficient, and exceedingly cheap machine and is equally well adapted to grinding long and round saws of every description. Wheel is moved along the length, and in the depth of the tooth, and can be placed just where wanted as easily as a file. It is just THE THING for mills, cutting from one to five million feet of lumber, and costs no more than one-fourth to one-tenth the price of little better machines. It is patented in United States and Canada, and is made in Welsport, Pennsylvania, and in Amherst, Nova Scotia.

## Hodgson's Patent Monitor Shingle Machine

combines, at a moderate price, more points of excellence than any other. Jointer is built in machine, a few inches from the saw. The cast steel feed rolls are opened by a foot lever, and grip the block like a vice. Traverser of carriage to suit large or small stock, is under control of operator when running. Will run 3 or 4 days without cutting a shingle. Warranted to cut, with one attendant, three thousand in an hour, under forfeiture of \$100. Send for circulars to

T. HODGSON, AMHERST, NOVA SCOTIA.

ESTABLISHED 1820.

## EAGLE FOUNDRY!

## GEORGE BRUSH

14 to 34 King and Queen Streets, MONTREAL,

MAKER OF

Steam Engines, Steam Boilers, Hoisting Engines, Steam Pumps,

CIRCULAR SAW MILLS, BARK MILLS, SHINGLE MILLS,

Ore Crushers, Mill Gearing, Shafting, Hangers and Pullies, Hand and Power Hoists for Warehouses, &amp;c., &amp;c.,

AND AGENT FOR

"Water's" Perfect Steam Engine Governor, and "Herald &amp; Sisco's" Centrifugal Pumps

FOR THE BEST

## TURBINE WATER WHEELS

AND

## Mill Machinery,

ADDRESS:

PAXTON, TATE &amp; CO.

PORT PERRY, ONT.

Send for Illustrated Catalogue.

## AMERICAN HEAVY

## Oak Tanned Leather Belting

Rubber Belting,	Rubber Packing,
Rubber Hose,	Linon Hose,
And Cotton Hose.	

A Full and Complete Stock always on hand.  
Write for Prices and Discounts.

T. McILROY, JR.

WAREHOUSE—10 &amp; 12 King Street East,

P.O. BOX 566.

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

**ROBIN & SADLER**

594, 596, 598, St. Joseph St.

**MONTREAL**

Manufacturers

of

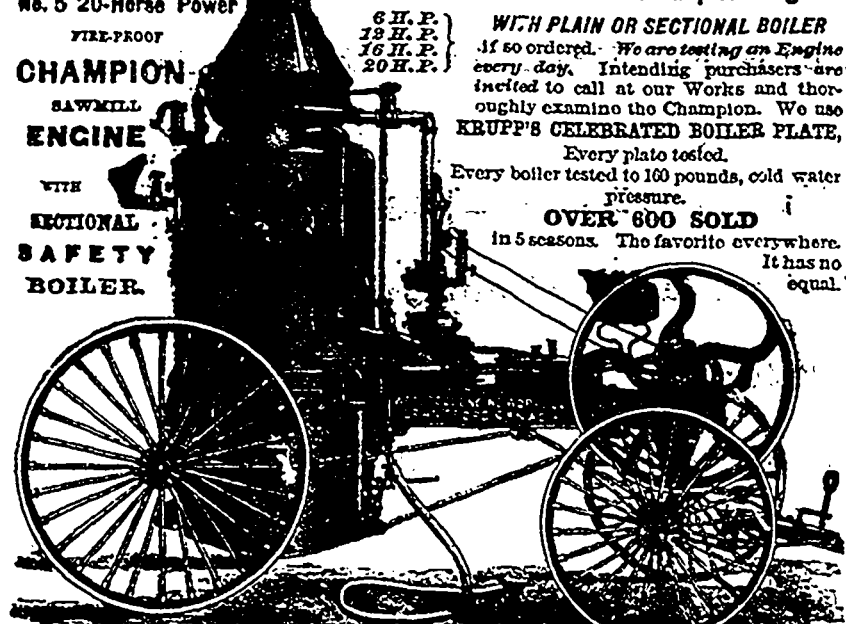
Lace Leather,

Mill Supplies, &c.

**LEATHER BELTING**

Fire-Engine  
HOSE,  
Lace Leather,  
Mill Supplies, &c.

Represents No. 5 20-Horse Power FIRE-PROOF CHAMPION SAWMILL ENGINE WITH SECTIONAL SAFETY BOILER. Build 4 Sizes Fire-Proof Champion Engines



6 H.P.  
12 H.P.  
16 H.P.  
20 H.P.

WITH PLAIN OR SECTIONAL BOILER  
If so ordered. We are testing an Engine every day. Intending purchasers are invited to call at our Works and thoroughly examine the Champion. We use KRUPP'S CELEBRATED BOILER PLATE, Every plate tested. Every boiler tested to 160 pounds, cold water pressure.  
**OVER 600 SOLD**  
in 5 seasons. The favorite everywhere. It has no equal.

The sectional safety boiler is manufactured expressly for the "North West" trade. This boiler is so arranged that it is readily taken apart in sections enabling purchasers to clean thoroughly every part of it and prevent burning out. We know from experience this is absolutely necessary with the alkaline waters of the great Western prairies. Largely used by the Pacific Railway Company and all the large Colonization and Rancho Companies.

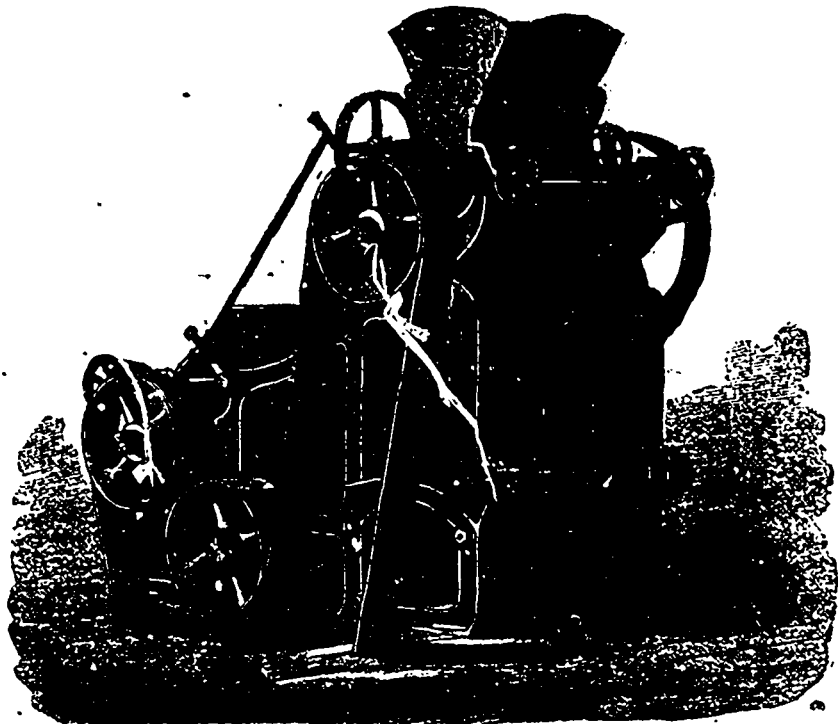
ADDRESS WATEROUS ENGINE WORKS CO., BRANTFORD, CANADA.

Send for New Circular.

# THE LATEST

For Flour Mills of 50 to 125 Barrels Capacity.

## GRAY'S PATENT Gradual Reduction Machine



The above engraving shows the driving side of Machine.

This Machine is by far the Best and Simplest Combined ROLLER and SEPARATING Machine made. It has two pairs of Corrugated Rolls and two Reciprocating Sieves.

The Grain passing down from the hopper and over the feed roll, passes through the first or upper pair of rolls and on to the first or upper sieve, where a complete separation of the product is made, the flour and middlings passing through the sieve and out from the Machine, and the large unreduced portion passing over the tail of the sieve and through the second or lower pair of rolls, when a second separation is made. Each Machine makes two reductions and two separations.

The Machine is perfectly adjustable, the same devices being used as on the simple roller machines. The same feed gate and roll is used, and the same adjustable and self-oiling boxes. The Machine is driven by a single belt. Both pairs of rolls can be spread simultaneously when feed is stopped. The Machine is NOISELESS and DUSTLESS.

These Machines are designed for use where economy in space is desirable, as they save the room required by two scaping reels and an elevator, thus affording to smaller mills the great advantages of the roller system at a comparatively slight cost. Send for particulars.

MANUFACTURED EXCLUSIVELY BY

**MILLER BROS. & MITCHELL,**

Nos. 110, 112, 114 and 116 KING STREET

**MONTREAL.**

Sole Licensees for Dominion for Gray's Patent Noiseless Roller Mills and Gradual Reduction Machines.

Mention this Paper,

## ARRIVED AT QUEBEC.

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

Sept 1—Hamilton Bros., pine deals, Point-au-Pizou.

Sept 2—Sundry lots, staves, sundry covers.

Burton Bros., pine, &c., Sillery cove.

John B. Campbell, ash, etc., Cap Rouge.

McLachlin Bros, white & red pine Cap Rouge.

do. red pine, do.

J. R. Booth, white and red pine, Cap Rouge.

Sept 4—Fraser & McCoshon, pine, &c., St. Lawrence Docks.

J. R. Booth, pine, &c., Cap Rouge.

John McRae & Co, staves Indian Cove west.

Flatt & Bradley, staves, St. Michael's cove.

Sundry parties, deals, South Quebec.

Sept 5—J. K. Ward, pine, ash, &c., South Quebec.

Collins Bay Co., oak, etc., Indian cove west.

D. D. Calvin, and Co., (2), oak, pine, &c., sundry coves.

Sept 6—J Sharples, Sons & Co., (Forster Lot) deals, Market wharf, Lewis.

Sept 7—G. B. Hall & Co., deals, Montmorenci.

J. R. Booth, white and red pine, Woodfield cove.

R. R. Dobell & Co., sawn plank, alongside bark Marianna III.

## To Plug Leaky Boiler Tubes.

If the leak is near the head, fit and drive in a short ferrule; if the leak is in the body of the tube where a band cannot be bolted around it, take it out and put in a new tube.

SURE, safe and effectual, that old remedy, Downs' Elixir, for the cure of Coughs and Colds.

THE well known drug firm of N. C. Polson & Co., Kingston, writes that Dr. Fowler's Extract of Wild Strawberry has long been considered the best remedy for summer complaints in the market, and adds that their customers speak in the highest terms of its merits. Wild Strawberry is the best known remedy for Cholera Morbus, Dysentery and all Bowel Complaints.

## QUEBEC CULLERS' OFFICE.

The following is a comparative statement of Timber, Masts, Bowsprits, Spars, Staves, &c., measured and culled to Sept. 8:—

	1890.	1891.	1892.
Waney White Pine	1,744,865	1,687,694	1,631,073
White Pine.....	3,484,674	4,002,986	6,176,139
Red Pine.....	824,655	1,360,124	1,091,146
Oak.....	1,200,516	2,222,023	875,308
Elm.....	892,054	931,725	562,029
Ash.....	227,872	359,601	207,039
Basewood.....	206	3,356	1,273
Butternut.....	627	1,674	2,535
Tamarac.....	21,326	22,728	8,284
Birch & Maple.....	555,874	140,428	263,473
Masts.....	4 pcs	— pcs	33 pcs
Spars.....	23 pcs	— pcs	51 pcs
Std. Staves.....	16,433.15	314,633.0	304,400.16
W. I. Staves.....	280,033.0	326,033.0	914,822.2
Brl Staves.....	.....	.....	42,022.2

JAMES PATTON,  
Supervisor of Cullers.

A TREE was cut at Jackson's camp on the Skagit, W. T., a few days ago, that yielded from logs of 32, 30, 30 and 26 feet, in all 118 feet in length, and measuring 71 inches at the top. The logs cut from the tree scaled 24,000 feet, which, at \$7 per thousand, will amount to \$168.

SAYS the *Virginian*, of Staunton, Va.: We would like to have some of the "forest-wise" people—wise from European, but not from an American stand-point—who are croaking about the destruction of our forests, and predicting that we will have a treeless country in a short time, see how rapidly and beautifully Culpeper and other counties along the Virginia Midland, that were almost deforested during the late war by the great armies that camped and wintered there, are now becoming afforested in the lifetime of half a generation. We noticed a few days ago fuel and fencing being cut where Meade's army burnt up every tree in the winter of 1863-4.

ONE dose of Baxter's Mandrake Bitters will relieve Sick Headache. One bottle effects a cure. Price 25c. per bottle.

## ADAM MCKAY,

MANUFACTURER OF

## Steam Engines and Boilers,

AND ALL KINDS OF MACHINERY.

Locomotives, Stationary and Marine Engines and Boilers, Girders, Heaters, Radiators, and all kinds of Steam and Brass Fittings and Sheet Iron Work; and dealer in all classes of Railway, Steamboat and MILL SUPPLIES.

144 Upper Water Street, HALIFAX, N.S.



## Farmers and Mechanics.

Provide yourselves with a bottle of *PAIN-KILLER* at this season of the year, when summer complaints are so prevalent; it is a prompt, safe, and sure cure. It may save you days of sickness, and you will find it is more valuable than gold. Be sure you buy the genuine *PERRY DAVIS' PAIN-KILLER*, and take no other mixture.

Cobourg, Ont., March 3, 1880.

I have been selling Perry Davis' Pain-Killer for the past six years, and have much pleasure in stating that its sale in that time has been larger than any other patent medicine that I have on my shelves, and in those years I have never heard a customer say aught but words of the highest praise in its favor. It is an article that seems to have combined in it all that goes to make a first-class family medicine, and as long as I have a house and store, Perry Davis Pain-Killer will be found in both.

Yours, &amp;c.,

J. E. KENNEDY

Beware of Counterfeits and Imitations.

Price 20c., 25c., and 50c. per bottle.

## LUMBERMEN'S STATIONERY.

We will supply anything in the line of BLANKS or STATIONERY for Lumber Shanties and Offices at City Prices.

All PRINTING done in the Highest Style of the Art, and at Lowest Living Prices.

BOOK-BINDING of every Description got up in a very Neat and Superior manner.

Account Books Ruled and Bound to any desired Pattern.

For Schedule of Prices address, describing the kind and quality of work desired,

## TOKER &amp; Co.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.

# HART EMERY WHEEL COMPANY, Limited

## HAMILTON, CANADA.

GILBERT HART, Detroit,  
President.

JAMES T. BARNARD, Hamilton,  
Secretary-Treasurer.

SAMUEL BRIGGS, Hamilton,  
Superintendent.

MANUFACTURERS OF THE CELEBRATED

**DETROIT**

# EMERY and CORUNDUM WHEELS

These Wheels are

Wire Strengthened



And Specially Adapted

For Saw Gumming

Neither Animal nor Vegetable Glue or Gum being used in their composition, they are NOT LIABLE TO HEAT, and give out no Odors, while

*They Surpass All Other Wheels for Free Cutting and Durability.*

We refer to the following well known Saw Manufacturers for Opinions as to the Quality of our Wheels :

Messrs. SHURLEY & DIETRICH,  
GALT.

Messrs. R. H. SMITH & CO.,  
ST. CATHERINES.

JAMES ROBERTSON, ESQ.,  
MONTREAL.

Messrs. JAMES ROBERTSON & CO.,  
TORONTO.

WE ALSO REFER TO

WILLIAM HAMILTON, ESQ.,  
PETERBOROUGH,  
Manufacturer of the Covell Saw Sharpeners.

Messrs. H. B. RATHBUN & SON,  
DESERONTO,  
Lumber Merchants,



# EMERY WHEELS FOR SAW GUMMING!



Solid Emery Wheels are now almost in universal use for the purpose of gulleting and gumming saws. Statistics show from 25,000 to 30,000 saw-mills in the United States. Many of these run only a single saw each. A one-saw mill would use one or two wheels a day, costing \$3 to \$4 each, and when such mills order single Emery Wheels from the factory, the express charges often equal the cost of the wheel. There was a time when the quality of Emery Wheels was uncertain, and the demand so slight, that storekeepers could not afford to carry them in stock. Now, however, Saw-Gumming Wheels have become an staple article as Files, and every dealer in saws, Hardware and Mill Supplies can afford to carry a few dozen standard sizes in stock. Large dealers order stocks of \$500 to \$750 worth at a time. Saw-Gumming Wheels are used with the edge (or face) square, round or beveled. Probably seven-eighths of all in use are beveled.

The principal sizes are:

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

Probably more wheels 12x $\frac{1}{2}$ , 12x $\frac{3}{4}$  and 12x are used than all the other sizes together. Saw-Gumming Wheels are used, however, of all sizes up to 24x1 $\frac{1}{2}$ . The most frequent complaint is that Emery Wheels harden the saw so that a file won't touch it. The answer is that you don't want a file to touch it. An expert workman will shape and sharpen the teeth with an Emery Wheel, leaving the teeth case-hardened, in which condition the saw will cut about 33 per cent. more lumber than a soft saw will. Those who want to use the file, however, have only to touch the saw lightly a second time (after going all over it once), and this second touch will cut through the case-hardened scale.

## A QUESTION OF QUALITY.

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

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

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

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

Illustrated Circulars and Catalogue, showing Cuts of Saw-Gumming Machines, and Shapes, Sizes and Prices of Wheels, sent free on application. 1913

**Tanite Co. Stroudsburg, Monroe Co. Pennsylvania.**  
CANADIAN TRADE SPECIALLY SOLICITED.

# MILL REFUSE TURNED INTO MONEY

BY THE USE OF

## Brown's Patent Shaft and Shingle Mill,

for making Shingles, Barrel Heading, Box Stuff, &c., from spalls, board trimmings, slabs, and mill waste generally, turning material otherwise worthless into valuable products. I have made arrangements with the patentee to manufacture and sell for the Dominion; have made and sold a good number of these machines which are giving excellent satisfaction and can give the best of references.

## Our Steam Feed for Circular Mills,

is now the Best Feed where Steam is the motive power. It is easily operated, is simple, rapid, and seems never likely to wear out; sixteen 16 ft. boards, or eighteen 12 ft. boards, have been cut by it in one minute. It is the established feed for steam mills; I make a specialty of its manufacture; will guarantee satisfaction.

## Our Patent Twin or Span Circular,

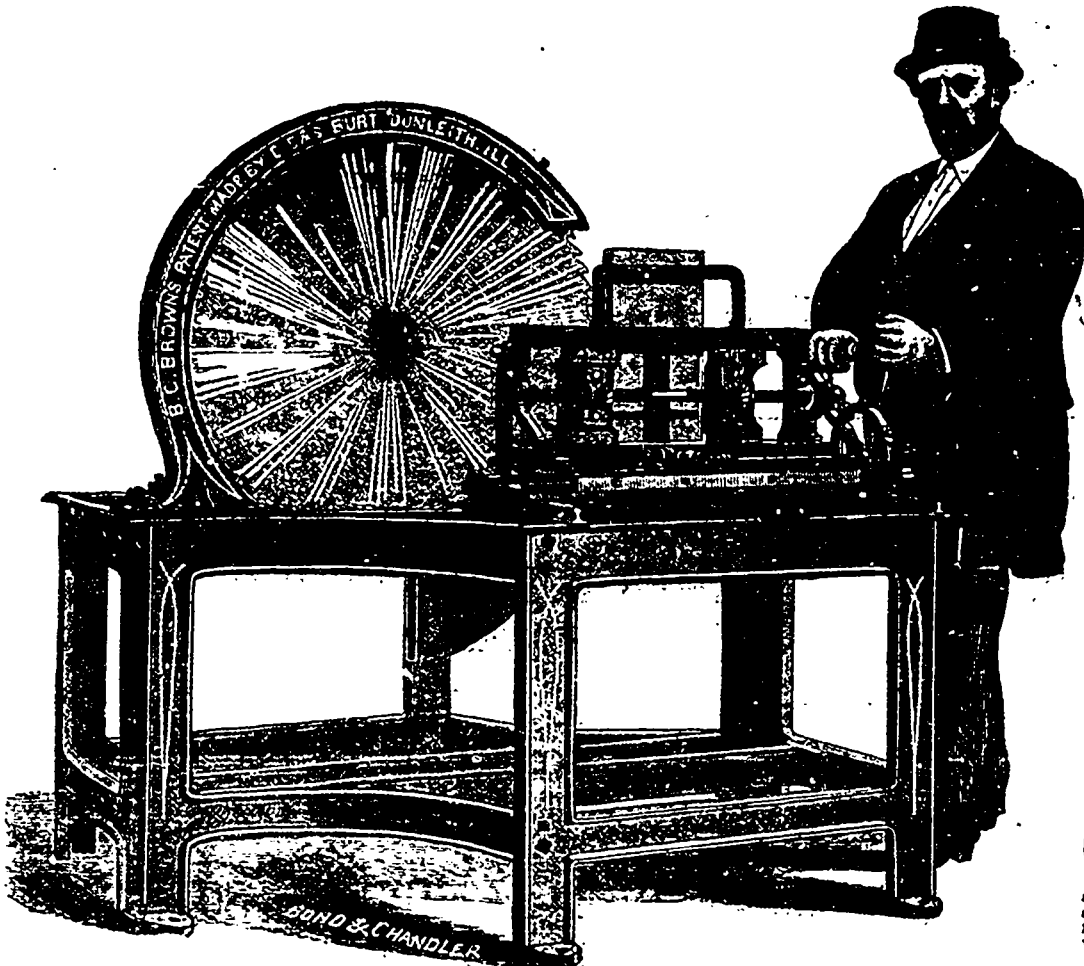
with Steam Feed for Steam Mills, and Rope or Rack Feed for Water Mills is fast coming into general estimation and is used in place of Gang Slabber in our best Canadian Mills. One of our Span Circulars which will slab logs 25 inches in diameter down to 7 and 8 inch stocks, will do the work of three slabbers, with an immense reduction in first cost, running expenses and labour. Two of these machines can be seen at work in Messrs. Gilmour & Co's Mill, Toronto, and Georgian Bay Lumber Co's Mill, Waukegan and Port Severn. I am also introducing a new style of Mill Engine, neat, substantial and simple, with Corliss Frame and Balanced Valve, all carefully designed and honestly made.

## Covel's Automatic Saw Sharpener,

is now well-known and highly appreciated, when placed at work in the mill it sings out its own praise, I keep constantly on hand, ready for immediate shipment.

## Our Standard Circular & Gang Mills & Machinery,

are too well known to need any reference, any further than to say that I spare no pains or expense to have my work all first-class and give satisfaction, and as I make Heavy Saw Mill Machinery a specialty, any party wanting a First-class Mill will find it to their advantage to give me a call.



**WILLIAM HAMILTON, Peterborough Foundry and Machine Works, PETERBOROUGH, Ont.**