

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

- Coloured covers/  
Couverture de couleur
- Covers damaged/  
Couverture endommagée
- Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée
- Cover title missing/  
Le titre de couverture manque
- Coloured maps/  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur
- Bound with other material/  
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

- Coloured pages/  
Pages de couleur
- Pages damaged/  
Pages endommagées
- Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached/  
Pages détachées
- Showthrough/  
Transparence
- Quality of print varies/  
Qualité inégale de l'impression
- Continuous pagination/  
Pagination continue
- Includes index(es)/  
Comprend un (des) index

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

- Title page of issue/  
Page de titre de la livraison
- Caption of issue/  
Titre de départ de la livraison
- Masthead/  
Générique (périodiques) de la livraison

- Additional comments: /  
Commentaires supplémentaires:

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

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



PUBLISHED  
SEMI-MONTHLY.

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

SUBSCRIPTION  
\$2.00 PER ANNUM.

VOL. 3.

PETERBOROUGH, ONT., JUNE 1, 1883.

NO. 11.

#### THE PRINCIPLES OF WOOD BENDING.

The following extracts are from a lecture delivered before the class in carriage drafting and construction connected with the Metropolitan Museum of Art Technical schools, New York, by H. G. Shepard, of New Haven, Conn.

\* \* You may go back as far as the antediluvian race, but though the art was known and practised away back, no progress was made, and principles which underlie successful wood-bending were unknown to them. Their method undoubtedly was, simply to bend a stick while it was green and hold it in that position until dry; and the first use to which they put this bending undoubtedly was to make bows with which they shot their arrows. Coming down from that time to the present we find but very little progress in wood bending until the introduction of steam. I may add that even now wood bending is yet in its infancy, for although the principle upon which wood bending must always be done has been discovered and is in practice to-day, yet its various applications have not been made to any great extent, and there are new discoveries constantly being made. Such discoveries have been made within the past year, which I believe will increase the amount of wood bending fourfold within the next ten years.

\* \* The first wood bending I have any recollection of was done by my mother, who, paradoxical as it may seem, used to bend me across her knee to keep me straight. The wood she used was always badly alivered and broken after she had finished, so that it was of no further use.

\* \* The use of bent wood, is probably still in its infancy. In my belief, we do not use to-day one piece where in ten years from now we will use four.

\* \* If I wished to bend a stick and have it remain in position and keep its shape the best, I should put the heart on the outside, for the reason that the tendency of the wood is to bend from the heart; but when I have a difficult piece of bending to do, like a corner-piece, that requires a great deal of upsetting and end pressure, without giving way, wrinkling or anything of that kind. That is the way I use the heart of a stick. When I wish a piece to remain in a certain shape, then I put the heart on the outside, because the tendency of the stick will be in the direction in which it is bent.

\* \* As to the peculiarities of bending, after a piece of wood is bent its character is almost entirely changed. It is wonderful how it is changed, and by that change it is better fitted for any use, I claim, than it was before. Bending makes the wood heavier; it is pressed together, and the same bulk of wood weighs more after it is bent than before. Another peculiarity is that when it is thoroughly dry, it is stiffer than the same sized piece of wood,

that it is alike every other way in regard to grain. It will admit of more strain, and move less out of its position than a piece of wood that is unbent. On this account it is better fitted for carriage making than sawed pieces. I have taken two circles, one sawed out and the other bent, both of the same character of wood and as nearly alike as I could get them; I placed the concave sides together and put pressure on the ends to bring them in contact. They were subjected to equal strain. I found that the bent piece had perceptibly more influence over the sawed one, than the sawed piece over the bent one.

\* \* A piece of timber that has been steamed, whether it is bent or not, has its stiffness increased. It is more brittle than it was before, and, for some uses, it will not do as well; and yet there is a quality of timber that the steaming process and the kiln-drying process affect very much the same; they both cook the gum in the timber and make it brittle and stiff. There is a grade or class of hickory that is benefited by being steamed or kiln-dried for use as spokes or whiffletrees. There is a kind of hickory that never becomes stiff by a natural process of drying, and one of the desirable qualities of a spoke, rim, or whiffletree, is stiffness as well as strength; you take that hickory, and it is the very best we have, and steam it, and it is better fitted for these purposes than it was before. It is difficult to tear apart a piece of bent wood; the fibres are interwoven one with the other. We do not perceive the change on the outside, but when we come to split the stick open, we find that its character is entirely changed.

#### PLANTING TREES.

A few words about planting trees. It is a reasonable topic, and much might be said upon it. There are, of course, differences of opinion as to the best time for transplanting. Some maintain that spring is the proper time, and others say that better results are obtained from fall planting. Our own opinion is that it makes no difference, as long as the work is carefully done. The strong argument in favour of fall planting is, that farmers have then more leisure on their hands, and they can then afford to spend time in doing the work well. But, no man should undertake what he has not time for doing, whether in spring or fall, else he may find that time, labour and money have been spent in vain. We have all heard of Hodge, a type of man made famous in the cartoons of Punch. Hodge is not the right sort of person to be entrusted with the task of transplanting trees.

"I rains 'em in, now thick, now thin,  
For what cares I if they grow or die."

No; Hodge will never do, unless master is beside him and directs every movement. Strength is by no means the best recommendation, either

in taking up or setting out trees. Skill pays; so does patience. Two men are needed, and three are better. The holes should be roomy; deeper and wider than the roots require, for, with a margin of loose earth, the rootlets will speedily stretch out in search of food supplies. With a bushel or so of muck for each hole, to form a bed for the tree and a partial covering for the roots, the chances will be greatly improved. Place the roots naturally on the ground, and pack the earth firmly around the tree, at least as high as it was before removal. If the work is well done in this way, and with occasional watering, if the season is dry, the loss need not exceed one in a hundred. But, of course much depends on the condition of trees at the time they are set out. If they have been carried a long distance, and have been roughly handled, it is just possible that no kind of care can save them. In the case of a mutilated tree, it is far better to stand it aside and lose it at once.—*Rural Canadian*.

#### A RAFT IN THE RAPIDS.

The Kingston *Whig* says:—Probably the most miraculous escape from death by drowning ever experienced by the hardiest voyager, says the *Montreal Star*, took place Saturday morning, May 12, at Lachine. It seems the tug boat John MacDonald had towed a valuable raft of timber from Chateauguay to the head of the Lachine Rapids, with the intention of leaving it in the South Channel. However, just as the raft had neared the channel in question the current, which here takes a sharp bend, swept it around with terrible velocity towards the more dangerous and rocky South Channel, whence escape is rarely made. The strain was so great that the hawser parted and the raft was dashed down the tortuous rapids at lightning speed. The men on board, 13 in number, assembled on the front of the raft perfectly powerless to save themselves from their imminent peril. They had not proceeded far, however, before a terrible shock was felt, the raft having struck a reef and parted in two pieces. The men still escaped unhurt and managed to raise a sail with the intention of steering the raft through the rocks, which rose on every side. The wave swept over the hardy raftsmen, threatening them with destruction every moment, and finally the whole number took refuge by climbing to the top of the top of the mast. The raft struck a rock the second time, smashing it into fragments, and the men were precipitated into the water, but still held on to the mast for dear life. They had nearly reached the foot of the rapids by this time, and soon drifted out into still water. An Indian passing in a large boat, seeing their perilous position, came to their assistance and rescued them in a half-drowning condition, several of the men having nearly succumbed from exposure to the icy water. The raft, which is of oak, is the

property of Calvin & Son, of Garden Island, and is valued at \$6,000.

#### ARBOR DAY.

The London *Daily Telegraph* mentions with approval the custom of tree planting on "Arbor Day," favored in the United States, and recommends it to the notice of landlords in the British Isles. The growth of timber has a twofold advantage. It is always a profitable crop, and besides, the presence of trees tends to equalize the rainfall, preventing sudden floods on the one hand and prolonged droughts on the other. With the abundance of timber still growing in Canada, we are apt to be careless on this important economic question. But the axe of the speculator is exerting its power, more perhaps in the destruction of saplings than in the removal of full grown trees. It has been urged on the Dominion Government that some encouragement should be offered to tree planting. The advantages arising from the presence of trees ought to prevent the farmer from entirely denuding his land; but the desire for quick gains frequently makes the farmer careless for the future and indifferent to difficulties that he is laying up for posterity.—*Mail*.

#### A Magnificent Fir.

One of the finest conifers in Germany, known as the Royal Fir, stands near the village of Albornhau, in the Erzgebirge mountains. Its diameter, forty inches above ground, is six feet ten inches, sufficient to conceal a horse and rider placed lengthwise behind the trunk. It begins ramifying at a height of thirty-four feet, and the full elevation to top of crown measures 154 feet. It is thought to be the tallest and strongest representative of the species, not only in Germany, but in the whole of Europe. This noble tree, which is supposed to be 500 years old, now shows signs of decay, having died out on the apex of the crown since the year 1874. The enormous dimensions of the tree may be better realized by cordwood measure. The shaft is estimated at 51½ cords; limbs and brushwood, 12½ cords, making in all 64½ cords.

#### Premier and Axeman.

In an article on the institution of "Arbor Day" on this continent, the London *Standard* says:—"It has long been an accepted tradition with Americans that no axe is worth wielding unless it has been made at Pittsburg, or at one of the many Sheffields or Birminghams scattered over the United States. Even Mr. Gladstone is said to prefer an American to an English axe, although it is on record that a Canadian lumberman, who once saw him ply the weapon at Hawarden castle, declared that our vigorous Prime Minister has still much to learn before he can pretend to possess such proficiency with the axe as is common in the backwoods of Canada."

## MR. E. B. EDDY'S MILL AT HULL.

The night will be still fresh within the memories of residents of Ottawa when a few hours of fierce fire swept away almost the whole of one of the greatest industries of the vicinity, for a time threw hundreds of hands out of employment, and destroyed property valued at hundreds of thousands of dollars. The calamity for a time spread consternation in the vicinity generally, and deep as would have been public sympathy for the enterprising proprietor, Mr. Eddy, it was rendered all the more profound by the fact that he was then absent from home and in a poor state of health, which it was feared the disaster would still further impair. But where most men will sink Mr. Eddy will swim. If he did not speak he acted the words of Shakespeare:

"Sick now, droop now,

How have I leisure to be sick in such a bustling time!"

The fire it will be remembered occurred in winter at a time when many building operations are impossible, but with an energy with which neither sickness, fire or frost could conquer, Mr. Eddy at once set to work to reconstruct. Such buildings as had only been partially destroyed were repaired, and every precaution used to render them as secure as possible against fire. Plans for the new mills were rapidly prepared, and in a few weeks in spite of jack frost the work of reconstruction was begun, and within six months time over the ashes of the old structure has arisen the most substantial and best appointed mill of its size on the continent of America.

The new saw mill, which stands west of the road leading into Hull, is an attractive looking, well proportioned and substantial building. Its side walls are of solid masonry, rising 32 feet from a solid rock foundation, 5 feet thick at the base and three feet thick at the top. These support a "suspended arch" roof of 120 feet span, neatly framed and well braced with iron rods, some 18 tons of rods and bolts being used in its construction. The dimensions of the building are 147x120 feet. The roof itself is of galvanized iron laid upon tongued and grooved sheeting, the latter painted on the inside with fire-proof paint. It contains sixteen skylights, each of a single sheet of glass 5 ft. by 3 ft. and a half in. in thickness, which materially aid in lighting the floor below. The timbers supporting the floor and heavy machinery are of the most substantial character, framed on an entirely new principle, put together without mortice or tenon.

The machinery is all of the most modern and improved kind used in saw milling. On the main floors are four upright slabbers, two stock gangs, a circular, three edgers, three butting tables, a splitter and several stave saws. The saw logs are drawn from the ponds into the mill by three endless jack-chains. The slabber gates work upon hollow cylindrical tubes, through which cold water is forced to prevent any heating of the bearings. The two stock gangs are from the celebrated makers, Messrs. Wickes Bros., East Saginaw, Michigan, and styled "The Wilkin's Oscillating gang," acknowledge to be the best gang saw in the world, cutting from one to four logs at once, as may be devised. These gangs rest upon solid piers of cut stone masonry, 20 feet square and 12 feet high, bolted with 56 iron bolts 2½ inch iron, 18 feet long. The "circular" is from the Stearnes Manufacturing Company, of Erie, Pa., and carries a sixty inch saw with a 42 inch top saw, and will cut logs up to five feet in diameter, and 50 feet in length. Two of the edgers were also made by this firm, and have double the capacity of the old class of edgers. Ranged along the right hand wall are 13 tub and rail stave saws of various sizes. Numerous line rollers convey the lumber from the saws to the butting tables, edgers, etc. On the lower floor is found a wilderness of belting pulleys, wheels and other machinery for the driving power. Here, too, the slabs and edgings, supplied by sluices from the floor above, are cut into laths, pickets, shingles and various small strips. Everything possible of the raw material is utilized in this establishment, even to small pieces one-sixteenth of an inch thick. In one corner of this room is a Silsby rotary force pump, with pipes and hose attached, and having a pumping capacity of 1,600 gallons per

minute. The cutting capacity of the mill is estimated at between forty and fifty million feet in the season. To the south of the mill is a compact stone building 62x60 feet, with the roof in the same style as the main mill. This contains two segments for re-sawing deals, etc., made by Messrs. B. Fricher and Mallory, of Chicago. These are, however, not yet running. To the right a large room is partitioned off for saw sharpening, filing, etc., fitted with five "Corvill patent automatic saw sharpeners" and "Konny's swedge," made by Wm. Hamilton, of Peterborough, Ontario. In front of these buildings is a spacious platform where the lumber is stocked and loaded on tram cars for transport to the piling ground. These two buildings, with machinery in them and the platform, are said to have cost over \$100,000. On the north bank of the Government slide channel there have been erected stone buildings for blacksmith's shop and machine shop, the 40 feet by 60 feet and the latter 80 feet by 60 feet, roofed similarly to the main mill, one being used for the present as a planing mill, adjoining them to the west, the foundations are being laid of a stone storeroom, 120 feet by 60 feet, and two and a half stories high. This will be used for the storage of woodenware and factory supplies. To the west of this again will be the offices in a substantial stone building two stories high, with a mansard fireproof roof, covering an area 30 feet by 90 feet, and affording ample accommodation for the management of Mr. Eddy's extensive establishments. A large stone factory is also in course of construction on the south side of the Government slide, which will be 185 feet by 60 feet and two stories in height. This extensive building will, when finished, be used for the purpose of packing in the upper story and as a planing mill on the lower floor.

On the old site on which before the fire the flour mill lately owned by Mr. C. B. Wright stood, but which has since been acquired by Mr. Eddy, will be erected a fire proof boiler-house, excavations for the foundations of which are now going on, from which will be supplied the necessary heat for the other buildings. It will also contain two Silsby rotary pumps with a capacity of 1,200 gallons per minute each, and from whence pipes and hydrants will be laid through all the yards and buildings.

The fire service will be as complete as it can be made. The three Silsby rotaries will have a combined power of 40,000 gallons of water per minute, the distribution of the hydrants has been thoughtfully and judiciously made, the provision of hose is ample and placed at easily accessible points, and in addition the establishment has a fire corps of its own, composed of its most cool, active and intelligent employees, each of whom knows where his post is in case of emergency, while at the same time the residences of all the foremen are connected with the main office by telephone and electric fire alarms, so that when off duty at any hour of the night or day they can be instantly called if necessity so requires.

The electric service is also very complete. The entire yards, building and piling ground are lighted with electricity, and telephones and fire signals are in position at all important points.

To drive the machinery requires 24 water wheels, with an aggregate force of 3,000 horse power, and work is given, in the various establishments to over 1,600 hands, many families in Hull and its vicinity being employed in it, while while hundreds of other families depend on the work it gives their husbands and fathers for their support. In addition to those employed in Hull, Mr. Eddy employs several hundred men all the year around on his limits in the woods. The piling grounds are commensurate in extent with the rest of the establishment, and comprise, including the old Batson & Currier yard recently acquired by Mr. Eddy, an area of about sixty acres. A tramway conveys the lumber there from the mill, and it will be relaid with steel rails this spring. A walk through is necessary to comprehend the tremendous trade done. It was no small undertaking to build and fit up such buildings in the course of six months, especially when it is remembered that much of the work had to be done during a rigorous winter. Mr. Eddy's energy was equal

to the occasion. He had able aids, too, in Mr. Mousseau his head millwright, Mr. Millon, and Mr. Blackoney, by whom the plans were drawn, the work superintended and the machinery put in position. It must be satisfactory to these gentlemen to feel that the whole work was carried out without one casualty, and that when first put in motion the whole ponderous machinery worked without a hitch. The contractor for the stonework was Mr. R. Lester, and for the ironwork, Messrs. Butterworth & Co.

The late fire it may be remembered, destroyed the pail factory and gutted the machine shops and part of the match factory. Those were, however, rebuilt and refitted some months ago, and operations in them suspended only for a short time.

Mr. Eddy's trade in matches and wooden ware is tremendous, and extends over the Dominion from the Lower Provinces to Manitoba, where his name is a household word. The capacity of his factories for these goods is enormous, being able to supply the wants of double the present population of the country.—*Ottawa Citizen.*

## THE HUSBANDRY OF FORESTS.

The grave consequences of the ruthless and wholesale destruction of our forests have recently been enforced with fresh emphasis by both nature and science, and it is high time steps were taken to repair, as far as may be, the damage that has been done. The people of Ohio, who have perhaps suffered more than the inhabitants of any other State from floods that are largely a consequence of the denudation of their forests, are making an earnest effort to guard against these destructive forces in the future. The messages of the more recent Governors of that commonwealth have bristled with warnings against the continued destruction of trees that has been going on for half a century, with exhortations to make the waste places good as far as possible. The traveller through the Ohio valley to-day would hardly believe that that fertile part of the State was a dense forest seventy years ago, but such nevertheless it was. Last Friday was what is called Arbor Day in Ohio—that is, a day set apart by the Governor for tree-planting, a past-time that was generally participated in by the rural population, the children of the public schools in many of the cities having taken part in the ceremony. The State Forestry Association, which was in session in Cincinnati, also participated, thus giving practical point to their theories. Many thousands of young trees were planted in various parts of the state, from which beneficent results are anticipated as the years roll on. The present generation of tree planters may not see the fruits or enjoy the benefits of their work, but the man who makes even one tree grow where none grew before has done something for posterity and his country, and has built a living monument for himself which will long keep his memory green. The idea of an Arbor Day is an excellent one, and might be adopted with advantage by other states.

Of all the natural resources which a state may possess, none are of higher or more general importance than its forests. They supply that upon which a great variety of skilled crafts may be employed. They furnish shelter which is next in urgency to the need of food. They enable us to build fleets of vessels with which to effect the world's exchanges. Unlike mines, they require a costly outlay for working, the forest yields a revenue to the wood-choppers' first day's work. Their beneficent influence upon the climate of a country has been abundantly shown in the sad experience of lands which, like Spain, have been stripped of their growth. The forests are unlike the mines in this, that the latter cannot be worked without a near or remote approach to exhaustion. With the trees of our forests the case is different. They stand as the highest type of growth in nature. Reared as they are by the kindly nurturing influence of the sunbeam, they renew their life as constantly as the day succeeds the night, and their period of growth is fixed according to the stated order of the seasons. The fact that they do not mature in a single season, that one generation must plant, another generation enjoy the abundant harvest, while the intervening generations must be content to watch

with patience the slow but steady growth of some of the more valuable varieties of timber, ought to give to the general public as deep an interest in the husbandry of forests as in that of any other product of the soil.—*N. Y. Shipping List.*

## AN ENGLISH VIEW.

There seems to be some movement in the spruce trade of late, though at prices which do not look to be remunerative to the shipper. We hear of sales of St. John spruce under £7 c.i.f., and it is said other lower port deals have been contracted for in the neighborhood of £6 10s. If these figures are to be relied on, we do not, we must confess, understand the reason of the Liverpool brokers and agents for the spruce houses in Canada forcing the market in this fashion at the commencement of the season. There has been no doubt a quietness in the spruce trade at the outports for the past few months, but with the advent of the busy season it does not look either a healthy or encouraging sign for spruce deals to be sold at prices indicated above. It is true, competition is severe among the representatives of the spruce houses, and to place several thousands of standards in Liverpool, and round the coast, may be a very laudable desire on the part of the representatives to show their activity and power in disposing of their shippers' stocks, but if the price is unremunerative we fail to see the benefit to the shipper. This competition to sell, at even a loss, is a deplorable sign, and, if we turn to the freight market, we find it does not strengthen the sellers' position in these sales.

Ships for bringing deals from Canada are not plentiful; the brokers do not know where the vessels are. Rates, as yet, are quoted moderate, but as the season advances and the scarcity of the wood-sailing tonnage is felt, as it is from Quebec now, sales of spruce at low figures will not bring happiness to the shippers. From Quebec to Liverpool and London 68s. has been paid for a large ship, and this will stiffen present rates from Miramichi, Bathurst, Shediac, and other North Shore ports. We have been told 65s. will be freely paid from Miramichi to-day. Perhaps it is in the mind of those who are selling spruce at under £7 to do the freighting by steamers, say 55s. This looks a very nice operation to the mind or on paper, but steamers to load at deal ports at low rates of freights must be hard up for cargo in the United States ports, in fact cannot get cargo, before they will go to the expense and loss of time in shifting to bring home deals at such a low figure. We do not say steamers will not be got, but will they be chartered at such a rate as will leave a profit to the shipper on sales under £7 c.i.f.? On the Continent we believe there are several large lines in spruce still to be done. Bordeaux and other Biscayan ports have to be supplied, and here again for what transactions have occurred low prices have been the order of the day. Whether the remaining buyers are going to get their requirements at the same figures is still to be seen, but the divergence between buyers and sellers seems to be about 5c. per standard.

Transactions in Spruce in Ireland have been going on quietly. The most eminent firm in the timber trade in that country, we hear, bought St. Lawrence goods early in the year at £7 10s. c.i.f., and spruce from Miramichi and St. John, we understand, has been sold at equally low prices. Low prices seem to be ruling just now. Do they presage a big stock on the other side.

**DIPHTHERIA**—that terrible scourge of the present day—attacks chiefly those whose vitality is low and the blood impure. The timely use of Burdock Blood Bitters forestalls the evils of impure blood, and saves doctor's bills. Sample bottles 10 cents.

**MENTAL depression, headache, and nervous debility, are speedily remedied by that excellent blood-purifying tonic, Burdock Blood Bitters.** The Editor of the *Mitchell Recorder* states that he was cured of biliousness, liver derangement, and sick headache, by the use of this medicine.

The editor of the *Grand Rapids Sachem* says:—"We are usually sparing in our encomium towards patent medicines, but observation and enquiry has satisfied us that the preparation of Messrs. T. Milbarn & Co., styled 'Burdock Blood Bitters,' as a blood purifying tonic is worthy of the high reputation it has established among the people."

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

## SAVE YOUR TIMBER By using THIN Saws.

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

They use Steam Feed

### No. 1 TOOTH.

VIZ.

AMERICAN SAW Co.

Emerson, Smith & Co.

R. HOE & Co.

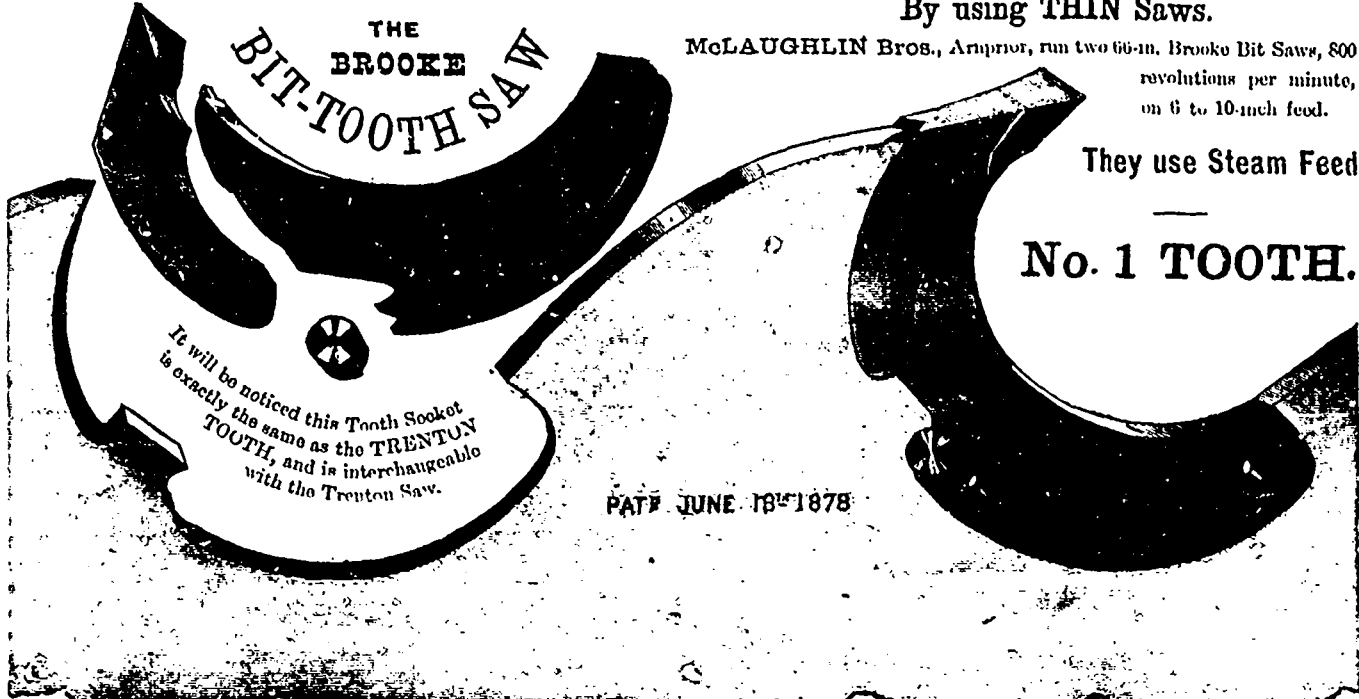
Hubbard,  
Bakewell & Co.

Inserted Tooth,  
BIT TOOTH,

AND  
SPECIALLY

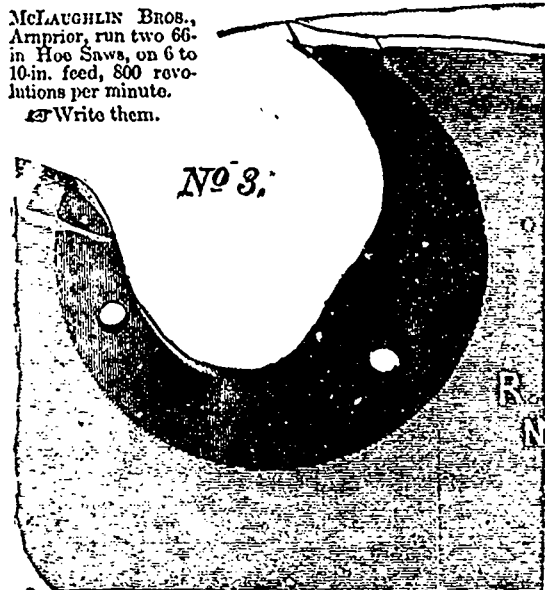
## THIN SOLID SAWS

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



With this Saw you have either a Bit Tooth Saw or ordinary Inserted Tooth Saw, with teeth two-and-a-half inches long, both fit same socket and are interchangeable in a few minutes. These Bits require no gumming, and very little filing; are positively held that they will stand all necessary sawing and can be worn down to dotted line shown in cut; they rest on lugs, saving the strain on the rim of the saw. For these reasons they will cut more and better lumber at less cost than any other tooth. **EXTRA BITS (per 100) No. 1, \$9; No. 2, \$8. — (per 1000), No. 1, \$80, No. 2, \$70.** Two sets No. 1 Bits have cut 500 m. feet pine, in 60-inch saw, running 800 revolutions per minute, on 6-inch feed. E. E. PARSONS, Amprior.

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



### HOE'S PATENT BIT SAWS.

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

## SAVE TIMBER



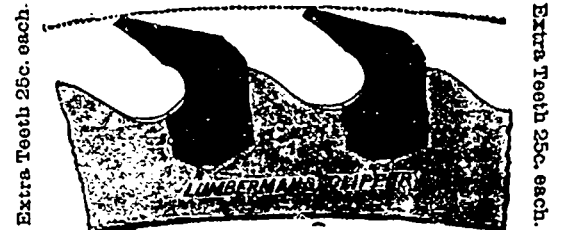
## GROW RICH

### EMERSON'S EXTRA THIN SOLID SAWS

Having special facilities for the manufacture of extra thin saws for board mills, we are prepared to receive orders for Circular Saws as follows:—54 inches in diameter, as thin as 12 gauge at rim and 11 at center, 54 to 66; 11 gauge at rim, 10 at center, 66 to 72, 10 at rim, 9 at center. Our unparalleled success with thin saws during past few years has induced us to recommend them to our customers. Our superior facilities are:—1st, Evenness of Temper; 2nd, Perfect Accuracy in Thickness, Saw balances perfectly; 3rd, Properly Hammered, to have equal strain in all its parts and at same time run true. This department is under the special supervision of J. E. Emerson, who has had 30 years experience and is without doubt the most successful circular saw maker in the world. **NO EXTRA PRICE FOR THIN SAWS.**

### EMERSON'S LUMBERMAN'S CLIPPER SAW

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



Designed specially for Thin Saws not thicker than 6 gauge at rim, or thinner than 10 gauge at rim.

### The CLIPPER FLANGE SAW

EXPRESSLY FOR HEAVY FEED.



WE KEEP IN STOCK ALL KINDS OF

## Saw Mill Furnishings

**SAW GUMMERS**—Stono's Original, large and small size Mixer's Self-feeding Champion; Emery Wheels and Stands  
**SAW SWAGES**—Hoe's, Emerson's, Mixer's, and American Saw Co., from \$1.50 to \$8.00.  
**SIDE FILES, BELT STUDS, Detachable Belt Fastners.**

### Alligator Jaw Wrenches

5 sizes, grip from 1/2 to 3 inches, Iron. Solid Steel Jaw. Price 50c. to \$5.50.



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

**JARECKI'S PATENT SCREW, PLATE, and PIPE CUTTER,** 1/2 inch to 2 inches, \$23.00; smaller ranges in proportion  
**Band Saws, Scroll Saws, Rainbow Saws** for felling trees, American Shingle Saws, Lace Cutters, Cant Hooks, Flue Scrapers, Leather, Cotton and Rubber Belting

**SPECIAL AGENTS FOR GANDY'S PATENT MILL BELT,** runs wet or dry; the best and cheapest main driver  
**WORTHINGTON and BLAKE'S PATENT STEAM PUMPS, ECONOMIST PLANER and MATCHER COMBINED,** large range of work, light, handy, durable, cheap.

### Ewart's Detachable Chain

For Log Jacks, Refuse Carriers, Sawmill Carriers, all sizes, Live Rools, Transfer, Slow Speed Driving Belts, Tie Loaders, Slash Tables, Trimmers, Lumber Sorters, Shingle Block Elevators, and many uses about a saw mill.

## HIGH CLASS HEAVY and PORTABLE SAW MILL MACHINERY our Specialty.

# Waterous Engine Works Co., Brantford

Send for New Price List and Chain Circular.

Mention this Paper.



SAU! BOB—WHAT DO YOU THINK OF MIXER'S PATENT GUMMER! THEY SEEM TO BE ALL THE GONOW!

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

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

## WOOD PAVEMENT.

THE new wood pavement in the Champs Elysees, which extended only half the length of the avenue, has stood the test of an entire winter, and so it is to be laid to the Arc de Triomphe. This pavement has been put down by an English company. The process of putting it down is as follows:—The ground is first excavated about a foot in depth. A layer of stones about the size of walnuts, and mixed with cement, is then laid down. On this a second coat of cement, about an inch in thickness, is carefully spread. The blocks, which are previously prepared by being saturated with some resinous compound into which tar enters largely, are set upon this cement; they are six inches thick by a foot in length and three and a-half inches in breadth. A space is left between each block, and after they are laid a thick preparation of tar is poured over them, followed by an application of fine gravel. Finally, the interstices are filled with cement.

## AMERICAN FORESTRY.

We take the following from the official report of Mr. W. Brown, Professor of Agriculture, Farm Manager, and Experimental Superintendent of the Ontario Agricultural College:—

Two words meaning much—how much no one at present alive will ever realize, and this is what strikes at the root of man's indifference on the subject, that is, that he cannot himself personally hope to receive all the benefits from the conservation of the present trees, and particularly from replanting. American returns must be smart, strong and undoubted; the idea of permanency in the long after years does not concern us so much as now; we are fond enough of speculating upon cause and effect, and, in this matter, delight in big talk, that indeed does not lack for as much soundness as Europe can produce, but it is talk largely only. Let us add to this phase of our life by submitting some thoughts on such an important subject, with the hope that we are not far off from acting up to what is preached.

## THE GENERAL IMPORTANCE OF FORESTRY IN NORTH AMERICA.

It is the experience of the world that more difficulty, in all its forms, is found in reclothing with trees where trees grew before, than it is to plant—not replant—a country for the first time. There is not only the practical fact of succession of cropping in its scientific and natural bearings as similarly realized, for example, in the products of the farm, but the more serious one of the indifference of its population. It is just a piece of human nature everywhere, that what has been felt as common and everybody's property, is no one's particular business when remedies are asked for in the exigencies of public affairs.

By forestry is meant the whole science and practice of arboriculture; the conserving, the care-taking, preservation and proper management of existing trees, and the replanting of land for purposes now to be discussed. Speaking generally we are, and we are not deeply concerned, as a nation, in the more modern views of forestry. In Europe it takes a shape that may never be realized here, because of one thing—that one thing is large property, the possessing within one man's power all the area and class of soil suitable to profitable production on a large scale, so that even that one man can employ officers and men in such numbers as make profits certain. Cultivated America meantime is so subdivided as to effectually preclude all idea of sufficient massing of woods to receive equal results with Europe—but the day may come. Though not thus situated for forest culture, we are otherwise obliged to give it a place in our rural economy. It is especially applicable to any country that has been a forest by nature, where in some things nature has been unthinkingly trampled upon, and where agricultural progress now demands the aid of her sister science—arboriculture. We are not singular in these matters, and can sympathize with

## WHAT IS BEING DONE IN THE CONSERVATION AND REPLANTING OF FORESTS IN OTHER COUNTRIES.

There is no country whatever that has made its agricultural history and does not now complain of want of trees. India, Australia,

Europe and the United States, all tell their story of overclearance, of the need of conserving, and of the necessity of replanting. Their greater years than ours has given experience that should encourage, and dispels all doubts on our part. The effects of judicious re-clothing are already subjects of congratulation, and of yearly revenue in competition with agricultural so much so indeed with some that the other is not uncommon talk with proprietors. India has her standing army of foresters, trained to all cunning in sylvan matters, at European schools; Australia can already boast of its "Forest Board,"—its conservator of forests, tree nurseries, extensive enclosures planted and to be planted, and a whole system of arboriculture of the most encouraging kind, and the United States, though doing more talk than spade work, are unquestionably on the very margin of a revolution, they have not gone through the forest without "seeing some firewood."

## THE OBJECTS OF CONSERVING AND REPLANTING ARE NOT A FEW.

Most people think of trees, first of all, as means of shelter—under several forms. We like shelter for buildings, shade for ourselves, shelter and shade for animals in the field, and shelter for farm crops. These alone would make up a large value in any district where required, and would justify all the cost and subsequent attendance. Yet, we have another aspect of the question that takes an equally strong place in our regard: Climate is not alone a matter of great outside causes, but one intimately related to local influences, among which trees are pre-eminent. We have no time to show how temperature, rain-fall, moisture, and evaporation are directly influenced by a small or large surface of trees—how therefore water in every form is in the hands of trees for local distribution. This second duty of forestry as a science and practice would even seem to swallow up the previous question, and are consequently inducements alone to its prosecution on our part. Were neither of these sufficient, however, to convince, the third great reason for tree cultivation will surely convert even the most stiff-necked among us. It is no matter of doubt, under average conditions, in any country, that tree culture is more profitable as a crop than its own agriculture, year by year. This position is not open to question, but clear and marked in all experience where ago has given time for proof. And lastly, some men are satisfied when large expenditure secures what to them is all in all ornament; and assuredly ornament is value. Who would not give \$500 more for a farm where the buildings are set off by just the kind, number and proper position of trees and tree clumps?

## THE AREA OF LAND IN NORTH AMERICA

is not an unknown thing. There is no case in Europe as regards small property, having recently occupied a forest country, and where extensive clearings took place for agricultural development. But it is not true that the American continent is now poorly wooded in comparison with other countries; the United States can show twenty-five, and Canada fifty per cent. of the cultivated districts, as still under trees. This is possibly larger than any other continent, if we except the northern part of Europe, where agriculture is necessarily at a discount, and where forest is practically untouched. What then is the cause of our discontent? if on an average, one-third of populated North America is still under forest, why do we advocate conserving and replanting? or, in other words, what are

## THE REQUISITE PROPORTIONS OF TREE SURFACE TO THAT UNDER AGRICULTURAL CROPS?

This is just one of the things that we do not know, and that we are not likely ever to know as a point for general practical guidance. The conditions affecting climate are so various as affected by latitude, altitude, aspect, soil, sea or lake neighborhood, and vegetation, that no possible number of observations, in any length of time, could say how much for one district is so much for another. However, men do come to realize through science and practice—practice especially—that a farm, or a district, needs the protection in certain places, and thus by such a simple guidance alone, a country could easily be reclothed to the extent required, at least for shelter, if not for regulation of climate, or of

sufficient area as a cropping investment; this point of immediate shelter is, therefore, within everybody's knowledge, and needs no scientific recognition, and should not require any governmental spurring. But the greater field of climate, as an unknown one practically in this relation, is more a national problem, and still very much a scientific enquiry, and what it will have to say in regard to the proportion of trees to farm crops no one can tell. Of course, if we disregard everything but the direct profits from trees as a crop upon land, then we shall likely override all other deductions, and possibly bring back the days of laziness and unhealth. Viewing trees in all their relations, I am of the opinion that upon an average of conditions in Ontario—one-fourth of the land should be under trees, as this is just double what we have at present, there rests the apparent inconsistency of wanting to conserve and replant, all the while that we have double what is needed. This brings out the fact that it is the irregular distribution of tree surface in our case which gives trouble, that some parts have more than required, and others have been over-cleared. So then

THE EXISTING CONDITION OF OUR FORESTS is the very first consideration in this enquiry. What is the condition of all our woodlands, both in the older and newer townships at the present moment, and what should be done with them in order to their best maintenance—such a maintenance as shall secure annual revenue, shelter, and climatic amelioration along with the due agricultural development?

Outside the lumbering interests there is no enclosing, preserving, care-taking, or conserving in any sense, except the right of individual ownership, some of whom do act the forester, but nationally there is nothing recognized, and hence waste. The average bush of North America is a beautiful sight and yet a sad one. The artist must revel in its variety of form, and foliage, but the fighting for place, the scraggy monarch of three hundred years, smothering even as he dies, scores of plants that but for him would attain to value; the general want of light and air, and otherwise a decay and loss, recognized only by those who are scientifically and practically foresters. I do not mean that our forests in every case should be managed similarly to those in Europe, because much of our best timber requires very different conditions, but similar principles ought to guide our management. While then, we owe a steady eye to progressive judicious replanting, it is above all others our first duty to manage well what we do possess. It will be the cheapest, the most rapid, and the most sure method of readjusting matters—along, no doubt with a certain replanting of cleared land. No fear need exist in regard to

## THE ADAPTABILITY OF SOILS AND CLIMATE TO RAPID RESULTS,

for nature herself has already shown us what to do both in repeating the same kind of crops, and in the proper rotation of trees, by sections of the country. But that nature has been the best guide in most things is not admitted. We cannot follow her in mode of thinning out so many annually, in making branchless stems, and therefore leafless and shelterless trees, comparatively. It is sound in practice, though not in theory, that ten trees, of certain kinds, standing within a given area, will afford less shelter, less wind break, than three trees of exactly the same sort, properly managed on the like area. We have soils and climates where-with to do almost anything in tree life—from the pine of the north, which luxuriates in apparently bare rock cleft, to the walnut of the south, that must send its carotyl root several feet into a rich soil. European forest revenue begins, as an average, fifteen years after planting; that of America ten years afterwards.

## AS THE SUBJECT GROWS UPON OUR ATTENTION, WE ARE NEXT CONCERNED WITH

## WHAT PARTS OF THE COUNTRY SHOULD BE CONSERVED OR REPLANTED.

And in this part of the study it is obvious that our views cannot be confined to single farms, or even special sections. Referring, as we must, to the great over-ruling influences, as previously indicated, we have to deal with geographical features that may embrace thousands of acres that have to be subserved by one, or more,

massing of trees. Just where to conserve or replant, how much on the spot, or spots, in what particular form—belt, clump, or block—and with what kinds of trees, so as to gather and dispose all the virtues that trees are known to possess, is the great problem of the future. To say that we should replant only our less valuable soils is nonsense, though sensible enough from the cultivated standpoint; that high lands should be conserved or reclothed against lower parts is largely true, though not generally applicable, and that conserving and replanting must go hand in hand, and take place anywhere as found necessary through experience, is correct in every sense.

Following this view of the subject there is naturally that of

## SUITABILITY OF CERTAIN KINDS AND FORMS OF TREES FOR SPECIAL PURPOSES,

whether for neighborhood of dwelling, roadside shade, shelter-belts, field clumps, or for more extensive planting, efficiency and permanency in every example are the primary considerations. It is not difficult, because experience is extensive, to decide on those species of trees for roadside, and house shelter, but much has not been done for the others, and so some advice will not be out of place.

To attain all the objects desired in replanting it is obvious that many varieties together in one clump or plantation would be indispensable; early shelter and rapid returns for the money invested would be best secured by certain kinds of trees more than others; such trees would also serve as nurses to others, and permanency in their case would not be wanted, but we would desire in their character a full and spreading foliage coming early and remaining late in the season, or even throughout the winter, to attain size in ten or fifteen years, and to be of a quality that would fetch a handsome revenue per acre for the period since planting. The removal of these gradually from the plantation as required by the progress of the other sorts would form, as it does now in other countries, a nice scientific and practical study. The second class of trees in such a plantation should be of a less spreading habit and more of upright growth so as not to interfere too early with the first and third classes; they should also begin to offer some revenue at thirty years, because the most of them would have to give place to the third or standard class, in about fifty years from the date of planting. In all well regulated planting one set of trees is held as those to remain as long as good management, their own natural habits, and a proper time to harvest without loss, will allow. These are the third class referred to, and necessarily we desire a slower growth, a habit that will not spoil by close neighborhood—a sociable plant therefore, giving high value when cut, maturing late, holding its maturity long, giving low branches and many leaves, a gatherer and holder of atmospheric moisture, a wind sifter, and holding electric communication with cloud and other trees at a distance. We have such trees of several varieties.

The preparation of the land, detailed method of planting, distance apart of trees, including fencing, drainage, knowledge of enemies and friends in nature, and all the management throughout in order to attain the highest results are too much for my time on this occasion.

The farmer's view of a wood, is grazing. Modern arboriculture does not recommend it in Europe at any stage of growth, yet, with us in the more difficult maintenance of permanent pasture, I see no objection to the admission of sheep during the second, and cattle during the late cropping periods.

The duty of legislatures, in regard to existing woodlands, and replanting, is being pressed upon our attention from various quarters, and unquestionably ere long every progressive country must take some action. How much to do, and what not to interfere with, will make the bill. That the Ontario Government has a warm side to trees is well known, and it is to be hoped that whatever they do it will be early, full, good, rapid and permanent.

American Forestry will have no place in all its scientific and practical value until one of two things be accomplished: one is the conviction on the part of our farmers, of the necessity of conserving and replanting, therefore their

education up to these, and the other is the power by Government to resume parts of the country for conserving and replanting. Both will be difficult; the former would be the slower, but eventually the most thorough because of self-interest; the latter would be more immediate and possibly less efficient, practically, though scientifically better applied. No large number of various interests could be so well arranged as by a company, and therefore Government will have to become foresters in all the many details of the profession. Were a properly conducted system of forestry begun in 1884; the results would be so strong in the year 1900 as to astonish. It would possibly change much of our present agriculture practice, it would certainly enhance the production of winter wheat to an immense extent; it would enable us to graze nearly two for one by checking rapid evaporation and encouraging permanent pasture; it would largely nullify droughts, perpetuate streams, and generally make climate more regular and reliable.

To those acquainted with Arboriculture as a profession in all its national bearings, an annual expenditure of \$50,000 has in other countries made an annual crop revenue of \$25,000 within fifteen years, in addition to the triple value of climatic amelioration.

**THE BOATMEN'S STRIKE.**

The Ottawa correspondent of the *Mail* of May 15th says:—The American boatmen who made an organized demand a few days ago for an increase in shipping rates between this port and New York evince a strong determination to secure what they demand. There are 43 boats now lying at Parley & Patten's wharf, near Blyth's point, awaiting the result of the lock-out. On Saturday at a meeting of boatmen, the following captains were appointed to confer with the shippers:—Messrs Dan. Donoghue, W. Lily, D. Peachy and Jules Fulton. This morning they received an offer of \$3.75 per thousand feet, an increase of twenty-five cents over last season. This offer was refused, the boatmen holding out for \$4 per thousand. It is said that the boatmen can under no circumstances make two ends meet by the old rates. Their expenses are greater this season, and at the rate demanded they can barely keep things going. There are over twenty boats at Montreal at present awaiting word from Ottawa to come up for loads. If the increase is not granted they will not come. There are over 600 boats in the recently formed organization, and the strikers here have received every encouragement to hold out. There has been no tow of boats from Ottawa as yet for the States this season. It is a question whether lumber shippers will concede the demand. The bulk of the lumber to be shipped this season was purchased last year, and the freight rates then existing were taken as a basis of their calculation. The buyers are consequently very materially affected by the demand for an increase, which amounts to a large sum when the enormous quantity to be shipped is considered. They were willing, however, to meet the boatmen half way, and increase the rates 25 cents per thousand.

LATER.—The demands of the striking American boatmen have been acceded to, and they commenced loading on Tuesday, May 15th. The rate received will be \$4 per thousand feet.

**RAFTING IN QUEBEC.**

A recent number of the *Montreal Witness* says:—The direction of the wind throughout last night and to day has been very favourable to the floating of timber rafts down the river, the result being that large numbers have gone past the city en route for Quebec within the last twelve hours or so. About noon to-day a fleet of ten very long rafts with all sails set passed down, the high wind at the time, coupled with the strong arms of the oarsmen, propelling them at a prodigious speed. When opposite the harbour they cheered vociferously and waved their flags, which salute was returned by the sailors of several ships. During the next few days the quantity of timber sent down will doubtless be large.

A raft of some sixty cribs of timber and having between fifty and sixty men on board, was descending the Lachine Rapids this afternoon,

when it struck upon a rock about the middle of the current. Half the raft was shattered to pieces and separated; the timber went down the stream. Strange to say none of the men were lost.

**YOUNG'S POINT.**

*From Our Own Correspondent.*

**THE FIRST DRIVE.**—The first saw log drive this season passed through here last week en route to the mills of Mr. Fowlds at Hastings; John Newall is foreman. They were very fine logs and numbered 6,000. They came down Jack's Creek, being cut in the Township of Methuen.

**SAW LOG DRIVES.**—Mr. Geo. Chalmers' two drives are getting on well so far. P. Cassidy's drive out of the Township of Methuen has got out as far as Boschink Narrows, and A. Wynn's drive got out of Eel's Lake into Eel's Creek last week.

**THE SAW MILLS.**—Mr. P. Young, jr., has now commenced work in earnest for the season with a good gang of men to cut ties, lumber, etc. All kinds of lumber can be purchased at the mills here for buildings and other purposes.

**Timber Cutting mills.**

OTTAWA, May 16.—A return brought down to-day relating to the grant of permission to cut timber or to mine on lands within the territory now in dispute with Ontario shows that from August, 1878, to March 15, 1883, there were thirty-five permits to cut timber granted. The total amount of dues received by the Government in this period was \$21,690, of which \$16,416 was from the Canadian Pacific Railway from its permit to cut timber for twenty miles on each side of the railway eastward from Brokenhead river. Permits or leases for mining have been issued. The permit of the Canada Pacific Railway Company was on October 21, 1882, renewed until November 1, 1883. The other permits were for limited quantities.

**Saw Mill Burned at Chatham, N. B.**

CHATHAM, N. B., May 12.—The water mill opposite Chatham was burned this morning at five o'clock. It was owned by Guy Bevan & Co. and Wm. Richards. About a million and a half of deals on the wharf were saved. The mill was the oldest on the Miramichi, and had been running about three weeks this season. The origin of the fire is unknown. Bevan and Richards paid, it is said, \$24,000 for the property. The mill was insured for \$5,000 in the Queen, \$5,000 in the Royal, and \$2,000 in the Canadian. There may be insurance in England also.

**Advice to Mothers.**

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

A WONDERFUL CHANGE.—Rev. W. E. Gifford, while pastor of M. E. Church, Bothwell, suffered from chronic dyspepsia so badly as to render his life almost a burden. Three bottles of Burdock Blood Bitters cured him.

**BAKTER'S MANDRAKE BITTERS**

THE ONLY VEGETABLE CURE FOR DYSPEPSIA, Loss of Appetite, Indigestion, Sour Stomach, Habitual Costiveness, Sick Headache and Biliousness.

Price 25c per bottle. Sold by all Druggists.

**Short of Logs.**

The mill of Williams Bros., at Saginaw, shut down last week for want of logs and it will be found before the sawing season closes many others will be compelled to similar action; and the mill alluded to is not the only one thus far which has done so. In the face of such facts, and that log running is impossible in some of the tributary streams, those papers which are predicting that there will be plenty of logs to supply the demands of the Saginaw River mills, and that the cut of the river will equal that of last year, while commencing about five weeks later than in 1882, are exhibiting a great lack of appreciation of the situation, and a total disregard of any foundation for such an assertion. With the Tittabawassee 300,000,000 feet short of the usual amount of logs left over in the boom limits and water already at a low stage, the utter improbability of a full supply of logs is too apparent for discussion.—*Lumberman's Gazette.*

**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. McDONALL, Proprietor.

**EXTRA QUALITY Manilla Lath Yarn**

Equal to the best Philadelphia make.

Samples mailed on application. For Sale only by

**GEORGE STETHEM**

PETERBOROUGH, Ont.

**A MAN**

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



**CHICAGO, ROCK ISLAND & PACIFIC R.R.**

By the central position of this line, connects the East and the West by the shortest route, and carries passengers, without change of cars, between Chicago and Kansas City, Council Bluffs, Leavenworth, Atchison, Minneapolis and St. Paul. It connects in Union Depots with all the principal lines of road between the Atlantic and the Pacific Oceans. Its equipment is unrivaled and magnificent, being composed of most comfortable and beautiful Day Coaches, Magnificent Horton Reclining Chair Cars, Pullman's Finest Palace Sleeping Cars, and the Best Line of Dining Cars in the World. Three Trains between Chicago and Missouri River Points. Two Trains between Chicago and Minneapolis and St. Paul, via the Famous "ALBERT LEA ROUTE."

A New and Direct Line, via Seneca and Kankakee, has recently been opened between Richmond, Norfolk, Newport News, Chattanooga, Atlanta, Augusta, New York, Louisville, Lexington, Cincinnati, Indianapolis and Lafayette, and Omaha, Minneapolis and St. Paul and intermediate points. All Through Passengers Travel on Fast Express Trains. Tickets for sale at all principal Ticket Offices in the United States and Canada. Baggage checked through and rates of fare as low as those of any other line.

For detailed information, get the Maps and Folder of the **GREAT ROCK ISLAND ROUTE,** At your nearest Ticket Office, or address **R. R. CABLE, E. ST. JOHN, Vice-Pres. & Gen'l Mgr., Gen'l Trk. & Pass. Agt. CHICAGO.**

**IRWIN & PHILP**

Commission Lumber Dealers FORWARDERS, Shipping & General Agents

**PORT HOPE.**

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 may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a properly nourished frame."—*Civil Service Gazette.*

Made simply with boiling water or milk. Sold in tins and packets only (3-lb. and 1-lb.) by Grocers labelled thus: **JAMES EPPS & Co., Homoeopathic Chemists, 181 Ly London, England.**

**CONSUMPTION POSITIVELY CURED.**

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

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

**ASH & ROBBINS, 20124 360 Fulton Street, Brooklyn, N. Y.**

**THE KEY TO HEALTH.**



Unlocks all the clogged avenues of the Bowels, Kidneys and Liver, carrying off gradually without weakening the system, all the impurities and foul humors of the secretions; at the same time Correcting Acidity of the Stomach, curing Biliousness, Dyspepsia, Headaches, Dizziness, Heartburn, Constipation, Dryness of the Skin, Dropsy, Dimness of Vision, Jaundice, Salt Rheum, Erysipelas, Scrofula, Fluttering of the Heart, Nervousness and General Debility; all these and many other similar Complaints yield to the happy influence of BURDOCK BLOOD BITTERS.

Sample Bottles 10c; Regular size 1. For sale by all dealers. **A. MILBURN & CO., Proprietors, Toronto**



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 90  
Per line, for six months..... 50  
Per line, for three months..... 30  
Per line, for first insertion..... 10  
Per line, for each subsequent insertion to 3 mo's. 05  
Cards not occupying more than 12 lines (1 inch) per annum..... 8 00  
Cards not occupying more than 12 lines (1 inch) for six months..... 5 00  
Cards not occupying more than 6 lines per annum 5 00  
Cards not occupying more than 6 lines, for 3 mo's 3 00

Special rates will be made for page, half page and column advertisements.  
Advertisements intended for insertion in any particular issue should reach the office of publication at least four clear days before the day of publication, to insure insertion.

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

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

The CANADA LUMBERMAN is filed at the Offices of Messrs. SAMUEL DEACON & Co., 164 Leadenhall Street, London, England, who also receive advertisements and subscriptions for this paper.

PETERBOROUGH, Ont. JUNE 1, 1885.

A BLACK walnut tree of average size reduced to gum stocks is worth from \$1,000 to \$1,500.

THE Belleville *Intelligencer* says that a force of men is now rafting timber at the G. J. R. dock for Mr. Boyd, of Bobcaygeon. The raft will consist of two drams, which contain about 60,000 feet, and will be shipped for Quebec at the close of the week.

THE Nowmarket *Era* says that another machine has been added to the large and increasing manufactory of Messrs. W. Cane & Son, in the shape of a double bolter, by the aid of which two shingles can be cut at once, thus doubling the capacity.

THE drivers in the Michigan streams are favored with water to a much greater extent than are their co-laborers in Minnesota and Wisconsin. In the two last named states there are a great many drives hung up, and further progress will largely depend upon spring rains.

We have received from Mr. C. H. Clark, of Barrie, some beautiful specimens of Spurr's Paper-hanging while giving the effect of woodwork for either walls or ceilings. These veneers seem admirably adapted for the purpose; they are no thicker, including both wood and paper, than the common hangings, while the grain of the great variety of wood is beautifully displayed. We cannot speak personally as to their durability, but there is very strong testimony in their favor.

THE Bay City *Lumberman's Gazette* says:—At some of the large lumber distributing centres, the newspapers are coming to a realization of the true situation of affairs at the initial points, and are giving the signals for a stiffening of values, in order to meet the inevitable with some show of complacency. They are evidently beginning to appreciate the facts stated several weeks ago by us that the exorbitant and almost unrivalled call for lumber to meet the demands of building operations must necessarily stiffen values, as well as brace up the spinal columns of the manufacturers.

THE best authorities in Arizona estimate that the territorial plateau, which embraces six thousand square miles, will yield 20,000,000 feet of lumber. The timber is said to be of the finest quality, and if protected by the Government will be source of great wealth to the Territory.

A cablegram has been received from Paris announcing that Mr. L. A. Senecal had made another grand coup there by the sale of the Hall estate, comprising timber limits, mills, and millions of acres of land, to the new French Colonization Company, which he had so much trouble in getting chartered at the last session of the local Legislature.

THE different saw mills along the Pacific coast of British Columbia are running night and day to supply the demand for lumber for the erection of new canneries and buildings. On account of so much work going on along the coast, the Indians are looking forward toward obtaining high wages during the fishing season, and are very scarce already.

THE *Lumberman's Gazette* says:—The Wisconsin drives are in about the same condition as those of Michigan. Unless there should come heavy rains, many of the logs will be hung up. The *Chippewa Herald* of a recent date says that of the 700,000,000 feet put in only 200,000,000 had been got out, and that it would take a week's heavy rain to insure the drive. As the rain has not made its appearance, the prospects on the Chippewa must not be very flattering.

THE Grand Forks *Herald* says:—The lumbering outlook in northern Minnesota is not bright. According to the *Brainerd Dispatch*, which is in a position to know, about every drive in northern Minnesota is hung up high and dry, except those on the Rum river and they are moving very slowly. If it don't rain pretty soon and swell the waters on the various small streams on which the logs are lying still, lumber is going to be lumber this season and don't forget that for a moment.

THE Amsterdam, N. Y., *Recorder*, says that by the law which has passed the legislature, prohibiting the sale of State lands containing forests, the lumber trade in the Adirondack woods, of which Gloverville is the shipping point, will almost cease in two or three years, and will ultimately throw out of employment a large number of men. The bill was passed in order to protect the water supply of the Hudson and Mohawk Rivers, it having been asserted that if the wholesale destruction of the northern timber lands continued for a few years longer, navigation on the Hudson would only be possible as far north as the city of Hudson.

THE Belleville *Intelligencer* of May 22, says: A party of river drivers arrived here this morning and will leave for their homes at Sorel, Quebec, to-night. They have been in the woods seven months. Reports from the Beaver Creek drive are very encouraging, as excellent progress is being made. It is expected the drive will reach Tronton at an earlier date than any that has yet passed through Beaver Creek. The head of the first drive on the Moira is in the dead water on this side of O'Brien's bridge, and the tail passed Tweed yesterday. The wind aided the rivermen in their work there to-day, and it is probable that the logs will begin to arrive here on Thursday.

A TRESTLE-WORK being constructed for a railroad across Lake Pontchartrain, Louisiana, is to be twenty-one and a half miles in length. The distance comprises thirteen and a half miles from People's Avenue Canal to the Point, five and three quarter miles across the lake, and two and four-tenth miles from the north shore. All of the piling along the southern shore, with the exception of about one mile, has been driven, and this division will be completed by July 1. Of the piling in the lake two and a quarter miles have been driven, and one mile of the work is completed. The trestle on the north shore has been finished some time, and the rails are laid nine miles. The piles average sixty feet long, and are driven about forty feet.

**GRAVENHURST.**

*From Our Own Correspondent.*

MAY 22.—The season has fairly opened here, and the saw mills, with the exception of one, have commenced operations. The spring has been a very backward one; the ice remaining in the lakes as late as 16th inst. This has helped to retard driving as after getting the logs down to some of the smaller lakes the lumbermen were unable to get them any further until the ice went off. River driving is now well advanced however, the continued rains and cool weather being very favorable to this important operation, an operation which has come to be a very expensive one in this region of late years, owing to the long distance the logs have to be driven, the smallness and crookedness of the streams, the beds of which are also much obstructed by rocks, so that unless the season proves extremely favorable there are always a large quantity of logs hung up. During the past winter very heavy stocks have been taken out, probably the heaviest in the history of Muskoka, and should they be all got down to the mills the present season bids fair to surpass any previous season in the manufacture of lumber to the extent of about ten million feet. There are now eleven saw mills in and around Gravenhurst, the estimated cut for this season being 40,000,000 feet of lumber and 60,000,000 shingles. There are also several small mills up the lakes cutting three or four million feet of lumber which will be shipped from this point.

A large portion of last season's cut still remains at the mills, this is, however, all in the hands of the dealers who are shipping it as fast as they can procure cars from the railway company. Lumbermen say that their stocks will cost them this year at least one dollar per M. more than last year owing to the severity of the winter, and the high rate of wages, and very few stocks have been sold yet, as the dealers seem indisposed to offer higher prices than were given last year.

Several of the mills have put in new and improved machinery this spring, thereby adding considerably to their capacity.

The Woodstock Lumber company have sold their mill and limits to Messrs. Van Leek & Co., of Port Burwell, for \$90,000, who have taken possession and intend running the mill to its full capacity.

There are also one or two new mills projected here, of which I will give you particulars in a future letter.

**WINNIPEG.**

*From Our Own Correspondent.*

MAY, 23.—There is a marked change in the lumber trade of this place as compared with last season. We were then importing four-fifths of the required stock, principally from St. Paul. Our three good mills were not then constructed; all three were started last fall and run between one and two months. This spring they are again running, with the exception of the Winnipeg Lumbering Company's Mill, which is having a new engine and boiler placed in.

Their cutting capabilities are nearly equal to the present demand of the town, which, though still large, is immensely less than the exceptional requirements of last season. As the building season advances more will be required. There is also a rapidly increasing demand along the line of the C. P. R. Southern Manitoba too is a fine growing market. It is quite evident, however, that the home supply will at least be nearly equal to the home demand. The spruce lumber and timber from Lake Winnipeg contributes its small but important share. The main dependence, however, will be on the mills in the Keewatin district, several row ones of large cutting capacity have lately been built, and one or two others are in progress of construction. There are also small mills to the westward along the line of settlement where ever there are patches of forest large enough to warrant their building, so that the North-West can in a great measure rely upon its own resources for its timber and lumber; its success would be fully assured if it could carry the same self dependence into its many other industrial departments, but time and patience, with North-West energy, will accomplish much. Mill-men here have shared in a very prevalent

impression, that if you want anything good you must go to the States for it. Accordingly the Winnipeg and Rainy Lake Lumber Companies each went to their chosen American manufacturers for their engines and mill machinery. D. E. Sprague, Esq., however, had faith in Canadian mechanics, the design, construction and management of the mill being wholly Canadian. Mr. Wm. Hamilton, of the good town of Peterborough, supplying the machinery and motive power. The result vindicates the good judgment of the proprietor. While we would offer no disparagement to the other mills which are certainly excellent, yet it is generally conceded that Mr. Sprague has the neatest, best arranged, and finest working mill of the three. As a lumber manufacturing investment it stands No. 1.

It is also gratifying to find that the impression referred to is being corrected in more instances than this.

**NORTH-WEST TIMBER.**

The timber supplies of the Canadian North-west are beginning to attract the attention of American lumber manufacturers, and it is not at all unlikely that considerable capital from the south side of the boundary line will be employed within a few years in developing the resources of this country. Americans have opened their eyes to the fact that with railway and water communication between the North-west and the Ontario lumber districts, they must soon lose the extensive market they have hitherto had in Manitoba. Had they only the reduced freights, and quicker transportation furnished by the opening of the Thunder Bay route to compete with there would be little fear but they would still manage to maintain a footing in this market. But when a tariff is taken into consideration the case is entirely altered, and the supplying of Manitoba and the North-west will soon be beyond even the elastic power of the American manufacturers' price doctoring. It would be altogether out of the limit of American trade ingenuity to suppose that these manufacturers would quietly yield up their privileges in such a valuable and increasing trade field, without exhausting every plan for continuing competition. Logs are admitted duty free in the Dominion, but to float them down the Red River into Canadian territory, and for Canadian mills to saw, savors too much of dealing in raw material to suit the ideas of the enterprising class who are connected with the lumber industry in the North-western States. As a natural consequence American lumbermen are casting their eyes towards the timber fields of the North-west, with a share of which as resources in raw material they can take their place among the manufacturers of this country.

It is a fact that the timber of this country, or at least that portion of it fit for lumber manufacture, has as yet been very little drawn upon. Hitherto lumbering has been little more than a system of culling from the best districts within easy reach of Winnipeg. The lower portions of Lake Winnipeg were until very lately the only locality where operations were carried on to any extent, and these have only recently been supplemented by cutting in the Lake of the Woods country. As yet the vast timber fields on the upper Lake Winnipeg, where the finest spruce limits in the Northwest are known to exist are almost untouched, although the establishing of a more extensive system of navigation on that lake is all that is necessary to bring these timber lands within easy reach of the Manitoba lumber market. It can scarcely be expected, with the present system of rapid development, and over increasing demand for lumber which is now going on in the Northwest, these timber resources will long remain untouched, and it is just possible that American capital and American enterprise will soon assist much in their development.

A few days ago Mr. Platt B. Walker, editor and publisher of the *Mississippi Valley Lumberman*, was in Winnipeg accompanied by his brother of the well-known Minneapolis lumber firm of Camp & Walker, with a view of inquiring into the timber resources of this country. This visit was only a preliminary one we understand, and as soon as lake navigation opens he intends to return and arrange for a system of lumber prospecting on a large scale. No man

is better able to form a correct idea of the lumber resources of a country, and before the close of the present season he will no doubt be in a position, to furnish reliable information regarding those of the Northwest. Numbers of Americans besides Mr. Walker have contemplated such an undertaking, and it is not at all unlikely, that during the summer months quite a few lumber exploring parties from the United States will be at work on Lake Winnipeg and other timber districts. Should these explorations result in the discovery of valuable lumber fields, they will soon be brought under the influence of the lumberman's axe, and prove a source of great profit to those who engage in their development. It would be rather a takedown to Canadian capitalists looking for Northwestern investments, if these enterprising Americans should open up fields, that would give rich returns, and greatly extend a valuable industry in the country, while they—the Canadians—were bothering with paper-town sites, worthless characters for imaginary railroads and such like; and there is a strong probability that such will be the case. Practical manufacturing enterprise cannot but produce satisfactory results, especially when prosecuted in such a promising field as the timber resources of the Canadian Northwest.—*Winnipeg Commercial.*

**HARDWOOD UTILIZED.**

Mr. John Shetterly, a manufacturer of hardwood lumber, at New Troy, Mich., tells the *Northwestern Lumberman* that he saws beech and elm principally, and has placed something over 1,000,000 feet of beech with consumers in Chicago. The beech of his section is chiefly the red variety, the white being more hard and warpy, and worth about two dollars per thousand and less in the market. Beech is becoming a more important factor in the hardwood trade, on account of its cheapness. It is a very durable wood, and has a fine grain. It is principally used in the making of school furniture, chairs, bedsteads, etc., and when quarter-sawn is considerably used for finishing. To some extent it has been employed in floors, and by many it is thought to be equal to maple for that purpose. The furniture makers are using much more beech now than was the case a few years ago. The red kind is a very handsome wood, and can be made to imitate cherry. The trees in the region of New Troy afford on an average about 40 to 50 feet in length of logs. Red beech is worth \$15, log run, and firsts and seconds sell for upwards of \$17. Beech stumpage is worth from \$1 to \$1.50. Elm commands somewhat better prices. Mr. Shetterly aims to obtain all the good lumber possible from a log, and to make clear clear, and culls culls. The frequent turning of a log, though requiring time, he holds essential to the securing of the largest amount of good lumber. In another respect his example is worthy of emulation by others of his craft. He ships his good lumber to market, and keeps the culls at home, realizing the fact that there is a good demand for a decent article, and that the market is overstocked with poor lumber.

**CHICAGO BLOCKADED.**

The *Northwestern Lumberman* of May 19th says:—From Thursday to Saturday last, inclusive, a serious and damaging blockade existed at the mouth of the harbor. The Wocoken, a huge steamer, became unmanageable, owing to the very rapid current which the high water in the river had produced, and though in charge of two tugs, it nevertheless swung across the stream at the north pier. So tightly was it wedged in, that it could not be stirred, though everything possible was done, and a fleet of tugs was engaged. Neither steam nor strategy had any effect. Vessels were arriving constantly, but were unable to proceed up the river. It was thought that the Wocoken would have to be lighted before she could be got off, but by diligent effort during Friday forenoon she was pulled out of the mud, and the blockade was open. The jubilancy of the vesselmen was of short duration, however. In about a half hour the Tacoma, another huge steamer, grain-laden, repeated the exploit, and was soon jammed fast across the river, with her nose thrust into the Illinois Central slip, and her stern resting firmly

against the dock of the Pashtigo Company. The united efforts of a half dozen tugs failed to budge her. She was even more firmly fixed than the Wocoken had been. The puffing and tugging continued all the afternoon, and till Saturday afternoon, with no success. About a dozen tugs and steamers were at work, and the vicinity was overspread with a dense cloud of smoke, which settled down on the scene like a black fog, the smutty blasts blowing into the faces of the perspiring workmen and the streams of curious spectators who thronged the slips for three days. The masts and smokestacks of some 90 craft towered in the air like the skeleton trunks of a wierd forest. One half of the vessels were loaded with lumber and posts, the latter cargoes being strikingly numerous. Since it would be necessary to send to Milwaukee for a floating transfer elevator to lighten the Tacoma, if this expediency was resorted to, a diligent endeavor was made to bring her out. At one time nearly a score of propellers and tugs were at work, with no success. Purchases were rigged, and finally, along in the evening, a happy combination was hit upon, a four-fold purchase slowly starting the Tacoma from her stubbornly held position. When once under headway she was readily towed into the Illinois Central slip, and the blockade was raised. Then the tugs had active work, and the craft began moving up the river, keeping the bridge-tenders sweating, and the pedestrians swearing. The Tacoma, though not as badly damaged as was supposed, had to go into dry-dock. The general loss to business on account of the embargo is very heavy, and has been estimated at nearly \$500,000. The lumber market was bare and desolate during the blockade. The damage to the Tacoma has latterly been estimated at \$3,000.

**FOREST FIRES.**

WOODSVILLE, N. H., May 19.—Baldwin's saw-mill and two million feet of lumber, also the depot, water-house, and 500 cords of wood, the property of the Montpelier and Wells River railroad, with two cars, have been burned. Woodland fires are raging in Twin Mountain, Jefferson, and Warren Summit, and much damage is anticipated. Thousands of acres have already been burned over. A large force of men are fighting the flames. The losses on standing and cut timber are already large.

A despatch from Plymouth says forest fires are raging fiercely on Mount Webster and Blueberry mountain, and a brisk wind is blowing. Nine hundred acres have been burned over, and a thousand cords of cut wood are imperilled. A special train has gone from here to Warren Summit with two hundred men to check the fire and to protect railroad property. Another fire is reported in the vicinity of North Concord.

TAUNTON, Mass., May 19.—Fifty acres of valuable woodland between here and Middleboro' were burned to-day. A large woodland fire is now raging in the west part of Dighton.

YAPHANK, L. I., May 20.—Five destructive forest fires have been burning in the woods surrounding Yaphank since the 10th inst.

MONTPELIER, Vt., May 20.—The most disastrous forest fire that ever occurred in Vermont started yesterday in the vicinity of Groton. An immense tract has been burned over and a large amount of property destroyed. The loss is estimated at \$150,000.

LANCASTER, N. H., May 20.—Fire started in the woods on Cherry mountain on Saturday, and spread over a large territory, causing a loss of \$10,000 worth of timber. Wickers' saw-mill and boarding house at Jefferson, with a large quantity of logs and manufactured lumber, and Willoughby and Gale's coal kilns, with 2,000 cords of wood, were burned.

The *Northwestern Lumberman* says:—Cedar is one of the woods that many pine operators are holding in reserve. On one stream in Michigan a large saw-mill concern owns a large body of cedar, but they will not sell a stick of it, and at present have no occasion to cut it themselves. They think it is good property to hold on to, considering it cost them but little, and undoubtedly they are right. When the company's pine is exhausted the cedar will come in play. This is but one of many similar cases.

**Second Growth Pine.**

Not a small part of central and southern New England, no longer profitable for agriculture, is now growing up with white pine, and this, if it can only be protected, will, it is thought, soon exceed in value the net profit upon all the New England farms. In some parts of New England, this second growth of pine has been growing for a considerable time, and has already given rise to large and profitable industries. The value of logs cut in Massachusetts during the census year reached nearly \$2,000,000. At least one-half of these logs were of second growth pine. More than 100,000,000 feet of second growth pine were sawed during the same year in Vermont and New Hampshire, and nearly, if not quite, as much more in Maine.—*N. Y. Lumber Trade Review.*

**Cheap Transportation.**

The *International of Emerson, Manitoba*, hold the right view as to cheap transportation. It says:—"Carney & Watson, lumber dealers, are loading their large barge with laths for down river points. The barge will be floated down river. Cheap locomotion and transportation. Nothing like having a navigable river for a transportation highway."

A Quebec despatch says that most of the timber cut this season on the St. Maurice and Batiscan rivers will be stuck this year in the drive.

In a recent discussion on forestry Mr. Hough has suggested the possibility of training trees so that they may present a showy and a novel grain in veneer.

The *Northwestern Lumberman* says:—A report reaches us from Arkansas that the owners of pine lands in the southwestern part of that state are considerably agitated by the ravages of some sort of a bug that strips the pine trees of all their foliage, and leaves them looking apparently as though they were dead. Some claim that the trees will die, whilst others think they will not be materially injured. The worm, it is said, as soon as its work of destruction is over, drops to the ground and dies; so that it appears pine spies don't agree with it, and it no doubt will soon tire of that sort of diet.

A New York correspondent of the *Northwestern Lumberman* says:—There is but little eastern spruce arriving as yet, and the supplies at the yards are being reduced. No changes have yet been made in prices. If values are held firm, or advanced, it will be so through a power that is stronger than the association recently formed. There is a drouth in Maine, and the rivers down which spruce is brought to market are at a very low stage of water. It is said by those who are conversant with the country that they are as scant of water as they are usually during the driest days of summer. This will hang up vast quantities of logs, and if enough do not come down to meet the demand prices will naturally stiffen. There is no abundant supply to draw from in this market at the present time, but if there comes plenty of water in the eastern rivers there will be large quantities soon ready to push into market, and then prices may suffer.

A Boston correspondent of the *Northwestern Lumberman* says:—From conversation with several of our largest wholesalers the past week, I can sum up the several opinions of trade about as follows: Every one asserted that the trade has been held back fully a month by bad weather, but that from this time on it will increase and hold good until well into the fall. No one predicts a boom, but there is to be a steady, general demand for all kinds of building and manufacturing lumber. I talked with a reliable party yesterday, who has just returned from Bangor. He reports the prospects of getting in the spruce logs as very discouraging. The frost went out of the ground so gradually that the melted snow soaked into the ground, instead of swelling the small streams, and unless there are heavy rains, sufficient to cause a rise of the water in the branch streams, it will be impossible to get in the logs, and there must necessarily be a scarcity. This will have a tendency to still further advance in price.

**WATER POWER**

TO LEASE.

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

**R. & G. STRICKLAND**  
1480 LAKEFIELD, ONT. W1510

**A RARE CHANCE!**

**Valuable Steam Saw-Mill**

FOR SALE.

The Waba Creek Steam Saw Mills, situated on the Madawaska River, one mile from Arnprior. Capacity of Mill, Fifty Thousand Feet of Lumber per Eleven hours. Capacity of Booming Pond, Thirty Thousand Logs. Has Sidings through piling grounds connected with main line of Canada Pacific Railway. The Mill is in good repair, having only run a short time, and is well found in all appliances required to run it to the above capacity. There is also a good water power connected with it from the Waba Creek, and good stabling, Barn, Boarding House, and other buildings. For information, price and terms, apply to John Robertson, 681, Selgrieux Street, Montreal, or to James McCuan, Arnprior, who will show intending purchasers the whole property, or to

ALEX. HECK,  
Ottawa.

**SAW MILLS**

AND

**TIMBER LIMITS**

WITH

Logs, Lumber, Store Goods, &c

**FOR SALE**

In the District of Algoma, Ont.

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

Canada Pacific Railway now running through part of the property.

For full particulars address:—

**WILLIAMS & MURRAY,**  
GODERICH, ONT.



**LACHINE CANAL.**

**NOTICE TO CONTRACTORS.**

SEALED TENDERS, addressed to the under-signed, and endorsed "Tender for the Formation of Basins near St. Gabriel Locks," will be received at this office until the arrival of the Eastern and Western mails on WEDNESDAY, THE 6TH DAY OF JUNE next, for the formation of TWO SLIPS or BASINS, on the north side of the Lachine Canal, at Montreal.

A plan and specification of the work to be done can be seen at this office, and at the Lachine Canal Office, Montreal, on the after TUESDAY, the 22nd day of MAY next, at either of which places printed forms of tender can be obtained.

Contractors are requested to bear in mind that tenders will not be considered unless made strictly in accordance with the printed forms. An accepted Bank cheque for sum of \$2,000, must accompany each tender, which sum shall be forfeited, if the party tendering declines entering into contract for the works at the rates and on the terms stated in the offer submitted. The cheque thus sent in will be returned to the respective parties whose tenders are not accepted.

This Department does not, however, bind itself to accept the lowest or any tender.

By order,

A. P. BRADLEY,  
Secretary.

Dept. of Railways and Canal,  
Ottawa, 21st April 1883.

Gd100-2112

**REST**

not, life is sweeping by, go and dare before you die, something mighty and sublime leave behind to conquer time." \$30 a week in your own town. \$5 outfit free. No risk. Everything new. Capital not required. We will furnish you everything. Many are making fortunes. Ladies make as much as men, and boys and girls make great pay. Reader, if you want business at which you can make great pay all the time, write for particulars to H. H. HARR & Co., Portland, Maine.



## GOVERNMENT SLIDES ACT.

The following Act is so important to lumber that we give it in full:

An Act to make further provision respecting the regulation and collection of tolls on Government timber slides and other works constructed to facilitate the transmission of timber, lumber and saw-logs.

Whereas it is necessary to make more ample provision respecting the regulation of tolls imposed for the use of slides and other works under the control of the Government of Canada, and used for the purpose of facilitating the transmission of timber and lumber down rivers and streams, and also respecting the collection of such tolls, and the imposition and enforcement of penalties under the law or any regulation made thereunder; therefore Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:—

1. In this Act the term "Works" means and includes the slides, booms, dams, bulkheads, and other works and improvements for facilitating the transmission of timber and lumber down any river or stream, which are under the control of the Government of Canada; and the term "Collector of tolls and dues," means and includes every officer authorized by competent authority to receive any tolls, dues, or charges whatsoever, payable by any person using or taking advantage of any works to which this Act applies.

2. All works to which this Act applies shall, as respects the construction, repair, maintenance and management thereof, be under the control of the Department of Public Works, and as respects the collection of tolls and dues on any timber, lumber or saw-logs passing through or using the said works, the same shall be under the control of the Department of Inland Revenue.

3. In addition to the powers now in him vested by law in that behalf, the Governor in Council may, from time to time make, revoke, alter or amend regulations as respects matters relating to such works as aforesaid, and not specially provided for by this or any other Act, and for fixing the rates of toll, and the dues to be charged for the use of any such works, or of any series of such works (the rates in such latter case to be denominated through rates) and providing for the manner in which such tolls and dues shall be ascertained and collected, and also for imposing fines and penalties for any infraction of such regulations, not exceeding in any one case five hundred dollars; and such fines and penalties shall be recoverable in such manner as shall be stated in the regulations imposing the same.

2. And the Governor in Council may make regulations authorizing a collector of tolls and dues on any works, in any case or class of cases to be specified in the regulation, to require any assertion of fact or any statement in relation to any matter to which this Act or any regulation made under it relates, to be verified by the oath of the person making such assertion of fact or statement; and the oath so authorized may be administered by any Judge or Clerk of any County or Circuit Court, or any Justice of the Peace or any Commissioner for taking affidavits for use in any Court in Canada, or by the collector of tolls and dues.

4. All tolls and dues chargeable for the transmission of timber, lumber or saw logs through or over any works shall be a first charge or lien on all or any part of such timber, lumber or saw-logs (each part being liable for the whole), and the same shall be liable for the payment of the tolls and dues thereon, so long as, and whosoever, the said timber, or any part of it, may be found, whether it be, or be not, converted into deals or boards; and all officers or agents employed in the collection of such tolls and dues, and all persons acting under the authority of such officers or agents may follow all such timber and may seize and detain the same wherever it be found, until the dues thereon are paid or secured as provided by this Act or by any regulation made thereunder; and no transfer, assignment, sale, mortgage or delivery to another party, or change of owner, shall affect the claim or lien of the Crown on any timber, lumber or saw-logs, or sawn lumber, in respect of which, or of the timber, lumber or

saw-logs out of which such sawn lumber was manufactured, any tolls or dues for the use of any works remain due and unpaid, saving always the right of the innocent holder to any remedy which he may have at law against the person from whom he received such timber, lumber or saw-logs, or the product thereof; Provided always, that no part of any such timber, lumber, saw-logs, or the product thereof, when bona fide sold, assigned, or transferred, shall be liable for more than double the tolls or dues accrued, in proportion to the amount chargeable upon the whole, upon such timber, lumber or saw-logs, or upon the timber, lumber or saw-logs from which the product was manufactured, in addition to the costs, if any, incurred in connection therewith.

2. And if any timber, lumber or saw-logs, in respect of which tolls or dues are chargeable, have been converted into sawn lumber and placed in any yard or piling ground with other sawn lumber, in such way that its identity cannot be ascertained, then, and in that case, all the sawn lumber in such yard or piling ground shall be deemed to be the product of timber, lumber or saw-logs which have passed over or through works to which this Act applies, and shall be liable for all tolls and dues with which the timber, lumber or saw-logs, the product of which has been so placed with other sawn lumber in such yard or piling ground, are chargeable.

5. If any timber, lumber or saw-logs, or product thereof, so seized and detained for non-payment of tolls, dues, penalties and expenses remain more than thirty days in the custody of the collector or person appointed to guard the same, without the tolls, dues, penalties and expenses being paid, then the Minister of Inland Revenue may order a sale of the said timber, lumber or saw-logs, or product thereof, to be made after such notice as he may deem sufficient; and the balance of the proceeds of such sale, after retaining the amount of tolls, dues, penalties and costs incurred, shall be paid to the owner or claimant of such timber, lumber or saw-logs, or product thereof; and should there not be sufficient realized from such sale to defray such tolls, dues, penalties and expenses, the amount remaining unpaid may be recovered with costs, in any Court having civil jurisdiction to the amount, by the collector of tolls and dues in his own name, or in the name of Her Majesty; provided always that the whole amount of tolls and penalties may be recovered in like manner with costs from the owner or party in possession of such timber, lumber or saw-logs, or product thereof, by the collector of tolls and dues, should he, by permission of the Minister of Inland Revenue, choose that method of collection: Provided also, that all pecuniary penalties imposed by any regulation made by the Governor in Council under this Act may be recovered by the collector of tolls and dues, if he sees fit, by summary proceedings before any justice of the peace under the sixty-first section of the "Act respecting the Public Works of Canada," which applies to the works herein referred to.

6. Any officer or person seizing timber, lumber or saw-logs, or any product thereof, in the discharge of his duty under this Act may, in the name of the Crown, call in any assistance necessary for securing and protecting the property so seized; and if any person under any pretence, either by assault, force or violence, or by threat of assault, force or violence, in any way resists or obstructs any officer or person acting in his aid in the discharge of his duty under this Act, such person being convicted shall be adjudged guilty of felony, and shall be punishable accordingly.

7. It shall be the duty of collectors of Customs, officers of canals, and all other Government officers, when requested so to do, to cooperate with the collector of tolls and dues and his assistants, with the view of preventing the transport of timber, lumber and saw-logs and the products thereof, till the charges thereon are secured.

8. All managers and officers of railways, on being requested by the collector of tolls and dues, shall render a correct account of all timber, lumber and saw logs being forwarded by their respective railways, stating kinds and quantities, and specifying the owners thereof

or by whom sent; and should any of such managers or officers refuse or neglect to give the required information, the collector of tolls and dues or person acting for him may, if he have reasonable cause to believe that the tolls and dues thereon have not been paid, seize and detain such timber, lumber or saw-logs together with the cars employed in removing them, and such cars and timber, lumber or saw-logs shall be forfeited to Her Majesty, unless it shall be proved that the tolls and dues on such timber, lumber or saw-logs have been paid, or that the timber, lumber or saw-logs are not liable for any such tolls or dues; and the Minister of Inland Revenue may order the same when so forfeited to be sold at his discretion; and the managers and officers of railways so refusing or neglecting to give the information above required, or giving false information, shall be personally liable for such fines and penalties as may be imposed by regulations.

9. If any person, whether pretending to be the owner or not, either secretly or openly, and whether with or without force or violence, takes or carries away, or causes to be taken or carried away without the permission of the officer or person who seized the same, or of some competent authority, any timber, lumber or saw-logs, or product thereof, seized and detained under this Act before the same have been declared by competent authority to have been seized without due cause, such person shall be deemed to have stolen such timber, lumber or saw-logs, or product thereof, and to be guilty of felony, and shall be punishable accordingly.

10. And when any timber, lumber or saw-logs, or products thereof, are seized for non-payment of tolls or dues, or any prosecution is brought for tolls or dues and penalties under this Act, and any question arises whether the tolls or dues have been paid on such timber, lumber or saw-logs, or product thereof, or whether the same are liable to tolls or dues for having used the works in respect of which the same are charged, the burden of proving payment or that the works were not used, shall lie on the owner or claimant of such timber, lumber or saw-logs, or product thereof, and not on the officer seizing the same, or the party bringing such prosecution.

11. It shall be lawful for the collector of tolls and dues, with the sanction of the Minister of Inland Revenue, to release from seizure any timber, lumber or saw-logs, or product thereof, seized under this Act, and to deliver the same to the alleged owner, on receiving security by bond with two good and sufficient sureties, satisfactory to him, to pay double the amount claimed as chargeable in respect of such timber, lumber or saw-logs, or product thereof; and such bond shall be taken in the name of Her Majesty; and if such seizure is maintained by competent authority, the amount actually due, with interest and costs, shall be paid forthwith to the proper officer, otherwise the penalty of such bond shall be enforced and recovered.

## TREE-PLANTING.

A correspondent writes to the Minnedosa, Manitoba, Tribune as follows:—

SIR,—In your paper of the 13th I read an interesting article on tree planting, from the pen of Hon. Robert W. Furnas, of Brownville, Nebraska. In commenting on that article you say that there is every reason to believe that tree-planting would prove as successful here as in Nebraska. Allow me to say that I have held that belief ever since I came to the little Saskatchewan, and acting on that belief I set to work to prepare a piece of ground for the planting of trees on my homestead. Whether I have been successful or not I will let you and your readers judge. After preparing the ground the difficult part of the undertaking commenced, the all-important question suggested itself "what shall I plant?" Unable to satisfactorily settle the question for myself I wrote to a friend in Minnesota and asked for advice. My friend promptly came to my aid by sending me a Forest Tree Planter's Manual prepared by L. B. Hodges, secretary of the Minnesota State Forestry Association. After a careful study of this valuable book I thought the white willow would be the tree for me. My reason for this was two-fold: first it cost less than any other; second the willow will

grow from cuttings or slips. I sent an order to Minnesota for one thousand cuttings. The cuttings were shipped on the first of March, but those being the good old days of the ox and cart they did not come to Minnedosa till 16th of May. The following day I opened the box. I am not sure that I did not say some "cuss" words when I saw those plants. Little sticks about a foot long the size of a lead pencil and sharp at the big end was what what they sent me, and rather dry looking at that. I threw them in a pond to soak for a couple of days before planting, and then commenced sticking them in the ground and I am free to admit that never did I do work on the place that I was more ashamed of. I planted every one of them. There were 840 willows and 160 cottonwoods. In about a week the buds began to open and in less than one month they were out nicely and out of the whole lot only two failed. Never was man more pleasantly surprised than I was to see trees growing from those small dry sticks. During the summer months I cultivated those trees as I would a crop of potatoes. I kept that piece of ground as clean as a hungry hound's tooth, and in the fall I had a little forest of my own with trees measuring five feet ten inches in height and about one inch in diameter. Now sir, who among us will not want to know what kind of a tree a white willow is. I say it is of great use in a country like this, where there is no timber at all on many of our farms. Of course I am not prepared to say from my own experience how large a tree it is, but I will give others as my authority for saying it is a valuable tree.

Samuel Edwards, Bureau County, Ill., writing to the Germantown Telegraph, says:—"It has been growing here since 1845, and the more we become acquainted with it the better we like it. No other tree has made as rapid growth. Many are planting it all over the prairie for timber, much is being set for hedges."

J. Plank, Eyota, Minn., writing to the Farmers' Union says:—"I think white willow makes the best and cheapest fence. In six years from planting, you have a live fence which will last a lifetime."

General J. S. Brisbin, U. S. A., writing from Omaha to the Chicago Tribune says of the white willow:—"It grows from a shoot without roots, and foresters always praise its rapid and graceful return for the slight labor they bestow upon it. A tree of this kind attains a height of 60 to 70 feet and shows an immense trunk."

But why take up space with further testimony. You may say it is all foreign. In that case allow me to refer you to one of your respected townsmen, Mr. James Jermyn. He has seen my forest trees and talks of them with as much pride as if they were worth thousands to him. Now sir, I think if our Local Legislature would seriously take hold of the forest culture question and do something to encourage our farmers to plant trees, that it would be a wise and good act.

## THE FUTURE OF THE COTTONWOOD.

The despised cottonwood may yet become the most popular as well as the most valuable tree. Late inventions and discoveries have revealed the fact that the finest polish and strongest household furniture can be made out of paper. It can be pressed so hard that no instrument short of a diamond can scratch it—and it can be given the finest shades in imitation of wood, and produced cheaper than walnut, mahogany, or ebony. And late discoveries in paper making established the fact that cottonwood makes the whitest and strongest fibre pulp yet manufactured out of wood. There are vast quantities of pulp imported, and some newspaper men are clamoring for it being free of duty. Paper-mills in Delaware, Pennsylvania, and other northern states are shipping thousands of cords of poplar wood from the Chowan river in North Carolina, one mill in Delaware contracting for 30,000 cords. This is costly, and shows conclusively that our rich lands, where cottonwood grows luxuriantly, and of which in many cases the black walnut has been denuded to make furniture in England, may yet become profitable fields to raise and manufacture paper, furniture, car-wheels and houses. Something has to take the place of pine, walnut and cherry in

house-building and ornamental wood-work, and the probability now is that the cottonwood is the coming tree. It is easier propagated, a more rapid grower, is exempt from enemies and parasites, and is a native almost everywhere. Forestry-men have troubled themselves about the future timber to supply the industrial pursuits. The best of car-wheels are made of paper, which stand the weather and wear longer than iron, and are less liable to accidents from breaking. If they will stand in this most difficult trial, paper can certainly be used in almost any place. And if it can best be made of cottonwood pulp, who doubts that this abused and derided tree is bound to come to the front and yet become one of the most popular timbers for true cultivation.—*Iowa State Register.*

**NEW YORK PURCHASES.**

New York is after Lake Superior pine. According to the *Lumber Trade Review*, Lewis A. Hall and A. A. Buel, of the Export Lumber Company, that city, have recently completed the purchase of property situated upon Lake Superior. It comprises 50,000 acres of pine land on Wiaka bay, a short distance above Sault Ste. Marie, with booming facilities for 20,000,000 feet of logs, and standing pine timber estimated at 250,000,000 feet, of which about 12,000,000 feet will be got in this season and sawed before the close of 1883. There is upon the property a mill running two circulars, with lath and edging works, shingle mill and all the necessary adjunct machinery of modern construction, together with a store, boarding house, tug and lighters and, in short, every necessary facility for carrying on a large business. The timber is of good quality, and the river which empties into the bay is navigable for a distance of 30 miles from its mouth. We learn that a large portion of the cut has been sold to an Albany dealer.—*Lumberman's Gazette.*

**Driving Retarded.**

The *Lumberman's Gazette* says.—Reports from every direction are to the effect that log driving is being retarded quite seriously. The *Albany Argus* in alluding to this says that "the want of water in the various streams has hindered log driving very much, and the logs in many of the streams have been 'hung up.' The prospect for a successful drive, so far, is not very bright, and will cause the lumbermen considerable extra expense." The reports as above from Thunder Bay territory are similar to those from the headwaters of the streams tributary to all the great manufacturing centres, which indicates unmistakably that the lumber production of Michigan will be short of that of last year. The *Ludington Record* says that "the mills started up a month later this year than last. On July 1st, 1883, but two-thirds the amount of last year's cut to same date, will be manufactured. The total cut for 1882 at Ludington was 139,248,851. The estimate for the present year is 115,000,000."

**Re-wooding Denuded Forest Lands.**

QUEBEC, May 15.—A striking example of the practical advantages of re-wooding denuded forest lands is noted in connection with the celebration of Arbor Day in this section of the Province to-morrow. Hon. Mr. Joly, who prosecutes an extensive lumbering business on the Seigniories in Lotbiniere County, is actually reaping the fruits of re-foresting; timber which he has been cutting for years past having been planted by his own father on the land from which the primeval growth had long been cleared by the early French settlers.

There is at present, comparatively speaking, very little lumber on the Saginaw river mill docks unsold. When we consider the enormous amount left over last fall, it does not look as though the season thus far has been a very dull one. As all the best lumber has been sold fully up to last fall's prices, and the balance has been disposed of at trifling concessions, the market may be considered as fully up to expectations, and a prominent lumberman on the river states that with the exception of hard lumber and bill stuff the market is in better condition than it was last year at this time. This is interesting.—*Lumberman's Gazette.*

**Chips.**

At Auburndale, Wis., on May 14, six million feet of lumber belonging to O'Connor & Co., also a quantity of lumber belonging to the Conley Manufacturing Company were burned. It is believed to be the work of an incendiary.

The planting of 100,000 eucalyptus trees on the Roman Campagna has counteracted the effects of the deadly malaria to such an extent that Tre Fontaine, the abbey of the Trappist monks, is rendered habitable through the entire year.

The members of the Northwestern Lumber Manufacturers' Association, as a body, will take no steps toward reducing the cut of their mills in accordance with the original design of the association. Some concerns in Minneapolis, however, will reduce their cut twenty-five per cent.

The *Lumberman's Gazette* says that eleven hours a day is now the schedule time in the Grand Haven mills. Last season the men put in twelve hours a day. Gradually the saw mills of the country are reducing their working hours, and in a few years ten hours will undoubtedly constitute a day's work in most of the mills in the country.

The *Lumberman's Gazette* says:—Grand Haven mill men are setting a grand example by agreeing to close down on the afternoon of decoration day. This should be followed by similar action in other cities, until decoration day becomes a recognized national holiday, on which to commemorate the glorious deeds of the noble men who went forth in their country's defence, in her great hour of peril.

In South Australia a bonus of \$10 per acre is given to owners who successfully establish not less than five acres in trees, which if in strips must be at least 100 feet wide. The Governor is empowered to proclaim parts of the country to be "forest districts." A Conservator of Forests has been appointed and in five years nearly 3,000 acres of public land have been planted, nurseries, etc., started, and fire-breaks made and kept clear.

In consequence of the demand for mahogany of late it has been feared that the supplies will fall short. The vice consul at Puerto Plata, San Domingo, states, however, that the diminution in the exports of mahogany is by no means to be attributed to the scarcity of the wood, for the forests are apparently inexhaustible; but is to be accounted for by the absence of suitable tonnage for charter in the neighboring colony of St Thomas throughout the year.

The *Lumberman's Gazette* says that the demand for lumber must continue just so long as the local papers throughout the country are filled with items similar to the following clipped from an exchange:—"Carpenters, joiners, masons, painters and paper-hangers were never so busy as the present spring. Several new residences are being erected, many additions being built, and repairing and overhauling is the order of the day. It is almost impossible to employ a mechanic."

A SYNDICATE consisting of P. C. Heald, Byron Burch and Dr. W. E. Burtless, of Midland, Michigan, have concluded a purchase from John Larkin of some 2,000 acres of wild land, situated in Larkin township. Quite a portion of this land is covered with green timber—oak, ash, elm, etc., while another portion of it will yield an amount of timber estimated at 1,000,000 feet. It is the design of the purchasers to put a portable saw mill in and to commence soon the manufacture of some of this timber.

The *Timber Trades Journal* says:—With regard to the cargo trade we hear of no movement in the market yet, and although a few shiploads have been placed here and there in an incidental sort of way, the general disposition of the wholesale houses seems to be to still hold off. On the other hand coast buyers have not been quite so quiet as some anticipated, and the shippers have placed a much greater quantity of goods amongst the outport firms than they are generally credited with. This is discernable in the present extensive demand for tonnage, which, we are given to understand, is fully up to the average.

The *Manufacturer's Gazette*, published at Boston, has this to say of the lumber market in that city: An increased activity is manifested in the lumber market and a good business is doing in all departments. In southern pine business is very good. Mills at the south still decline orders. The tendency of the market is upward. In the local trade the demand has improved and stocks are reducing. The combination of manufacturers still uphold prices, and, owing to the backward spring, the situation is rather in their favor. A good business is reported by members of the combination. The outlook for the lumber trade in general is very encouraging.

The *New York Lumber Trade Review* says: The West Indies are taking very liberally of white pine, the shipments thus far this month comparing very favorably with those of March. There is, however, some little scarcity of good shipping boards, and additional supplies in quantity can hardly be expected before navigation opens. The yards continue to seek necessary stock in Albany, but the majority are purchasing lightly in anticipation of doing better after the opening of the canals. The quantity of stock carried over from last fall rather exceeds that of same time last year, but holders do not appear willing to grant any material concessions with a view of reducing it.

The *Toronto World* says:—The saw-mill men of Muskegon have determined to run their mills only ten hours a day, and thereby reduce the cut in order to counteract the influence of the action of dealers in Chicago, who resolved not to buy lumber unless at a reduction from present rates. It would be a good thing were the same plan generally adopted, not only in the lumber trade, but in many other manufactures. What sense is there in working mill and factory hands twelve or fourteen hours a day only to bring about the result of a glutted market and non-paying prices? The masters would benefit themselves, as well as the men, by making ten hours the rule in nearly all trades.

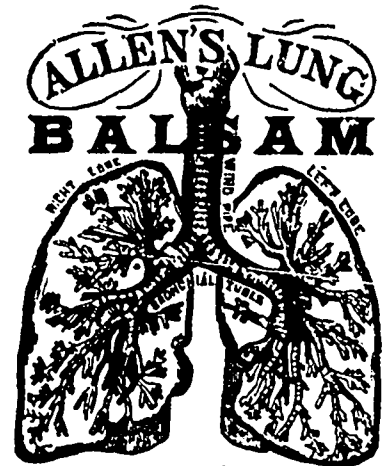
The *Lumberman's Gazette* says:—Since the death of Sir Robert Christison the investigations on the growth of wood in deciduous and evergreen trees, begun by him, have been continued by Dr. Christison, who has published these results: Evergreen trees began their growth much earlier in the year than the deciduous, and stopped their rapid increase much sooner. It was therefore evident why the variations in growth in successive years did not follow the same law in these two classes of vegetation. An early winter had its influence directly shown in deciduous trees, and a late one in evergreen trees. When the winter was wet the growth of the deciduous was very apparently more affected than that of the evergreen trees.

MR. S. S. AVERY, of 320 North Third street, St. Louis, carries an ivory-headed live oak cane, which is made from the first wood ever cut by a white man's axe in America. The Spaniards, when they settled St. Augustine, Fla. in 1565, bent themselves first to building a block-house. This was constructed of live oak logs, and it stood until 1844, when it was torn down. The wood of which the cane is made was taken from one of the logs of the block-house by its present owner, who had it turned and mounted with an elephant's tusk. It has been in his possession in constant use ever since, except on such occasions as he loaned it for exhibition in Iowa, Kentucky, and other States.—*Southern Lumberman.*

The *Ottawa Free Press* says that one of its reporters interviewed several boat owners regarding the manner in which they would be affected by the strike of the American boatmen. The prevailing impression is that lumbermen will endeavor to procure Canadian barges to convey their shipments to Whitehall, where American boats will be employed, if possible, at cheap rates, to convey them on to New York. The lumber yards, with the exception of Sherman & Lord's are comparatively vacant as yet, but when the cut reaches large proportions, something will certainly have to be done to ship the lumber away. Mill owners just now seem determined to resist the demand of \$4 asked by the Americans, while the latter are equally determined to hold out, having it is said, some \$5,000 to back them.

**THE COTTONWOOD.**

There has been a question raised as to whether the cottonwood came under the meaning of the government as a timber tree. The commissioner of the general land office has rendered a decision affirmatively. He says: "Under the current rulings of this office, and the department, the cottonwood is regarded as a timber tree, and cultivation of the same by timber culture claimants is accepted as a compliance with the law, so far as the quality of the timber is concerned. While it is shown by the testimony that this tree is not used to any great extent in the locality for manufacturing purposes, building, fencing or firewood, yet it appears that it is used for outbuildings, houses, fences and firewood occasionally, according to the notion or necessity of the settler, or the distance from timber of a superior kind. The cottonwood tree, as it grows in the locality, is, therefore, not either useless for the purposes mentioned, or merely ornamental. This is apparent from the evidence in the case. The entry is held for cancellation, for the reason that the land was not subject to timber culture entry, the same not being prairie land or other land devoid of timber."—*Northern Lumberman.*



(This Engraving represents the Lungs in a healthy state.)

**THE REMEDY FOR CURING CONSUMPTION, COUGHS, COLDS, ASTHMA, BRONCHITIS, AND ALL Diseases of the Throat, Lungs and Pulmonary Organs.**

**BY ITS FAITHFUL USE CONSUMPTION HAS BEEN CURED**

When other Remedies and Physicians have failed to effect a cure.

Recommended by PHYSICIANS, MINISTERS AND NURSES. In fact by everybody who has given it a good trial. It never fails to bring relief.

As an EXPECTORANT it has no Equal: It is harmless to the Most Delicate Child. It contains no OPIUM in any Form.

Directions accompany each bottle. For sale by all Druggists.

**PERRY DAVIS' VEGETABLE PAIN KILLER.**

This celebrated Medicine is recommended by Physicians, Ministers, Missionaries, Managers of Factories, Workshops, Plantations, Nurses in Hospitals,—in short, everybody, everywhere who has ever given it a trial.

TAKEN INTERNALLY, it cures Dysentery, Cholera, Diarrhoea, Cramp and Pain in the Stomach, Bowel Complaint, Painter's Colic, Liver Complaint, Dyspepsia or Indigestion, Sudden Colds, Sore Throat, Coughs, &c. Used externally, it cures Boils, Felons, Bruises, Cuts, Burns, Scalds, Old Sores and Sprains, Swellings of the Joints, Toothache, Pain in the Face, Neuralgia and Rheumatism, Chapped Hands, Frost-Bitten Feet, &c.

The PAIN-KILLER is sold by medicine dealers throughout the world, Price 20c., 25c., and 50c. per bottle.

Market Reports.

MONTREAL.

From Our Own Correspondent.

MAY 26.—Since the date of our last report very little activity has been observable in the state of this trade, but although we cannot as yet change prices the market may be called easier. Laths are coming in to some extent, but as plastering has been retarded owing to the state of the weather, retail lots are still sold at \$3.00, but wholesale lots can be had at our quotations. There has been a good inquiry for ash at our quotations. There was a large attendance of buyers at the auction sale of lumber on account of Messrs. Henderson Bros., who have been obliged to remove their yard, as the ground is required for the new lumber basins to be erected by the Dominion Government. A large quantity of lumber changed hands and the prices obtained are considered fair, footing up to over \$40,000. The balance of the lumber will be disposed of next week. Lumber is not arriving so freely as was looked for, but considerable importations are daily expected. We quote prices ex yard as follows:—

Table listing lumber prices for Montreal, including Pine, Spruce, Hemlock, and various grades of lumber with their respective prices per 1000 ft.

FREIGHTS AND SHIPMENTS.

Rates by steamship and sailing vessel to England are 65s. for deals and 67s. 6d. for boards. To the River Platte there has been engagements at \$13. A considerable quantity of lumber has been shipped by steamers to Liverpool since the opening of navigation, as will be seen by the following memoranda taken from the custom house returns. S. S. Lake Champion, 75 standard deals; S. S. Ontario 7,711 pcs deals and 3,144 boards; S. S. Texas, 1,126 boards and 4,293 pcs deals; S. S. Circassian, 9,061 pcs deals; S. S. Dominion 7,711 pcs deals and 3,144 boards. To Glasgow S. S. Cynthia 10,409 pcs deals and 109 sacks spools; to Bristol S. S. Dorset, 1,323 pcs deals.

CORRWOOD.

Receipts of wood by barges show a falling off as compared with the same period of last year, this to some extent is made up by what is brought in by the G. T. R., and there is plenty to supply the consumptive demand, but no change can be noted as yet in price, and we continue to quote at wharf ex cartage:—

Table listing prices for various types of wood (Long Maple, Short, Long Birch, etc.) and their prices per 1000 ft.

TORONTO.

From Our Own Correspondent.

MAY 23.—Considerable lumber has left the docks since my last letter, most of which has been carried by Capt. Hall's vessels, four in number, capable of conveying in one trip nearly one and a half million feet of lumber. So that although our docks may be well blocked with lumber on the arrival of this fleet, they appear quite forlorn on their departure. This cannot last long, however, the balance of last year's cut will soon be all away, and on account of the late starting up of the mills this spring, there must of necessity be a dearth of lumber for a longer period than usual, until the new cut is fit for shipment. Vessel owners and captains are conscious of this and feel quite gloomy over the prospects.

Sales by car load during the last two weeks have been quite limited, retail dealers being anxious to lower their stocks on hand, before making fresh purchases, and in this respect most of them have well succeeded, as from personal observation I can affirm that I have seldom noticed stocks as low as in most of the retail yards at the present time, more especially is

this the case in bill stuff, lath and shingles, but as the mills are now fairly at work, this state of things may soon be altered, and in this connection I would remark that many of the manufacturers have yet to learn wisdom as regards the manufacture of bill lumber; many of them seem to have the idea that anything is good enough for bill stuff, and turn it out with waney edges and alabonds, so that on its arrival here perhaps one third is culled, and they seem to think that they are being hardly treated, when, in fact, the fault is all their own, and the sooner they become convinced that lumber so manufactured will not pass muster, the better for themselves.

The yards are all doing a good trade, considerable improvement having taken place in this respect since I last wrote you. Prices are also fully maintained.

Table listing prices for various types of lumber (Mill cull boards, Shipping cull boards, cantling and joist, etc.) and their prices per 1000 ft.

OSWEGO, N. Y.

From Our Own Correspondent.

No change in quotations, The receipts since our last have been quite large; dealers are making sales steadily, but the demand is quiet, and the prospect is largely against opening prices being maintained.

Table listing prices for various types of lumber (Three uppers, Pickings, Fine, common, etc.) and their prices per 1000 ft.

ALBANY.

Quotations at the yards are as follows:—

Table listing prices for various types of lumber (Pine, clear, Pine, fourths, Pine, selects, etc.) and their prices per 1000 ft.

BOSTON.

Cotton, Wool and Iron of May 26, says: There is a good, steady volume of business doing, and values keep along on quite an even

basis. Western pine is in good demand and prices are quite firmly sustained. Eastern lumber is in steady inquiry, and values fully hold their own. Southern pine is quiet but fairly steady. Hardwoods are in moderate demand, and desirable selections are well sustained in price.

CANADA PINE.

Table listing prices for Canada Pine (Selects, Dressed, Shelving, Dressed, 1sts, etc.) and their prices per 1000 ft.

BUFFALO.

Table listing prices for Buffalo (We quote cargo lots:— Uppers, Common, Culls) and their prices per 1000 ft.

CHICAGO.

The Northwestern Lumberman of May 26, says:—The arrivals of cargoes at the docks for the week ending Wednesday did not show an increase over the previous week, notwithstanding the heavy gale of Sunday, Monday and Tuesday. On Monday the arrivals numbered 50, only a portion of which, as is usual stopped at the market. The offerings have been taken quite freely, only a few cargoes having dragged on the market. Prices of lumber have not varied notably from the previous week, though two or three sales of piece stuff have been reported as low as \$9.

The contest between purchasers and sellers of lumber on the market is a little more earnest than it was a week since. The season is advancing, and the jobbers have not witnessed such a softening down of holders' views, as they have been hoping and waiting for. Several of them have been over the lake to buy, and most have returned without making purchases. They bring back tidings of discouragement from the mills. The hearts of the manufacturers are still like Pharaoh's. If anything they are growing more adamant. Commission men talk more confident than they did, and the manufacturers move around among the boys at the market and indulge in a good deal of stout expression about their ability to hold up prices. It must be confessed that the jobbers are not jubilant. They do not claim that the market is weakening, but, on the contrary, express surprise that it exhibits so much backbone. They assert that they cannot possibly afford to pay the prices at which cargo lumber is selling, and at the same time hope to escape without loss.

Some of the manufacturers are frank enough to say the same thing, but so long as they can sell lumber for going prices, they cannot see why they should let it go for less; what lumber will bring is what it is worth. The condition is an anomalous one, and why it should exist is not as clear as it might be, though each side of the difference has a theory about it.

The offerings have been taken so quickly during the past week that it has led commission men and holders to think that the market has touched bottom, and that it will be easy hereafter to certainly maintain current values, and possibly realize a slight advance later on. They are at least encouraged to expect a hardening of prices, and consequently less trouble to sell at steady figures.

Receipts of lumber, shingles, etc., for the week ending May 24, as reported by the Lumberman's Exchange:—

Table showing receipts of lumber and shingles for 1883 and 1882, and stock on hand for May 1, 1883.

Table listing prices for TONAWANDA CARGO LOTS (Three uppers, Common, Culls) and their prices per 1000 ft.

LIVERPOOL.

The Timber Trades Journal of May 12, says: Whilst there has been a fair amount of business done in a retail way during the week, there has been an absence of liveliness in all articles, if we except the mahogany and fancy woods branch of the trade, on which there will be found some remarks below.

The spruce deal market has been dull, but the remainders of the various cargoes which have from time to time been withdrawn from the auctions have been placed by private treaty at prices equivalent to those obtained by auction.

Next week will be as usual in Whitauntide, in this part of the country, chiefly devoted to holiday-making, and, in point of fact, there will be little, if any, business done, hence the desire of those who had cargoes to offer for sale by public auction to force them into last week.

On Thursday last, the 3rd inst., Messrs. Farnworth & Jardine offered one cargo of St. John, N. B., spruce deals, of last season's import, stored and piled in their yards, of which about one-half was sold by auction and the remainder withdrawn; but most, if not all, was subsequently sold by private treaty. The following were the prices realized:—

Table listing prices for various sizes of spruce deals (21 ft. and up, 10 to 20 ft., etc.) and their prices per 1000 ft.

To-day, the 9th inst., Messrs. A. F. & D. Mackay offered a cargo of St. John, N. B., spruce deals, birch, &c., timber just arrived, and sundry parcels of Miramichi, Quebec, and other descriptions of pine and spruce deals. The newly-arrived cargo sold fairly well, but the birch brought out the most competition, although it was bought principally by local dealers. The prices realized were for St. John, N. B., spruce deals:—

Table listing prices for various sizes of spruce deals (16 to 25 ft., 12 " 15 ", etc.) and their prices per 1000 ft.

Deal ends 10 to 22 ft. 4x7 to 14 6 17 0

Table listing prices for various sizes of deal ends (20 ft to 23 in, deep, 20, 19, 18, etc.) and their prices per 1000 ft.

The other woods, pine deals, &c., were withdrawn.

GLASGOW.

The Timber Trades Journal of May 2 says: Imports for the past week have again been almost entirely confined to what has come per steam traders from New York, say 150 logs Cuba mahogany, also walnut, oak planks and scantlings, &c. On Tuesday, the 8th inst., a public sale was

held in Yorhill Yards here, when a cargo of Minattlau mahogany was sold, prices as undernoted; also 75 logs American walnut exsundry steamers, a portion of this wood being culls.

For hardwoods there is at present a decidedly healthy demand, especially for mahogany, of which there has been but a sparing supply to this market. Shipbuilding orders continue to come to Clyde. We note that at Greenock two more steamships of 5,000 tons each are to be built for the P. & O. Steamship Company.

A request for an advance of wages was lately made by the operative house builders, but the masters have unanimously agreed that no advance is to be given meantime, as the labour market is well supplied, and it was also resolved to adhere to the system of fortnightly "pays," as at present.

**AUCTION SALES.**

Several parcels American black walnut were sold by Messrs. Edmiston & Mitchells, viz:— 33 logs (av. sq. 16 1/2 in.) at an avg. of 5s. 4 1/2d. per c. ft.

18 logs (do) at an avg. of 5s. 0 1/2d. per c. ft.  
24 " (do, 14 in., inferior) at an avg. of 3s. 9 1/2d. per c. ft.

Following the above Messrs. Allison, Coulson & Hamilton sold—  
3 logs whitewood, 2s. 5d. to 2s. 8d. per c. ft.

**LONDON.**

The *Timber Trades Journal* of May 12, says: The importation appears to have experienced a considerable falling off during the month of April as compared with last year, and it would seem as if some recovery in prices of wood was not far off, were it not for the continuation of the dullness, still so marked, in the commercial world.

There is apparently nothing of moment stirring in the timber trade, which but reflects the state of affairs in other branches of commerce throughout the country generally, and it is high time an alteration took place. We are all waiting, Micawber-like, for something to turn up, for with the least revival of activity a general improvement of prices all around is confidently anticipated; but when will this revival come?

**OTTAWA NOTES.**

The *Monetary Times* says:—The lumber trade of the Ottawa is opening rather quietly, this season being a backward one and the mills being some two weeks later in starting. However several pretty large sales have been made to outside parties, at prices on the whole a shade lower than a year ago. This is an unfortunate, and indeed an unexpected feature of the trade, especially in view of the alleged fact that each successive year the quality of the lumber got out is not quite equal to that of previous years, and of the future fact that the expense of procuring the logs and getting them down the streams is increasing. The larger concerns such as J. R. Booth & Co., Bronson Weston & Co., Eddy & Co., etc., expended last year, we are told, from \$60,000 to \$80,000 more in getting out the same quality of lumber, than they did in the years 1879 or 1880. It is quite true that there has been a considerable advance in prices when compared with these years, but this advance is not at all in proportion to the increase in the cost of production. Manufacturers of lumber are consequently obliged to be satisfied with less profit.

**OUR FOREST PRODUCTS.**

It appears by the census returns that the development or destruction, as one may happen to regard it, of the forest wealth of Canada has gone on apace during the last decade. In the four old provinces the comparative figures of production are as follows:—

	1871.	1881.
Square white pine, cubic feet.....	24,256,821	17,358,245
Square red pine, cubic feet.....	1,954,372	2,571,373
Square oak, cubic feet.....	3,302,043	5,734,042
Tamarac, cubic feet.....	5,095,963	4,685,563
Birch and maple, cubic feet.....	1,039,537	4,294,926
Elm, cubic feet.....	1,832,654	3,092,224
Walnut, cubic feet.....	220,570	508,250
Hickory, cubic feet.....	197,527	336,429
All other timber, cubic feet.....	23,230,964	47,045,650

The only classes of wood of which the production has decreased are white pine and tamarac, and in each case the falling off occurs

in the Province of Quebec, where the output of pine has decreased from 8,870,000 feet in 1871 to 4,840,462 feet in 1881, and of tamarac from 9,094,678 feet in 1871 to 2,707,745 feet in 1881. The chief lumber producing province is Ontario in which the output of all woods except white pine has considerably enlarged during the decade. How large a proportion of the whole production in the four old provinces is made in Ontario may be learned from the fact that in 1881 the cut of white pine there was 12,262,570 feet, of square oak 5,448,263 feet, of elm 2,925,382 feet, of walnut 741,431 feet, and of other timber 26,200,038 feet. Quebec holds the leading position in respect to the production of tamarac and birch and maple only. Taking the new provinces we find British Columbia far in the van with an output of 23,348,500 feet of white pine, while of unenumerated woods Prince Edward Island is credited with 797,851 feet, Manitoba 622,039 feet, British Columbia 436,792 feet, and the Territories 54,806 feet. In the four old provinces the output of logs, &c., was as follows:—

	1871.	1881.
Pine logs.....	12,416,408	21,501,128
Other logs.....	9,314,657	23,055,706
Masts, spars, &c.....	121,685	191,078
Tanbark, cords.....	162,521	398,239
Firewood, cords.....	8,713,083	10,493,165

The comparatively small increase in the production of firewood is somewhat remarkable, showing very plainly that the consumption of wood has about reached its limit, and that coal is becoming generally a substitute by reason of its economy in cities and towns.—*Montreal Gazette.*

**Sale of Timber.**

The *Kingston Whig* says:—V. C. Caldwell, who is to become a citizen of Kingston, has sold all his timber to Messrs. Calvin & Son, to be delivered as soon as possible. It is now on Clyde river. Mr. Caldwell is at present taking out a large amount of cedar, which has been contracted for by Chilion Jones, of Brockville, to be used in the breakwater in connection with the new island works at Toronto.

Mr. Caldwell's steam saw mills at Carleton Place may possibly open for a few weeks, beginning next month. It will not take long to put the Clyde out through the saws. Some thousands of logs are on the brink of the High Falls detained only by a single boom. The *Carleton Canadian* says if loosened they would every one sweep over and come down in fine swift style, so great is the rush of water. They are held there as if by a small cord which a penknife could free, but Mr. Caldwell is bound that the Supreme Court enactment shall be observed, and will not move a jot to bring them on.

RATHBON & SONS, of Deseronto, have secured the contract to supply 250,000 ties to the Canada Southern. The steam barge *Tecumseh* has landed at Courtright dock with 17,000 ties, being the first consignment, which were nearly all loaded, and partly distributed along the line Tuesday. The schooner *Peerless* also arrived with a cargo of the same description, but during the terrible storm coming down Lake Huron she lost most of her deck-load, which is estimated at 200 ties. A large posse of men are engaged unloading the boats and loading cars for distribution. The contract price for ties, which are cedar and come from St. Joseph's, Cove Island, Georgian Bay, was four cents apiece, and loaded at Courtright, representing a total outlay of \$10,000.

MANY years ago Sir Henry Stewart made a plantation of large trees in the moist climate of Scotland, but they made little growth and had a sickly appearance. It was then that London, with his long and extensive experience as a landscape gardener, offered to make a public test with any one who would try large trees, he himself planting small and thrifty ones with full roots, in rich, deeply-trenched and well-cultivated ground, with the confident assurance that in a given number of years he would show trees not only larger but immeasurably finer in appearance. The above is but a corroboration of the experiments made by all tree planters. With the smaller trees more roots can be transplanted, they require no staking and will grow more rapidly than larger ones.

# 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.

**RAFTS ARRIVED AT QUEBEC.**

The *Quebec Chronicle* gives the following list of rafts, &c., that have arrived:—

- May 17—H. E. Hall, deals, Hall's booms.
- Ritchie Bros., deals, New Liverpool.
- Ross & Co., (Gordon & Lot,) white pine, &c., Dalhousie cove.
- P. H. Grandbois, deals, St. Casimir.
- Geo. Baptist, Son & Co., deals, Three Rivers.
- May 21—D. D. Calvin & Co., (2), oak, etc., sundry coves.

**Krafting Timber.**

R. & G. Strickland are now rafting at Port Hope a quantity of timber, 150,000 cubic feet, brought from the Township of Oakley, via Black River and Longford. It is five weeks today (May 26) since they commenced driving. It is a splendid lot of timber, averaging 65 feet.

A TOOTH-PICK factory at Seboc, Me., consumes annually 1,000 cords of poplar and birch, turning out a two-cord load of splinters per day. The factory is owned by Charles Foster, the same gentleman having a similar establishment at Buckfield.

THE *Northwestern Lumberman* says:—J. H. Chapman, Oxford, Me., turns out 1,000 dozen shovel handles per month, consuming annually from 250,000 to 300,000 feet of ash. The entire product has for nearly 20 years been taken by a Gananoque, Ont., gentleman. This season 400,000 shingles and a lot of basswood clapboards will be manufactured.

**Convincing Proof.**

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

I am yours truly,  
W. H. DICKSON,  
218 St. Constant St., Montreal.  
To Henry, Johnsons & Lord, Montreal.  
Arnica and Oil Liniment is sold by all Druggists.

**On Thirty Days Trial.**

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

NEVER ALLOW IT.—Never allow the bowels to remain in a torpid condition, as it leads to serious results, and ill health is sure to follow. Burdock Blood Bitters is the most perfect regulator of the bowels, and the best blood purifier known.

HIGHLY SATISFACTORY.—Impure blood and low vitality are the great sources of most diseases for which Burdock Blood Bitters is the specific. S. Ferrin, Druggist, of Lindsay, writes that Burdock Blood Bitters give more general satisfaction than any blood purifier in the market.

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

## \$500 Reward!

We will pay the above reward for any case of Liver Complaint, Dyspepsia, Sick Headache, Indigestion, Constipation or Costiveness we cannot cure with **West's Vegetable Liver Pills**, when the directions are strictly complied with. They are purely Vegetable, and never fail to give satisfaction. Sugar Coated, Large Boxes, containing 30 Pills, 25 cents. For sale by all Druggists. Beware of counterfeits and imitations. The genuine is manufactured only by **JOHN C. WEST & CO., "The Pill Makers," 81 & 83 King St. East, Toronto, Ont.** Free trial package sent by mail prepaid on receipt of a 3 cent stamp. **ORMOND & WALSH,** sole authorized Agents for Peterborough, Ont. w46d112:22

## FITS EPILEPSY

### OR FALLING SICKNESS

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

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

**ASH & ROBBINS,**  
20x24 266 Fulton Street, Brooklyn, N. Y.

## Health is Wealth.



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

**THE DAWN OF A BETTER DAY.**

There are few industries, we might say scarcely any, which in their retail transactions are so steady as the timber trade. A builder's price-book, for instance, of ten years ago will give you a valuation of the timber you have occasion for in the construction of a house which will be pretty nearly as good a guide now as if it were published yesterday; and when we speak of the fluctuation in prices we must be chiefly understood as referring to the import department of the business, and the relative value of the goods at the landing wharves in this country, in comparison of those current at the shipping ports abroad, with the freight and charges added to them; and this is the question with which the magnates of the trade are chiefly concerned at the present time.

Turning to the timber trade, its proceedings are quite assimilated to the tone of business generally—it rather prods than presses forward along the even tenor of its way, but it may be said of it, as our aforesaid contemporary speaks of the iron trade, that "a better feeling is shortly expected." It is not impossible that this may come soon, for it has been "shortly expected" for a long time back, and we must in the natural course be much nearer now to the good time coming than we were then.

In dull times like these, London and Liverpool look at each other across the midland counties for something to indicate a trade revival that may serve to hang now hopes upon, and the better prospect seems at the present to be found here. Liverpool, rejoicing also in fine weather, moderate stocks of most kinds of wood, and a fair amount of building going on in the suburbs, complains that there are no large works in hand "likely to influence the future of the timber trade"; and, therefore, that "business on the spot is not very extensive, and prices do not improve." It seems to have established a small advance on pitch pine, but not sufficient to cover the advance of freight, "so that the shipper is really in a worse position now than before." Neither has the importation of Liverpool yet come up to its last year's figures at a similar date, which remark applies to almost all the ports except those which require large quantities of pitwood, such as Cardiff, Swansea, and Newport, Sunderland, and Shields, all of which have exceeded (some of them considerably so) their import of last year up to date, while on the other hand, Liverpool, Hull, Newcastle, Hartlepool, and Grimsby are much behind, which augurs well for the summer trade. Even London does not come up to its last year's figures yet, though it is but a fraction in arrear. Trade, however, has continued comparatively stagnant here as elsewhere, as we have had painfully to notice, when remarking hebdomadally on our dock deliveries. B all at once, and commencing a fortnight ago, a larger demand has sprung up, apparently in good earnest, for in two weeks the deliveries have exceeded those at the same time in 1881 by more than 2,600 Petersburg standards, a rather remarkable spring forward after a long period of retrogression; and at this rapid rate room will soon be made at the docks for the new arrivals without any crowding. The total deliveries for the two weeks including square timber amounting to nearly 11,000 standards, a rate of progress which we cannot expect to see maintained for any length of time, but none the less satisfactory as long as it lasts. Nor must it be forgotten that these are only the public deliveries, while those from the many large private timber yards and wharves of the Thames are unchronicled, though they would swell the returns to something considerable; and it must be evident that the quantity of imported wood gone into consumption during the past fortnight from the various depots in London cannot have been less than 60 to 70 cargoes, averaging 200 standards each. We need not expatiate on the immense amount of profitable labour which would be set at work by the distribution of this vast amount of wood in so short a time among consumers, for it will readily be conceived that there can be no want of employment in the building trade in and around the metropolis while so much business is done in delivering timber for use there.

We are quite aware that it may be argued that there is no evidence that the timber sold

and delivered in London, according to the figures produced, is not still lying unused on the premises of the dealer who bought it; but we do not see that the assumption of returning activity in trade is in any manner impaired by that possibility. The timber yards of the dealers have been remarkably well supplied all the winter, and if in a fortnight they have suddenly found room for 12,000 to 15,000 standards more, it shows that they have been doing a trade to that extent with the public as certainly as if the Dock deliveries aforesaid went directly to the consumers instead of to those that are in the habit of supplying them. The gap made among the Surrey Dock piles went to replenish the ground of the private timber yards, but not till the public demand had cleared the needful open spaces to store them. Whichever way we look at it, the fact remains that nothing but an active revival of business can account for the removal of so large a quantity, we may say of so unusual a quantity, of timber from the docks in so short a time, for it is quite apart from the normal condition of things during the foregone portion of the present year, and we may fairly regard it as the precursor of a good healthy re-animation of the trade throughout the land.

What we have of late been suffering from may be traced to our indefatigable national industry. We appear to have been producing too much from abroad, till at last the supply overtook the demand at both ends. Then came a pause, and a cry of dull trade arose. There was still an immense business doing, but it was not enough for everybody, and productive works gradually reduced their establishments, because at their full strength they ceased to be profitable. So in the timber trade people continued to import freely while they saw a great trade in prospect. But by-and-by the demand fell off; failures among builders and other buyers, and the consequent decay of trade, threw a gloom over the latter part of last year, and almost every timber merchant fancied he had laid in too much stock. The idea grew more confirmed when a sloppy winter supervened, and it is only now, after the spring has returned in all its glory, that the trade is showing symptoms of a decided rally, which is not unlikely before long to pervade every branch of it. London has, at any rate, set the example of shaking off the apathy which has ruled everywhere latterly. Let us hope that the same spirited revival will, in like manner, soon show itself in the provinces. —*London Timber Trades Journal.*

**ARBOR DAY A SUCCESS.**

QUEBEC, May 16.—The first celebration of Arbor Day here to-day was a most gratifying success, far surpassing, as admitted by Montreal visitors, the celebration in that city. Everything combined, including the weather, to render it a most enjoyable gathering of the promoters of the movement, their friends, and the citizens generally. The Lieutenant-Governor and his Cabinet, the heads of the public departments, mayor, aldermen, and councillors, the ecclesiastical dignitaries, foreign consuls, the citizens' committee, the convents, seminaries, orphans', and other charitable and educational institutions all joined together to make Arbor Day one to be remembered in local and provincial annals. The day was also pretty much observed as a general holiday, and an immense crowd, including many strangers, assembled to witness the ceremonies, which were duly opened by the Lieutenant Governor planting a tree in the grounds of the new departmental buildings, followed by the Hon. Mr. Joly, the soul and leader of the movement; Crown Lands Commissioner Lynch, who has ably helped it on from the start; Archbishop Taschereau, the Anglican Bishop, the Quebec Premier and his Cabinet; the Rev. Dr. Cook, of St. Andrew's; Rev. Dr. Clark, of Chalmers'; the Speakers of both Houses, the commandant of garrison, the Mayor and a large number of notable personages, ecclesiastical, civil, and military, not omitting the press. In this way some sixty fine oaks were planted when, headed by the band and a detachment of "A" battery, and the fire brigade in uniform, a procession moved off to the esplanade, where a hundred beautiful maples, elms, and silver birches were put in. Three of them were specially named after Lord Dufferin, and the present Ministers of Militia and Public

Works. A double row of trees was next planted on the road leading to the citadel, after which the Corporation plantation took place on Dufferin terrace. The magnificent olms presented by the Hon. Mr. Joly being put down, besides many others in the names of the Queen, the Governor General and Princess Louise, amid enthusiastic cheers of the members and officers of the City Council. A silver pick with ebony handle, was presented to the Mayor, and a silver spade similarly mounted to Madame Langelier, as souvenirs of the occasion. The official ceremony closed with addresses from the Lieutenant Governor, Commissioner Lynch, Mr. Joly, Ald. Rheume and the Mayor, congratulating the citizens upon the enthusiastic manner in which the day was celebrated. A considerable plantation was also made during the day by the different schools, hospitals, and other public institutions, as well as by many private citizens.

**THE ENGLISH WOOD MARKET.**

James, Smith & Co.'s Liverpool Wood Circular dated May 2nd says:—The arrivals since our last have been 41 vessels, 20,755 tons, against 50 vessels, 25,197 tons, in the corresponding period last year, and 27 vessels, 14,365 tons, in 1881.

FROM 26TH JANUARY TO 30TH APRIL, 1883.		
Quebec.....	nil vessels.	nil tons.
St. John, N. B., &c.....	4 "	3,843 "
United States.....	23 "	10,345 "
Baltic.....	04 "	20,941 "
Total .....	31 "	47,129 "
FROM 26TH JANUARY TO 30TH APRIL, 1882.		
Quebec.....	nil vessels.	nil tons.
St. John, N. B., &c.....	8 "	0,027 "
United States.....	33 "	27,714 "
Baltic.....	65 "	25,610 "
Total .....	106 "	59,351 "
FROM 26TH JANUARY TO 30TH APRIL, 1881.		
Quebec.....	1 vessel.	921 tons
St. John, N. B., &c.....	4 "	3,734 "
United States.....	39 "	20,445 "
Baltic.....	22 "	9,371 "
Total .....	66 "	40,471 "

Since our last issue there has been no change in our market. The import has been moderate and the consumption unusually dull and languid; fortunately the stocks are not heavy, and there can be little chance of any improvement until the general trade of the country shows more activity. The money market remains quiet. Freight rates are slightly easier, with more tonnage offering, with the exception of pitch pine, rates for which from Pensacola are still high.

**COLONIAL WOODS.**—Yellow pine timber: The stock is light and sales have been by retail from the yard only. A parcel of fair average square pine is reported sold at from 2s. 1d. to 2s. 2d. per foot. Red pine is without change and the demand is fair. Of ash the sales have been by private only, with the exception of a few logs sold at auction, which realized 2s. 3d. Elm is light in stock, and prices are fully maintained. Birch has been sold by auction at an average of 19d. for 712 logs ex Director, from St. John, N. B., all fresh, now wood. The consumption has been very good, and the stock is small. Oak—The stock is 171,000 against 243,000 feet, and the consumption has fallen off as compared with the same period last year; a parcel of mixed quality is reported at 2s. 7d. per foot. The demand for oak scantling continues good, and two cargoes are reported sold at 2s. 6d. to 2s. 7d. per foot, ex quay, and small parcels of prime quality at about 3s. per foot, also a small lot of ordinary quality at 2s. 5d. per foot, ex quay; the stock is nearly double that of last year. N. B. and N. S. spruce deals: The stock is now reduced to a moderate quantity, although somewhat larger than that of last year; there have been no fresh arrivals, and the consumption has reached 3,076 standards against 3,012 last year. There have been several sales at auction and the cargo ex Minnie Swift, from St. John averaged £7 6s. 6d., but a large proportion of the 11 in. and 7 in. was unsold; the cargo ex John Brice, from St. John, was sold at from £7 to £8 per standard, and ex Victoria, from St. John, at from £7 to £8 15s., but a considerable portion of both cargoes was withdrawn unsold. Several other yarded cargoes were offered for sale and partly sold at

similar prices. By private, a cargo of Miramichi has been sold to arrive at £7 2s. 6d. c. i. f., and a large cargo of St. John, good specification, at about the same figure. Quoboc pine deals: The stock is now 5,316 standards against 4,709 standards, and the consumption has been equal to the same period last year, viz., 1,071 against 1,079 standards. There have been no fresh arrivals and sales have been by private. Quebec staves: No sales are reported. Palings and laths are in fair request.

**On Thirty Days Trial.**

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

**LUMBER**

Shingles, Doors, Sash, Flooring, &c., WANTED,

STATE QUANTITIES AND PRICES TO SHORE & DAVIS,

Head Office, 614 Main Street, Winnipeg, Man.

**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 HONOLETHI. 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 astonishingly miraculous, that the remedy was officially proclaimed over the entire Empire. Its use became so universal that for over 500 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 hear 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 Dey Street New York, enclosing \$1.00, and you will receive by return a remedy that will enable you to hear like any body else, and whose curative effects will be permanent. You will never regret doing so."—*Editor of Mercantile Review.*

To avoid loss in the Mails, please send money by REGISTERED LETTER. Only imported by HAYLOCK & JENNEY, (Late HAYLOCK & CO.)

SOLE AGENTS FOR AMERICA. 7 Dey St., New York. L11-722-1r



Cures Cholera, Cholera Morbus, Dysentery, Cramps, Colic, Sea Sickness and Summer Complaint; also Cholera Infantum, and all Complaints peculiar to children teething, and will be found equally beneficial for adults or children.

FOR SALE BY ALL DRUGGISTS. T. MILBURN & CO., Proprietors, Toronto.

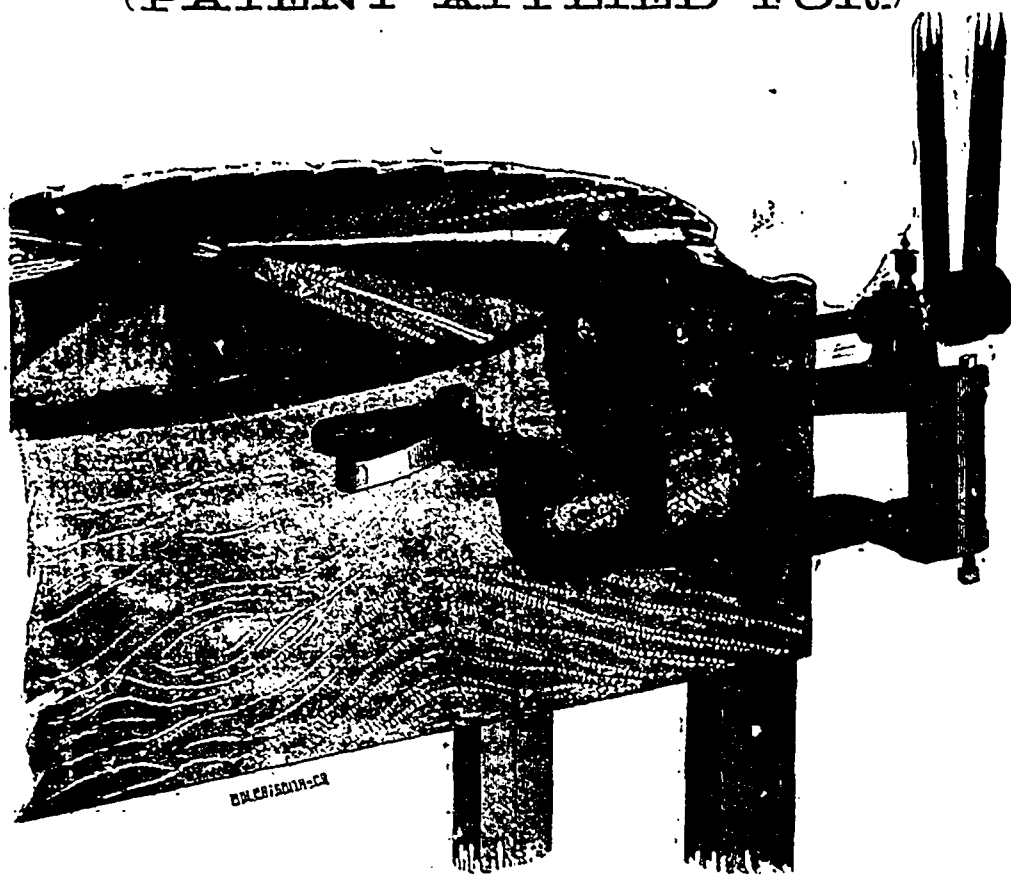
# ROGERS' SAW GUMMER

(PATENT APPLIED FOR.)

No Heating!

Quick!

Simple!



Exact Work!

Cheap!

Complete!

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

A REVOLUTION IN GUMMING SAWS WILL BE EFFECTED WHEREVER

## ROGERS' SAW GUMMER

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

Price Complete, with Countershaft - - \$40.00.

# HART EMERY WHEEL COMPANY, Limited

HAMILTON, CANADA.

Manufacturers of HART'S PATENT EMERY and CORUNDUM WHEELS.

## TREE PLANTING.

The Chatham (N.B.) *World* says:—"Few more honorable things can be inscribed on a man's tomb, or mentioned in his obituary, than that he has been a planter of trees. With the feeling that life is uncertain, added to the knowledge that trees are of very slow growth, the man who plants trees is practically working for the benefit of posterity, and is, therefore entitled to the credit of being a philanthropist. Nothing adds to the charm of a cultivated landscape like rows and clumps of trees. Nothing gives so much attractiveness to a house as trees that are not too close and too thick to keep the sunshine from it. Nothing so improves a highway as shade trees by the roadside. Trees afford shade when the sun shines and shelter when the wind blows. They attract the birds and they please the eye. In nine cases out of ten when we analyze the feeling that makes us say a place is beautiful we find that its trees are its chief claims to superiority over hundreds of other places which appear tame and uninspiring.

People—that is, such good people as do not die young—should line the roadside in front of their lands, and border the brooks that cross their fields, and surround the springs on their property, with trees, and plant groves here and there for purely ornamental purposes. The appearance of the country would be agreeably changed in the course of time if this were done.

Quebec, far from being the slowest of the Provinces, is one of the very foremost to take hold of new ideas and put them into practice. There is the Arbor Day idea, for instance. This was originated in a Western State, where one day in the year has been set apart for the planting of trees, and Quebec has laid hold of it and instituted an Arbor Day of her own. Monday was proclaimed for the purpose in some sections of the Province, and trees were planted in Montreal and elsewhere with great ceremony. Trees were named after persons planting them, and the Montreal papers have trees named after them. Trees were planted by members of the Councils of Arts and Manufacturers in the Exhibition grounds, by the members of Parliament and of the press, by the cemetery trustees, and by snow-shoe and athletic clubs and national societies. Besides these society efforts, which were attended by more or less ceremony, the whole force of city laborers was employed at the same work, and many private individuals made a point of planting a tree in their own or public grounds. The Indians of Caughnawaga caught the inspiration and planted trees enough to make their desolate reserve a very different looking place in the course of time.

We hope our readers will imbibe the tree-planting spirit, and make it a rule to do something in the way of beautifying their fields and the highways every year. Every farmer, and every owner of a house lot, should remember that he not only beautifies the landscape but adds to the value of his property by judicious planting of useful and ornamental trees.

## A BIG CHUTE.

The *Northwestern Lumberman* has the following particulars from a member of a firm which owns timber on Black Mountain, in the Black Mountain group, at Asheville, N. C., a region where the scenery is of the most rugged and picturesque nature, and the climate remarkably promotive of health. The bulk of the timber is cherry, which is quite plentiful through that locality, and of excellent quality and large size. At the foot of the mountains whitewood is the most plenty, with a liberal sprinkling of ash, the latter prevailing higher up. Above the ash line the cherry is found, which grows better in quality as it reaches further up the mountain. The timber is found in coves, or valleys, formed by the ridge-like elevations on the mountains. On Black Mountain a chute or slide is arranged, constructed from logs and saplings, down which the heavy logs speed their way. The main chute is over a mile and a half in length, with a side chute a half or three quarters of a mile long. The timber is cut as high up the mountain side as two miles, and that felled within a radius of half a mile is conveyed to the chute. The latter follows the contour of the mountain,

and the momentum the logs attain, where the descent is more or less abrupt, is sufficient to easily carry them over the level places or ledges. When a log gets out of its course, its force is so great as to drive one end two or three feet into the ground. The logs are rarely injured much, and are not apt to splinter, except where a small log is in advance of a large one. Mr. Weston has measured trees on Black Mountain that were as large as nine feet and nine inches in circumference, that being an exceptional size. He states that properly selected patches of trees would average from 20 to 24 inches in diameter. Some of the trees are 60 feet below the limbs. Walnut grows scattering through North Carolina, and very little is found in the Black Mountains. After being conveyed to the base of the mountain, the timber is cut for the firm by contract, at a mill conveniently adjacent.

## NEW SAW FACTORY.

The property around Charlotte street extension bids fair to become the seat of great manufacturing industries. The works of the Canada Rolling Stock Company, it is to be hoped, will soon be heard in full swing around that neighborhood, but in the meantime, another important factory has been completed, which will, in the course of the next few weeks, be in operation. Mr. James Robertson has finished building his saw factory; the main premises are brick built, three stories high and 100x50 feet. The boiler house and tempering shop cover ground to the extent of 100x80 feet. The factory has been exceedingly well erected by Messrs. Cassidy & Steen. The ground floor is used for an engine room and for the manufacture of saws. The engine was manufactured by Messrs. John McDougall & Co., of the Caledonia Works, Montreal. It is 60 horse-power, the cylinder is 14 inches in diameter, the length of stroke 30 inches, with a driving wheel 5 feet 6 inches in diameter, and 2 feet face. The main shaft runs along the northern end of the building and is connected on the ground floor with three large stones; the first is used for sharpening long saws, the next for circular saws, and the end one for hand work. Connected with the main shaft is the counter shaft, which drives the vertical (used for drilling holes); a machine for cutting the teeth of saws; two ordinary polishing machines; a polishing machine for long saws, and an emery wheel.

In the annex is the tempering furnace, which is 24x20 feet and eight feet high. An oil tank 8 feet deep has been sunk in the ground for dipping the circular saws in, and another tank 3x14 feet, for dipping ordinary saws, is being placed in position. The boiler is at the western end of this building; it is 12 feet 6 inches by 4 feet 6 inches, and is fitted with all the latest improvements. A very large coal and wood shed is also attached.

The second floor of the main building will be used for the manufacture of white lead and putty, and in it have been fixed two putty machines, also two white lead machines, which are connected by a belt with the main shaft on the floor below. This room is splendidly lighted, there being twelve windows on the south, six on the west and six on the north side. The floor above, which is also lighted in a like manner, will be used as a store room. A very fine elevator, manufactured and patented by George Brush, of Montreal, has been fixed on the premises; it is connected with the engine and has been tested to carry two tons.

The engine and greater part of the machinery are in working order, and when worked on Friday the large grindstone made 109 revolutions to the minute. Mr. James Robertson obtains all the steel plates from which the saws will be made from Sheffield, England.—*St. John, N.B., Sun.*

## LUMBERING ROADS.

The construction of tram roads, laid with steel rails, becoming quite common in the Southern pine forests, taking the place of the pole road, which is a simple tramway of poles flattened for the car wheels and placed end to end along the surface of the ground. This kind of road has been much used in the South; the ordinarily level and even surface of our pine lands permitting their construction easily and at a minimum cost. Notwithstanding their



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

FILES FOR SALE. FILES RE-CUT.



Established 1874.

Established 1874.

## NORMAN'S ELECTRO CURATIVE APPLIANCES

RELIEVE AND CURE

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

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

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

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

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

A. NORMAN, 4 Queen Street East, Toronto.

NORMAN'S ELECTRO CURATIVE TRUSS is the best in the world. Guaranteed to hold and be comfortable. Circular free. N.B.—Trusses for Rupture, best in America, and Electric Batteries always on hand at reasonable prices. 1517

rudeness they bear immense loads of logs; but as time is a matter of much importance in the hauling of logs as in the transportation of other materials the steel rail tramways are being substituted, and instead of roads only two or three miles long they are being lengthened into the tens and twenties, and reach far into the interior of forests remote from the streams. The extension of tram roads in the comparatively new forests of the South, is indicative of the fact that even here the timber along many of the logging streams is rapidly getting scarcer, and the denudation of the long-leaf pine forests is progressing at a faster rate than it might be naturally supposed. The cheapness with which the logs can be transported on these roads adds materially to the value of the lands in the interior. Recognizing this, parties who have entered large bodies of land arrange their entries so that they will be in contiguous sections, so that extremities can be reached without having to pass through lands belonging to others, and thus place all their lands within easy reach of their mills, which are located at points convenient for shipment by rail and water.—*American Lumberman.*

## PULP FROM SPRUCE.

It was with a view to learn something about paper made of wood, and the manner in which the wood is prepared, that the writer accompanied Capt. C. C. Markle to his pulp factories at Markleton, on the Baltimore and Ohio road ninety-five miles from Pittsburgh.

They do not use axes or cross-cut saws up there in cutting down trees. The "feller," bores a hole in the base of the tree with an inch auger. The hole is driven in about ten inches the chips removed, and a dynamite cartridge inserted. The dynamite used comes in sticks like a candle, and resembles moist brown sugar. A fuse is attached to the charge, and after it is lighted the men seek a place of safety. In a few seconds there is a mighty roar, and the great tree is lifted into the air, splintered half-way up the trunk.

The trees are cut and split into pieces like cordwood. Almost any kind of timber could be used for making pulp, but the fibre of spruce

and hemlock is so straight and soft that it can be worked more speedily and economically than any other available wood. The process is briefly this: The sticks of wood are brought into the mill and thrown into a large funnel which feeds a clipping machine. This machine consists of a large wheel furnished with five knife-blades, and the blades chip the wood off just as the knives of a fodder machine cut straw. The chips are conveyed by an elevator to the second story of the mill, and are dumped into "digestors." They resemble verticle boilers. The chips are fed into the digestors from openings in the top, and then a preparation of soda ash and lime is poured upon them and they are boiled. The pressure of the chips as they spread apart and the fibres separate is immense, and the digestors have to be made to resist a pressure of one hundred and fifty pounds to the inch. In a short time the chips become a stringy pulp, and the liquid is run off by a pump and conveyed to the evaporator, of which we will speak later. The pulp next goes through a wet machine where it is strained and cooled. It then passes between rollers and is made into sheets like pastboard.

The evaporator is supplied with a long battery of small furnaces, above which are the retorts, into which the alkali is pumped from the mill. It is then evaporated until soda ash is the result, and this ash is again used in preparing pulp. There is but a trifling loss in evaporation, and the same alkali is used again and again. A cord of wood will make 1,200 pounds of pulp. About five tons of the pulp will make three tons of paper.—*Pittsburg Times.*

A PORTLAND despatch says that the whole log crop in Maine the past winter amounted to 600,000,000 feet.

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

# LUMBERMEN'S STATIONERY.

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

Shanty Settlements

Shanty Orders

Shanty Receipts

Shanty Time Books

Shanty Log Books

Shanty Reports

Shanty Ledgers

Shanty Cash Books

Shanty Way Bills

Drive Books

Office Letterheads

Office Noteheads

Office Envelopes

Office Cards

Office Notes

Office Drafts

Office Orders

Office Receipts

Office Blank Books

Office Ship Account Books

And everything necessary to a complete office outfit.

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 & Co.,

"THE CANADA LUMBERMAN,"

PETERBOROUGH, ONTARIO.





# EMERY WHEELS FOR SAW GUMMING.

In order to remove the difficulties connected with the importation of TANITE GOODS in small quantities, and to bring such goods within easier reach of

## CONSUMERS IN CANADA,

we have arranged with the well-known firm of

# FROTHINGHAM & WORKMAN MONTREAL.

To take our sole Agency for the Provinces of ONTARIO and QUEBEC. By this means consumers who want only single wheels, or goods in small quantity, can supply themselves easily and avoid the trouble of special importations, while dealers can secure the most liberal terms, fully equal to those they could obtain by buying of us direct.

Messrs. Frothingham & Workman will carry a full stock of TANITE EMERY WHEELS, and a sample line of Machines, and can fill all orders promptly.

**The Tanite Company, Stroudsburg, Monroe Co. Pa.**

September 23th, 1887.

17418

## 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 1741

**J. T. LAMBERT, McCracken, Gall & Co.,**  
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. 1141

**McCracken, Gall & Co.,**

WHOLESALE AND RETAIL

**LUMBER MERCHANTS**  
And MANUFACTURERS,

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

Orders for Lumber and all kinds of Factory Work promptly attended to. Lumber Kiln dried to order.

Yard: Cor. Wellington & Strachan Aves.

FACTORY: Corner Soho and Phoebe Streets.

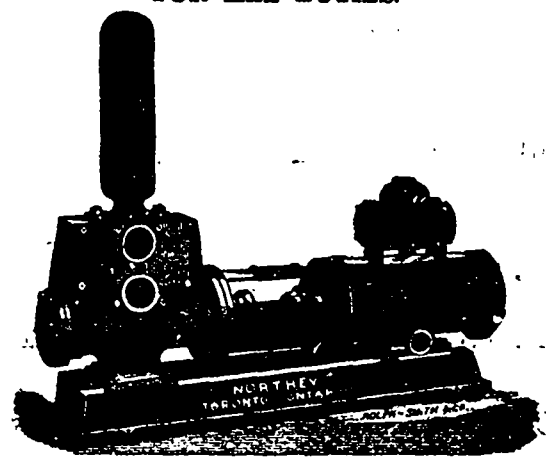
Office: 39 Adelaide Street East, (First Floor, nearly opposite the Post Office.

TORONTO, ONT. 17

## NORTHEY & COMPANY, STEAM PUMPS

FOR ALL DUTIES.

ILLUSTRATED CATALOGUE AND  
PRICE LIST N APPLICATION.



ALL WORK ABSOLUTELY  
GUARANTEED.

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

WORKS AND OFFICE:

Corner FRONT and PARLIAMENT Streets, TORONTO. 1217

**J. K. POST & CO.**  
**LUMBER MERCHANTS**  
And Shipping Agents.  
OSWEGO, N. Y. 114

CASTORINE MACHINE OIL  
CASTORINE AXLE GREASE

**E. S. VINDIN,**  
Commission, Shipping, Forwarding and  
General Agent.

**LUMBER MERCHANT**

Office, Tempest's Block, Port Hope. 111

24113