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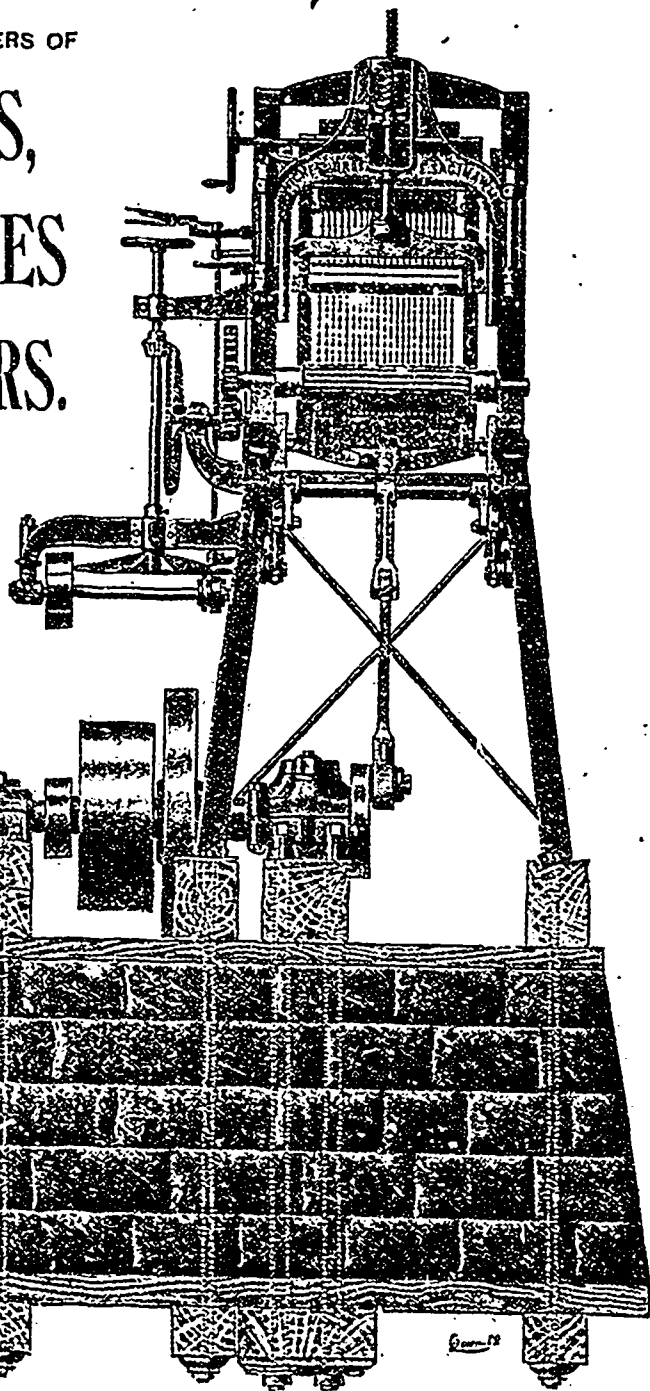
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## RUSSIAN SAWMILLS.

**D**R. WALTER KEMPSTER writes from Wilna, Russia: "I visited a large saw mill, located upon the River Vilita, which flows through this place. The mill, a very substantial brick building, stands back from the river forty rods. The logs, some more than eight inches in diameter, and all twenty-one feet long, are drawn out of the water by horses, a heavy trace chain hitched to each end of the log and fastened to whiffletree serving as a means of hoisting them out. There is a horse at each end with a boy on the horse's back, and when the chains are made fast each boy cracks his horse and out the log comes. You understand it is not drawn out endwise but sidewise, the whole twenty-one feet scraping over the runways. In this manner the logs are drawn into the yard where they are piled up for winter's use. As the horses approach the pile the boys start them into a gallop and they skid them to the top of the pile on the gallop.

"In the mill there are two gang saws—the old, old fashioned kind 'up one day and down the next'—five saws in each gang. There are also some edging saws. The machinery is all in good order and everything about the place indicated prosperity.

"From the log yard the logs are hauled into the mill in the usual way and why they do not haul them from the water in the same manner is a mystery. All the boards are carried about the mill by men, not by carriers such as are used with us. It is laughable to watch operations in a Russian sawmill.

"The rafts are made up much as ours are, except that the logs are piled up three or four feet in each section, and the reason for this becomes apparent when I explain that for every section in a raft the owner pays the government a river tax of five roubles (about \$2.50). The logs come several hundred miles down the river, which is a fine stream even here. The raftsmen live on the rafts but have no shelter like the raftsmen on the Allegheny.

"The most pitiable thing about it all is the price paid to workmen. Sawyers receive five roubles (\$2.50) per week and board themselves. Laborers receive from thirty to fifty kopecs (fifteen to twenty-five cents per day and board themselves, working from 6 a.m. until 8 p.m. Many men and women too get only one rouble (or 50 cents) per week and board themselves. Fifty kopecs per day (25 cents) is the pay for a first-class laboring man, who is not a skilled mechanic, and no mechanic: that I have found yet receives more than one rouble (fifty cents per day). I have visited mills of all kinds, carpenter shops, cabinet makers, machinists, wood carvers, brick layers and stone masons, and in short every trade, and seven roubles (about \$3.50) per week is the very highest price paid to the most skilled artisan."

## OIL IN BOILERS.

**I**T SEEMS to be proved beyond a doubt that kerosene oil has a beneficial action upon the interior of steam boilers in a section of country where lime water is used for feed. Some engineers open the boiler once a week and turn in from one to three quarts of either crude oil or kerosene. Other engineers follow the practice of injecting a pint or so of oil every day. Some men have rigged up special apparatus for injecting oil. This is hardly necessary, especially where a power feed pump is used. There is, or should be, a small pet cock tapped into the barrel of every power pump. If a bit of rubber hose is squeezed on over this pet cock, and the end of the hose dipped into the can containing the oil, it is quite easy to open this pet cock during the suction stroke of the pump and close it

during delivery. This action for a dozen strokes will suck up all the oil and send it en route to the boiler.

Where an injector is used a pet cock may be tapped into the water supply pipe just back of the injector. If the water supply flows through the instrument it may be necessary to throttle it slightly when oil is to be administered to the boiler. When this is done the rubber hose can be applied to the pet cock in a manner similar to that described for the power pump. When the injector is working well turn on the oil and it will be quickly soaked into the injector and discharged toward the boiler. Care must be taken not to open the pet cock to its full extent when passing oil through an injector, or the large body of oil acting differently from the water may cause the injector to "break." If this happens, the engineer may get a dose of oil and greasy water on his face and shirt front, but no more serious action will occur. The steam pump may be given oil in a similar manner, but it will not pay to harness up the air chamber pet cock for this purpose.

## OPPORTUNITY.

**D**O WE ever stop to think how much of human success depends upon opportunity? The world is full of square men who are industriously trying to fill round holes, and the men occupying the square holes are in like manner misfits. How many men waste the energies of an entire life in misdirected efforts simply because they have never found a fit opportunity for the development of such abilities as they possess. A man who possesses decided executive capacity, and is competent to handle great interests, or control an army of workers, perhaps plods away for years in some subordinate routine position, because the opportunity has never come for him to display his mental calibre. He has never struck the right line, is probably engaged in a business for which he is wholly unfitted and in which he will never be anything but a failure. Another, perhaps through a merely fortuitous circumstance, it may be an almost accidental connection with a man prominent in some special line, is placed in a position for which he happens to possess marked capabilities, although as yet undeveloped. He does not even know himself that he possesses any special fitness for the post. But with opportunity comes development. Manifesting continually increasing capacity for the business, he is pushed ahead, the scope of his authority broadened, and he becomes in time a type of the highly successful man.

Placed in a different position, one for which he had no aptitude, he might have run on in the same dull groove, gradually deteriorating into a mere machine, doing his work perfunctorily and without interest. But when he has found his special work he grows mentally with every day's experience, and finally rises to the extreme height of efficiency.

It is too often the case that the unsuccessful men, those who have made a failure of their life's work, have merely lacked the opportunity to develop what was in them, and in their failures are rather to be pitied than blamed. It is true that even persistent plodding will sometimes reach the goal of success, but the way is a long one, and the final rewards hardly commensurate with the toil involved.

That man is indeed fortunate to whom opportunity comes early in life, and who has the good judgment to grasp it while the way is clear. It is said of some men that they compel opportunity; but for one who succeeds in that effort there are many who fail. That occupation for which a man is adapted, by natural temperament, by physical and mental qualifications,

is the one to which he ought to devote his best energies, for, although he may achieve a measure of success in other callings, it will never be so complete or so liberal in its material rewards as that for which he is naturally qualified. Let us have fewer square pegs in round holes.

## STAVELESS BARRELS.

**T**HE *London (Eng.) Times*, tells of a remarkable invention of a German, that may do much to revolutionize barrel-making the world over. This is the account as given by the *Thunderer*:

"It is doubtless a matter of general knowledge that the bodies of casks and barrels are composed of a number of tapered staves, which are assembled together, held in position and hooped up. By a novel and ingenious method of manufacture casks are now being manufactured from one piece of wood, and therefore without any staves, or, it may be said, with only one, the body constituting in itself a long, single stave. The method of preparing the body of the cask may be likened to the sharpening of a lead pencil by a pocket sharpener. The stem of the tree is first cut up into pieces or logs of a length according to that of the barrel required, and is then boiled for two or three hours in a closed vessel to soften the wood, a current of electricity being passed through the water the whole time. From the boiler the log of wood if taken to the machine, where it is held at each end horizontally between two points, much in the same way as a piece of wood is held in the lathe. Rotation is given to the piece of timber, which is advanced towards a broad blade fixed on a frame having a slot in it in line with the edge of the blade, just as in a plane, which the cutting part of the machine may be said to resemble. As the trunk of the tree is revolved against the blade a continuous sheet of wood is produced of any desired thickness. The wood is drawn out flat from the rear of the machine by hand onto a table. The sheet of wood thus obtained is cut transversely into pieces each of the required lengths for one barrel. The pieces are then passed through a grooving machine, which cuts the groove in which the head is eventually fitted. Another machine cuts V-shaped pieces at intervals out of the edges of the pieces of wood, which are then easily bent round into a cylinder and firmly hooped, the V-shaped slots enabling it to assume the necessary conical form at each end. There is thus only one joint in the body of the cask or barrel. The casks are afterwards dried in a special apparatus, after which they are ready for use. A factory is in operation in Germany manufacturing these casks, some of which we recently examined at the offices of the Oneken Patents Syndicate, 10 Old Jewry Chambers, London. We were also shown a model of the machine and some samples of wood of various thicknesses, including some exceedingly thin veneers.

## THE ELECTRICAL SAW.

**I**T HAS been noticed that platinum when placed in an electric current, is heated to a dull redness. This fact is the basis of the invention of an electrical saw, which will cut quickly and neatly the hardest wood. The device is made of steel wire, upon which is deposited metallic platinum. By connecting this modified wire with the terminals of four Bunsen batteries, the platinum is heated to a brightness, and the saw is ready for business.

## MYSTERIOUS MILLS IN THOSE DAYS.

**M**R. MORRISON, an English traveller of the seventeenth century, while at Dantzic, Prussia, says that he saw mill "which without the help of human hands did saw boards, having an iron wheel which did not only drive the saw, but did also hook in and turn the logs onto the saw." Dr. John Dee must have seen a similar mill at Prague, of which he says: "I saw me a mill at Prague of which the devil himself was master."

## BAND SAW SPEED AND TEETH.

THIS is a question of much interest and hard to answer. There are so many conditions that affect a standard speed, that it is out of the question and would be absurd to recommend any certain speed. These conditions extend from the filing room to the foundation of the mill. If all mills were built on solid foundations, perfectly balanced, had good filing and care of saws, then a standard speed and space of teeth could be adopted.

My experience, and I have tested it from 6,000 to 10,000 feet per minute, is that it takes speed to cut lumber, that is, about 9,000 feet. If teeth are not of the right dimensions, they will not stand this speed in hardwood. Other surroundings being perfect, any saw cutting hardwood must have the right space teeth or a peculiar shape must follow. If the right space tooth is had for hard wood, it will cut soft wood, but requires to be longer to give dust clearance, which soft wood requires, provided the saw is put to its test. If too many teeth, they should be short with not so much hook and with a rounder gullet. This is necessary, that the dust may pack or maintain itself in the throat of the teeth.

Right here is where the whole trouble is with the band saw in hardwood. Each tooth *must* cut sufficient to form a chip, otherwise the kerf is scraped, forming a powdered dust which passes between saw and log, heating the saw. This is noticed by the dust being packed hard against the side of the log.

To get feed enough to take a chip does not require teeth closer than  $1\frac{3}{8}$  inches, and then 8,500 speed is best, with everything in the best of condition. My experience has been with oak, ash, cottonwood, pine (hard and soft) and cypress, and on saws from eight to twelve inches wide, 14 to 16 gauge.

As previously stated, I prefer  $1\frac{3}{8}$  inches from point to point on 14-gauge saws, speed 9,000; but on account of iron in every conceivable shape, from a nail to the blade of an axe, I have adopted  $1\frac{1}{2}$ . Teeth  $1\frac{3}{8}$  apart would not do as well on 8,000 as on 9,000; there is a liability to lose corners in knots, and it requires nice swaging to make them stand. Filers differ.

A saw that will run well in soft wood may not run at all in hard wood, but a saw that will run in hard wood, will certainly run in soft. The only difference in the teeth, is, being a little longer for the latter, as a certain kerf for soft wood will produce dust to consume more space than in hard wood. What is wanted is as few teeth as possible to do the work well, as the saw cuts lighter and will stand more feed.

As to the shape of the teeth, they must be shaped to have a straight back and as much hook as will make the tooth stiff enough to stand. The difference in 7,000 and 8,000 feet speed would require a stiffer tooth; that is, for a high speed it can be made a little slimmer, with a straight back. I don't think there can be too much hook. The practice of rounding backs on band saws will not work; my experience with the round saw is that very little rounding is needed, and that for light feeds.

A saw that is not well hammered will not stand 9,000 speed; it will assume a flapping or trembling motion, which deprives it of that steady, firm motion necessary for fast and good work. Defective brazes will soon play out on high speed. Anything that is not right about saw or mill will necessitate the reduction of the speed to 8,000, or less.

M.

## SAW MILL KINKS.

BY DIGS TOSMER.

IT is not an uncommon thing for circular saws to wobble a little, and when one is not skilled in the use of the hammer, very thin paper should be used to "pack" between the collar and saw on the touching side, the difficulty usually being to get paper thin enough. It is sometimes amusing to see how a beginner will be deceived in the amount a saw may seem to wobble. We have been often told, on sending out a new mill, that the saw was so crooked that it ran "out" over a quarter of an inch. To prove this, the owner should place a strip on the mill frame, the end touching the saw. Then, by slowly turning, the stick would be forced away by the

bulging side, and when the slack side came opposite the stick, a space would be seen that really appeared to be more than one-eighth of an inch wide, the bright surface of the saw making this distance very deceptive. By the means of a thinly whittled wedge, the actual width of this space was measured and found to be less than a sixteenth of an inch.

We were once greatly annoyed by a complaint similar to this; one which came near baffling all efforts to remedy it. Being so peculiar a case of "crookedness," we mention it. We finally discovered that the saw ran truly when the holding nut was screwed up with the hand; but when tightened with a wrench, the saw wobbled. This led to the discovery that in welding the saw-collar it was only stuck on one side, and yielded back on the other when forced by the wrench. We have wondered if anyone else ever met with a similar experience.

Before leaving this subject, we will mention another source of annoyance in saw-collars. This originates in the machine shop, and is caused by imperfectly turned collars. The lathe man cannot be too careful—First, to have the cutting tool sharp, the proper shape, and set to take a light chip, especially on the finishing cut. Secondly, to look closely for hard spots which may be found in the iron. These will cause a yielding of the tool which is almost imperceptible, and yet is sufficient to derange the running of the saw.

We have seen collars concaved gradually from the periphery to the mandrel. This is wrong, we think. The surface on which the saw is to bear should not exceed the distance from the pins on the outer edge of the collar. From the pins to the mandrel a slight recess should be made, which is a cross section of a collar, cut through the centre. The pins should be of the best cast steel and driven very tightly. Doing this will swell the iron around the hole, and the swell will extend to the surface where the saw is to rest. It is obvious, therefore, that after the pins are driven the bearing surface of the collar should be carefully turned, two or three cuts being sometimes necessary to secure perfect accuracy. A straight edge, when placed against the collar, should bear hardest at the outer edges. A thin coating of oil will serve best to show its bearing. Some allow a space between the straight edge and collar that will permit light to enter.

## A WORD ABOUT MILL FOREMEN.

A WELL proportioned and arranged mill allows the foreman to establish his reputation in many instances as an A No. 1. Such a mill, well-set, of course, will run for months without putting him to test. To his surprise a line shaft wrings in two. He flies around, finds a flaw in the shaft and a dozen things to clear his skirts. A line drawn through the boxes shows it to be a trifle out of line. This is sufficient to break any shaft, and only remains a question of time under heavy duty. Pretty soon one of the boilers needs patching. No cause under the sun for it, only that the boiler was defective, etc. The truth of the matter is, that he has allowed the engineer to blow out with fire in the furnace and refill with cold water. This remains only a question how long the rivets and sheet can stand this enormous contraction. It is not advisable to have such an engineer. But how long does it take a man to realize whether the foreman is up to his business or not? Not long. He nine times out of ten will hurry such jobs as cleaning boilers—in fact, slight what he can; the foreman can only lay it to the maker, etc. One Monday morning a battery of five boilers in a saw mill were found to be leaking. A new engineer had been lately put on. He had his way out of it, of course. He had found the engine to be one hundred and fifty horsepower, and in such "bac" condition that the excessive firing had burned or strained the boilers. The foreman coincided with him, and the mill owners had to stand a day's loss and pay a large boilermaker's bill. The competent engineer, who had been fired by the order of the new "cracked-up" foreman, was put on the black-list.

All mill owners cannot be practical mill men, but if they would only investigate the matter more closely they would save many hundreds of dollars annually by kicking out such men or making them bear the loss. Going through a mill just as the engine was starting up,

I heard a slight squeaking noise in the hub of a driving pulley. I remarked to the foreman that something was wrong there. He could not be told anything. Four hours later parts of that pulley were all over the mill, one part of the line shaft pulled down, the belt wound around the engine shaft. The foreman thought it amounted to nothing (the slight squeaking noise), and got out of it by scientifically arguing that the pulley burst from centrifugal force. The mill owner could only stand off and look. Had he examined the broken ends of the shaft and condition of the hub, he could have located an old break, and not have been completely deceived. A case of a seven-inch friction shaft, carrying a 24x24 friction pulley broke early one morning in a ten-inch cut. I discovered that this friction, which drove the main sixty-six inch saw, had been slipping a little. The engineer whose department it was in had tightened it all from one side. The other side of the friction was smeared with grease, by the new greaser pouring too much oil in the bearings which was very close to the edge of the pulley. The motion soon had it out to the edge and over the face. The engineer to keep me off the racket, tightened the other end of the shaft, which put the entire strain on the center of shaft, driving from about ten inches contact. This was another mysterious case. I at once saw the cause, by drawing a line and discovering the oiled surface of pulley. The engineer went. He should have charged the boy about those particular bearings, and should have wiped the grease from the pulleys and chalked them until no slipping was perceptible.

In my experience, I find that in most cases saw mill break-downs can be attributed to the neglect of the foreman. A competent foreman will at once call attention to parts that are too weak, and insist on duplicate parts. If such parts break he can not be blamed, unless in an extreme case of revenge, which no man of honor would do. A good foreman has sufficient mechanical judgment to pass readily upon a certain machine. He may not like the style and workmanship, but will make it go—will not kick it out because it's not what he is used to. A good gang edger was thrown out of a large mill for no other reason than that the saw collars had worn until the saws would not go straight. The incompetent foreman figured around the rollers to make straight lumber and could not; so cried out for a new \$600 edger. The mill owner bought it. While new it went well, of course. Other things turning up, and the mill owner making no money, realized his fate and let him go.

There are many good machines thrown out for the want of a few new parts. The competent foreman will keep a mill right up to its full capacity until worn out—that is, until the expense of keeping it up, which does not run in break-downs, but in replacing and keeping up parts, until the machine can no longer be kept to its capacity without more or less loss of time. Such mill men have a good bank account, have made money, and are ready to sell the old mill for what they can get and put in the latest. The mill men who are constantly changing do not make money in these competitive times. The old adage, "A poor workman grumbles at his tools," can be well applied to incompetent foremen.

## A STRANGER IN A STRANGE LAND.

SOME time ago a sea captain in the Pacific coast trade visited Australia, and there saw a large log which was being examined by the people of that country as a great curiosity. They were at a loss to know what the lettering on the log meant, and consulted the aforesaid sea captain in relation thereto. But he could not inform them, and having somewhat interested himself, made up his mind to learn from whence the log came, believing it to be from some point on this coast. Upon his return to this country he began making inquiries, and at last found a boom superintendent at Port Gamble who informed him of the meaning of the brand, B B, which showed the log to belong to Blackman Bros., of Snohomish. The testimony at hand would seem to warrant the assertion that one of Blackman Bros.' logs had found its way from the river into the Sound, thence into the sea and across the ocean for a distance of over 6,000 miles before being picked up on the coast of Australia.



## THE MAN WHO SAWS THE WOOD.

You may talk of new inventions  
That attest the printer's power;  
Of the presses that can rattle off  
Ten thousand sheets an hour;  
Of the editors that want them  
For this glorious country's good;  
But the hand that rocks the hand-press  
Is the hand that—saws the wood!

## BRITISH OAK.

THE oak is indigenous throughout Britain, and in former ages, before the clearing away of the forests had commenced, appears to have covered a very large portion of its surface, for even in districts where the natural or self-growing oak is now rarely seen, the remains of noble and gigantic trees are frequently met with, sometimes in alluvial deposits on the margins of our rivers, or in boggy places, covered with a layer of peat moss, which has been generated around them by the stagnation of water, caused by their fall. Several trees of large dimensions have been exhumed in tracts, where at the present day scarcely an oak of any great age, or that has attained one-fourth the size of those former denizens of the forest, are now to be met with. At Lin'len the trunk of a magnificent oak was extracted from a peat moss. This oak was covered by a layer of peat moss to a distance of about three feet, and was discovered by probing the moss. The trunk, with a small portion of one of the larger limbs, was with great labor and difficulty dragged from its miry bed.

The contents of the portion recovered contained 545 cubic feet., although the whole of the sap wood had perished. The timber was perfectly sound, and the tree, by whatever accident it had been overthrown, had fallen in the vigor of its growth. When sawn up the interior planks were found of a deep rich brown color, those nearer the interior darker, or approaching to black. A variety of elegant furniture had been made from the wood, but it has been found necessary, for fine cabinet work, to have it cut into veneers, as when worked in bulk it is apt to crack and become warped. The remains of other large oaks have also been met with upon the banks of the Tyne, the Alne, and other rivers, as well as the various bogs and morasses, and we mention these instances to show in a district, where at the present day nothing but recently-planted oak or dwarfish timber from stock shoots exist, that in former times the monarch of the forest grew luxuriantly and attained a splendid development; and also as an inducement to the planter not to neglect the liberal insertion of this national tree wherever soil and situation are found congenial to its growth. In other parts of England the oak still grows in all its magnificence of form and dimensions, and the remains of those ancient forests which are chronicled by our earliest writers, and which in the time of our Saxon ancestors spread over the greater portion of the country, are still to be traced in the venerable but living relics of enormous oaks, many of which are supposed to number more than a thousand years.

There may perhaps be some who suppose, from the slower growth of the oak and the height of time it requires to attain maturity, that they are likely to gain more and within a shorter period by plantations composed of other trees than oak. Such an opinion we conceive to be erroneous, at least with respect to all soils in which this tree will thrive, for we believe that greater advantages and equal profit may be obtained from mixed plantations in which the oak has been introduced in sufficient quantity to stand as an ultimate crop, for the number of plants required for this purpose and the room they occupy when quite young is not such to lessen materially the value of the necessary and periodical thinning of the other occupants which have been planted as secondaries. As compared with the larch, the Scotch fir and others of the pine tribe, or with the rapid growing poplars and willows, the growth of the oak during youth is undoubtedly much slower, being at only one-third the rate of that of the white poplar. The difference, however, in respect to the ash, the elm, the beech and some other forest trees is not nearly so great, as we find from Vancouver's observations that the relative increase in growth of various trees, taking them at ten years old, and fixing the oak as a standard, was as follows: oak, ten; elm, sixteen; ash, eighteen; and beech, twenty.

## A GOOD FILER.

BY J. H. MINER.

THIS is what over one-half of the mills to-day want and cannot get. There is no trade or occupation that pays the wages that a first class filer obtains, and these wages are kept too much in view. There is no trade with apparent deception in it, and many men think the art a secret, and if they can catch on to a few points are out for big wages. If filers were not so conceited they would fare much better.

The capacity of the circular and band saw depends on the skill of the filer. Take the rotary saw of over half a century, and every day it is made to cut more lumber, and astonishing records are obtained. To a certain limit only the average filer attains. The close mechanical eye and judgment necessary are not found in one man out of fifty. Years of experience are not all that is necessary. It must be in the man. There are more men of long experience that cannot master the saw than in any other mechanical pursuit. The differences in capacity of mills should classify filers, but we find a man from a mill who is ready to talk of his own records and what he can do; in many cases only imitating some other man's chat.

If filers would not be contented, but try to improve they would succeed much better. In the art of hammering, many men claim to hammer when they do not know the principles of expansion. Their reputation is gotten up by taking a saw considerably run down, slack on the rim, which has not been treated to the following process, and the professional man hits the saw a series of blows usually in segment lines. Naturally anything from a center-punch to a sledge hammer would open up the body which would apparently help the saw. Delighted at the result he is soon out on the road or after another job. We often find such men carrying recommendations as hammerers.

The adjustment of any saw requires as close work as the finest chronograph watch; in swaging, filing and hammering, the utmost care must be exercised. A tooth not of the proportion set will lose its corners on heavy feed; the tooth may have the necessary body, but the steel may be deadened by the tooth being too dull, and the use of the upset. The pressure swage is best, but this, like all other machines, will do the work only as it is set. If the filer knows what he wants, he will get good work.

The automatic sharpener, in nine cases out of ten, is not properly used; that is an edge left on the tooth that will stay. The file is used to point up which throws the tooth out of square. There is not one filer in fifty who can file a square tooth. The hammering is the most essential thing. It requires a tension properly distributed.

There are many filers who can detect any irregularities in temper, and compensate for them in their work. The reason why many men do not succeed is that they do not know the force of expansion. The saw receives expanding blows where it does not need it.

There are two elements in hammering any saw, and they are keeping the plate true, and of proper opening to speed. It is not required of one man to know it all, but the filer who cannot show some mechanical skill outside of the file room is not much of a filer.

A man must be a natural mechanic, have good judgment, and the straightest eye of any man about the business. He will keep up with his work with all the mill sharp. The man who only files or gums a saw when necessity compels him, is not a good man. While it is not required of a filer to be a sawyer, he should know enough about the running of a saw to adjust it right. If the sawyer cannot make good lumber, it is his duty to see why, whether in the saw, lead of mandril, or anything else. A man well up in the business will fit up every saw precisely alike. Saw makers say this cannot be done, but it can, if saws are of the same gauge and teeth. The variation of temper the filer will compensate for, so that a sawyer practically has the same saw when running a half dozen or more.

## A WHOLE FOREST OF CHESTNUTS.

"Don't you think the baritone's voice has unusually fine timbre?" "Yes, some chords of it."



Never lay tools or other things on belts that are standing still, for they may be gotten and cause a break-down when the machinery is started.

If the strain on a pulley be so great that the set-screw already in place will not hold it, do not let them score in the shaft, but put in an extra screw or cut a key-way and put in a key.

To find the length of a belt when closely rolled: The sum of the diameter of the roll and the eye in inches, multiplied by the number of turns made by the belt, this product multiplied by the decimal .1309, will equal the length of the belt in feet.

For users of steam power who are not skilled mechanics or not accustomed to run engines, a unique type of engine construction has recently come into vogue, consisting of a moving steam cylinder and moving valve and a stationary steam chest, thus dispensing with the various mechanical arrangements commonly employed, such as the eccentric valve rod, complicated connecting rods, slides, rockers, etc.

A French official industrial department issues the following recipe for preserving wrought iron chimneys and chimney flue from oxidation: Brush over the inside of the pipe with a mixture of coal tar and pine tar. Then fill it with wood shavings and chips and set fire to them. The tar is thereby calcined and adheres to the metal, and also covers its surface with carbon. A pipe so treated will last many years longer than one which is unprotected.

Where a person has frequently to put on pulleys on a line or counter shaft near the ceiling of a room, it is somewhat annoying and inconvenient to use a ladder for such purpose, and a single little device which we have seen used in the shop, but it is not common by any means, consists of a pole of such size and length as is convenient for handling and will reach the top of the pulley. Two or three inches from the end of pole, a small iron rod four or five inches in length is attached so that it projects from the pole at right angles. When a belt is to be thrown on the pulley, the belt where it rests on the shaft is caught on the projecting iron and pushed back until the slack of the belt is carried beyond the pulley. The belt is then guided on to the surface of the pulley, where it catches, and being held by the stick is easily and quickly lifted on to the pulley, the stick and rod being carried out of the way by the motion of the belt. By use of this simple device a dozen belts may be thrown on in less time and with greater ease than a ladder could be brought and placed in position for putting on a single belt.

Appropos of boiler incrustation how singularly tenacious many engineers are of the idea that potatoes are about the best preventive of scale that there is. The reasoning runs thus: "Did you ever see the inside of a teakettle?" "Yes." "And did you ever notice how it was all furred up with scale?" "Yes." "Did you ever see a kettle used for boiling potatoes furred up like a teakettle?" "No." "Well, then, if you would use potatoes in your boiler you would not be bothered by scale." It never seems to occur to these geniuses that there may be another reason for the difference between the two vessels which will explain the different results. Thus, I presume no one ever saw the washboiler of a laundress scaled to any extent, and yet the boiler is not what she is apt to use in cooking her potatoes, but it is generally wiped out, and thus any sediment from the water is got rid of at once, while the teakettle is used for months at a stretch without being cleaned, and by that time it has acquired a coat of "enamel" which a cold chisel and hammer will scarcely budge.

There are three methods of producing forced draft, writes a correspondent of *The Tradesman*. One is a jet of steam admitted to the smoke stack near the base, through an annular pipe pierced with small holes. This system is not the most efficient and causes considerable loss of fuel as the steam that is used to create draft would do ten times as much work were it used in an engine instead of being used direct. The second method is that of forcing air into the ash pit of the furnace through pipes from a blower. This system is good especially if the air be first warmed by being forced through pipes in the smoke stack. The third method is in maintaining a closed fire room, the stove hole being made air tight, and blowers being used to force the air into the fire-room, from which it rushes into the ash pit and thence up through the grates. The principal defect of this system is that when the furnace doors are open the cold air will rush in, causing strains and perhaps cracks in the tube sheet and perhaps the tubes themselves.



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OPINIONS ON THE LOG DUTY.

THE reciprocity negotiations between the United States and Canada that were on the carpet for October have been declared off in the meantime. President Harrison's alleged reason for the postponement is the precarious condition of Secretary Blaine's health. The postponement of negotiations some months ago, when the Canadian representatives had by appointment actually reached Ottawa, was due to the inability of the President to give the needed time to the conference, having on hand a political tour through certain of the States. This time it is Mr. Blaine's turn to play bluff, for a dispatch of 25th ult. says that the Secretary has regained the capital, and appears in splendid health. THE LUMBERMAN has no interest in this little by-play at political battles and shuttlecock. Its direct interest is in the anticipated relation of reciprocity to the lumber industries of the country. Our own government did not move in the matter during the meeting of Parliament, waiting the result of the expected conference; and with the meeting still hanging in the balance, nothing better than speculation as to results is likely to be realized just now. Anything of value that will shed new light on the question, or make more clear the ground already covered, we shall in the interim be pleased to lay before our readers. We observe that Mr. Loveland, the active head of the Saginaw Salt & Lumber Co., a firm largely interested in Ontario lumber, and of whose lumber operations a sketch is given in our Michigan letter, has been expressing himself to an interviewer on the question. He states that his advices from prominent lumbermen in Canada, leaves very little reason to suppose that our government will reimpose the log export duty. "A reimposition of the duty," he says, "would at once increase the duty on the 600,000,000 feet or more of manufactured lumber which Canada annually markets in the States, \$1 a thousand." In his opinion if the duty were re-imposed there would not be one-half the quantity of Canadian logs cut by Michigan owners as at present. "Not only this," adds Mr. Loveland, "but all the supplies for the operations in Canada are purchased there, all the horses are bought on that side; I purchased 40 only a few days ago for our company's camps there, and all of the men for the camps are hired there, all of which benefits the Canadian people. If the log export duty should be reimposed the result would be that the buying of Canadian timber by Michigan lumbermen would be largely curtailed."

The *Mail*, discussing the subject at some length in a recent editorial, apprehends unpleasant consequences should the Dominion government reimpose the log duty. Irritation would follow reimposition. The *Mail* says:—

The Americans are now aware that Canada has for many years been a large importer of American logs down the St. John and elsewhere—a trade which they cannot check by an export duty, as their constitution prohibits such an impost. The export duty having been removed, its reimposition would attract a degree of attention that was never given to the subject before the repeal of the duty, and no doubt the result would be that, as retaliation in kind could not be resorted to in consequence of the constitutional prohibition of any export duty, the case would be promptly met upon the

assembling of Congress by a joint resolution adding the export duty on logs to the import duty on lumber imported from countries imposing an export duty. Under this arrangement, if the export duty was the same as when repealed, the duty on pine would be \$4 and upon spruce lumber \$3 per thousand. This course would force an ignominious backdown upon our government, and the export duty would again be removed under circumstances less pleasant than in October 1880."

It is not to be forgotten that there is no love lost between the *Mail* and the Abbott administration, and besides the *Mail* is the Canadian champion of reciprocity between the two countries, and to the extent that its convictions are undoubtedly strong on this question, in that measure it may write with a bias in the one direction.

The *Canadian Manufacturer* the straight-out apostle of protection to every form of Canadian industry, devotes several columns of its latest issue to a discussion of the lumber and timber trades in Canada. It quotes at some length from the speech of Dr. Spohn, M.P. for East Simcoe, excerpts from which we publish in another column. Our contemporary contends that the Canadian government made a fearful and foolish mistake in allowing themselves to be 'brown beaten and intimidated' by the United States government, and in the face of this threat to have removed the log duty.

The *Manufacturer* goes on at some length to say:—

"Before the imposition of that duty it was found that Canadian forests were being depleted to supply American sawmills, and it was hoped that the export duty would encourage the manufacture of the logs into lumber in Canadian mills; and it had this effect. The American government felt keenly the loss caused by this transfer of business from their country to Canada; and the plan to recover it was by raising their duty upon lumber. The answer of the Canadian government to this menace should have been not a back down by the removal of the export duty on logs, but an increase of the export duty to \$3, the old duty of \$1 only to be enforced whenever the United States government might see proper to reduce the import duty to that amount."

This is undoubtedly strong ground to take, but in the opinion of our contemporary it is the only right position for Canada, and the immutable law of supply and demand would operate here the same as it does in everything else. "We know that the American market stands in imperative need of Canadian lumber."

The Sault Ste. Marie *Pioneer* published in the centre of an important lumber section sees only disaster ahead. It says:—

"In a few years at longest—unless sooner restrained—these grand pineries will have been stripped of their timber by the United States mill men, and Canada will be left with a thousand miles of pine stumps to remind her of the prodigal waste of one of the richest territories in the world. Two hundred years of careful industry cannot replace the timber which has already been taken from thousands of acres. How long will it be before such wilful waste is overtaken by woeful want? Are all the men who are elected to Parliament lumbermen or their agents, that not one word of protest is to be heard in local or federal legislatures against the almost ceaseless destruction of one of the greatest sources of Canadian wealth. Verily our land is being laid waste by strangers, and the source of Canadian wealth is rapidly disappearing without adding to the manufacturing interests, industry, or revenue of the Dominion."

WOOD FOR STREET PAVEMENTS.

JUST at a time when the movement in Toronto and many of the larger cities of the States is to abandon the wooden pavement for asphalt and kindred compositions, word comes to us through European travellers that the wooden pavement is coming into increased favor abroad. We are discarding it in this country for the reason that it seems to be no more than put down before repairs commence; and on many of the streets of this city, where the charge can neither be laid to the door of old age, nor heavy teaming, the wooden pavements are in a more unpassable condition for driving than the most primitive country road. Nor is the record from a sanitary view encouraging to this form of roadway; at least popular opinion attributes to the block pavement its full share of evil for the several epidemics of greater or less virulence that from time to time show themselves in our cities.

This is an indictment that does not place wood on top for the important purposes of road-building. At

least the evidence quoted, and we do not pretend to gain say it, does not place it in a favorable light for these uses. At the same time, however, that it is receiving its condemnation here and elsewhere, we find not only Europeans looking with favor on wooden pavements, but cities on this side of the water, despite the damaging testimony against the cedar blocks, are making large plans for the use of this particular pavement. The city of Rockford, Ill., is a case now before us. The authorities there are laying cedar block pavements, but they do not lay them in the usual way. Instead of placing them on hemlock blocks, they will be placed on a base of six inches of rubble, heavily rolled, and two inches of sand. This method is not without good authority to support it, those who should know contending that by pursuing this course the pavement will wear much longer and make a better pavement by being upon a firm body. On general principles wood should make a satisfactory and durable pavement. But if the plan of using the wood in the construction of the pavements is faulty an unfair sentence is passed upon wood. It is known that in this country timbers and in not a few cases shingles are found that have withstood the blasts of our severe winters for one hundred and even one hundred and fifty winters. While in Norway wooden churches are standing, with timbers of nothing harder than Norway pine, that have braved the fell frosts of these arctic winters for seven hundred years. The preservation in this latter case is attributed largely to the fact that they have been coated over and over again with tar. The standing timbers of a country church and the cedar blocks of a city roadway, which have peculiar hardships to endure, are not parallel cases; but the inference is clear, that proper preservative measures must be employed to give enduring qualities to wood under whatever conditions, favorable or otherwise, it may be used. Let us give the products of our forest a fair show for wooden pavements, as we would for any other purposes, before we pronounce too vigorously against them.

LUMBERMEN BOYCOTTING LUMBERMEN.

THE methods of the boycott are not to be restricted to workingmen's grievances only. The contagion has caught the Pine Lumbermen's Association of Winnipeg, Man. The members of this association have taken the position that they will not sell pine lumber to dealers who handle spruce lumber. The question was brought before the Winnipeg board of trade a week ago, and after considerable discussion, the following resolution was passed:—

*Resolved*, That this board views with strong disapprobation the decision of certain pine lumber manufacturers of the northwest to refuse to supply lumber to dealers who handle and sell spruce lumber, believing such decision to be direct interference with the legitimate flow of trade and a tyrannical attempt to hamper and coerce trade to the benefit of the few and against the interests of the many.

The resolution, on instructions of the Board, will be forwarded to the lumbermen's Association and also to the several boards of trade in the province.

However desirous it may seem under certain circumstances to give a special push to one particular line of merchandise, at the expense of another line of the same class, uncertain ground is taken, when the methods employed to accomplish this end are in contravention to the true principles of trade and commerce. And of all the means that can be used to accomplish a business end none are more absolutely objectionable than the boycott. There is an ugly spirit of arbitrariness about it to which no man will submit except under power of a force that cannot be conquered; and no business man should ask another to be placed under its domination.

We would want the pine lumberman of the Northwest provinces to secure as large and profitable a market for their pine as the opportunities and extent of the market will permit; but let them be assured that this cannot be accomplished by any methods as restricted and imperious as the boycott.

R. J. S. DRINKWATER, ORILLIA, ONT.: "You must allow me to compliment you on the perfection that your paper is coming to or rather has come to."

WM. LEES, FALLBROOK, ONT.: "I think THE LUMBERMAN, a most excellent paper."

## EDITORIAL NOTES

WOOD is to be at a discount in future in C. P. R. trestle work. As a result of the recent tour of inspection made by the chief officers of this company, it has been decided to replace all the wooden trestles with steel structures. The cost is estimated at something over two million dollars, but the directors believe the consequent lessening of the schedule time between Vancouver and Montreal will repay this immense outlay, since trains will be able to run at considerable higher speed over steel bridges than over the best class of wooden trestle work.

THE favorite wood for paving purposes in London is the jarrah wood, imported from Australia. An inquiry has been recently set on foot to determine whether some other of the Australian woods notably red gum would serve as well as jarrah wood, but the testimony goes to show that while substitutes are used in some of the Australian cities for jarrah nothing that is offered is quite as satisfactory. They all lack the lasting qualities of jarrah. The inquiries further show that the supply of jarrah is abundant and that there need be no apprehension of the supply running short for many years to come. Wood paving grows more and more in favor in the European cities.

THE durability of timber under certain conditions is illustrated in a foundation of red pine planks taken from a sewer in Sparks street, Ottawa. The sewer was constructed from 32 to 38 years ago. It consists of a foundation of red pine planks laid transversely, on which two side walls of stone are erected, which are covered over at the top with heavy round cedars. The cedars at the top are all, though still apparently quite serviceable, in a more or less advanced state of decomposition. The planks, however, are to all appearance as sound and hard as on the day they were put down. It is another proof that timber kept constantly submerged in water keeps in good condition—unless sewage has a special virtue as a timber preservative.

THE *Southern Lumberman* celebrates its tenth birthday by the issue of a special number descriptive and illustrative of the progress of the lumber and timber industries of the Southern States. Our contemporary is to be congratulated on the general "make-up" of its anniversary issue and on the gratifying progress that it has made during the first decade of its existence. The opening up of the lumber industry of these states is of comparatively recent date. It was not till 1875 that any vigorous effort was made to realize the rich stores that time has since shown exists in these southern forests. The walnut and cherry timber of Indiana began to fail, and buyers, seeking for other pastures green; began to flock into the hardwood forests of Tennessee. The early bird, in this case, reaped the reward. The value of this hitherto unrecognized source of wealth was not realized by the people, and before its riches had dawned upon them, millions of feet, including the bulk of walnut and cherry, were bought at about one-tenth its value. This was true also of ash, and to some extent, of poplar and oak. History repeats itself in the case of all our natural products. The adventurous prospector, who has often to brave the ridicule and prejudice of friends, gets in on the ground floor and makes his pile. We see no reason why he should not. It requires courage and foresight to be among the pioneers in any cause; success does not always crown the work of the pioneer; when it does, he has generally well earned it. The primitive methods of manufacturing and marketing, that have been common to all lumbering sections in their early history, were with the South in the days of the seventies. To-day they are as well up to the times as most of the older territories. Interest just now in these states gathers around yellow

pine. There people are very sanguine of the uses and value of this wood, and whilst some discount must be made for native enthusiasm, indications tell of good value having its existence in this particular timber. Tennessee is the chief lumbering state of the south, where there are now 436 saw mills, 142 planing mills and 20 shingle mills. Of these 41 (including twelve saw mills and ten planing mills) prosecute their successful industries in the city of Nashville. They have a daily saw mill capacity of 450,000 feet. The lumber handled or consumed by them yearly is 229,350,000 feet. We are not so far north in Canada that we do not find an appreciative interest in the welfare of those engaged in the timber interests of the Sunny South.

NEW YORK is again threatened with a lumber "tie-up." The trouble is a continuation of the labor difficulties of the early summer. At that time, as a result of united action by the members of the Lumber Dealers Association the men were badly beaten. It was an ugly licking for the walking delegate, and he continues to smart under it. He would again stir up the men and practice his old tricks, and it is an effort in this direction that has given rise to present rumblings of a fresh fight. *The Lumber Trade Journal* of New York, which carried through the former contest with marked ability and success, very plainly warns the men that if they allow themselves to be influenced by these agitators, and a single dealer in the Lumber Association is boycotted that every yard in the district will shut down and the men will have to meet their fate with a cold winter before them. It is to be hoped that for the sake of the families of the men, if for no other reason, that wise counsels will be allowed to prevail.

RECENT government returns furnish some important particulars of the volume and character of lumbering operations in Manitoba and the Northwest Territories. We are told that there are 19 mills in operation within the Winnipeg agency cutting under government license. The total amount of dues collected for timber within the Calgary agency during the year amounted to \$8,232.88, being a decrease of \$8,578.24. The price of lumber at Calgary was from \$12 to \$18; at Cochrane, \$12 to \$16; at Fort McLeod, \$15 to \$43; at Lethbridge, \$30, and at Cypress Hills, \$13. Two saw mills were cutting lumber within this agency last year under government license, and several portable mills under permit. The total amount of dues collected within the Edmonton agency was \$4,910.59, being an increase of \$868.86, as compared to the previous years. The price of lumber at Edmonton during the year was \$20 to \$23, and at St. Albert \$23 to \$27. The agent reports three saw mills in operation within his agency. The total amount of dues collected in the Prince Albert agency was \$7,689.91, being an increase of \$3,596.32 over the previous year. Lumber sold at Prince Albert from \$20 to \$42, and at Battleford from \$30 to \$35. There is only one saw mill in this agency cutting timber under license, namely, the one at Prince Albert, erected by Moore & McDowell in 1876. There are, however, several mills at Prince Albert and Battleford cutting under permit. Saw mill returns received at the head office give the following quantities of building material as having been manufactured and sold during the year within the five agencies: Lumber, 30,605,906 feet; sold 27,097,480. Shingles, 1,449,916; sold, 1,610,247. Lath, 156,402; sold, 142,146. Sixty-four licenses to cut timber over a total area of 2,312.88 square miles were issued during the year. The number of applications during the year to cut timber was 88, of which 48 were for licenses to cut lumber in Manitoba and the Northwest Territories, and the remainder to cut timber on Dominion lands in British Columbia. The number of applicants during the previous year was 81.

A RETURN brought down at Ottawa towards the close of the session showing that 42,000,000 acres of land in Manitoba and the Northwest Territories had been granted to railways, and the same policy being continued has brought from the *Winnipeg Commercial* a vigorous and outspoken protest. This journal, in order to make clear to its readers what this "dissipation

of the public domain" means, points out that the entire superficial land area of the province of Manitoba, including swamps and all un-tilable land, is 41,002,240 acres, so that the gift to railways exceeds by a million acres the whole area of this province. We need to have a question of this character placed sometimes in this bold shape to realize fully its import. Our contemporary follows up its protest by showing that as yet the railways that have been built, influenced by this prodigal gift, cover only a small portion of the country, and "if land grants are to continue until all parts of the country are opened by railways, there will not be land enough in the entire country to satisfy the railways. The railways will own all the land, and still be unsatisfied." Railways have the power, apparently, to hoodwink governments and corporations with a child-like innocence that is foreign to anyone else, but that is perfectly indigenous to them. No one is so unfair as not to concede to the railways of the country well-deserved merit for the important part they have occupied in the development of the country. But there is a wide gulf between credit-earned commendation, and an insatiable hoggishness that breeds with too many railway corporations. The people have rights, the country has rights, that must be made a consideration with governments, just as much, as the alleged rights of railway companies. If a protest to avail anything is to be entered it cannot be done too soon. We may make up our minds that whatever the railway companies secure they will hold; there will be no giving back anything. A little regiment of municipalities in this province have had some experience, if not in land giving, yet in bonus granting to railway companies, and in the interim of careful second thought, they know to-day, just how much their generosity has cost them, and how little, in too many cases, they have for their liberality. The objection to this principle of bonusing comes with enlarged strength when it applies to public land. *The Commercial* states a true principle when it contends that the public lands belong to and "should be held by people." We agree with our contemporary that the time has come to cry a halt to this policy, which if not seriously felt now, will certainly "in the future prove disastrous to the country."

TORONTO has had an avalanche of failures in building and lumber circles during the past month. Among the smaller concerns that have gone under may be mentioned Hammon & Williams, builders, of North Toronto, who assigned to Campbell & May with liabilities of \$3,000, and assets nominally the same. H. Lambert, another builder in a small way, is seeking a composition with his creditors. Herbert A. Matthews, proprietor of the Toronto Hardwood Company, has assigned to H. J. Watson. The Bloor Street Lumber Company is liquidating. The company consists of Stephen Wilcox, H. H. Mullin, of this city, and T. J. Hammil, Barrie. Direct liabilities are placed at \$9,800, and indirect \$9,000. The assets are about \$9,000—largely book debts. The surprise of the trade has been the financial embarrassment of William McBean, the extensive builder of what is familiarly known as speculative properties. His affairs have been placed in the hands of A. E. Osler. Mr. McBean's trouble is in being "land-tied," and unable to sell owing to the depressed condition of the real estate market. The amount involved in the failure is from \$250,000 to \$300,000, while it is claimed there is a surplus of \$90,000, but this is conditional on the assets realizing what is deemed their proper value. What the outcome will be it is just now difficult to state. These several difficulties will have no serious effect on the lumber trade outside of the firms, that may be interested as creditors, and we do not know that any of them will be hit to hurt very badly. The builders who have gone under are sufferers from the depression in building operations in the city. As we have pointed out before in these columns, speculative building in the city has for some years been carried on in a measure altogether in excess of the actual requirements of our population. The reaction that has set in is perfectly healthy, and whilst it will pinch some, and others it will squeeze pretty hard, the outcome will be for the general good, and will not be without a salutary effect upon some enthusiastic spirits who are more noted for their ability as boomer than level headed business men.





**HUGO B. RATHBUN**, founder of the Rathbun Co., Deseronto, Ont., is an American having been born near Aurora, N.Y., in 1812. He established himself in business at Deseronto then known as Mill Point in 1848. He died in 1884 and the extensive business is to-day managed by his eldest son, Edward W. Rathbun. The company owns and operates 350,000 acres of timber land under license, 57,000 acres of cleared timber land and 200,000 acres of timber rights only.

P. D. Gordon, of Pembroke, Ont., in company, with W. R. Thistle, of the extensive lumber firm of Thistle, Carswell & McKay, of Calabogie, Ont., have been enjoying a business and pleasure trip on the Pacific coast. Mr. Gordon says that he has been especially interested in the sawmill part of their observations. He states that it is a treat to watch the cutting of the large timber. He saw a big log cut which was 52 feet long by 41 inches at the top end, without a knot in it.

Miss Jessie Alexander, Canada's popular and talented elocutionist, recently returned from a trip through the Northwest and British Columbia. It is needless to say that she was delighted with the country and believes that the one who is yet to write Canada's poem must pay a visit to the Pacific coast and drink in the wonderful inspiration that comes from the scenery of British Columbia. She tells how, "We drove out one day to see the famous big trees in Vancouver park, and we found a party of six gentlemen just grouping inside one to be photographed. Four were mounted and the others were in a carriage. The huge tree held both horses, vehicle and men, then there was room for us to join the party."

The large blocks of burnt timber limits in the Sudbury section, burnt over during the past summer and placed on the market by the Ontario government, were sold by tender during the month. The occasion of opening the tenders brought to the city a number of prominent lumbermen, among whom were W. R. Thistle, Ottawa; R. A. Klock, Klock's Mills; T. B. Chapin, Saginaw; S. B. Hill, Saginaw and Joseph Williams, Goderich. The quantity of lumber was estimated at over 50,000,000 feet, and the whole was secured by four well known firms, realizing \$122,000, exclusive of the regular timber dues, which will have to be paid as well. The purchasers were: Hill & Booth, Pembroke, 30,000,000; R. Booth, Ottawa, 5,000,000; Moran & Co., Pembroke, 5,000,000, and Walters & Co.; Lindsay, 13,000,000. Hon. Mr. Hardy, Commissioner of Crown Lands, on being interviewed on the sale, expressed himself as well satisfied with the prices obtained.

I continue to meet with various curious "finds" of interest to the lumber trade. Here is a budget of them this month. In the September LUMBERMAN readers will remember the "find" of a walking cane embedded in a large silver maple that had been cut on one of the streets of Galt, Ont. This town is ambitious to celebrate itself in this line. The other day while some Galt boys in Ward 1 were cutting up a portion of a pine stump the axe struck something hard, and an examination showed it to be a flint arrow-head, which in the days of long ago had been driven into the tree, doubtless by some Indian when testing his bow or shooting at a mark. It was buried in the wood between six and seven inches. In a sawmill in Spottsylvania county, Va., in sawing a pine log two feet in circumference, the saw went through the butt end of a twelve-pound shell which was embedded in the log out of sight. It is supposed that the tree was about nineteen inches in diameter at the time the shell was fired in 1863, as these trees grow about a quarter of an inch a year. A curi-

osity has been found in Washington. It consists of a very large moose horn grafted in the base of a tree. It has been in that position for years, as the tree has grown around it so as to get such a grip on it that cutting the wood away is the only way of separating the two. It was found near the Betty O'Brien mine on the highlands south of the town. It is evident that at some remote period a huntsman was chasing the monarch of the woods, who, in turning away, was caught in a tree, and in trying to extricate himself the horn was broken off.

Isaac Cockburn, of Gravenhurst, Ont., one of the best known of the lumbermen operating largely in the northern section of the province, returned recently from an extended trip in British Columbia, Washington, Idaho, Montana, Dakota, Minnesota, Manitoba, and the Canadian North West Territories. He went in the spring by way of the Northern Pacific to Spokane Falls and struck north for the lumbering districts, visiting Tacoma, Seattle, Victoria, New Westminster, Vancouver and other points. He was of course interested in the methods of lumbering on the Pacific coast. These operations are on an extensive scale, but in Mr. Cockburn's opinion the system of taking out lumber is open to much improvement. The methods of fishing in the rivers in the west are unique. A large revolving wheel is used which throws the fish into traps, and the barrels filled with fish are sent floating down the river like sawlogs to the various canneries. Minneapolis impressed him with its fine buildings and the extent of its lumbering business. But no point was, in his judgment, open to more favorable commendation than the Province of Manitoba. He considers it far superior to Dakota and Montana the other side of the boundary. He visited every part of Manitoba where there was railway connections and part of the territories. There is no country like it for the poor man; no where can he get a like start in life with the same certain prospects of success. He met with a man who four years ago was working at \$28 a month, and this season had thirteen binders at work in his field and would be likely to sell \$16,000 worth of wheat.

J. H. Gilbert, of the Hollister Bros. Lumber Company, of Saginaw, Mich., has expressed himself thus in regard to Canadian lumber matters: "I have been looking over lumbering operations in the Georgian Bay region. Eighty million feet of logs have been sent across from that section to Michigan this season, and next season the quantity will be pretty nearly doubled. Howry & Sons sent over 28,000,000 feet, and have camps at work cutting actively. Thomas Pickard, a jobber for the Emery Lumber Company, who has contracted to put in 200,000,000 feet of logs with about five years to do it in, says he will bank 40,000,000 feet this fall and the coming winter. He is operating a logging railroad 12 miles long, and is hauling 100,000 feet of logs daily. Sibley & Beringer had 11,000,000 feet of logs hung up, which were sold last spring but did not come out. Beringer was over there last week looking at a tract of pine, with the view of further investment. The woods in all regions are full of land lookers, the removal of the export duty on logs having stimulated Michigan men to invest in Canada pine. While the quantity of timber is inferior to that in Michigan, the condition of lumbering, the climate, proximity to market, etc., are so nearly like those in the peninsular State, that it is a question if Canada does not offer a better field for operations than any other locality further west or in the south. The market on the east side of Lake Huron is not as good as on the other shore, and for this reason the Folsom & Arnold mill and the Emery mill have been idle this season, the owners preferring to raft the logs across the lake."

The recent sale of burnt timber by the Crown Lands Department of the province, particulars of which I have given elsewhere, brings to the front the question, how best to preserve timber damaged by fire. Worms if allowed to have their own way will lose no time in getting at the damaged timber. They immediately commence boring and the damage done is ir retrievable. I have before me at this writing, a letter from a lumberman asking what can be done to

stay the ravages of the worm. The question is difficult to answer. One thing is sure no time should be lost in cutting the pine, peeling the bark, and getting the logs into the water. One lumberman has stated as a result of personal observation, that in upper Michigan, where forest fires had prevailed, the bark on pine logs was being opened and salt inserted as a preventative of destruction by worms. This would be an expensive method to apply to a large tract of timber. An American operator, who has become disgusted at efforts to save burnt timber, is reported to have said that "the best way to treat burned pine was to punch up and continue the fire until the timber is reduced to ashes." This man of course was a little mad, but it shows the difficulties that beset the matter. It is a pity that we cannot apply to our burnt timber in this country the charm which is said to surround a sacred log of yellowish colored wood standing just outside of Ch'li Hua gate, Peking. The log has remained in its present position since the fall of the old Ying dynasty. It is in good preservation and has commanded the respect of all classes and conditions of people. Insects in China usually make inroads in timber in a very short while, but they are said never to alight upon this sacred tree trunk, and it is true that they have not left a single trace of their work upon it, while the timbers in every direction are a perfect honeycomb of insect work. The Chinese people believe that the log is the habitation of some god, and on that account gather and worship at its base at least once a year.

"Perhaps some one else can tell why," remarked Mr. Meaney, manager for Robert Thompson & Co., wholesale lumber merchants, "but it does look as if the United States government were not anxious to talk reciprocity to the present Canadian government. President Harrison and Secretary Blaine between them manage to have a neat little excuse ready whenever the time comes for the commissioners of the two countries to get together. Some day may be something will transpire when these two peoples will actually get down to business and then we will know where lumber stands in the deal." Our conversation was interrupted here by a telephone summons to Mr. Meaney to attend a meeting of creditors. Interesting business, I remarked. "Yes," said the genial lumberman. Been a good many local failures during the month? "And there will be more of them before the snow falls," he added. "General lumber trade is, taking it altogether, in a fairly satisfactory condition but local trade is far from healthy. We are tired of carrying many of these men and have drawn the lines of credit very close in the case of the average city builder. One does not know what day any one of them will drop. It is the old story of being brought into existence and carried on the real estate inflation of a year ago. Now the bottom has fallen out of speculative building and there is nothing for many but to go under." Would not a reduction of the time on which lumber is sold save the jobber from at least part of the loss made by these constant failures? "Certainly replied Mr. Meaney. Three months' credit on lumber, which is now the rule of the trade, is absurd. Lumber should be cash, or at the most thirty days; were this so we would be able to keep down many an account that on a three months' basis soon grows to large proportions. You smile and ask, why don't we do it? Without any exception the wholesalers agree that a change should be made, but we go no farther. We never get any nearer together than to say it should be done. In Hamilton, where our firm has a branch, it is done and works to the gain of every dealer." It appears to me, I remarked, that the dealers here are much in the same box as the Chicago wholesalers at the present time. They are selling lumber at prices that represent no profit. Every one of them does it. All agree that prices should be raised, but there is not among them one who will take the initiative. You need, as they need, some one like Joan of Arc, to rise up from the ranks, and give the order to advance. No one will take the step of his own account for he is afraid he will be alone. "That is so," said Mr. Meaney as he left to see what show there was for a dividend in the meeting calling him off. "I wish THE LUMBERMAN would prove the Joan of Arc."

## A PLEA FOR RECIPROCIETY.

Bearings on the Lumber Interest Effects on Manufacturing—A Budget of Facts and Figures—  
Speech by Dr. Spohn, M. P.

FOLLOWING are extracts from a speech delivered by Dr. Spohn, M. P. for East Simcoe, during the recent session of the House of Commons. Dr. Spohn represents a constituency largely interested in lumber and his speech was confined chiefly to the one subject. Whether or not one agrees with the conclusions reached, the speech deserves a careful reading for the information and many important facts that it contains. Dr. Spohn said:—

"Of course the lumber interest has, in the course of the last ten years, greatly increased; as the lumbermen employ better machinery they can consequently turn out more lumber. However, in 1880, according to the trade and navigation returns, the export amounted to \$16,530,000, and in 1890 it amounted to \$26,071,000. Taking that same ratio, we find that the lumber trade in 1891 will put out something like \$50,000,000 worth of lumber, and be worth over \$600,000,000. In 1881 the mills used up, according to the census returns, in raw material, \$21,134,000 worth, and the output was \$39,326,000 worth, and

## THEY PAID IN YEARLY WAGES

\$8,347,000, and the total value of the lumber trade was in 1881, \$471,912,000. The lumber interest employs 61 times as many hands as all the sugar refineries, 156 times as many as all the distilleries, 234 times as many as the oil refineries, and the binder twine combine is simply nowhere. There are 150 saw mills in the three ridings of Simcoe. One firm cuts 75,000,000 feet a year, another 18,000,000 feet per year and another 17,000,000 feet per year, and so on. In the town of Midland there is but one saw mill running to-day. All the others are closed. One of these mills which is closed cut last year nearly 18,000,000 feet of lumber and employed, in its different departments, 380 hands. That mill has been shut down, and the logs, which would otherwise have been cut in Midland, are

## NOW CUT IN MICHIGAN,

and these 380 hands and their families have been compelled to follow the logs, thus depriving Canada of many good citizens, and the town of Midland is thus becoming depopulated and is losing the advantage it would gain by the expenditure of this large sum of money, were the logs cut there as they should be. But this is not an isolated case. What affects Midland affects all the lumbering towns and cities in Ontario. For instance, the town of Gravenhurst should be the manufacturing centre for the Muskoka Lakes, but this affects that town as it does every other town and city in Canada. I have been speaking of the effect of the McKinley Bill on the lumber trade as it affects us on the Georgian Bay, but now I propose to come nearer home to some of you. Some people think that because the logs cannot be towed from the Ottawa Valley this does not affect the Ottawa Valley, but I will show you that it does affect the lumber trade of the Ottawa Valley as it affects the trade of the Georgian Bay. I am informed that you had a box factory in Ottawa which was run by E. H. Barnes & Co. and employed 150 hands, but, when the United States put a 35 per cent. duty on boxes, that box factory shut down; but that is not the whole history of your box factory, E. H. Barnes & Co. took the machinery out of the Ottawa box factory and carried it to Rouse's Point, on the other side of the line, and they are there now manufacturing boxes for the American market, and the people of Ottawa lost the factory and the 150 hands and their families, and the United States gained. Further, E. B. Eddy had a box factory, but, like E. H. Barnes & Co., it was compelled to shut down. Having given these examples to show the state of things in the east and in the west of the Province, I have no doubt that the same state of things exists more or less over the whole country. Still further, the effects of reciprocity would be more beneficial to the country, because there would be a great variety of wood manufactures started at once. In the west, a planing mill is considered a necessary adjunct to every saw mill. They do not ship their lumber in the rough from the saw mills in Michigan, as we do here, but the lumber is planed and then shipped to all parts of the United States. Our lumber could be planed in the same way and manufactured, and

## THIS WOULD GIVE EMPLOYMENT

to a great number of men. We know that it does not pay to ship the lower grades of lumber to the United States, because the duty is the same on all grades. Whether we have lumber worth \$25 a thousand or only worth \$7 a thousand the same duty of \$1 has to be paid, so it hardly pays to ship the lower grades of lumber to the United States. We could manufacture the lower grades of lumber here. Every one who knows anything about the lumber trade is aware that there is an immense market in the eastern States for the Ottawa Valley lumber and a large market in the Western and Central

States for the lumber manufactured on the Georgian Bay.

Lumber is cut 1 inch, 1-16 and 1-32 of an inch in thickness. When green it weighs 4,000 lbs. per 1,000 feet, partly dry from 3,000 to 3,500 lbs., and dry 2,500 lbs. per 1,000 feet. An average carload weighs 20,000 lbs., so that a car can carry 8,000 feet green, 10,000 feet partly dry and 12,000 feet of dry lumber. Lumber is generally shipped partly dry, that is, from two to four months after being cut. The freight varies with the distance and the lumber is graded differently in different localities. For the calculations I am going to make I intend to take the grading on the Georgian Bay, and also the freight from the Georgian Bay to Buffalo. At the present time, rough or unplanned lumber has to pay a duty of \$1 a thousand, planed lumber \$2 a thousand, and planed tongued and grooved \$2.50 a thousand, and lumber manufactured or partly manufactured 35 per cent. Thus the

## DUTY ON PLANED AND MANUFACTURED LUMBER

virtually prohibits its exportation. To be properly planed the lumber must be dry, so that a car that carries 10,000 feet partly dry, as it is generally shipped, could carry 15,000 feet dry and planed, because we not only gain by reduced weight but by reduced thickness also. Lumber planed on both sides to 7/8 of an inch thick for the eastern trade. Lumber in the rough is 35/32 of an inch in thickness, while after being planed it is only 28/32 of an inch, thus losing 1-5 of an inch in thickness, and consequently 1-5 in weight. So you will see that a car that will carry 10,000 feet partly dry will carry 15,000 feet planed and dried. The freight to Buffalo is \$35 a car, so that if we had reciprocity with the United States the lumbermen would save from \$7 to \$8 a car in freight alone, besides the duty of from \$2 to \$2.50 a thousand, which is a saving on the average of at least from \$32 to \$35 on every car we ship over and above the present profit, whatever that may be. Now, you can imagine what this would do for the city of Ottawa. Just fancy the lumbermen being able to save \$32 to \$35 on every car they ship over and above what they save to-day. They could afford to give better wages, to employ more hands. It is not necessary for me to tell you that not only Ottawa, but every town and every place in the Dominion of Canada where lumber is manufactured would flourish. Now, part of the lumber that is shipped from Georgian Bay is shipped to Buffalo and Tonawanda. The latter town has been built up by the lumber trade; in fact Tonawanda has been called the city of planing mills. A large portion of the Georgian Bay lumber is shipped there in the rough, and is planed and reshipped to different parts of the United States. I was in Tonawanda not a great while ago and while there the proprietor of a planing mill told me that he could plane lumber and ship it to Kansas and sell it cheaper than he could sell the same quality of lumber in the rough, simply on account of the extra freight on the rough lumber. In Tonawanda they employ 5,000 hands in planing and handling lumber. Just fancy

## THE BOOM THAT WOULD TAKE PLACE

in our Canadian towns if these hands with their families could be distributed among them in working up this lumber. Of course you know Ottawa lumber does not go to Tonawanda, but is shipped in a different direction; but the Georgian Bay lumber goes, a portion of it, to Tonawanda, and if the towns and lumber districts of the west that shipped this lumber to Tonawanda could have the advantage of the residence among them of 5,000 hands with their families you can imagine what prosperity that would bring. There are thousands of dollars paid yearly on Canadian lumber in duty in the town of Tonawanda. It is not necessary for me to discuss the question of who pays the duty on lumber, because we all know that the lumbermen of this country pay the duty on every foot of lumber they send to the United States. Now, in speaking of reciprocity with Canada, this proprietor of a planing mill in Tonawanda told me that if they had reciprocity between Canada and the United States he would be compelled to move his planing mills from Tonawanda to the lumber districts of Canada within two years, because the extra freight on sawdust and shavings would be to him

## A LITTLE FORTUNE.

Now, shipping culls, Georgian Bay grade, are worth \$7 per 1,000 at the mill, 1,000 shipping culls cut up and planed would make at least 500 feet of wainscotting. It would make a little more than 500 feet; but I wish to be on the safe side, and I will say 500 feet, although, as a matter of fact, it makes some 600 feet. Wainscotting is worth in Buffalo \$40 a thousand. The labor for making wainscotting costs \$1 a thousand. It takes 24,000 feet of culls to make 12,000 feet of wainscotting, worth at the mill \$168; cost of making, \$12. Now, the freight to Buffalo is \$33, the total amounts to \$213; 12,000 feet of wainscotting at Buffalo, at \$40 a thousand, would be worth \$480, so there would be a return for the shipper over the price of lumber and labor of \$267 a car. Now, then, take the article of doors. The ordinary four-panel stock doors are made out of what we call cut-ups and better, worth at the mill \$22. These doors are worth here \$1.50 wholesale, they are worth in Buffalo \$2.20 each; 1,000 feet of cut-ups and better will make

36 four-panel doors; 12,000 ft. will make 432 doors, or a car load of 432 doors in Canada at \$1.50 each would be worth \$648; 432 doors in Buffalo at \$2.20 each would be worth \$950. Now, if we want to ship a carload of doors to Buffalo, we pay freight \$44 a car. I have in my calculation quoted freight at \$33 a car, in shipping doors and manufactured lumber the freight is \$44 a car. Now, the duty on \$950 at 35 per cent would be \$332.50, clearance paper \$3, total expenditure of shipment \$379.64. This, added to the \$648, the cost of the doors in Canada, makes \$1,027.24 as the total cost of delivering doors in Buffalo. But the doors in Buffalo are only worth \$950, so that the shipper actually loses \$77.24 on every carload of doors shipped to Buffalo. If we had reciprocity with the United States the shipper would have a return of \$273 on every carload over the cost of lumber and freight.

## QUITE ANOTHER THING.

THE owner of a woodworking plant in these days finds himself compelled to pay far more attention to the administration of his business than was necessary a few years ago. When the woodworking machines were fewer in number and less efficient in work, the demand for wooden articles in every line outran the supply, making prices good and business generally remunerative. It used to be said that a man who failed in every other line could get rich in running a saw, shingle or planing mill. Those good old days have gone, and to-day, with the market crowded with countless high grade and efficient machines turning out a supply greater than the demand, running a saw, shingle or planing mill, or a chair, coffin, waggon, excelsior, veneer, sash, heading, finish, frame, molding, crate, basket, bucket, tub, barrel or furniture factory is quite another thing. Twenty or thirty years ago the consumer pressed manufacturer. To-day the manufacturer is thrusting himself upon the consumer. The owner of a plant must make his wares, and then he must "hustle" for a market. This is the reason why the manufacturer of to-day spends more time in his office, over his books, than in his shop, over his machines. The machinery makers have wrought the great change visible in this line. The modern machines work so well and produce so much that supply has overtaken demand. The owner is succeeded in the shop by the foreman. The owner has become a mere administrator.

## COST OF AN ACCIDENT.

A LUMBER case that created some general interest in the assize court, this city a week ago, was that of Martha Tobin, of Bracebridge against the Shannon Shingle Manufacturing Company, of Parkdale. William Tobin, husband of the plaintiff, was a joiner at the shingle factory and was killed there on November 1st 1890. The widow is left with five little children, the eldest only nine, and now sues to recover \$3,000 damage for the death of her husband on her own and their account. Tobin was getting \$1.75 a day as joiner, 25 cents a week being retained by the company as an insurance against accident. The claim alleges that the saw where Tobin was working was not guarded; while revolving at the rate of 1,350 revolutions a minute a block was drawn into it catching between the saw and adjacent machinery breaking a huge piece from the saw which flew at Tobin and cut through his body like a knife. He died about an hour after the accident. The defence is a denial of negligence on the part of the company, and denial of any defect in the machinery and an assertion that Tobin placed himself in the position occupied by him when he was hurt. Diagrams of the machinery used in a shingle mill were shown the jury, while Mr. Meredith, who is counsel for the defendants, had in court a pretty little model, said to be a fac-simile of the saw used by Tobin, all of which were used as matters of evidence. The verdict was rendered in favor of the plaintiff, the judge reserving his decision as to the exact amount of the award.

Have you a copy of the "Lumberman's Inspection Book"? It contains rules and regulations for the inspection of pine and hardwood lumber adopted by the lumber section and sanctioned by the council of the Board of Trade of Toronto, June 1890. Send a three cent stamp to the office of the CANADA LUMBERMAN and a copy will be sent you.

## THE NEWS.

## ONTARIO.

—Thomas Reaburn's mill at Perm is in full operation.

—E. C. Lewis, saw mill at Essex is doing a large trade.

—Parker's mill at Parkersville is still running and very busy.

—Smith Bros., saw mill and handles, Stewart, have sold out the handle business.

—The mill at Waubashene is shut down and the men have taken to the woods.

—John Charlton & Co. are operating 80 to 100 men on long timber in the Algoma section.

—A new road has been laid by the Western Lumber Co. near their offices at Rat Portage.

—The tug *Resolute* the property of the Emery Lumber Co., is to be rebuilt at Collingwood.

—The Gilmour Company will establish car works in connection with their business in Trenton.

—The paper wood that was hung up this spring in the Thessalon district is now coming down.

—Oct. 18th is the nineteenth anniversary of the laying of the first stone of the big mill at Deseronto.

—The Dickson Lumber Co., of Peterboro', have sold the remainder of their lumber to an Oswego firm.

—The lumber business of Mr McDonald at Newton is showing every indication of a healthy growth.

—Woodstock has a soft maple tree, which shed its leaves some weeks ago and is now budding out again.

—A large force of men are at work on Fitzwilliam (Horse) Island, and a considerable cut is to be expected.

—A tow of six barges laden with lumber for New York and other American ports left Ottawa on 14th ult.

—Wages in the shanties this year range from \$18 to \$24 per month and board, a shade better than a year ago.

—Perley & Patee, Ottawa, made a shipment of four barges of lumber and lath to Whitelake, N.Y., a few days ago.

—J. & T. Conlon's mill at Little Current, has shut down for the season. This firm are running two camps this season.

—Klock Bros.' limits in Wells township have been bought by Chew Bros., of Midland, and will be cleared this winter.

—About three hundred men will be employed in the Mickle-Dyment camps in the Gravenhurst section this winter.

—Fraser's mill in the Algoma district has closed down for the season. They hold a considerable quantity of lumber in their yards.

—Hugh Cameron, a shanty foreman, Ottawa, had \$300 stolen from his boarding house. Another boarder in the house is suspected.

—J. R. Booth's new mill at Ottawa is shut down for improvements and is hardly likely to get running again for this season's trade.

—Mickle & Dymont's mill at Barrie has closed for the season. The cut has been 6,000,000 feet of lumber and over 1,000,000 shingles.

—According to some old time river men the water in the St. Lawrence River a month ago reached the lowest point for thirty years.

—A large accumulation of sawdust in the river near Mansfield wharf, may yet seriously interfere with navigation around that portion of the Ottawa.

—J. S. Findlay, of Brooke, is building a new sawmill on the Center road, Keppel, to fill contracts he has for supplying maple blocks to a firm in England.

—Heath, Tait & Turnbull have started a camp in Bethune, and J. Whiteside, of Huntsville, intends putting a camp in the south-west corner of Proudfoot.

—"Wm. McKinley," who stole a watch from John Bowles in Sloan's mill, Tilly Centre, has been sentenced to one month's imprisonment in the county gaol.

—Ald. Scully, of Guelph, has been in Kentucky buying lumber for Charles Raymond's sewing machine factory, one of the profitable industries of the Royal City.

—The Wm. Mackay lumber concern of Ottawa, have recently completed a number of important repairs to their waterways on the Upper Ottawa tributary.

—A local paper says that within the past two weeks no less than 1,400 men went by North Bay to the vicinity of Wahnapitac, to commence lumbering operations.

—The Rathbun Company, of Deseronto, has secured power from the Dominion parliament to borrow money to the extent of 75 per cent of the paid up stock of the company.

—The Collingsby Rafting and Towing Company are building a powerful steel steam tug at Kingston, the plates, machinery, etc., for which are being imported from England.

—W. R. Beatty and a gang of men are busily engaged building and repairing various dams in the Parry Sound district. The work is likely to keep them going until Christmas.

—Business is brisk at the sash and door factory at Deseronto. Many shipments are made to Great Britain. An annex of 6x16 feet will be erected to meet increased requirements.

—The Conger Lumber Co.'s mills at Parry Sound have closed for the season. The season's cut has been 8,000,000 feet. The company will get out a large number of logs this winter.

—Hollister & Jewell, of Garden River, whose lumbering property was destroyed by fire recently, have presented the fire brigade with a cheque for \$100 for the valuable services rendered.

—Reeve McCusker, of Prescott county, has secured contracts with Messrs. Bronson & Weston, Perley & Patee, Hurdman & Co., and J. R. Booth for a winter's supply of hogs for the different shanties.

—Lumber shipments at Burk's Falls are reported to be heavy for the past month; these include lumber, shingles, lath, pulp wood and bark. The principal shippers are Jas. Sharpe, M. C. Drew, and Knight Bros.

—The Syginaw Salt and Lumber Co. are running three camps on the Vermillion and have a steam barge forwarding supplies from Nelson, on the Soo branch of the C.P.R. to Foster and the berth east, on which they are operating.

—David Sicklesteel, of Amherstburg, and two daughters will spend the winter at Vicksburg, Miss. Mr. Sicklesteel has a mill in that place, which will engage his energies. His business at McGregor will be managed by his son Lester.

—Manes & Booth, builders and contractors, Toronto, have assigned with liabilities about \$7,700, and assets consisting of equities in land and house properties worth \$16,300. With a slow real estate market the pressure of taxes and interests on mortgages was too much.

—Wm. Tyler, builder, of London, is endeavoring to effect a settlement with his creditors on the basis of 40 cents, secured. He owes \$10,000, and it is likely most of them will accept. He appears to have not figured his contracts out closely enough and to have lost money by taking them too cheap.

—The Hawkesbury Lumbering Company down the Ottawa have enough logs at their mill at present to keep them running nicely until cold weather sets in. A few days ago they sent an order to the Upper Ottawa Improvement Company's booms at Deschene's rapids to hold 50,000 there for them until next spring.

—McGibbon & Sons, of Sarnia, shipped a cargo of lumber to Germany. The cargo consisted of 300,000 feet of red oak, intended for furniture manufacture; it was shipped from their mill at Penetanguishene by the steamer Niagara, which delivered it in Quebec to a vessel which will land it in Antwerp. The freight amounted to \$5,525.

—The Pembroke Lumber Company has been incorporated under charter from the Dominion government. The leading stockholders are Andrew Thompson White, Arunah Dunlop, Peter White, Thomas Deacon, Cornelius Chapman and John Bromley. The capital stock is \$120,000, with power to increase same to \$240,000 by resolution of the shareholders.

—Howy & Sons have a large force on Whitefish River and expect to take out about twenty millions this next season. They have an "Alligator" tug which climbs portages from lake to lake and does the work of many men on the drive and in forwarding winter supplies on the inland lakes. It is of 30-h.p. and built by John West, of Simcoe, the inventor.

—A Sudbury correspondent writes that the camps in that section are running to their full capacity, with the exception of A. McCormick & Son, who are desirous of disposing of their limits and do not intend to run a camp themselves. Some building is going on in Sudbury and quite a few buildings on the Soo branch railway for the Chicago Nickel Co.

—Two shantymen Chanor and Duchesne had a narrow escape from going over the cascade rapids up the Gatineau. They had allowed the craft to drift with the current, until it got beyond their control and was within fifty yards of the waterfall. Fortunately at this point the boat stuck fast on a rock, where the men remained until daylight when assistance arrived.

—\$150,000 worth of timber limits are involved in the case of Moore vs. Moore, which is now on the docket in the Master in Chamber's court at Osgoode Hall. The Moores come from Ottawa. Not long ago David Moore, a wealthy timber limit man died there, leaving no will; and his son,

Edward D. Moore, who had been manager of the timber interests, possessed himself of this property, and the other brothers, Charles A. and Fred. D. Moore, brought an action of ejectment against him. The case is also in the Quebec courts, and the motion at Toronto is for a stay of the injunction until the first case is decided.

## QUEBEC.

—End, Trihey & Co., lumber, Montreal, have dissolved.

—Richard Ready, coal and lumber, Montreal, has assigned.

—Moore & Eady, of Bryson, have large gangs of men at work on the Schyan.

—David Lunam, of Campbell's Bay, is at the shanties on the Madawaska with a large gang of men.

—The decrease in the timber exports this season as compared with last will show a falling off of about thirty per cent.

—The four great driving pulleys for Eddy's new mill at Hull will measure 7 ft high, 4 ft. wide and two inches thick on the flange. Each of them will transmit power equal to 400 horse.

—The Buckingham Manufacturing Company (limited,) with a capital of \$80,000 has been incorporated, a number of Montrealers being the promoters. Their objects are to deal in wood pulp paper.

—Mrs. Bondu, who lives near Lac du Sable, charges a number of shantymen with stealing her whiskey, breaking her bottles and doing lots of other mischief. The magistrate when appealed to for redress gave the woman the very sensible advice to go home and give up selling whiskey.

—According to figures published by the Quebec Government it is estimated that there have been produced in the province during the twenty-three years from 1857 to 1880 inclusive, 11,173,516,546 feet of lumber, and 70,272,572 cubic feet of timber, while \$10,764,368 have been paid over to the government as timber dues.

## NEW BRUNSWICK AND NOVA SCOTIA.

—About one hundred men are in the woods at Clearwater, N.B., for Mr. Lynch.

—Richards & Co., of Boieston, N.B., will have three camps this winter on Burnet Land Brook.

—Stevens & Roman are two young men from Acadia Mines who started a small saw-mill four miles from Spring Hill, N. S., on some money advanced by the father of one of the partners. Their next step was to give a bill of sale for \$759 covering the engine, boiler and plant, and this they have followed up with an assignment.

## MANITOBA AND THE NORTHWEST.

—Ross, Hall & Brown, of Rat Portage, Man., have closed down for the season.

—The Safety Bay Lumber Co. (Bulmer's mill) cut 57,000 feet of lumber in one day with Howard Vanderburg presiding at the circular.

—Cameron & Kennedy, of Norman, Man., have been running their mill day and night throughout October. They have sent a large gang of men to the woods for the winter's work.

## BRITISH COLUMBIA.

—A new logging camp will be established by the Brunette Saw Mill Co., near Pitt River.

—The Spicer mills, at Vancouver, are at present giving their entire attention to sawing shingles for the Manitoba trade.

—S. F. McIntosh and J. W. Enland, lumber dealers, Victoria, have dissolved partnership. Mr. S. F. McIntosh will continue the business.

—C. L. Street & Co., of Chilliwack, have lately purchased from Mr. B. A. Irwin, a former resident of Markdale, Ont., the standing timber of 100 acres for \$2,700. The timber is comprised mostly of red fir, silver fir, cedar, hemlock, spruce, alder and maple. A limit of five years is given the above firm to remove the timber.

—J. M. Stewart, formerly Chief of Police at Vancouver, who does a great deal of logging for the Brunette Saw Mill Co., has just completed fitting up a portable logging camp on Burrard Inlet, which will add much to the comfort of his men while engaged in the woods. It consists of a one storey house constructed upon a scow. It is fitted up with banks for eight or ten men, and a separate room for Mr. Stewart himself. The galley for cooking is well supplied with the required utensils. One end of the scow is fitted up for the reception of the logging engine which is placed there for transportation. While aboard, however, its power can be used for the side wheel paddles with which the scow is supplied. The outfit also contains a blacksmith's forge, anvil, vice and other tools required to make ordinary repairs.





—Russia makes 30,000,000 wooden spoons a year.  
 —Mexico's new tariff law retains lumber on the free list.  
 —Winds have blown down about 80,000,000 feet of timber in northern Minnesota.  
 —W. H. Sawyer, a lumber dealer of Buffalo, N.Y., has made contracts with Ashland mill owners to saw 80,000,000 feet of lumber.

—The Montreal Lumber Company has bought 1,200 acres in Ashland County and 200 in Michigan.

—More than 187,000,000 feet of lumber have been received at Buffalo, N.Y., since the opening of navigation.

—Men are so scarce in Michigan that in order to get them to go into camp they have to be obtained from the ranks of sewer diggers and other day laborers.

—More than 15,000,000 feet of lumber will be used in the construction of the huge building for Manufactures and Liberal Arts at the World's Fair, Chicago.

—Nearly 2,500,000 feet of lumber was shipped by rail by the Saginaw Lumber and Salt Company during September. Rail shipments have been active all along the line for the past month.

The whole State of Maine is experiencing a severe drought and typhoid fever is raging in many towns. The cotton mills at Waterville and Augusta and the sawmills along the Kennebec are seriously retarded.

—In France the government still levies a tax on doors and windows. To the peasant in his small hut this tax amounts to a little more than 60 cents a year, but in small towns it rises to \$3.40 annually for each family.

—It is reported that a Michigan hardwood concern has exhibited at a county fair thirty varieties of wood cut from a single acre of ground. If this be the case, and the trees are of any use, this concern ought not to be obliged to shut down for want of something to cut.

—The H. C. Akeley Lumber Company, the largest manufacturers in Minneapolis, had sold within 6,000,000 feet as much lumber as they had made up to the first of October. Secretary Jones and E. L. Harkness expect that October sales will aggregate 10,000,000 feet a month.

—The Grounds and Buildings Committee of the World's Fair, Chicago, have decided to advertise for the construction of a building to accommodate four sawmill plants. The structure will be located south of the agricultural annex, on piles driven in what is now a natural lagoon. The building will be 130x200 feet and will cost \$25,000.

—And now comes the proposition to build two railroad cars out of a big tree found in Tulare, Cal. The log is to be made hollow, windows and doors will be cut, and the interior will be handsomely finished. The cars will be 45 feet long with a diameter of 20 feet. They will be exhibited at the World's Columbian Exposition.

—It is reported from Duluth that Michigan lumbermen who are interested in timber in the Duluth district expect to perfect arrangements with the Duluth & Winnipeg and St. Paul & Duluth railways to bring logs to Duluth by rail. It has not been found practical to get the logs by the Knife Falls Boom Company's boom at Cloquet and down the St. Louis river, which is always an uncertain stream.

—Maine lumbermen are making preparations for their winter's logging and will commence work promptly with the advent of cold weather. It is said the cut will be somewhat less than that of last season, but it is probable that each lumberman will let his neighbor do the curtailing and put in an average cut himself.

—The foreign lumber business it is evident is still very much demoralized. A meeting of the saw mill owners' society of Sweden was recently held at which thirty mill owners were present at which an agreement was reached to reduce the mill cut one-half. A proposition was also made to reduce the time of credit to English buyers from six months to four months. Under these conditions it is believed that the market will be very much strengthened. The sawmill owners are to open negotiations with the Swedish banks and endeavor to induce them to discount no bills drawn for a longer period than four months.



## FIRES.

An old saw mill owned by J. W. Dinwoodie, Campbellford, Ont., was burned recently.

An incipient fire occurred in Fredett's lumber yard, St. John, Que. Little loss occurred.

Mather's saw mill near Vancouver, B.C., was completely destroyed by fire first week of October. No insurance.

Chew's mill at Gravenhurst, Ont., was burned to the ground on 14th ult. The lumber was saved. Loss, \$12,000. Insurance, \$8,000.

An old church at Seaforth, Ont., stored with lumber and egg cases by D. D. Wilson was burned on 6th ult. Insurance \$1,000—incendiary.

A fire occurred at Leg Lake, Ont., on 15th ult., destroying the Deblaquiere mill and about one and a half million feet of lumber and 200,000 shingles.

Moffat's steam saw mill at Dalhousie, N.B., was burned the other night together with a large quantity of lumber. The loss is about \$25,000 and no insurance.

The large box factory at Wauaubshene, Ont., owned by the Lodge & Bliss Box Company, Jersey City, was destroyed by fire on 21st ult. Loss about \$25,000; insured.

The workshops and mills of the Canada Lumber Cutting Machine Company, at Trenton, Ont., were destroyed by fire on 21st ult. A quantity of hardwood lumber was also burned. Property insured for \$31,200.

A destructive fire occurred in Halifax, N.S., the early part of the month. Among other properties destroyed were Brookfield's lumber wharf, J. C. Merlin's planing mill, Brookfield Bros. lumber warehouses and office, and Mulcahy's cooperage.

The large planing factory at Usbridge, Ont., owned by R. P. Harman and operated by Reid & Thirsk, was totally destroyed by fire on 9th ult., together with machinery and contents. Harman's loss is fully \$5,000 and Reid & Thirsk's about \$6,000. No insurance.

## CASUALTIES.

John Watts, working in a Kingston saw mill had his leg broken by a falling log.

A circular saw removed parts of two fingers of W. R. Davey, Williamsworth, Ont.

Joseph Dauphin had a finger badly cut with a saw in Sicklesteer's mills at McGregor, Ont.

J. Johnson, of Magog, Que., had his head badly cut by coming into contact with a circular saw.

Antoine Merault, an old river man, of the Ottawa, had two ribs broken near the Deschenes rapids while booming logs.

Wm. Crowe, of Dummer, Ont., lost a son by a falling tree in the Parry Sound Lumber Co.'s camp the early part of the month.

The right hand of F. A. Clark, of Berwick, N.S., is badly lacerated through coming in contact with a saw while at work in the mill.

Thomas Boulanger is in the hospital at New Westminster, a victim of a broken leg, caused by a log falling on him while at work in the woods.

Wm. Johnson, a river man has come down from the Kipewa to Ottawa, Ont., suffering with a fractured leg, sustained by a tree falling on him.

A young man named Wm. Graham, working in Bryce's shingle mill, Penetanguishene, Ont., got caught in a shaft and had an arm broken and his face badly bruised.

A Frenchman working in the Fullerton lumber district, near Masonville, Que., was killed a few days ago by a falling tree, and a comrade with him was seriously injured.

David Esdale, an employee at McLaren's mills, Ottawa, Ont., dislocated his wrist, broke his arm, and seriously injured his right foot, while moving lumber at the mills.

James Watson, an employee at Moore's planing mill at St. Mary's, Ont., met with an accident the other day, by which he lost part of the thumb and the three fingers of his right hand.

F. Plastow, son of Mr. Plastow, while working around Mr. Roach's stove factory, at West Lorne, Ont., slipped and coming in contact with the knife, had the ends cut off two fingers of the right hand.

A 12-year-old daughter of Joseph Bourdeau had the misfortune to cut off the first and second fingers of her hand at Sloan's mill, Jitbury Centre, Ont., while fooling with the stove jointer.

Clark Jones, jr., of Glen Sutton, Que., who was cutting logs, cut his foot severely a week ago. Willbur Richardson, of the same place, was severely injured by falling from a log while chopping.

The careless use of an axe in the hands of a young son of F. A. Haystead, of Fielding, Ont., has brought severe injury to the foot of this lad. He was at work in the woods in the Parry Sound district.

A shantyman, Jacques Granbois, DuMoine camp, has returned to Ottawa, Ont., suffering from a fearful gash inflicted accidentally with a sharp axe he was welding. It is feared the limb will have to be amputated.

A shantyman named St. Croix, while on the way to the station in Ottawa on 23rd ult., was thrown from an express wagon by a broken street car rail, and received an ugly cut on the head.

A frightful accident happened on 10th ult., near Spanish River, about one-half mile east of Shea's Hotel, in which one Robert Quigley, lumberman, was cut to pieces by a freight train. The unfortunate man was supposed to have been under the influence of liquor at the time of the accident and had not noticed the approach of the train.

Robert O'Rourke had his hand cut in the cedar mill at Deseronto, Ont., and Edward Bruyca, while working in the big mill, the same day had the index finger of his left hand badly lacerated. Heber Winhd had two fingers badly crushed at the sash factory. So much for Deseronto, Ont.

Accidents have been numerous in the Eddy mills at Hull, Que., during the month. A young man named Guertin, aged 15, had two fingers severed from his right hand by the steam rollers of a paper machine. C. Miller, another employee in the paper mill caught his arm between two large iron rollers and had it terribly lacerated. Jacques, a youth of 17, sustained a severe scalp wound by the breaking of a pulley in the saw mill.

A budget of accidents is reported from Mickle & Dymont's camps in the Bracebridge district. Abraham Vanwicklin nearly lost a thumb and is in the hospital. Fred Sawyer, another workman, is keeping him company with a bad gash in his shin made by an axe. John O'Neil was struck over the back with a large limb broken by the storm. He died while being carried to Huntsville by his companions. Wm. Clevely is in the hospital at Huntsville and may not recover. He was at work in the camp near Dorset and was going to another camp to see his brother, and travelling along the road was mistaken for a deer by a hunter and was shot, the ball striking near the shoulder and travelling through his body.

## TRADE NOTES.

In our September issue, in giving a short description of a new two-spindle boring machine just constructed by the Cant Bros. Co., of Galt, Ont., instead of saying "The range of adjustment is from a horizontal to a perpendicular," it should have been "The range of adjustment is from a horizontal to a perpendicular line, and to 45 degrees beyond the perpendicular."

A notable exhibit at the late Montreal exhibition, was that of Rebin & Sadler's in the machinery hall. One of the chief attractions of this exhibit was a pyramid consisting of three large leather belts made for W. W. Ogilvie's four mills; these were 24 in., 18 in. and 12 in. belts respectively. Messrs. Rebin & Sadler had also on exhibit a 26 in. belt which was awarded a gold medal at the Jamaica exhibition. Besides these were to be seen some very fine specimens of the dynamo belting this firm make a specialty of.

The Brazil Snow Plow, manufactured by J. Muckleston & Co., Kingston, who control the patent for the Dominion, bids fair to be soon used by all our lumbermen who have limits to operate. Although this firm only lately commenced manufacturing them the following lumber firms have already placed orders for plows: McLachlin Bros., 6; McKeon & Glover, 3; Barnet & McKay, 1; Georgian Bay Lumber Co., 2; Thistle, Carswell & Co., 1; Bronson & Weston, 2; Perley & Pattee, 4. Satisfactory orders have also been received by the Messrs. Muckleston for cant dogs, peavies, etc. As this establishment is the only one in the Dominion turning out a complete outfit of lumbermen's plows, sleighs and tools, it is unique in its character and we trust will receive liberal support.



TRADE REVIEW.

Office of CANADA LUMBERMAN,  
Oct 31, 1891.

THE GENERAL SURVEY.

CANADIAN lumbermen are in good feather. This is despite the fact of more local failures during the month than for probably any single month in the year. These have in no measure, however, disconcerted the general trade. They comprise chiefly builders of speculative properties in the city, men who could keep their heads above water so long as the real estate boom was on, but with whom it was only a matter of time of going under, as soon as the bottom fell out of real estate. Though, in numbers these embarrassments have not been few, none have been for large amounts, with the exception of William McBean, whose liabilities are about \$250,000. This amount consists nearly altogether of mortgages on properties, the unsecured claims not exceeding \$10,000. For some time back the insolvent's building operations have been almost nil. A proposition of twenty-five cents on the dollar has been made to the unsecured creditors, and is likely to be accepted.

Country trade has not opened out as was expected a month ago. Reports from western Ontario tell of a quiet trade, yet the expectations are well founded that the year's work among the farmers completed, and the grain to some reasonable extent marketed, a satisfactory business will be done. No disturbing elements have a place with country dealers.

The chief cause of hopefulness with the trade is the impetus that has been given to American trade during the month. Said the head of one large concern, and we found that the same view was entertained by wholesalers generally, "lumber trade with the States is undoubtedly looking up. The demand for dressing and better is in excess of the supply. Truth is that we have very little of these grades unsold at any important lumber point in the province. This is having the effect of making prices unquestionably firm and foreshadows a promising trade for the spring." One firm holding a large quantity of Canadian lumber is Shepherd & Morse, of Boston, and they realize that they have a good thing to hold. A few days ago a request came from an Albany house to be put in communication with any one having 1 1/4, 1 1/2 and 2 in. wide sidings 12 and 16 ft. cutting up and better, but no one could be found to meet the call. Briefly stated Canadian lumber will be at a premium in the near future. Coarse grades are a little slow, yet the scarcity of better is causing a demand for these in places where dealers must have something. A good trade is being done in hardwoods. The Ottawa strike is over, and the mills are making the most of the short season left them. Conditions in the maritime provinces, Manitoba and British Columbia, also United States and foreign markets are reviewed at length further on in this page.

NEW BRUNSWICK.

No big boom is on in this province. Shipments in spruce deals to Great Britain for the month ending September 30th have been slightly in excess of the corresponding month last year. Trade with the States has been only fair. The total value of exports of the products of the forest from St. John during September shows an increase from \$190,190 to \$245,654 as compared with the corresponding month last year. Attention is being given just now to the winter's work in the woods which is likely to show an average cut.

MANITOBA.

The trade are somewhat stirred up over a circular issued by the Pine Lumbermen's Association concerning spruce lumber. The pine lumber manufacturers have found that the demand for high grade stuff, such as ceiling, siding, and flooring, has been in excess of the demand for common dimension stuff and common boards. This has been caused by the fact that many retail dealers handle spruce lumber for common stuff, and take pine for their high grades. This has left the pine men with a large surplus of common stuff on their hands. A circular was accordingly sent out by the association lumbermen that they would not sell to any retailer who handled spruce for low grades. As the

retailers must have pine for best grades, they would be forced to take pine for common stuff also. The matter has been referred to in our editorial columns, showing that not only has the spruce men been up in arms, but that the local board of trade have had the question under consideration, resulting in a resolution vigorously protesting against this action of the Pine manufacturers. The Winnipeg Commercial says that "the men certainly have ground for complaint, but they evidently have made a mistake in the way they have undertaken to remedy the difficulty." The operations are about an average for the season of the year. The Lake of the Woods lumbermen are busy getting their camps in ship shape for the winter's work. The business of the Lake Winnipeg Lumber and Trading Company is being liquidated.

BRITISH COLUMBIA.

The month has closed with conditions in lumber not by any means discouraging. A good local trade has been done, and the exhibit made at the annual exhibition, referred to in our British Columbia news letter, indicates some of the possibilities of the province in manufactured lumber, as well as telling something of the natural products of our forest. A fair trade with Australia continues to show up from month to month. Several good sized shipments were made during October, and on the 10th inst. the bark Pisagua sailed from the Moodyville mills for Pisaga, Peru, on owners account. The freight market is unchanged, and dullness prevails at 57s.6d. Quotations are as follows for cargo lots for foreign shipment, being the prices of the Pacific Pine Lumber Association. Rough merchantable, ordinary sizes, in lengths of 40 feet, inclusive, \$9 per M fee., rough deck plank, average length 35 feet, \$19; dressed flooring, \$17; pickets, \$9; laths, 4 feet, \$2. For local trade, the Rock Bay Saw Mill quotes:

Rough lumber, per M	\$10 00
Best quality dressed lumber, per M	20 00
Second " " " "	17 00
Lath, per M	2 50
Shingles " " " "	2 25

Recent official returns show that the revenue received from the British Columbia crown timber agency during the last year was \$45,485.09, an increase of \$27,440.32. The total quantity of lumber manufactured for the year amounted to 13,546,943 feet as compared with 23,759,942 feet for the last year, and sold at the rate of \$9 to \$10 a thousand.

UNITED STATES.

We doubt if on the whole reports from leading lumber circles in the States tell of as satisfactory lumber trade in October as for the preceding month. This is perhaps to be explained by the fact that we are one month nearer the close of the season than was the case thirty days ago. Besides the contrast between the opening of fall trade in September with the dullness of the summer months just then ended was more noticeable than a contrast between October and September trade; lumbermen like other mortals are influenced by their impressions. Buffalo and Tonawanda, as a point in which Canadians are interested, sends a good decent growl of dull times, and so does New York, and no one at these points looks for a change before the opening of spring. The situation is like this: Trade in certain rural sections, observably in the State of Ohio, is brisk, especially in white pine. Farmers have secured abundant crops, and they are spending their money in improvements. But the benefits of a rich harvest are not being experienced in the great centers of population. There was too deep an impairment of confidence in all forms of investment, as a result of last fall's panic, for that. Real estate had received a severe setback, and it will take some time for it to again reach the speculative stage. Credits were seriously impaired by several important failures. Investments that promised well last year turned out badly, and recovery must be made from loss. Liquidation must reach farther than it has yet before capital will again venture to take risks. But it can be seen that the process is going on, and by the beginning of next year or in the early spring we may expect to see all forms of enterprise take a fresh start. Then will come an extraordinary demand for lumber from the railroads, from the cities and towns and from the developing west. Quite an export trade has been

done from Puget Sound, Washington, and the Humboldt regions of California. One report chronicles a big sale of lumber from California, a contract having been closed in San Francisco recently for the shipment of 20,000,000 feet of lumber to South Australia for the use of the Broken Hill Mining Company. This is the largest shipment ever ordered for a foreign market from the Pacific Coast. Bids were put in for it by a number of Puget Sound mills, as well as California concerns, but it is not yet announced who was successful in securing the contract.

FOREIGN.

"There has been a perceptibly improving tone in most branches of the trade during the past month" say Denny, Mott & Dickson, of London, Eng., in their October wood market report; "and there are appreciable indications to justify the expectation of better business during the closing months of the year, beyond the consideration that newly-spread confidence often serves to bring about the improvement hoped for. We trust that these hopes may be realized and that the last quarter of the year may do something to redeem the character of what has hitherto proved one of the most disastrous years within the experience of the trade." Messrs. Churchill & Sims, London, in their wood circular of October 3, give these figures:—From Canada the importation has been—Pine deals, 971,000 pieces, against 2,189,000 pieces in 1890; spruce deals, 872,000 pieces, against 1,499,000 pieces in 1890. And from New Brunswick—Spruce deals, 167,000 pieces, against 98,000 pieces in 1890. They add: The consumption of pine deals in September has not quite equalled that of last year; but the position is very healthy, mainly in consequence of an importation of less than half of the great quantities brought to London in 1890. This has reduced the stocks to not much more than those of 1888 and 1889. Spruce deals have also been sparsely supplied, and, the stock being now in quite average compass, prices have risen during the month and holders are very hopeful. Hardwoods have been a little more in demand." The great carpenters and joiner's strike at London, which has been on for the last six months and has cost upwards of a quarter of a million of dollars, has at last been settled by arbitration and the men have gone to work. Though late in the season this will have an influence for the better over local trade. The Liverpool Timber Merchant reports that owing to the falling off in American shipments of walnut and whitewood, more business has been done at the yards, demand running chiefly to the better qualities. Stocks of inferior descriptions are still much too heavy. Stocks of pitch pine lumber are large, and prices are low. Stocks of Quebec oak logs are heavy, but recent arrivals of plank and scantling have gone immediately into consumption. Several parcels of Montreal deals arrived during the latter part of September, the bulk of which also went into consumption. High freight rates have made prices firm, and the tendency is toward advance. The demand for third quality deals is very good, and the stock is small, consequently a rise in price is looked for. There are several arrivals in spruce deals. Prices generally were firm, and favorite sizes brought excellent figures. "Flooring boards" were reported in reduced supply, there having been no recent arrivals, some sizes and qualities being entirely wanting. African mahogany has become a serious competitor in the English market, of Honduras, Tobasco and Mexican mahogany selling readily at high prices, and being, seemingly, as well liked by consumers. In Sweden trade has been greatly hindered by the continuance of the strikes in the joinery and allied trades. Activity is reported in the Australian trade, considerable shipments being made from the Pacific coast to this point.

Toronto, Ont.

TORONTO, Oct. 31, 1891.

CAR OR CARGO LOTS.

1 & 1 1/4 in. Cut up and better	33 00	33 00
1x10 & 12 dressing and better	18 00	20 00
1x10 & 12 mill run	13 00	14 00
1x10 & 12 dressing	14 00	15 00
1x10 & 12 common	12 00	13 00
1x10 & 12 spruce culls	10 00	11 00
1x10 & 12 mill culls		9 00
1 inch clear and picks	24 00	25 00
1 7/8 inch dressing and better	18 00	20 00
1 inch siding mill run	14 00	15 00
1 inch siding common	11 00	12 00

Table listing lumber prices for various types of culls, shingles, and flooring. Includes items like 1 inch siding ship culls, 1 inch siding mill culls, and various sizes of shingles.

YARD QUOTATIONS.

Table of yard quotations for mill cull boards, dressing stocks, and various types of flooring and shingles. Includes prices for items like 1 1/2 in. flooring, dressed, and 1 1/2 in. shingles.

Ottawa, Ont.

OTTAWA, Oct. 31, 1891.

Table of lumber prices for Ottawa, Ontario, including pine, 1st quality, and shipping culls.

Montreal, Que.

MONTREAL, Oct. 31, 1891.

Table of lumber prices for Montreal, Quebec, including pine, 1st quality, and various types of shingles and flooring.

St. John, N. B.

ST. JOHN, Oct. 31, 1891.

Table of lumber prices for St. John, New Brunswick, including spruce deals, shingles, and various types of flooring.

New York City

NEW YORK, Oct. 31.—Indications tell that we are drawing to the close of the season's business. Many of the transactions of the month have this cleaning up character. Orders that have been booked for some time but not delivered are now being rushed out.

White Pine—Western Grades.

Table of lumber prices for White Pine, Western Grades, including various sizes of culls, shingles, and flooring.

Albany, N. Y.

ALBANY, N. Y., Oct. 31.—Whatever may be the mood of lumbermen elsewhere, seldom have the craft here been in more jubilant spirits. They are full of business and getting plenty to do. The market has been thronged with buyers during the month, making sure of the stocks for the winter, while the assortment is good.

White Pine.

Table of lumber prices for White Pine, including various sizes of culls, shingles, and flooring.

Thirteen Foot Stock Boards and Plank.

Table of lumber prices for Thirteen Foot Stock Boards and Plank, including various sizes of culls and shingles.

Shingles and Lath.

Table of lumber prices for Shingles and Lath, including various types of shingles and lath.

Buffalo and Tonawanda, N. Y.

TONAWANDA, Oct. 31.—Lumber business is emphatically dull, that is the long and short of it. We are not getting any so-called fall trade worth the name, nor are our people looking forward to a change this side of spring.

White Pine.

Table of lumber prices for White Pine, including various sizes of culls, shingles, and flooring.

Box.

Table of lumber prices for Box, including various sizes of culls and shingles.

Shingles.

Table of lumber prices for Shingles, including various types of shingles.

Lath.

Table of lumber prices for Lath, including various types of lath.

Oswego, N. Y.

OSWEGO, N. Y., Oct. 31.—An increased demand has taken place for box grade also cutting up and better, making prices in these lines rather firmer. Prices for white pine are quite firm.

White Pine.

Table of lumber prices for White Pine, including various sizes of culls, shingles, and flooring.

Siding.

Table of lumber prices for Siding, including various sizes of culls and shingles.

12 to 16 ft.

Table of lumber prices for 12 to 16 ft. lumber, including various sizes of culls and shingles.

Table of lumber prices for various types of culls, shingles, and flooring, including items like Mill run, mill culls out, and 1 1/2 inch shingles.

Saginaw, Mich.

SAGINAW, MICH., Oct. 31.—No special activity has marked business during the month, and some hold to the old story that trade is dull. At the same time a good deal of lumber has changed hands, the past week, telling of sales aggregating not less than 30,000,000 feet in cargo lots.

Finishing Lumber—Rough.

Table of lumber prices for Finishing Lumber—Rough, including various sizes of culls and shingles.

Siding.

Table of lumber prices for Siding, including various sizes of culls and shingles.

Timber, Joist and Scantling.

Table of lumber prices for Timber, Joist and Scantling, including various sizes of culls and shingles.

Shingles.

Table of lumber prices for Shingles, including various types of shingles.

Lath.

Table of lumber prices for Lath, including various types of lath.

Boston, Mass.

BOSTON, MASS., Oct. 31.—Business has been fair throughout the month, without any special circumstances to be noted. Quotations remain unchanged.

Western Pine—by car load.

Table of lumber prices for Western Pine—by car load, including various sizes of culls and shingles.

Eastern Pine—Cargo or Car Load.

Table of lumber prices for Eastern Pine—Cargo or Car Load, including various sizes of culls and shingles.

Spruce—by Cargo.

Table of lumber prices for Spruce—by Cargo, including various sizes of culls and shingles.

Lath.

Table of lumber prices for Lath, including various types of lath.

Shingles.

Table of lumber prices for Shingles, including various types of shingles.

The following vessels are now due at B. C. ports to load lumber at Hastings or Moodyville Mills: The Norwegian bark Floor, 776 tons, from Australia; German ship Elsie, 1,348 tons, from Sydney; German bark Katunka, 876 tons, from Rio de Janeiro; Chilean ship India, 1,054 tons, from Valparaiso, and the Chilean ship Glenmoray, 1,235 tons, from Valparaiso.

LUMBER WANTED.

WANTED for cash immediately, about 150,000 feet ash, bill stock, prime quality from 9 to 18 feet long, 15 to 18 inches wide, 1 1/2 to 6 1/2 inches thick. Quote price f.o.b. New York. Will submit dimensions upon request. Address P.O. Box 2144, New York, N.Y.

## MICHIGAN LETTER.

American Lumber Operations in Canada—Sketch of Two Big Firms—Transfer of Valuable Ontario Limits—Michigan Lumber Items.

[Regular correspondence CANADA LUMBERMAN.]

CANADIAN lumbermen are not without a lively and appreciative interest in American lumber affairs. Much of your lumber, under any circumstances, is sold on this side of the lines, and of late this trade has been steadily increasing. I need not tell you that Michigan lumbermen have a special concern in Canadian lumber, not a few of her citizens being among the largest operators of timber limits in the Province of Ontario. Among the larger of these firms are the Saginaw Lumber & Salt Company and the Emery Lumber Company, both of Saginaw, Mich. I have thought that it may not be without interest to your people to learn something of the personal composition and financial strength of these concerns.

The Saginaw Lumber & Salt Company dates its existence from 1881, when it was capitalized at \$120,000, with a surplus of \$200,000. The president of the company is one of your own citizens, James McLaren, the well known lumberman of Buckingham, Que. R. A. Loveland, of Saginaw, Mich., is vice-president; R. H. Roys, of Saginaw, secretary; D. L. White, jr., treasurer. The head offices are located here, with Mr. Loveland and Mr. Roys as managers. Mr. Loveland is a New Yorker, born at Westport in that State in 1819, and has followed lumbering all his life. He was for several terms a member of the New York legislature. The mill owned by the company was formerly that of Sibley & Beringer, Crow Island, just out of the city. They manufacture 20,000,000 feet annually. The company owns 70,000 acres of stumpage in the Georgian Bay district, and the coming winter will put 15,000,000 feet of logs into the Vermillion river, and about 5,000,000 feet will be cut on Fitzwilliam Island. These logs will be rafted to the company's mills here next season. Mr. Loveland took an active and influential part in securing in the McKinley bill the clause reducing the tariff on Canadian lumber imported into the United States, upon the repeal of the Canadian log export duty.

The Emery Lumber Company was organized in 1885, with a capital stock of \$120,000 increased in 1889 to \$180,000. The officers are the same as those of the Saginaw Lumber & Salt Company. This company owns a mill at Midland, Ont., having a capacity of 18,000,000 feet, but it has not been operated during the season of 1891. It stocks the mill of Temple Emery, at East Tawas, and also furnishes stock for N. Holland's mill in Saginaw, as well as some logs for the Saginaw Lumber & Salt Company. During the present year it has handled about 40,000,000 feet of logs and has camps established on the Wahnapiatae, under the direction of Thomas Pickard, an old Michigan logger, who expects to cut 40,000,000 feet of logs during the season of 1891-2 for the supply of the mills next season. This company also owns 70,000 acres of timber in the Georgian Bay district.

These same lumbermen are organized into another corporation known as the Michigan Log Towing Company, with a capital of \$75,000. It owns and controls five large tug boats, and brought across the lake from Canada the present season 40,000,000 feet of logs.

## OTHER OWNERS OF CANADIAN LIMITS.

An important sale of Canadian timber was closed here on 3rd inst., when Ring & Merrill, of this city, who some time ago purchased from the Midland & North Shore Lumber Co., of your country, valuable timber limits in the Georgian Bay territories, sold these limits to Wm. Peter, Columbiaville, Lapeer Co., the millionaire lumberman. The property it is believed contains nearly 300,000,000 feet of pine timber and the consideration is reported at about \$350,000. Mr. Peter buys the lumber to stock his Bay City mill, which means, of course, that the logs will be towed to this side of the line.

Sibley & Beringer, of this State have started two camps in the Georgian Bay district. They will put in about 6,000,000 feet, and have hung up for another season, 2,000,000 feet. Mr. Beringer is disposed to grumble at the price of stumpage in the Georgian Bay, and thinks it will be a barrier to future buying.

## MICHIGAN LUMBER NOTES.

Freights have advanced .25 cents per thousand, the rate now being as follows: From Bay City to Buffalo and Tonawanda, \$1.75; to Ohio ports, \$1.50; from Saginaw to Buffalo and Tonawanda, \$1.87½, and to Ohio ports, \$1.62½. This rate may be further increased shortly.

Rodney has had a fire, which wiped out \$25,000 worth of hemlock lumber.

The Tittabawassee Boom Company is forging toward the 275,000,000 feet limit, which it was predicted would be their output this year.

S. G. M. Cates, who runs one of the best mills on the Saginaw river, will save a big towing bill by having over 1,000,000 feet of logs transformed into lumber up at Cheboygan.

As high as \$28 per month is being paid experienced men for logging operations.

H. W. Sage has purchased the Emery mill property at East Tawas, consideration \$12,500.

C. K. Eddy & Sons, East Saginaw, have purchased a berth on the White Fish river, on the north shore of the Georgian Bay.

An estimate of the logs rafted and delivered the present season is as follows:

	Fect.
Tittabawassee and tributaries.....	295,000,000
Cass river.....	6,000,000
Bad river.....	3,000,000
Kawkawlin.....	5,000,000
Rifle river.....	25,000,000
Au Gres river.....	15,000,000
From Georgian Bay.....	80,000,000
Upper Michigan points.....	35,000,000
Total.....	464,000,000

PICA.

SAGINAW, MICH., Oct. 24, 1891

## OTTAWA LETTER.

Conclusion of the Strike—What has been Accomplished—The Trade Side—Other Matters.

[Regular Correspondence CANADA LUMBERMAN.]

THE great strike is ended. The mills are not running with as large a staff of men as formerly, for the reason that the men are not here. Not a few found employment elsewhere during the progress of the strike and left the country. To this extent the ranks are broken.

Do you ask what has been accomplished by the strike? It is about as THE LUMBERMAN has put it, "Strike but Hear." The mill men of their own volition have made the rate of wages the same as they had been in 1890, that is 50 cents a week increase over what they were getting this year. No reduction has been made in the number of working hours per day, except in the case of Buel, Orr & Hurdman, where the ten-hour system has been adopted, but unaccompanied with any promise of an increase of wages.

The outcome can hardly be deemed a satisfactory one for the strikers. They have lost a month's work and consequently a month's pay, and at a season of the year when it was important that they should have made every day count. The pinch in this direction was being experienced by many families. Bakers and grocers were prepared to lend some assistance to the workmen in the shape of credit, but it was not to be expected that this could be continued for any great period, and the time had come when credit had to be refused, as many as forty families being cut off by bakers alone.

A calm survey of the situation, now that the trouble is over, confirms me in my opinion that the difficulty between employers and employees might have been brought to a conclusion within a short time of the first outbreak had it not been for the interference of professional agitators of the stamp of the leader Fataux and others. Any little discontent that may be in the air to-day is caused by a fanning of the flame by these fire-eating professionals, who are the curse of the working class anywhere; and it will be a grand thing for the workmen when they recognize this fact.

## TRADE ASPECT OF THE STRIKE.

Three weeks' lost time during the period of the strike and a reduced staff for the remainder of the season tells of a short cut. This has been placed by one leading mill owner at 25,000,000 feet. "Mill men," he

said, "would not, however, suffer any very great loss in the end, as the short cut would certainly have a tendency to stiffen prices later on. It would without doubt reduce the stock to be carried over the coming winter. The logs are coming down rapidly, and extra precaution will be taken to strengthen the booms if they have to be held over."

Shipping has been brisk throughout the month, sufficient men being secured in most cases for the work, even when the strike was in progress.

As compared with September last year the returns of the United States consulate show that last month's exports were greatly decreased. The figures are: Exports, September, 1890, \$907,321; exports, September, 1891, \$662,197; decrease, \$245,124. This is largely due to the decreased export of lumber, etc., due to the strike.

The Hon. E. H. Bronson, M.P.P., and Messrs. F. P. Bronson, W. G. Bronson, Levi Crannell and Daniel A. Martin, of Ottawa, will apply to the Quebec legislature to be incorporated under the name of the Schyan River Improvement Co. The object of the proposed company is the construction of slides, dams, piers and booms for the floating of timber.

Men in large numbers are leaving here for the shanties.

OTTAWA, CAN., Oct. 26, 1891.

## BRITISH COLUMBIA LETTER.

The Westminster Exhibition—Showing of Lumber Products—Export Shipments—A Rival to E. B. Eddy—News Gleanings.

[Regular correspondence CANADA LUMBERMAN.]

THE Annual Exhibition and Citizens' celebration held in this city 23rd to 27th Sept., was the greatest event of its kind ever held in this province. The gate receipts at the grounds were \$5,850. The exhibits surpassed the shows of former years in every respect, even in your line, lumber and wood-work exhibits. The Brunette Sawmill Co. got first prize for cedar shingles. A pair of oak doors most beautifully carved attracted great attention. Mr. Wyther, owner of the steam yacht *St. George*, of Royal Yacht Squadron, England, purchased a piece of fir plank 52 inches wide, 10 feet long by 2 inches thick, free from blemish or defect. He takes it to England and intends having a table top made of it and polished. The B. C. M. T. & T. Co. also had a very fine exhibit. So closely were these two matched that the judges have not yet been able to decide as to which to award a special prize "to the best exhibit of provincial manufacture." They showed very fine windows and blinds and took first prize for doors and windows. They showed a fir plank 50 inches wide, 26 feet long by 2½ inches thick, very smoothly sawed. The Mechanics Mill Co. amongst other fine exhibits had a very nice bar-room counter and newel post. They got second prize for doors and windows. Messrs. Welsh & Son, of this city, showed 25 pieces of native woods polished and varnished to the highest state of perfection.

## TO COMPETE WITH THE HULL PAUL KING.

Vancouver has credit for erecting the first wooden pail factory coming directly into competition with the celebrated makers of pails, the E. B. Eddy Company of Hull, Que. I think I am correct in saying that until this time this well known concern has practically had a monopoly of this line of manufacture. The Vancouver Manufacturing and Trading Company will make a bold attempt to divide the trade with the Eddy people. We think that no better wood can be found for this use than the splendid cedars of British Columbia. The pail factory is well equipped with modern machinery and is under capable management.

## BITS OF LUMBER.

Mr. Slanght has joined Mr. MacLaren in the Bunard Inlet mill and may not build at Stevenston.

*Rothsay Bay* has arrived from Glasgow with water works pipes and supplies.

British Columbia has determined to be represented at the World's Fair in Chicago. She proposes to exhibit a building composed of every variety of wood that grows in her forests, and to adorn it with ferns and mosses grown within her own boundaries.

H. G. R.

NEW WESTMINSTER, B. C., Oct. 24, 1891.



**PIECE STUFF FROM VARIOUS PARTS.**  
BITS OF NEWS OF INTEREST TO LUMBERMEN.

The Moodyville saw mill has closed down for repairs. It is estimated that there is in pile in Arkansas \$5,000,000 feet of lumber. Henry W. Sage & Co., are closing out their lumber business at Albany, N. Y. About 500,000,000 feet of logs are annually cut in Maine. about one-third floating down the Penobscot and 150,000,000 down the Kennebec.

It is estimated that New Brunswick lumbermen will cut 75,000,000 feet of logs the coming winter, as compared with 130,000,000 feet a year ago.

Fire broke out in Booth's lumber yard, Rochesterville, Ont., on 27th ult. The fire was soon got under control. Damage about \$3,000; covered by insurance.

A new building is being erected in connection with the factory department of the Brunette Sawmills to meet the requirements of an ever increasing output.

Texas lumbermen are rejoicing in heavy rains which have raised the streams and made the prospects for getting down a good supply of logs very bright.

It is said that violins made from cedar logs, supposed to have been buried 2,000 years, and now being exhumed in Cape May county, N. J., have a soft and melodious tone.

The recent sales of American walnut in London, Eng. have not indicated a very strong market and will no doubt have the effect of checking shipments, particularly of low grade logs.

Detroit has a dry-dock just finished capable of holding any craft on the lake. The plant cost upwards of \$200,000 and was necessitated by the rapid growth of the freshwater marine.

John Charlton M.P., of Lynedoch, Ont and who has a large interest in lumber, when in Saginaw, Mich., a few days ago is reported as saying that he is "confident that the log duty will not be reimposed."

The planing mills and the wood-working factory of James Dempster & Co., Halifax, N. S., were completely destroyed by fire on 27th ult. Forty men are thrown out of employment. Loss, \$20,000; insured for \$5,000.

Gillis Bros. saw mill, Paris, Ont., was completely destroyed by fire on morning 27th ult. The fire originated in the boiler house, and fanned by a stiff north wind, it quickly demolished the mill and a large quantity of timber. Loss about \$8,000; insurance \$900.

The Valleyfield Lumber Co. has been organized with a capital stock of \$40,000, to manufacture and deal in lumber, by Edmond Chausse, Joseph Marchand, Napoleon A. Hurltau and Alcime Harteau, of Montreal, and Maderic Lamothe, of Salaberry de Valleyfield.

A sensational disclosure has been made regarding the affairs of M. R. Hansen, a well known lumberman of Hansen, Wood County, Wis., after whom the town was named. He has disappeared and is accused of forgeries aggregating perhaps \$40,000, using the name of George Hiles, a wealthy Milwaukee land owner, with whom he had had extensive transactions.

Up to the time of the recent discoveries Hansen had been regarded an honorable business man.

The Guelph Lumber Company's limits have again changed hands, being twice inside of six months. The previous sale was for \$250,000, exclusive of mills, houses, offices and town property. A second sale has now been made, to a Michigan man, for \$335,000, exclusive of mills, houses, offices and town property, and this after some 10 years' cutting, at an average of about 10,000,000 feet a year.

**CHIPS AND BARK.**

Which is the most dandyish tree? The spruce tree. More than 300,000 persons are occupied in the United States in the direct manufacture of forest and saw products alone.

Rosewood takes its name not so much from its color as its fragrance when first cut. It still remains prince among the finer woods, being worth \$750 per 1,000 feet board measure.

An old toper, while ruminating on the cause of his numerous tumbles, came to the satisfactory conclusion that it was quite in accordance with natural laws. He says: "Leaves have their time to fall, and so have I; the reason is the same; it comes of our getting dry; but the difference between leaves and me is that I get dry more frequently."

There is a man who own the site of a sawmill in New York. He did own the sawmill and a wasps' nest. He set fire to it and incidently, everything but the sawmill site was removed with the nest. The cure was rather expensive but this incident teaches that people cannot be too careful. The majority of damages to machinery losses of mills and accidents of all kinds are caused by acts just as foolish as the burning of a sawmill to get rid of a nest of wasps.

**HIRING AN ENGINEER.**

In hiring an engineer, obtain the best you can get for the amount of money you can pay. Do not hire a man because he is a carpenter, a machinist and a blacksmith. If he understands these trades so much the better. He may keep that power in reserve to be used in case of emergency. Hiring an engineer and expecting him to do the work of three or four men, besides attending to his boilers and engine, is not a good practice. It is certain that while a man is putting on belts, oiling the machinery or screwing down cap bolts, he cannot be attending to the steam power of your establishment. The first that is known there will be a crank pin melted fast to its brasses, or a cylinder head knocked out, and the repair bill would include the cost of three engineers.

**SECOND-HAND LUMBER.**

THE second-hand clothes man is a known quantity in all the large communities, and the dealer in second-hand furniture, stoves, books, and other articles of general-merchandise is a familiar citizen of the modern city. But it has been given to New York to develop the dealer in second hand lumber. He has hung out his shingle, and makes an honest living, for lumbermen make their living in no other way, in buying and selling the lumber that is released by the extensive repairs and alterations that are always going on in that great city. A year ago a truckman for one of these firms was struck on the head by a beam which fell from the second story of a house which was undergoing repairs. His skull was fractured and at the hospital thirty-five pieces of the same were removed. He brought suit for damages against the owner of the house and last week the jury gave him a verdict for \$7,500.

**LITERARY MENTION.**

One of the thoroughly readable weeklies of this city is *Saturday Night*, and the success that has attended its publication is a practical compliment to its merits. Every one reads the *Saturday's* comments on current topics signed "Don," which is the well known pseudonym of E. E. Sheppard, the editor. This writer touches every subject on which he writes with a practised pen and in a manner alike refreshing and bright. Society news, music and the drama are leading departments, and each edited with care and knowledge of the subject handled.

The Magnolia Anti-Friction Metal Co., of New York, having offices at Chicago, London, Berlin, Marseilles, St. Petersburg and Vienna, made greater sales and did more business in the month of September this year than they did the first 18 months of the company's existence, commencing several years ago.

Messrs. Carthew-Findlayson, Dalby, Claxton & Banks, of Victoria, B.C. have formed a Company. The Royal Canadian Packing Co. The principal place of business will be Claxton, on the Skeena River—capital, \$100,000. Besides the canning business they will go into saw milling and manufacture of all kinds of fish oils.

**FOR SALE—A RARE CHANCE.**

A VERY desirable mill property in the town of Essex, Ont., known as the Hanlan Mills, for the manufacture of staves and lumber. The daily capacity of 20,000 feet of lumber and 35,000 staves. Twelve acres of land for mill yard, on which is located 4 charcoal kilns, 1 boarding house, two tenant houses, barns sheds and other outbuildings, with an unlimited supply of pure well water; with or without horses, trucks, waggons, etc. Also six million feet of standing timber, one-half elm, balance oak, cottonwood, ash, maple and sycamore; from one to three miles from the mill, and other timber in easy reach can be bought. The mills are on the line of Michigan Central Railway, with two spurs running into the mill yard, and within fifteen miles from Detroit. Terms liberal. Good reasons given for selling. Write or call on the proprietor, T. H. DECEW, Essex, Ont.

**WANTED AND FOR SALE.**

Advertisements will be inserted in this department at the rate of 15 cents per line each insertion. When four or more consecutive insertions are ordered a discount of 25 per cent. will be allowed. This notice shows the width of the line, and is set in Nonpareil type. Advertisements must be received not later than the 27th of each month to insure insertion in the following issue.

WANTED a cargo of one inch Basswood lumber. Address, F. ZIMMERMAN, Cleveland, Ohio.

A 25,000,000 Timber Limit for Sale. Easy to water, close to rail, good mill site, will be sold far below value. Address, LUMBERMAN Office, Box 421.

Saw and Shingle Mill for Sale. FIRST-CLASS water power, with 40 foot head. Any quantity of good timber at hand. Sold cheap if a bid soon. Address, ALEX. MITCHELL, Jr., Rod Wing, Ont.

**WANTED FOR CASH.**

Half a Million Feet of Ash. MOSTLY 1 inch, some 1 1/2 and 1 3/4 inch Canada Ash, strictly first and seconds; must be of uniform color, also commons and 1 inch Elm, 1 and 1 1/2 State particulars as to stock on hand dryness and lowest prices P. O. B. Montreal, Que. Address all particulars to

P. O. Box 2114, NEW YORK, N. Y.

PARTNERSHIP WANTED in Sawmill, Sash and Door or Furniture Factory, or any other class of good wood-working establishment. Advertiser will invest \$5,000 cash. Address, "PARTNER" care of CANADA LUMBERMAN.

**WANTED—TO BUY.**

GOOD Canadian Timber Limits and Georgian Bay saw logs. Address, BEN BERDSALL, Whitney Building, Detroit, Mich.

HARDWOOD lumber, bought, sold or received on consignment, TUCKER-DAVID, lumber commission merchant, 202 E. 10th Ave., N.Y.

SAW AND SHINGLE MILL. FOR SALE—on the Manitoulin, near Little Current. A bargain. Address, W. L. H., CANADA LUMBERMAN.

SHINGLE LIMIT WANTED. WANTED—Good shingle timber limit. Address, P. J. D., care CANADA LUMBERMAN.

PARTNER WANTED. WANTED—Partner—Silent or active, with \$10,000 to \$15,000, to handle lumber 18sq. Address, T. C. F., care CANADA LUMBERMAN.

**STEEL RAILS, ETC.**

SEVERAL thousand feet T rails 12 and 20 lbs. to the yard. A large quantity of flat strap rail for tramways, 20 pair wheels and axles, all in good second hand condition, very cheap.

JOHN J. GARTSBOR, 49 Front Street, West, Toronto.

**FOR SALE, RENT OR PARTNERSHIP**

FIRST CLASS saw mill, planing mill, sash and door factory and dry kiln, 35 pieces of machinery in complete running order, situated just outside of limits of city of Kingston. Premises suitable for a ship yard, or will sell machinery, dry kiln or building for removal. For particulars and catalogue of machinery address M. STRACHAN & SON, Kingston, Ont.

**GOOD BUSINESS CHANCE**

A party having the disposal of about 50,000,000 feet of good standing White Pine under Government license, besides a vast quantity of standing Hemlock, Spruce, Birch, &c., in a most convenient part of the District of Muskoka, together with a good Mill, nearly new, containing the very best machinery, is anxious to meet with a purchaser or parties willing to form a joint stock company. The whole property will be put in at an extra good bargain, and employment arranged for practical men. Full particulars as to Limits, Mill and prices, map, &c., can be seen at the office of the "Canada Lumberman."

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A Planing Mill and Sash and Door Factory is running order and fully stocked with best machines. Land freehold. GOOD LOCATION IN TORONTO. WILL BE SOLD AT A BARGAIN ON EASY TERMS. Apply to "Planing Mill" Canada Lumberman.

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—AND—

ROCKY MOUNTAINS

ALONG LINE OF

Great Northern Railway

For particulars write J. M. HUCKINS,

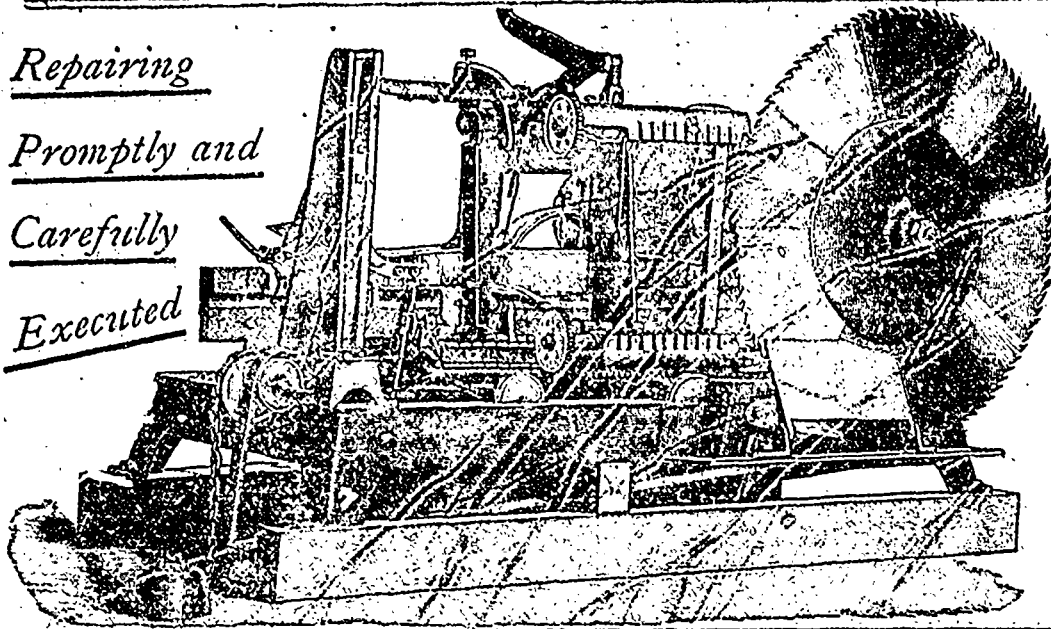
4 Palmer House Block, Toronto

Or F. J. WHITNEY, Gen. Pass. Agent, St. Paul, Minn.

WILLIAM FOSTER Lumber & Commission Merchant Receiver and forwarder of LUMBER, LATH & SHINGLES Correspondence Solicited. OWEN SOUND, ONT



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*Shingle Machinery a Specialty.*

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*Manufactured by us is acknowledged by practical men to be the best machine in the market.*

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**HAS NO RIVAL**

**For Variety, Capacity or Quality of Work.**

OR FOR

**Simplicity, Durability, Cheapness.**

Will take saws from 6 inches to 6 feet diameter, sets the saw forward one tooth at a time automatically. Sharpens any saw (rip or cross-cut) perfectly. Giving the teeth any desired pitch or bevel, and making all the teeth exactly alike. Will sharpen 20 teeth in ordinary mill saw in One Minute, or 100 teeth in shingle saw in four or five minutes. The cut shows outline of mill saw 54 inch dia. Patent applied for.

GILMOUR & Co.  
Lumber Manufacturers and Dealers.  
F. J. DRAKE Esq., Belleville, Ont.

Trenton, Ont., 26th Aug., 1891.

Dear Sir,—Your Patent Saw Sharpener is giving us good satisfaction. We average about one hundred thousand shingles per day, and sharpen the saws for both automatic and hand-feed machines with your Sharpener. As it keeps the teeth all perfectly uniform it must be easier on the machine and sawyer too. It causes also a great saving in files. We now only use about one 10 in. file per week. Before putting in your machine we used about six per week. As regards your Improved "XXX" Shingle Packer—they work first rate, and are the only machines we could get that would press tight enough. We consider them the best we ever had.

Yours truly,

GILMOUR & CO.

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Applicable to all classes of Buildings.

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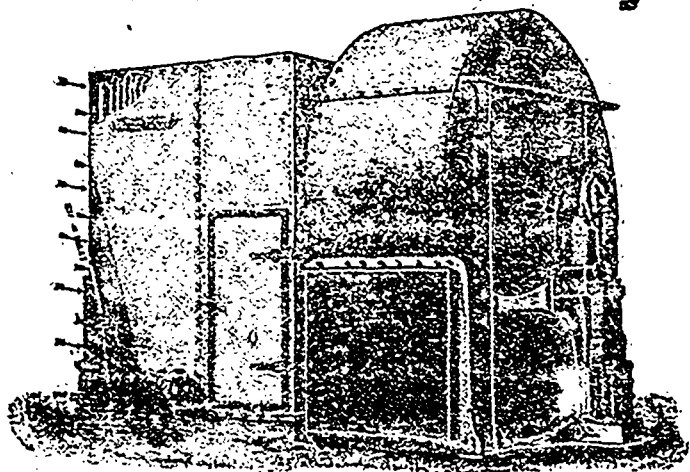
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BRANCHES:

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A. B. WILLIAMS, Soho Machine Works, Toronto, General Agent for the Dominion



The Sturtevant System Heating and Drying Apparatus.

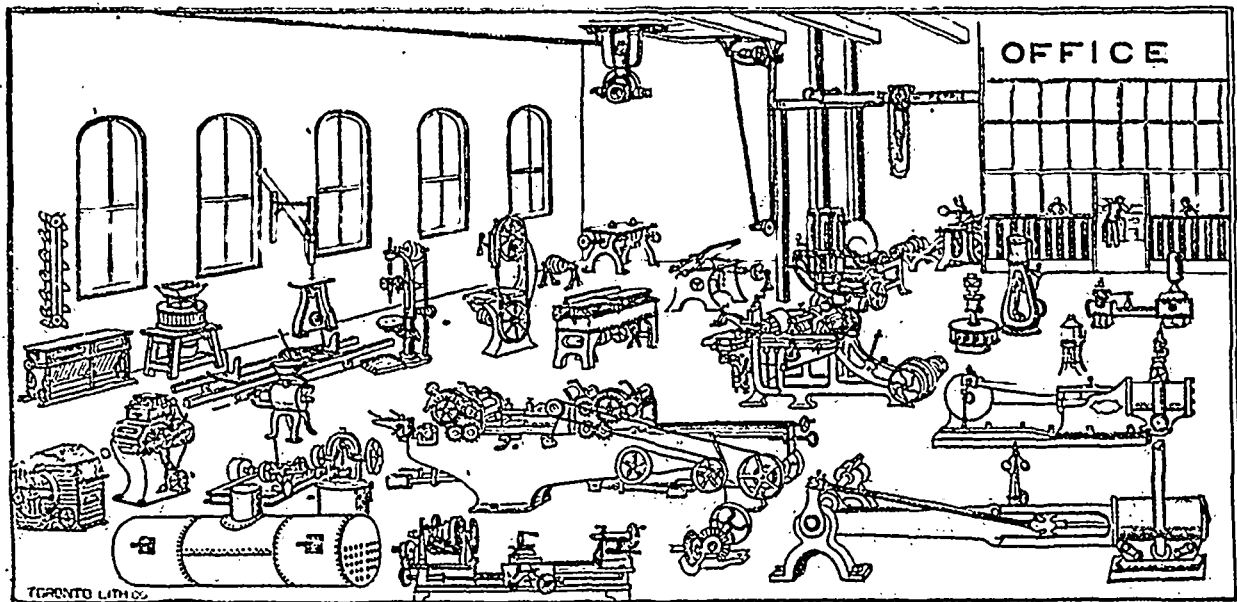
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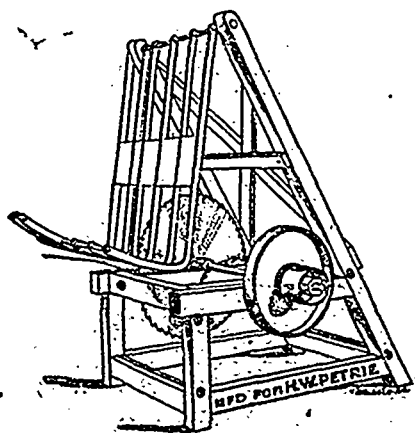
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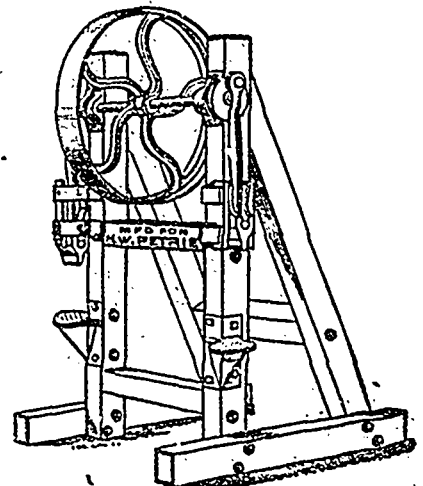
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The Improved Little Giant Planer, Matcher and Moulder.

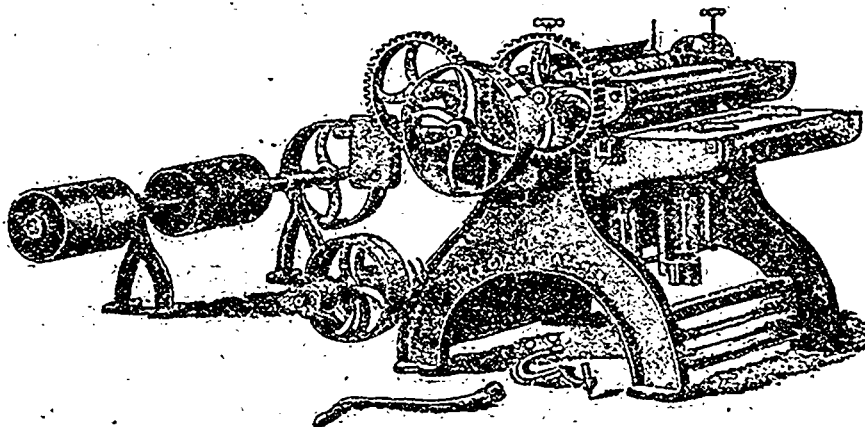


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The Champion Wood Splitter.

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CATALOGUES  
NOW READY  
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OUR MACHINERY

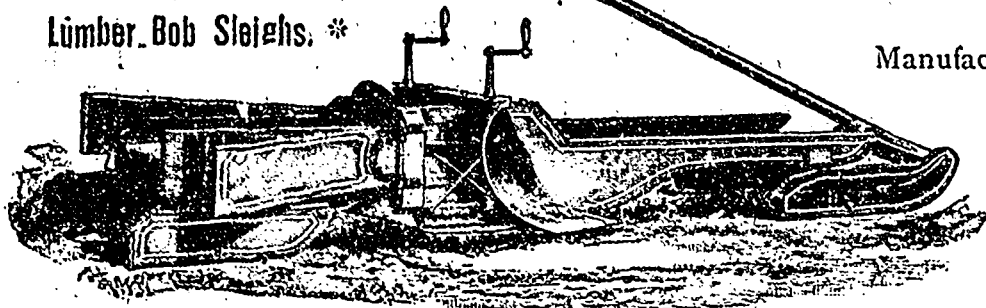
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Manufacturers of RED TOP LINE

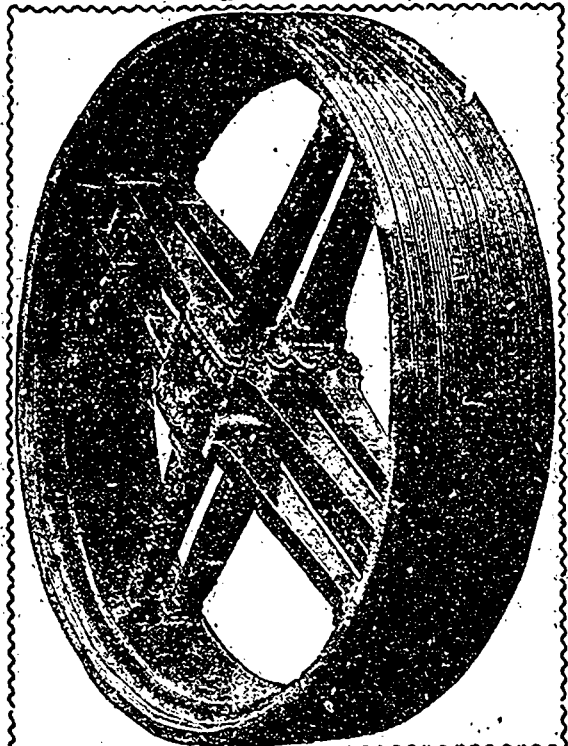
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And Sole Licences for the Manufacture in the Dominion of  
BRAZEL'S PAT. SNOW AND SIDEWALK  
PLOWS.

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## Wood \* Split \* Pulleys.

*We guarantee 30 to 60 per cent. more  
Power with same belt.*



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All Sizes in Stock. Send for Catalogue.

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# LUMBER

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FOR MILLS AND FACTORIES.

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 RECEIVERS and Forwarders of Lumber, Lath, Shingles, &c. Unexcelled facilities for shipping by canal or rail. Tonawanda, N. Y.

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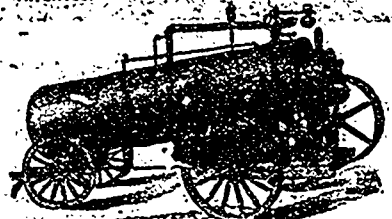
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**All Kinds of Pine and Hardwood Lumber.**

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PARTICULARLY adapted for Dams, Smoke Stacks, Foundations, Culverts, Cisterns, Cellars, etc.

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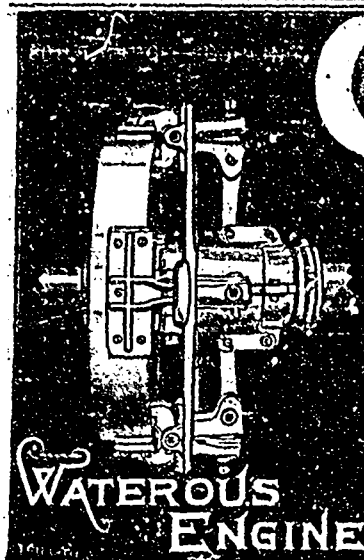
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## Pulleys & Cut off Couplings.

10 X 3 TO 10 X 30  
SPLIT OR SOLID  
GUARANTEED  
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Cookshire Mill Co. (Saw Mill).....	Cookshire, Que.....	5-48x12
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J. C. Wilson & Co., Paper Mill.....	Lachute, Que.....	2-30x12
E. Buse, Saw Mill.....	Vancouver, B. C.....	1-48x12
Waterous E. W. Co.....	Brantford.....	14-30x 8
Rlordon Paper Mills.....	Merriton, Ont.....	4-30x 8
Globe Printing Co.....	Toronto.....	2-42x12
Brooke Woolen Co.....	Simcoe.....	1 Split-30x 6
Hall & Price, Saw Mill.....	Quebec.....	3-60x16
George Erb.....	Winnipeg.....	1 Split-30x12
A. A. Benson.....	Montreal.....	1 Split-30x12
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Northumberland Paper Co.....	Campbellford.....	1-30x12
Electric Light Co.....	Rat Portage.....	1-48x12
R. Lang & Son, Tanners.....	Berlin.....	1-30x 8
Wagner, Son & Co.....	Brantford.....	1-30x 8
W. Sutton, Grist Mill.....	Simcoe.....	1-30x 8
E. Lavendaro.....	S. America.....	4-60x16, 60x13, 81x10, 44x10
Millet & Bunting, Vencer Works.....	St. Catharines.....	1-33x10
Hunt Bros., Electric Light and Mills.....	London.....	6-30x12
S. Frank Wilson, Publisher.....	Toronto.....	1-48x12
Kuntz Brewing Co., Ice elevator.....	Hamilton.....	1-30x 8
W. B. & S. Anglin, Saw Mill.....	Kingston.....	1-30x14
C. S. Hyman & Co., Tanners.....	London.....	1-30x 8
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Genelle Bros., Sawmill, Tappen Siding B C	1-20x10 in face	W. H. McCordick, St. Catharines	1-30x 9 1/2 in. face
J. L. Spink, Grist Mill, Toronto	1-40x 9	Waterous Engine Works Co., St. Paul, Minn.	1-30x 9
J. Nightingale, Brick Works, Toronto	1-30x14	J. A. K. Drummond, (elevator work) Manitoba	2-20x 6
Dowling & Leighton, Furniture, Harriston	1-24x 6	A. Harris, Son & Co., Brantford	2-18x 8
Toronto Radiator Co., Toronto	1-40x 7	Letang & Letang, Montreal	1-12 in. Sprocket
Taylor Bros., Brick Works, Toronto	1-30x14	Petit Bros., sawmill & stave works, Comber	3-64x17 in. face
J. J. Coulter, Toronto	2-22x 9	Adamson & Co., (forelevator work) Manitoba	2-Couplings
Nagatmo Electric Light Co., Nanaino B.C.	2-30x 8	Morrison, (for lathes) Toronto	1 pair 12x 4
For Elevator Work, Manitoba	1 Cut-off Coupling	Devié & Co., Grist Mill, Seaforth	2-36x10
W. Milne, Sawmill, drive bull-wheel, Stayner	1-7-24x8	American Mill Building Co., Stratford	3-28x 6
Windsor, Sandwich & Amherstburg Electric	1-60x 7 in. face		3-40x13
Railway, Windsor	1-48x16		1-28x13
British America Starch Co., Brantford	2-60x12		
	1-48x14		

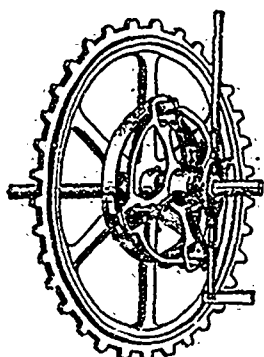
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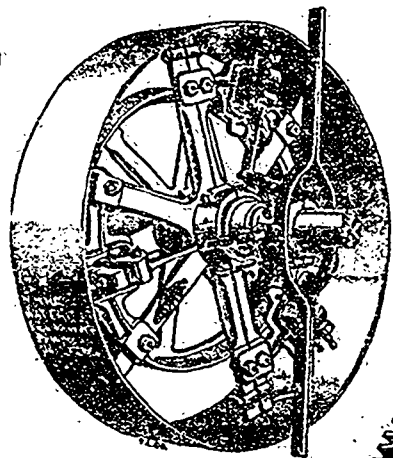
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**ENGINES, BOILERS, FRICTION GRIP PULLEYS.**  
Brantford, Canada.

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Rlordon Paper Co.....	Merriton (their 5th order).....	2-24x 6
Walkerville Mal. Iron Co.....	Walkerville.....	1-40x10
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Barber Bros., Paper Mill.....	Georgetown.....	1-48x12
Globe File Works.....	Port Hope.....	1-24x 7
Tallman & Son, Brick Works.....	Beamsville.....	1-24x14
George Erb, elevator.....	Winnipeg.....	1-24x 8
George Wright.....	Fort Corington, N.Y.....	2-24x 8

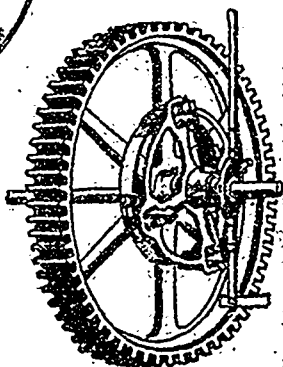


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A Driven Grip Gear.



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Grips always motionless when pulley out of clutch.  
Not necessary to stop an important shaft with a dozen pulleys on it to adjust an unimportant pulley.

## Our FRICTION GRIP PULLEYS

**ARE THE ONLY SPLIT GRIP PULLEYS & CUT OFF COUPLINGS MADE. GIVE EVERY SATISFACTION AS DRIVERS OR DRIVEN PULLEYS. FULLY GUARANTEED.**

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BRANTFORD, CANADA.