

## LUMBERMEN'S BOARD OF TRADE.

We find in the Stillwater, Minn., *Lumberman* the following report, which we republish as showing the style in which the lumbermen work on the other side of the boundary and the extent to which they co-operate for their joint benefit:—

At the adjourned annual meeting yesterday, the treasurer's report was read, as follows:—Balance on hand, \$356.19; received on assessments, \$1,477.21; received of Walker, Judd & Veazio on account of scaling by river police, \$76.64; received from agent of the board, \$18,673.12. Disbursements: Paid orders of agent, \$18,222.53; river improvements, \$937.84; river police, \$574.35; treasurer's salary, \$225; miscellaneous expenses, \$293.85. Balance in treasury, \$325.49.

The Boom Company was requested to advocate for bids on all prize logs passing the boom this season.

John O'Brien was made a committee to report on the boom above lower boom.

Officers were elected as follows:—W. G. Bronson, president; Samuel Matthews, vice-president; John S. Proctor, secretary and agent; E. L. Hospes, treasurer. Directors—E. S. Brown, Samuel Judd, Smith Ellison, Albert Tozer, James Mulvey and David Bronson.

The directors elected Charles Murray to have charge of the river police, and authorized the employment of such assistance as may prove necessary.

## TREES IN CITIES.

An interesting paper has been recently read by Dr. Pheno at Edinburgh on the benefits to be derived from planting trees in cities. Among the beneficial results to be obtained are, he stated, the relief to the optic nerve through the eye resting on objects of a green color. Just that which is effected by the use of green or blue glasses in strengthening and sustaining the power of sight, is attained, or at any rate, much aided, by the presence of green in nature; and in streets the only method to procure this result is by planting trees. It was pointed out by the author that whenever opportunity exists nature provides green and blue (the latter being the same color minus the presence of the yellow), and that as the absence of color produces snow blindness, and in tropical climes, where the ocean presents only a white reflected light from a uniform glassy surface, reduced optical power soon follows a long continuance of the absence of blue color, which becomes immediately apparent on motion of the waves. So in the streets, to the occupants of houses having a northern aspect, the glare of the reflected light is injurious; but the effect would be much modified by the coolness to the eye produced by the green trees. In ancient surgery, persons having weak or declining sight were advised to look at the emerald. In the old style of building, the streets being narrow, were both cooler from the sun not being able to penetrate them with direct rays, and less subject to noxious exhalations from the scouring and purifying effect of the searching air to which the narrow streets were subject, so that while there was no space for trees, there was also less necessity. Wide streets, on the contrary, are hotter, and require the shade of trees to cool them; and, as the case in London, which has so far done without trees in its streets, it was pointed out that not are modern streets compulsory wide, but that the enormous increase in metropolitan buildings render every sanitary question one of importance; and the chemical properties of trees as shown by experiment give an important standing, irrespective of ornament or the pleasure they produce. Some of Dr. Pheno's experiments on this subject have existed over a period of 30 years, and he it was first tried the planting of trees in the streets of London. Since the reading of a former paper by him at Manchester, where the importance of the subject was pointed out, a number of streets in wealthy localities have been planted, and even Trafalgar Square, in the heart of the metropolis.

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## PAPER PULP FROM WOOD.

The following is a description of the process of making wood pulp: The wood, four feet in length, and of any thickness, is brought in at the basement of the manufactory, placed in the barking jack (one stick at a time), where two men with draw knives rapidly peel off the bark. It is then conveyed by an elevator to the first floor, sawed in two foot lengths with crosscut saws, and passed on to the rip-saw, where it is slabbled (that is, a small portion of wood on opposite sides taken off), to permit it resting firmly in the grinding engine. It is then passed to the boring machine (an upright 1½ inch auger, with foot attachment, driven by power), where the knots are bored out. The wood is then placed in racks of the same size as the receptacle in the grinding engine, and carried out to be ground. The grinding engines are upright, and receive at a filling one-twentieth of a cord of wood. The wood is placed in a receptacle, and by a simple variable, automatic feed process, is pressed flatwise between two outward revolving rolls, composed of solid emery, which are flooded with a spray of water, carrying off the fibrillized pulp in a stream through revolving screens to the tank or stuff-chest in the basement. It is then pumped into a vat which forms part of the wet machine. In this vat is constantly revolving a large cylinder faced with fine brass wire-cloth, which picks up the particles of pulp out of the water and places them on the felt (an endless piece of woolen goods which makes between rolls, for different purposes, a continual circuit of the wet machine). On the cylinder is turned a heavy roll, called the "couch;" between the two, where they meet, the cylinder leaves the pulp, with most of the water pressed from it. The pulp now makes its appearance on the felt above the concha roll in a beautiful sheet, 38 inches in width, and is carried along in a steady flow a distance of about 8 feet, where it passes between (the water here being pressed from it) but not beyond two heavy rollers, the upper one iron, the lower one wood; it adheres to the upper roll, which is constantly turning, wrapping it up, and when a sufficient thickness is attained, is cut off by a knife being pressed to the roll, which is attached to the machine for that purpose. It now leaves the roll in a thick white sheet, 36x33 inches, where it is received by a boy in attendance on a table conveniently attached to the machine, and folded into a sheet 16x26 inches. It is then placed on scales until the weight is 100 pounds, when it is placed in a press and firmly tied into square, compact bundles. It is now ready for shipment to the paper mill.

## Preservation of Lumber.

A correspondent writes as follows to the *Mill*:—"The question of the preservation of lumber from decay attracts considerable attention just now. It would be well, I think, for the Committee on Works to adopt the plan which has been well tried and is the least costly. The combination of lime with the other ingredients it is mixed with appears to be a ready method, and should take precedence of any other. The appearance of the streets at the present time suggests some other and more durable plan, especially the sidewalks and crossings, and it would be well to consider the most economical plan. The application of coal tar does not answer, as it necessitates the use of well-seasoned lumber, and is far more costly, inasmuch as inward decay sets in by the tar filling up the interstices of the wood, and forms a crust outside, preventing free ventilation. The lime admixture leaves the fibre clear, takes out the sap or fungi, and secures the material from all rot, either from sandy or clay soil.

## A Wonderful Improvement.

THE CANADA LUMBERMAN.—This paper, formerly published in Toronto, has been purchased by Messrs. Toker & Co., of the Peterborough Review, and will in future be published in the latter town. The first number under the new management is before us and shows a wonderful improvement in the paper. THE CANADA LUMBERMAN will be purely a non-political trade organ and will contain such valuable information as should render it indispensable to all interested in lumbering operations.—*Coloury Sentinel-Star*.

## CORRESPONDENTS.

All correspondence is of value to a paper, but it is often of more value to the man who writes it, or the town whence it is sent. When we are informed by a subscriber, as we often are, that he would not do without the *Lumberman* even if he had to pay \$50 a year for it, we feel that the benefit of this great mass of imparted information is not so great to us as to others. There is plenty of matter relating to the lumber business with which to fill a larger paper than this one, but we want facts from practical men. Such matter is what makes any paper valuable. The effusions of a theorist are not worth the snap of a finger to anybody. A man who recently engaged in manufacturing said to us, "I read 'Grinshaw on Saws' from beginning to end, but a hard-handed, rough-looking old sawyer over in Michigan told me more about saws in twenty-five minutes than I could ever learn from the book."

We are frequently told by men that they do not feel competent to write for publication, but if they know the true inwardness of every experienced newspaper man they would not make such an excuse. A newspaper wants news, and it welcomes it from any source. It is easier to find ten smooth writers than one good news-gatherer. Every man living in a lumber region knows something of the country, the amount of business done, prices, and the outlook. Information regarding any of these points, although expressed in words wrongly spelled and sentences wrongly constructed, is of worth. It is nothing to put matter in shape for publication.—*Northwestern Lumberman*.

## Lubrication of Bearings.

When a shaft bearing is at rest in its box, the oil is pressed out from under it; either out of the box altogether, or upward to the space above the shaft, between shaft and box. No doubt the metal of the shaft then settles down to actual contact with the metal of box. In starting a lot of machinery into motion, the metal of the shaft must actually drag, for a short distance, in contact with the metal of the box, making the machinery hard to start. But as the bearings make part of a turn in their boxes, the oil adhering to the surface of shaft bearings is dragged in between the box and shaft underneath, thus floating the bearing upon a sea of oil. This sea is, however, not very broad or deep; but there can be no doubt of flotation. As flotation takes place, the bearings rotate much more easily than when the metal drags in contact. This explains why starting friction is greater than friction of motion in machinery. When heavy pressures are brought to bear at the boxes, the oil is hindered from entering freely between the surfaces; and if, at the same time, the two surfaces are not nearly parallel, there may possibly, or even probably, be metal contact at the prominences. The high resistance thus caused will produce heat at the rubbing parts; which, by continuous motion, is sure to become excessive, resulting in destruction of lubricant, abrasion of metal surfaces, waste of power, etc.

## Useful Hints.

The firm of Messrs. Oliver & Co., give some excellent practical advice to farmers. They say:—

"The kinds of hardwood lumber most in demand, either in the Dominion or for export, are walnut, cherry, butternut, chestnut, white ash, white oak, whitewood and basswood, all of which are now in good demand, as manufacturers are increasing their works and new ones are springing up in every part of the country. In the course of a few years these woods will become very scarce, and some of them will become entirely absorbed. This will cause the more common kinds, such as maple, birch, soft elm and black ash, to take their places.

"Our farmers, who own timber lands, cannot be too careful of them, and should use them with a sparing hand, for in the course of a few years their value will be largely increased.

"Our export trade is confined to the States and Great Britain, the former taking our sawn lumber and the latter being supplied in the shape of square timber."—*Ontario Agricultural Commission Report*.

## THE OTTAWA VALLEY.

The *Citizen* of May 5th says:—According to present appearances there is every indication that the water in the Ottawa River will be unusually low this spring, much below the average height of ordinary years. In addition to the fact that the depth of the snow in the lumbering regions was much below the average during the past winter, the early thaws have melted away nearly all that was on the ground, and the water thereby formed has nearly all run off. In thick swamps, however, there still remains some snow and ice, although much less than usual. Consequently, unless we have heavy rains during the next two months, indications support the conclusion that the water in the Ottawa and its tributaries will be much below its ordinary height on the 15th of May, when the highest water generally appears. Low water will be a serious obstacle to getting out the large quantity of fine logs made during the past winter, which would be a great disadvantage to the trade, now that sawn lumber sells at such good prices. However, if lumbermen can manage to get their timber out of the small creeks into the main channel before the water begins to fall, they may succeed in bringing it to its destination.

## New Rust Preventive.

A new method of protecting the surface of iron from rust has been brought forward by Mr. Ward, of London. The new "inoxidizing" process, as it is termed, consists in combining a silicate with the metal by the aid of heat. Cast or wrought iron objects are first coated, by painting or dipping, with a silicate glaze, which quickly dries, and the articles are then passed through a furnace, or rather oven. In this way the silicate composition is said to be fused and absorbed into the metal, which upon cooling is found to have assumed a dull black appearance. The coating is said to be so far homogeneous with the metal as to protect it from any change from long exposure to the atmosphere; and at the same time the silicate is not liable to disintegrate or separate from the iron. The articles treated in this manner may be ornamented by combining the silicate wash with any vitrifiable colors. Thus smooth polished colored surfaces may be produced upon iron, which, while possessing features distinct from ordinary enameling, yet present superior and more durable results than those obtainable by ordinary painting and varnishing.

## Changes in the Diameter of Trunks of Trees.

According to the *Gardener's Chronicle*, M.M. Kraus and Kaiser have been making some researches, from which it appears that the trunks of trees undergo daily changes in diameter. From early morning to early afternoon there is a regular diminution till the minimum is reached, when the process is reversed and the maximum diameter attained at the time of twilight; then again comes a diminution, to be succeeded by an increase about dawn—an increase more marked than that in the evening. The variations in diameter coincide, therefore, with those of the tension, but they are shown to be inverse to the temperature, the maximum of the one corresponding roughly to the minimum of the other, and so on.

## Mountain Mahogany.

This wood is indigenous to Nevada. The trees do not grow large; one with a trunk a foot in diameter is much above the average. When dry the wood is about as hard as boxwood, and of a very fine grain. It is of a rich red color and very heavy. When well seasoned it would be a fine material for the wood carver. In the early days it was used in making boxes for shafting, and in a few instances for shoes and dies in a quartz battery. Used as a fuel it creates intense heat, it burns with a blaze as long as ordinary wood would last, and is then found (almost unchanged in form) converted to a charcoal that lasts about twice as long as that of ordinary wood.

If you suffer from any chronic disease arising from Impure Blood, Sluggish Liver, disordered Kidneys or Inactivity of the Bowels; if your Nervous System is debilitated from whatever cause arising, do not despair, but procure a trial bottle of Burdock Blood Purifiers; it will only cost 10 cents. Large Bottles \$1.00. For sale by all medicine dealers.