

VALUE OF CANADIAN WOODS FOR EXPORT.

BY PROF. JOHN MACOUN.

NOTES culled from the Indian and Colonial Exhibitions and a few practical observations founded thereon, may not be in appropriate in the coming issues of THE LUMBERMAN. At the present time much attention is given in England to woods of every description for the purpose of getting new material for both house decoration and carriage building. The Colonial and Indian Exhibition held out inducements to the various experts and wood-workers in London and the Provinces, to come up to the Exhibition and examine the woods from the various Colonies and India. This was soon taken advantage of and numbers came daily to examine and criticise. Generally speaking the woods from the other colonies claimed more attention at first, as they were brighter colored, closer grained, and more attractive looking, but as the novelty wore away it was discovered that these woods were very heavy, hard to work and in many cases so scarce that their introduction to the English market was an impossibility.

Following closely on the opening of the Exhibition came the reporters of the various scientific publications, and these found much to admire and to praise in our timber exhibits. We were kept busy from morning until night giving notes and answering questions. These in a short time bore fruit as parties soon came forward to make enquiries as to the best means to be employed in opening up a trade with Canada for the various species of hardwood which we have so abundant in many districts.

The senior partner of the largest chair manufacturing company in England, located at High Wycombe, called upon me and after talking the matter over and examining our specimens asked me to put him in communication with some parties in Canada, which I did. He would guarantee to take \$35,000 worth every year, but not in the form of square timber, but just in the round log and short lengths. My discussion with him brought out the fact that there is much difficulty experienced in England, from overcharges on railways than in Canada, and that the great cause of a want of success in the timber trade is the middlemen in combination with the railways. I costs as much to carry a single barrel of apples from Liverpool to London and deliver it as it does to purchase it in Canada, carry it 1000 miles on land and 2500 miles by sea to Liverpool. Dealers get more liberal rates, and the business by this means is kept in the hands of a few.

When it is considered that English beech is getting scarce, and that there are at least 20,000,000 of people in England who sit on common chairs, the importance of this trade cannot be over estimated. My advice to Englishmen was always the same. open up communication with our lumbermen, get them to cut all kinds of timber to the sizes required, immediately after being felled, and ship nothing that would by any possibility become waste or would be difficult to handle. I had a double object in this advice, one was to employ our own people and the other to prevent deterioration by rotting, caused by the decomposition of the sap.

This naturally leads to the all-important question of cutting and drying. Pine timber, cut in winter and put in the water in spring and floated down to the mill and only taken out of the water to be sawed into lumber, remains perfectly sound, and the sapwood often quite white. Hardwoods and pine, but especially the former, are drawn to the various local mills and perhaps allowed to lie all summer exposed to the heat and rain without apparently a thought being given to the injury already done or any attempt made to protect it from further injury. A careful perusal of that section of my paper, read before the Coachmaker's Institute in London, which deals with the "deterioration of woods after cutting," will make clear to any one the absolute necessity of a complete change in our present mode of procedure in this respect.

Following closely on the footsteps of the Chair-makers came the Coach-builders with their multifarious wants. Some wanted spokes, others hubs, shafts, or materials for bodies, but none seemed to know anything of Canadian wood. With the permission of the various leading coachmakers in London, I examined their stocks and saw their modes of seasoning and of course heard the praises of English oak and ash, and soon became convinced that our plan of shipping hardwood to England was altogether at fault.

Ransome & Co., of Chelsea, experimented on forty-five different species of woods from India and the Colonies, and amongst others who addressed the meeting was the writer. A few days after in conversation with an eminent engineer he remarked that our wood—ash and oak—bore no comparison to theirs as regards toughness and elasticity. Further en-

quiries showed me why our wood was condemned by practical men, and this subject I also took up in the paper read before the Coach-builders Institute, (the report of which appeared in the last issue of your paper,) in the section on "toughness." Conversations following the reading of the paper showed me that I had made an impression on the general public and that many of my hearers believed my statements.

One dealer came to see me about elm hubs, who supplies many of the omnibus builders with the material for wheels. He told me the young tough elm which grew so plentifully with us was just the material he wanted, and he was prepared to take immense quantities either in the round log with the bark off or sawed the proper lengths for a hub. I found that the American Rock elm in London, was chiefly our common elm, and much of that which came as square timber was gray elm or common elm grown on dry soil. Large white oak spokes are wanted by the same firm, but many complaints are made of the unreliability of the dealers. Only a few weeks before our conversation a large consignment of spokes had been received and a cablegram despatched to repeat the order. When the latter lot arrived they were much inferior to those sent at first. The first lot were real white oak (*Quercus alba*) but the second while still white oak, was the more brittle species (*Quercus Macrocarpa*).

A very profitable business could be done in these lines by men with a little capital, getting a portable sawmill and just cutting up on the ground, where people are clearing land, all the smaller of the valuable trees that are now worse than wasted. It is now high time that our farmers and others, owning tracts of half grown trees, should realize their great value as permanent remunerative property. Owing to the increase of population and the ever increasing demand for agricultural implements, suitable timber will become more and more difficult to obtain, and when this time arrives the man who has a tract of young hickory, ash, oak or elm, or all intermixed, will have a mine of wealth of untold value. At present the Americans are seeing the end approaching, and are looking with longing eyes at our wealth of forest lands. The timely export duty on logs will do something to retard the wholesale destruction of our pine forests, but to these as to everything else there is a limit and the end will surely come.

Passing from wheels to bodies I found that mahogany was the chief wood used. White wood (*Liriodendron Quilifera*) was used for a variety of purposes and so was Sycamore (*Platanus occidentalis*) or Button wood. When I asked about Basswood no one seemed to know much about it, but the tests we subjected it to showed them its valuable properties, and make it the coming rival of mahogany when color is not a requisite. At present mahogany is eighteen cents the square foot inch measure, and basswood could be delivered at less than one third the cost. Before I left London I introduced Mr. Bennett, of the "Bennett Furnishing Company," of London, (Canada), and Glasgow, Scotland, to a number of gentlemen engaged in the business, and before I left he had taken a number of orders for sample lots of ash, hickory, basswood, and elm at eight cents a foot per small orders. Since then he has obtained the contract of furnishing all the city schools of London with desks for three years. I mention this to show what may be done by coming in contact with men who are desirous of doing business in the changed conditions of the present active age.

Yellow pine deals as our "White Pine" is called, hardly reaches London at all except by way of Liverpool. I made numerous enquiries about it and never succeeded in finding any except what came by rail. Arnold & Co., of the Royal Dockyard Wharf, Woolwich informed me that the present mode of shipping timber from Canada, greatly curtailed the trade and in many cases stopped it altogether. This firm receives square timber from Quebec, and on its arrival it is thrown into the water and lies there until it is wanted for a customer, when it is drawn out, if the tide suit, and is sawed up as the customer may desire. Should the tide not suit, Norwegian or Archangel deal or scantling is sold instead, as it is always cut before shipment, in Norway, to the size the London market requires. Having noticed the various Ottawa lumber merchants cutting from six inches to two feet off the ends of most of their deal, I enquired if that were necessary, and was answered by being shown Norwegian deal from six feet to twenty-eight feet long. In Norway they take all they can out of the tree and do the sawing in their own country. I was informed by the foreman that in the five years he had charge of the yard a whole log of ash or black birch had never been bought. He wondered with me why we cut away so much of the tree and then sent the heart, which every one knew was the poorest. While in conversation he counted up the cost of sawing 750 feet of ash out of the square log as

it lay in the pond. The sum total was £1.17.6 or about \$9.50 in our currency.

I am quite convinced that the days of squared timber have departed, and that the sensible, economical, and profitable plan is to have an intelligent agent who knows the requirements of the market, and have all lumber manufactured to suit the wants of the purchasers. If this be done it would place lumbering on a more certain basis and give a far wider market for one of our most important industries. Squaring timber belongs to the time when sawmills were not in existence and as it has served its purpose the sooner such work ceases the better. Quebec has filled her cup to the brim by being ruled by the Longshoremen. The middle-men in England are in the same positions and the producers and consumers are looking forward to a closer union which will be of mutual advantage. By doing business like merchantile men lumbermen can get a share of the profit by shipping direct from Montreal to London. The Tilbury Docks, twenty miles below London, are now open and Canadian lumber can go direct to London without being re-shipped at Quebec and Liverpool as much of it is now.

Another most important product is the pulp that has become such an article of trade in a few years. At present England imports immense quantities from the North of Europe, but the matter has only to be taken up in an energetic manner in Canada and a valuable business will soon be established. It is only a matter of time, perhaps in the near future, when balsam, spruce and the refuse of pine and even sawdust will be made into pulp, and no prophetic powers are needed to foretell the thousand and one uses to which such material will be put.

CANADIAN PACIFIC ACQUISITION.

That the Canadian Pacific railroad will one of these days raise Cain with some of its American competitors may be seen in the following despatch from Boston:—Quickly and surely the Canadian Pacific is completing its control of access to the Eastern seaboard. The latest move on the checker-board is the lease of the Connecticut and Passumpsic rivers railroad to the Boston and Lowell, which, though not yet consummated, has progressed so far as to become a practical certainty. The Directors of the Passumpsic road considered the matter to-day, and it is understood that they talked very favorably of the Lowell proposition. Whatever conclusion they reached will be endorsed by a good majority of the stockholders. The Passumpsic line is something over 100 miles long, and runs from White River Junction, Vt., north to Sherbrooke, Canada, thus forming the connecting link between the Boston and Lowell at White River Junction, or Well river, and the Canadian Pacific at Newport. Obviously its acquisition will be of great importance to the Canadian Pacific and the Boston and Lowell in carrying out their far reaching plans.

THE MANUFACTURE OF EMERY WHEELS.

Among the outfits of saw mills there seems to be one article that of late years has proved itself indispensable. Both for gumming and sharpening saws, Emery Wheels are in great request. No makers of these goods have a higher or more extended reputation than the manufacturers of the "Hart" Wheel. It has become well known in Australia, India is a customer, France and England are steadily using them, while in the United States and Canada, probably as many are used as of all other makes together. Besides a large factory in Detroit there has been for the last even years an establishment in Hamilton, Canada, where the Hart Wheel is made. In the latter place besides manufacturing emery wheels a large number of mechanical devices for running emery wheels are turned out every year. Prominent among these and of interest to our readers is the line of Rogers Patent Saw Gummers and Sharpeners.

Mr. S. C. Rogers, one of the directors of the Hart Emery Wheel Co., of Hamilton, has invented a very complete yet low priced device for grinding circular saws, and also three machines for sharpening them. One of these is illustrated in an advertisement on another page. These circular saw filers will take respectfully 36 up to 48 and 72 in. circular saws, and will sharpen cross-cut saws also. There is in addition a device, forming an attachment if needed for the three machines which sharpens up to 72, for sharpening gang saws.

These filers although not automatic may claim to be semi-automatic, for the shape of the teeth and the degree of filing they need are fixed by positive stops and guides, at the will of the operator in such a way that all the teeth are filed alike. Any part of a tooth can be filed, the throat, back, breast, or point only. Having set the machine to do the work, the operator has nothing more to do than to move a lever back and forth. This motion works both the saw and emery wheel so that the latter comes in contact with just that part of any tooth that requires sharpening. The work is done wholly with emery wheels, no files are needed as the saw is finished by the machine ready for use.