

TRADE WITH GREAT BRITAIN.

In a previous issue of this journal was published the report of Prof. Macoun's address on Canadian woods, delivered before the Carriage Builders' Association in London, Eng., which treated principally on a certain class of Canadian woods suitable for carriage building. Through the courtesy of Ira Cornwall, Esq., late Agent General for New Brunswick in Great Britain, THE LUMBERMAN is enabled to give a synopsis of that gentleman's report, relating to Canadian woods and their utilization for various manufactured articles for export, furnished to the New Brunswick Government. The hints contained in the extracts which follow are practical and quite worthy the attention of Canadian lumbermen and manufacturers. The suggestions thrown out advocating the formation in this country of a company such as is referred to in this report have been made after careful and practical research of the wants of the British trade, and can be relied upon as authentic:

"The most important item of trade with Great Britain is in our woods and from the large number of inquiries which I had during the Colonial exhibition I am convinced that a great extension of that export can be made if properly handled. This more especially applies to our hardwoods. It is quite evident that our hardwoods will not find profitable sale there until they are carefully seasoned and properly manufactured. All of this must be done upon this side of the Atlantic and from all experiences up to the present, it is equally evident that the business has not been properly understood by our manufacturers, and that there is not sufficient capital accessible in the business to make it a success. A company or syndicate should be formed with a large capital capable of holding a large stock of wood for careful seasoning, to erect and operate large mills capable of turning out all classes of wood goods, and who could establish large warehouses in Liverpool and London, where an extensive stock could always be kept on hand for immediate delivery. That such a company in the hands of proper and experienced management, devoting their whole attention to this branch would be a success, it is an easy matter to demonstrate from the figures I was enabled to glean at the exhibition. I also have the assurance that if the company were launched under proper auspices upon this side, the amount of stock necessary would be readily taken up in England. It would most unquestionably be of great advantage to the province to have the company operate there and it was admitted by all with whom I talked over the matter that New Brunswick is the most favorable place for its location.

Among the articles which I would suggest to the company as advantageous to manufacture are, cloth boards, slats for slate frames, broom handles, brush backs, mouldings, blind slats, blind pulleys, hardwood squares and dimension stuff for curtain rods, rings and ends, for mangle rollers, portions of furniture, &c.; in this last named line alone there is an almost limitless field. I was enabled through the excellent idea of Messrs. Howe, in showing the stains on the woods in the wood trophy, and also from some tests that I had made to convince English manufacturers of the adaptability of our birch for staining. It is being more largely used in that way now, and the following item taken from an American lumber journal of a recent date may be of service in arousing the interest of our people in this subject:

"The price of Black Birch of best quality has recently gone up from \$7 to \$95 per 1,000. The extraordinary advance is due to the discovery that boards cut out of the first logs are susceptible of a very high polish, and can be used for almost any purpose hitherto exclusively reserved for mahogany, which is worth \$250 a thousand. The advance has been expedited by the discovery that the best black walnut is giving out. Black walnut from Arkansas and the south is so porous that it is of very little use in furniture making. The best black birch is found almost exclusively on the barren copper ore regions between Milwaukee and Ashland, where all other timber is stunted in growth and very poor. Here boards out of the butt cut quickly assume a beautiful red tint on being exposed to the atmosphere, and can be polished up to a great degree of fineness. The price will soon fall to \$50 to \$60 a thousand. A railroad is being laid right through the very inaccessible region where it grows, and the high prices have tempted several men to open out saw mills. Red Birch has also advanced in price very rapidly. It could be bought up recently in Indiana and Ohio for the bare cost of sawing, but now it is worth \$30 a thousand."

The industry of manufacturing spools and spool wood for the thread-makers of the United Kingdom has been carried on for many years in the Province of New Brunswick, Nova Scotia, and Quebec; and those versed in the subject say that when properly conducted there is big money in it for the manufacturer. Messrs. J. & P. Coats, of Paisley, Scotland, use very largely of spool stock, as do also Clark & Co., of the Anchor Mills of the same place; and they are always anxious to secure first class stock, even greatly in advance of their consumption, which is enormous. Delivered in Scotland, the prices paid are from £6 to £6 10s. per 1,000 superficial feet. Of course, many other firms use largely of this kind of wood, in fact, since the introduction of the machine called the quadruple borer, the demand has been universal. This within the

last five years or thereabouts. Previous to that time, the spool blocks were made from transverse sections of the birch log, the thickness of the desired length of the block, and were cut out of these sections by hollow cylindrical saws attached to vertical spindles running at a high rate of speed—some 3,500 revolutions per minute. In the centre of the saw was a boring bit that bored the holes in the spool blocks so manufactured. Owing to the growing scarcity of birchwood in Great Britain and Ireland, the Scotch blocker has been gradually abandoned, and the quadruple borer has taken its place on account of its ability to utilize spool stock, as described, which could be imported from Norway and America at a cost commensurate with the scheduled cost of production, whereas birch in the log would make the cost of the material very high.

The spools themselves, finished and ready for use, should be manufactured in this country, and I am assured that it only requires the careful selection of wood, proper seasoning, and above all great caution as to turning, to insure all of the orders being placed with our manufacturers. There is a large trade to be done in blocks, for shoe lasts, and in this care in the selection of blocks, cutting them into proper shapes for double and single last blocks, and dipping the ends in a composition to prevent them cracking while seasoning.

A large quantity of poplar of from four to eight inches in diameter, with the bark on, and in lengths of from six to twelve feet, is now imported into England from Brittany. These saplings are split down the centre, and they are then cut into proper lengths and used for brush backs for the coarse brooms or brushes used by the street sweepers. All that is required in these is that the mould should be free from knots, straight, and without twist. As the freight from Brittany is very high, and as this class of wood is so plentiful and easily got at in New Brunswick, there should not be any difficulty in competing for the trade. In addition to these large orders are now open and were constantly offered to me for fancy turning such as door knobs, chemists' boxes in great variety, menthol core boxes, fancy boxes for confectionery, door stops, deck plugs, wedges, &c. In these lines there were not any manufacturers in Canada, so far as I could find out, capable of entering into the large contracts that were offered. The same might be said of tool handles in endless variety. Hay rake handles, pitchfork handles, spade and shovel handles are in constant demand. Bobbins and ships' blocks can only be sold where stocks are kept on hand ready for delivery. Many of the hardwoods are used by musical instrument makers, but they find the woods taken over in bulk (square timber) practically useless. Birch and maple are now being introduced for flooring purposes by some of the best firms, and the day is not far distant when it will be admitted that they are far preferable to pitch pine, at double the cost. Medical men are now recommending their use for hospitals, &c., on sanitary considerations. Another branch which is capable of development is carriage and waggon stock, and the oak, elm and ash of New Brunswick, if cut under the same conditions as in England or provinces, is equally well adapted for this purpose. That is, it must be the second growth, or more properly, such as is grown on partly cleared land, and where it has been subject to full action of the sun and wind for some years.

Offers were made by a number of carriage builders to give a guarantee to place all their orders for stock with Canadian manufacturers in preference to purchasing in the United States, and also that they would pay the same prices now paid in that market. Offers were also made by carriage builders and dealers to place the requisite amount of capital in a manufacturing concern in this country to enable them to carry on the trade successfully.

This branch would require exceeding caution to make it a success. It must in all cases be remembered that as far as oak and elm are concerned we have to compete against the wood from trees grown on the large estates in Great Britain, where they are fully exposed to the action of the sun and atmosphere, and that our ordinary forest growth will not answer. Ash is in some demand, and our ground on pasture ash was carefully tested by some of the woodworkers in London and very highly recommended. The best quality of hickory can be obtained readily from Ontario, and could be manufactured here with the other woods. Basswood is now being more and more largely used for carriage bodies.

In other branches several of our woods are coming into prominence, largely through the specimens shown at the exhibition. Among these the most important will be the use of cedar for coopers' work, particularly for water tanks, also for use in breweries, &c. There were a very large number of inquiries regarding this wood, and I understand that some very considerable orders have been placed in New Brunswick already. Birch staves for barrels also drew considerable attention.

Excelsior (wood fibre) for packing and upholstering is gradually coming into use in England, could be readily sold were it possible to deliver it there at a reasonable freight. This

item prevents any successful shipments at present. Although there were not any specimens of chemically prepared or other wood pulp, shown from New Brunswick, still a number of inquiries regarding this article found their way to me through my identification with the other wood trade.

There is a very large and growing market for this material, and provided it can be manufactured on a sufficiently cheap scale to meet that now produced on the European continent, a quick market could be found. The necessarily limited space allowed for this report prevents my going so fully as I wish into the details of the wood trade, which is quite capable of great extension.

THE ABUSE OF MACHINERY.

THERE is hardly any line of business in which machinery, and machinery of a high class, cuts a more prominent figure than in the manufacture and manipulation of lumber. No important part of the work that is put upon a piece of timber, from the time it leaves the water until it is delivered to the consumer ready for use, is accomplished without the use of machinery. There is little to a saw mill, or a planing mill, or a door, sash and blind factory, or, indeed, any wood working establishment, beyond an aggregation of machinery for performing the multitude of operations to which the raw material of the trade must be submitted to fit it for consumption. The purely manual labor expended on lumber in any stage of its progress is chiefly employed in its handling, and this is often accomplished through the aid of devices which make it unnecessary for the workman to lay his hand upon the wood.

It is possibly this very fact—that so much can be done by machinery—that has led to the employment of cheap and clumsy hands to partly do what it requires brains and skill to do thoroughly and well. Be this as it may, there is no one who has had much experience in saw mills and planing mills but knows that a large proportion of the machinery therein is every day subjected to more or less abuse. It is the abuse, not of intention, but of ignorance and incompetency, and for that very reason the hardest to deal with. It is difficult to convince an ignorant man that his knowledge is not as wide as the universe, and to demonstrate to an ignorant but conceited man that he has anything to learn is well nigh impossible. Such men are very often employed to run machinery, and to any one who will calmly and intelligently consider what the probable result must be, it cannot be a matter of wonder that they make a mess of the job. So much is this felt by machinery men, that they are frequently doubtful about introducing new devices, fearing that the careless and incompetent he, along they will receive from the users will condemn them, and manage the reputation of the makers. The inventor and manufacturer of a very novel and useful device, which accomplishes rapidly and cheaply a part of the work of lumber making that now depends chiefly on the main strength and awkwardness of muscle, while in conversation recently, spoke of the slow progress he had made in getting his improvement into use. "Yes," he said, "it's a good thing—there are plenty to admit that—but they are shy about using it; it's machinery, you know, and it's pretty hard to get the best machine well used. It will do the work, and do it well and cheaply, and the machine is simple and not easily injured, but still it is a machine, and the cheap, ignorant laborers who are trusted with it, know more about getting such a thing out of order than all the mechanics in the United States can learn about getting it back again. I am not pushing my apparatus into the market, because my experience in this way has been so discouraging and unprofitable."

For this condition of affairs it is unquestionable that those who buy machinery, and who employ the men who run it, are most to blame. It is too frequently the case that they look more to the price a man asks for his labor, than to his ability as an operative. The saving of a dollar a day in the cost of labor is palpable and fully appreciated; the loss in time and in damage to an expensive piece of machinery is obscure and less easily apprehended. More often than otherwise, if a machine runs badly, and is much of the time out of repair, the blame is put entirely upon the maker, when if the mill owner would get at the naked truth he would find that the machine is all right, but is so improperly handled that good work is out of the question. Said the manager of one of the largest planing machine establishments in the country, the other day, "there are few mills in which our machinery is running, that I can go into without fear and trembling. I know, in most cases, I shall find something wrong; and the chances are, of course, that the blame will be put on the machines. I could name scores of mills that do not get within a large percentage of the work out of their equipments that they are capable of doing, just because the men in charge do not know their business."

It avails little for a machinery manufacturer to use the best materials, and have them put together with great care and skill, if some incompetent, twelve shilling a day laborer is to