

DOES CHARRING TIMBER PROMOTE DURABILITY?

The general belief has long been that it does, and in accordance with this conviction the practice has been widely followed. But a contrary view of the subject is taken by *Wood and Iron*. That journal says in a recent issue:—As charcoal would endure for ages in places where timber would decay speedily, the practice of charring the surface of fence-posts and other timber has been repeatedly recommended in books and ephemeral publications, as eminently worthy of universal adoption.

The imports from the 2nd up to date to London amount to 53, of which 30 are steamers, and include five pine laden vessels from Montreal, the *Orele*, part deal laden, and the *Capulet*, with 60,000 deals, for Messrs. Bryant, Powis, & Bryant The *Crown Prince*, from Pensacola, with sawn timber and planks, for Mr. G. M. Freebody, has gone into the Surrey to discharge, having delivered a parcel of cedar on the Middlesex side. Amongst the largest of the Baltic steamers is the *Kotka*, from Cronstadt, with deals, for Messrs. Simson & Mason. Taken altogether, the import is a full average one for the time of the year. A larger portion of these cargoes than usual, we notice going overboard, the endeavour being to save possible dock expenses.

The same is true of railroad ties, and all such timber as may be exposed to the alternating influences of wet and heat. Could the entire timber be changed from its perishable condition to one solid piece of charcoal, the durability would be promoted to a surprising length of time; but the strength of the material would be destroyed. When fence posts or other sticks of timber are exposed to the rapid action of wet and heat, the surface will decay first. One might suppose, therefore, that when timber is enveloped by a layer of charcoal, the durability of the entire piece would be greatly promoted. And such would be the case were it not for the fact that the charcoal is not impervious to water; and as water reaches the timber below the charred surface, decay will commence soon after the grain of the wood has been exposed to the influences of the weather. When the change has once begun beneath the charred surface the durable covering of coal will be of no service whatever in preserving any portion of the wood. Taking this practical view of the subject, it will be perceived that if only half an inch of the outside of a post be charred, the post will not endure so long as if the same thickness of wood had been left uncharred, to waste away by slow decay.

TREE FELLING BY MACHINERY.

Machinery and steam power have been adapted to almost all the operations of lumbering but one—the process of cutting down the trees. For that purpose the axe, swung by the strong arms of experienced men, has not in America been superseded to any appreciable extent by any mechanical device. To be sure the immense trees of the Pacific slope are cut through by saws, but the saws are worked by hand, and even cross cut saws have not displaced the axe, except where the size of the trees made it necessary. At least one tree felling machine is used abroad, made by a London firm, but it is not to be found in this country. Perhaps it was the success of the English machine that induced William E. Hill, of "steam nigger" fame, to invent a similar contrivance which he offers to the American saw-mill public. Its main part is a steam cylinder five feet long, five inches in diameter, with a bore of four inches, and having a piston stroke of thirty inches. The machine stands upon low skids, and by means of trunnions and a swinging table can be adjusted to any position desired. The front end of the cylinder has a swivel head with a stuffing box, to which the slides are fastened, thus allowing the saw to be turned to make cuts at any angle. The machine is anchored by dogs to each side of the tree to hold it steady while in operation. The success of such a device, besides mechanically correct construction, depends principally on its cheapness of operation and the quickness with which it can be moved from one tree to another. Its weight is 425 pounds, and it is driven by a 2-horse power steel boiler. The machine is evidently powerful and efficient when once in action, but the cost of operating it must be demonstrated by practice experience.—*Boston Journal of Commerce.*

The Fort William, Ont., *Echo* says:—The lumber trade on the Kaministiquia is one which is deserving of considerable attention at the hands of district journalists. Few residents are aware of the amount of money and labor expended in producing the material which so largely enters into the construction of their churches, dwelling houses, stores, hotels and public buildings, yet a visit to the mills down the river would open the eyes of very many to the importance of this growing industry. At the mill of Graham, Horne & Co. a busy scene presents itself to the eye of the visitor. Saws and planers keep up a busy hum ' from morn till dewy eve,' 30 men are constantly employed and 10 more are wanted in consequence of the rapid growth of their business, their shipments reaching nearly all points in Manitoba and distant towns in the Northwest. As an illustration of the rapid development of their trade we may mention that where last year they only had one little drying shed they are now engaged in erecting several others the total length of which will be 1,000 feet. This fact speaks for itself and needs no further comment at our hands. Messrs. G. H. & Co. are doing well, and the energy which they are displaying in extending their trade relations show that industry, perseverance and talent can do much when well applied.

The Nebbing Lumbering Company also proposes to extend their operations, but will most probably confine themselves to the production of shingles.

We don't fatigue readers with figures, but leave the statisticians to figure up the probable amount of money that is being and is likely to be expended by the Kaministiquia lumber dealers in prosecuting their calling during the season of 1886-87. Sufficient, however, has been shown to prove that the lumber trade of Fort William is rapidly increasing in volume, and from past and present experience can be worked up to a much greater extent by the infusion of new capital and energy.

This is a wise step and one which we hope to see followed in order and more wealthy districts, as by so doing the lumberman will not only assist themselves but will also help Dame Nature in her efforts to present to the visitor a series of panoramic views unbroken by the disfigurements which result from forest fires.

"Business is good with us," said a dealer in woodenware to a reporter the other day. "but prices are so low that it requires an immense number of sales to amount to much in dollars and cents. Competition has lowered prices considerably, but there is another factor at work upon the prices of woodenware, which does not affect any other articles to an equal extent."

"Machinery. Lathes have been invented to turn out almost anything in our line and other machinery has been perfected, until the wooden ware manufacture is almost entirely done without the aid of man's hands. Now take butter trays for instance. The tree is cut down and shaped by taking off the bark. Then it is run through a machine which cuts it into veneers about the right thickness for the tray. Then these veneers are sorted and the sound ones are cut by a stamping machine into the right size.

"What woods are employed in the manufacture of these trays?"

How much are those pairs?" asked the porter, pointing to some three-legged wooden pairs that were piled up in one end of the store.

"They are quoted at \$1.15 for dozen in New York," was the reply, "a price which seems incredible unless you know how they are made. Wooden shoes, the size intended for the pair, are fed into a machine and come out at the other end a complete pair, with three legs fastened on even better than could have been done by hand. Another machine pairs the pairs both inside and out, usually whitening inside and an oak tint out on the outside. Wash tubs are made on the same principle and are sold at the factory at the rate of \$2.25 a pair, representing the different sizes in general use.

"It is the same with nearly every branch of our trade. The genius of man has contrived machinery which can cut wood into every shape and shape conceivable, and the result has been the rapid decrease in prices, until a whole lot full of stuff represents but a few thousand dollars, and what several years ago would have netted a profit of a million would scarcely to-day a profit of a thousand. But I guess we have reached bed rock. If prices fell much lower the present figures we would be selling goods for less than the wood in the rough would bring."—*Lumberman's Gazette*.

The highest chimney yet built in the world has recently been completed at the Messel lead works in Germany. The whole height of the structure is approximately 440 feet, 11 of which is underground. The subterranean portion is of block stone, 37 feet square up all the rest is of brick. The plinth, or base part of the chimney above ground, is 34 square, so that the height of the shaft is thirteen times the lower diameter. For 34 feet the chimney continues square, then comes octagonal in plan for a little distance, finally changes to a circular form, retaining this shape to the top. The exterior diameter of the shaft at the top is about 11½ feet. The shaft is 6 feet in diameter at the bottom and 10 feet at the top. Until the completion of this chimney, of the St. Rollox chemical works, near Glasgow, which is 434 feet high, was the tallest in the world.

AMONGST other things British Columbia, that the celebrated for its Douglas Pines, many of any are too large to be disposed of by an saw mill. Recently four logs were sawed and milled at Vancouver. Their dimensions were as follows:—

1 log 62 ft. long, 40 in. diam., congtg	52
1 log 53 ft. long, 44 " " "	50
1 log 36 ft. long 55 " " "	50
1 log 24 ft. long, 56 " " "	46

THE Quebec Chronicle finds the market to be even duller than it usually is this season of the year. One raft of timber, about 47 feet average length, at 16 cents. In deals there is little doing, the sales in the principal markets of Great Britain are being effected at prices entirely low to pay shippers. Pine are not so much enquired for as they were, and spruce are of sale.