

EXCHANGE ECHOES.

The Timberman, Chicago.

Whether the log stock that is to be put in this winter will be equal to or exceed that gathered last year, is a question already exciting interest and comment among lumber makers and lumber dealers. Up to this time, all the signs point to the conclusion that there will be no decline in the output, notwithstanding there are in many of the districts in which large operations are carried on, a good many old logs that still await sawing, having, unluckily for their owners, been held back by low water in the streams until past the time for conversion into lumber this season. All over the pine territory, it is reported that extensive preparations are making for the input of logs, the news evidencing the fact that the sum of the loggers' intentions is, as it usually has been, to get in all that he possibly can, with the time, timber and means he has at command.

Mississippi Valley Lumberman.

A despatch from Calais, Me., recounts a curious complication that has arisen at Baring, in that state, over lumbering. The custom house officials there have seized a large amount of hemlock lumber, owned by H. F. Eaton & Sons, for alleged violation of the revenue laws. The lumber was manufactured and planed in mills now situated on the Canadian side of the river, but the owners claim that when the mills were built they were on the American side, and that time, dams and improvements have changed the course of the river. Some sixteen years ago the question of location arose and the authorities decided that the mills were American, and the present move is a great surprise. The mills have been shut down until a treasury decision can be obtained. If the present tactics of the customs officials continue it is the opinion of the best informed citizens that it will ruin the business of the American side of the St. Croix river.

Timber Trades Journal, London, Nov. 19th.

Up to the present we hear of nothing of consequence having been done in the f. o. b. trade in the English market for next open water. We expect London importers, who have been a bit cautious this year, will be encouraged to buy, owing to the moderate consignments which the closing season brings. The opinion seems to be that the first transactions for next year will be in flooring to the outports; but in the London markets are excessive, and buyers will certainly have no need to hurry into cargo transactions. It is expected that there will be a scarcity of whitewood—though this is an unusual thing at the European ports—which, coupled with the advance in freights, will lead to a corresponding advance in the delivered price of flooring. It is possible that with the opening of the season lower freights may be quoted, notwithstanding the serious loss of Norwegian ships caused by the recent gales; but the large quantity of goods wintering will stimulate the demand for tonnage as soon as the shipping season begins.

A Cheap Steam Box.

In nearly every shop, some form of apparatus for bending wood would be often used were it available. Where steam is at hand, there is not the slightest excuse for not having a steam box for use in wood bending.

Steam is so scarce in some shops, where the work is too great, and the boiler and engine too small, that the exhaust steam must be utilized. In a number of cases the writer has successfully used the exhaust for this purpose, by building a perpendicular box of plank and making doors for the introduction of the wood to be steamed.

In many shops the exhaust steam is allowed to escape from the end of a horizontal pipe and no notice is taken of what the steam comes in contact with during its absorption into the atmosphere. In all such cases the steam box will be a benefit in the preservation of surrounding buildings alone.

The steam-box in question was built of two-inch white pine planks, each 14 inches wide, two of them rebated upon their edges $\frac{3}{4}$ by two inches to receive the edges of the remaining two planks. This steam-box was 16 feet long. One foot from the bottom, a head of two-inch plank was cut in and finally nailed. This head was bored three or four times with a $\frac{3}{4}$ -in. bit, to allow the water of condensation to escape. Just above the head, as the box stood on end, a hole was cut to receive the end of the exhaust steam pipe. A cast-iron flange was bolted to the steam-box and the pipe screwed into the flange, but if the exhaust pipe be of cast iron, the threaded flange may be dispensed with, and the cast-iron pipe bolted or lag screwed direct to the wood.

The plank forming one side of the box is not nailed into its rebate. Instead, it is cut into three feet lengths, excepting the top length, which is four feet long, and together with the bottom piece is nailed in place, leaving three loose sections of three feet length each. These sections were hinged on one edge and made fast when closed, by pins of wood, one to each section, which were placed in holes bored through the rebated plank, into the hinged section.

The box in question was fitted with iron hinges—common

eight inch hinges, the end of each hinge being bent around the corner of the rebated plank. If the writer ever constructs another steam box of this kind he will use brass hinges, so they will not rust out, a thing the iron hinges will do in six months unless they are kept well greased or tarred.

Suppose the stop moulding of a big circular window is so made. This moulding can be got out straight, and bent into place by sawing into one side at regular intervals. With the steam box this moulding can be got out straight, steamed half an hour, and forced upon a form there to remain until cold.

A convenient way to make a form or mould is to cut out of plank, with a band saw, the shape desired. Now, nail pieces of board upon each side of the plank, letting the ends of the boards project six or eight inches, and placing them directly opposite each other. These bits of board must be distributed at the parts of the mould requiring pressure to be applied, and the location of these boards will call for the exercise of considerable judgment. Get a supply of common framing pins, and bore holes through the bits of wood large enough to allow the pins to pass freely. $1\frac{1}{8}$ -inch holes should be made for one inch pins, which are large enough for any ordinary work. Bore the holes just far enough from the form to allow the pin to go in, after the piece to be bended is in place. For $\frac{3}{4}$ -inch stock place the worm of the bit 15-16-inch from the edge of the plank form.

Stock to be bent should be left considerably longer than its finished length to allow plenty of room at the ends for the removal of poorly bent material. It is very hard to bend the extreme ends of the work, especially where the work is placed upon the convex surface of a mould. The convex side is usually used because the work can be easily forced into position thereon. To force work into the concave or hollow side of a mould requires enormous leverage and much time. It can sometimes be profitably done in the case of small, light work, and when the stock must be bended close to the ends of the various pieces. When concave moulds are employed, it will pay to make a follower, or convex mould to fit the hollow mould. This is forced against the stock to be bended, and when both moulds are in contact with the work, sufficient pins are inserted to hold the moulds firmly together until the work is cold.

A cheap and efficient mould can be quickly made by sketching the desired shape on a plank, then boring holes at certain points and inserting pins therein. The steamed stock can be sprung between three of the pins, then others inserted until the work is brought to the desired shape. This method answers well for thick, heavy pieces, but with thin delicate stock it does not give satisfaction owing to the liability to *knick* or bend abruptly where the pins engage the stock.

The several doors in the above described steam box, are for putting in different lengths of stock, one or more of them being opened as necessary.

A fine box nearly like the above, was seen by the writer in an eastern shop, but instead of standing vertical it lay upon its side, and the stock was inserted and removed at one end. In this case, the steam entered and was removed through wrought iron pipes five inches in diameter.

Small shops in which steam is not employed, make good use of the above described steam-box and generate steam in a 10 or 12 gallon iron kettle or pot. A wooden top is fitted to the kettle and cemented therein with "elastic cement." A pipe leads to the steam-box, and the kettle is supplied with water through a hole in the wooden top, after which the hole is closed with a plug. Although not as quick as the first box, this one will do good work.—James Francis, in *Woodworker*.

Something About Cordwood.

Ever since the country newspapers began, in a wooden country, to enlighten the hewer of the forest or to tell the agriculturist how to "tickle earth with a hoe that it might blossom into harvest," the subject of cordwood has possessed interest for the weekly writer. Abnormally-sized eggs, supernatural pumpkins, luxuriant garden-grass, even over-corpulent hogs, never seemed of so much moment in the sanctum, what ever they might be to the grower, as a good supply of hickory or beech fuel.

"The graceful elm, the energetic oak.
The red-leaved maple and the slender pine."

which a Canadian poet lovingly describes have all served, from time to time, to warm the hearts and toes of Solomon of Streetsville and others of his guild, and to awaken their thanks for such remittance in kind. But it has been reserved for the poet philosopher of the Bobcaygeon *Independent* to evolve, in a reverie, kindled by the flames of ash or elm, such a poem in praise of cord-wood as we clip from his last issue. Whether regarded from a poetic, economic or even a merely spondulic point of view, this idyl concerning one of our great staple products cannot but be interesting. Before he scans it, let the reader think of the learned and genial writer sitting, meditatively, as a Canadian-Ike Marvel, at his back-log fire,

pondering, first, the SMOKE, signifying DOWN (whether his sticks are going to burn) FIRE, signifying CHERR (at his having got even with another subscriber) ASHES, signifying DESOLATION (of fears whether he is going to have enough of such fuel for the winter.) Now he sings:

"The summer is over; the autumn leaves have fallen; the pulse of Nature beats feebly and slow; Arcturus is poised high in the northern heavens; Aurora has flashed her gleaming rays of violet and of gold from pole to zenith; the icy breath of the paleocrystal seas has been borne in upon us, and what about our cordwood? Ay, what about our cordwood? That is a very important matter, and every year it increases in importance, for the sources of our cordwood become fewer and more remote. There is not so much cordwood left in Canada as is commonly supposed. Of the thousand of miles of railway operated by the Grand Trunk Company the Midland is the only division that runs through a cordwood country, and only a portion of that division can supply fuel in considerable quantities. The city of Montreal is even now suffering from a dearth of cordwood. The price of wood in Montreal last week went up 50 cents a cord owing to its scarcity. Maple in Montreal is selling at \$8 a cord, birch at \$7.50 and beech at \$7. A large dealer has publicly declared that there is no cordwood to be bought throughout the country. Toronto has for its chief sources of supply the Victoria branch of the Midland, the district around Penetanguishene and the new extension of the Northern Railway. Two or three years will make a great reduction in those sources of supply, and then there will be the same condition of affairs in Toronto that now exist in Montreal. There are several facts connected with the cordwood trade which deserve notice. The wood itself is of no value. It realizes nothing. The man who cuts the cordwood, let us say on the Victoria branch, obtains \$2 a cord delivered on the railway. That \$2 is merely the value of the labor expended in cutting the wood and hauling it to the line, the wood itself counts for nothing, the man who cuts it giving the wood gratis. When the wood reaches Toronto it sells for \$5 a cord, the \$3 being consumed in freight and profit to the dealers. This is a subject upon which Toronto citizens would do well to reflect. The wood difficulty is becoming serious. They require a great heap of wood. Let them lay their heads together and the difficulty will be overcome."

But again, if cordwood as the years roll on, is growing scarcer, —and our worthy statistical brother in the neighborhood of Cobocook University, has shown that it is, he should be glad to find it growing more valuable to the farmer, the druggist, the builder, the scientist. The possibilities of cordwood are not yet all grasped. Paper, we know, is made from it; works of art are modeled from the dust of it; chemistry has found many recondite qualities in it. But there are more wonderful things still. Talk of dainty butter made from the scrapings of the London sewers, of handkerchief perfumes from crude petroleum! Something quite as remarkable is going on to-day at Cadosia, in New York State. At that place, hardwood is now distilled in large works erected for this purpose. From the distillation there is produced, 1st alcohol; 2nd acetic vapors which being mixed with lime, forms acetate of lime; 3rd, tarry matters and naphtha; 4th heavy tar used as fuel, and 5th, the refuse, which is fine charcoal. No more let the Northern sage say there is no value in wood that "it counts for nothing." In the light of what has here been said (and sung) about the hard timber of the forests, surely there is, within the reach of every possessor of a belt of wooded land, to quote the words of another sage "a potentiality of wealth beyond the dreams of avarice." *Monetary Times*.

Grinding vs. Filing Saws.

The majority of sawyers now grind their saws. It is quicker than filing, is cheaper, and leaves the saw in good shape. Some say "grind square across," and we have tried it, but we think it is better to have the front teeth a little "fleaming," even for hardwood, and more so for soft. According to our principle, as laid down in our cutters, this should be so. Saws that are filed by the average shop hand often look as though they could "gum it" better than they could cut with their teeth. Don't run a saw with the teeth half filed down; gum your saws and keep them gummed. Some room must be left for the sawdust to fall into as the teeth cut it out. Give the saw a liberal set. If you are afraid of using up too much lumber, get a thin saw. Thin saws are the ones to do the work, but they must be kept out of the hands of cheap men. Many shop-owners have the idea that it is a saving to have one man furnish the brains to run the shop, and hire seventy-five-cent men to run the machines. This works well enough in theory; but in practice cheap hands will run every knotty or poor piece of stock available, and the cost of keeping their machines in order is more than equal to the amount saved from their pay. Put the best men in the shop that you can get. Establish a set of premiums for better work, and better methods of doing it, and your shop will pay. *Mining and Scientific Press*.