THE CANADA LUMBERMAN

VOLUME XVII. NUMBER 7. | TORONTO, ONT., JULY, 1896 | TERMS, $1.00 PER YEAR. SINGLE COPIES, 10 CENTS.

SPOOL-MAKING.

THE making of white birch spools has of recent years become an important industry in some parts of New Brunswick and the Eastern States. From the Lumber World, of Buffalo, we obtain the following description of the method of manufacture:

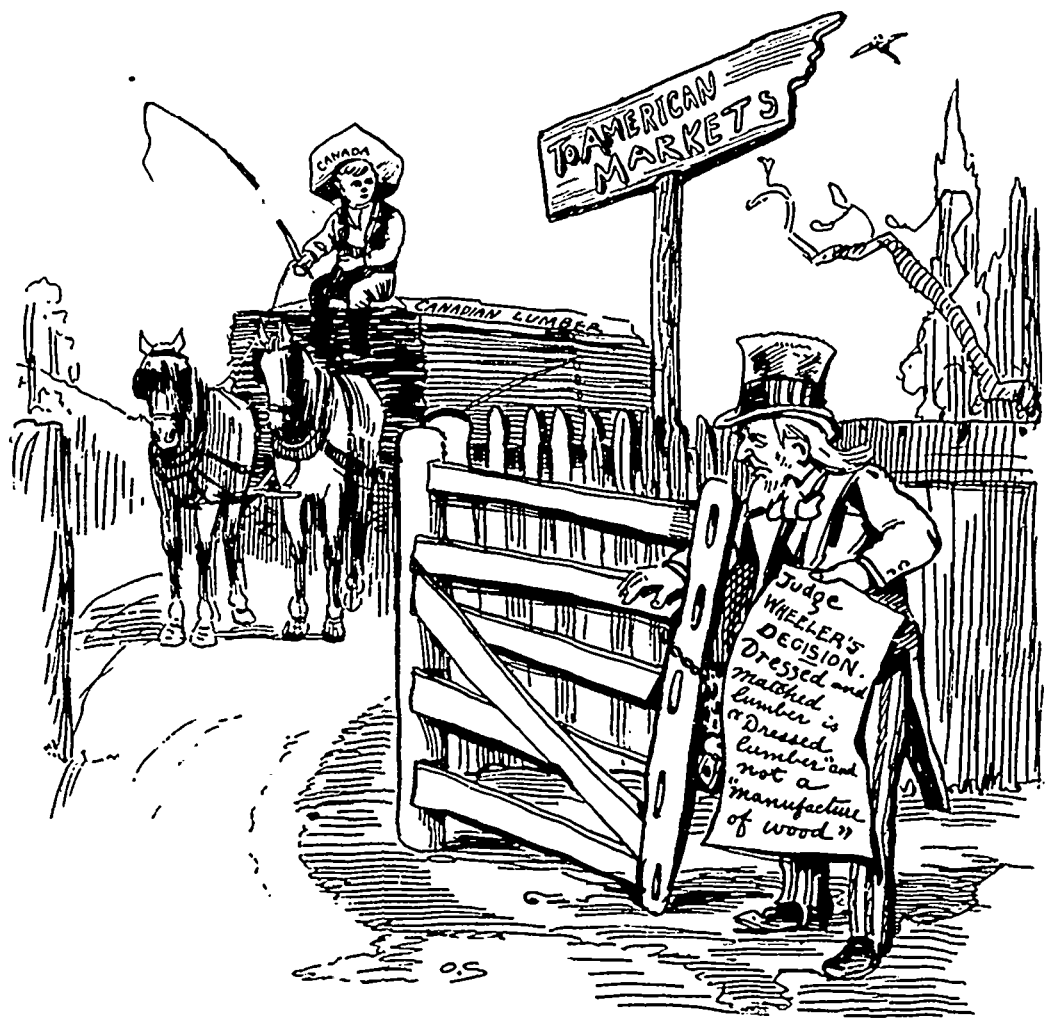
The rough sticks are sawed into bars an inch to 2½ inches square and four feet long. These bars are piled in high stacks out of doors and left for about three months to dry and season thoroughly. Then they are stacked in the dry house. There are three dry-rooms in the mill, each about 16 feet square. Here the birch sticks are left generally for about six hours, or until they become thoroughly dried. This process of drying is of considerable importance. When the wood is taken out of the dry-house, it is ready to be used. Workmen take the four foot sticks and cut them up into blocks the length of the desired spool. The machines they use are called roughing-machines, and the men are known as roughers. The long stick, in less than a quarter of a minute, is cut off into proper lengths. These blocks have been bored throughout, and their eight corners are rounded off. From the roughing-machines the "blocks," as they are now called, slide down into barrels and are carried across the mill and dumped into huge bins.

From the bins the finishers shovel out the blocks as they need them. The finishing machines are marvels of mechanical ingenuity. Sets of keen knives are so arranged that, by one movement of the attending workman, a rough block is turned into a spool that needs only polishing to make it perfect. And the entire change has been made in less than a second. The spools are made to polish themselves. Sixteen barrels, two feet in diameter, made of slats and bound together with steel hoops, are filled with spools. A cake of wax is thrown into each, and then all are made to revolve by means of pulleys and belts. It generally takes about two hours for the spools to become polished by their continual rubbing and chafing against one another. The lump of wax rubs against them and aids in making the spool smooth.

From the revolving barrels the spools are turned into boxes ready for shipping. But they cannot be pronounced perfect until the gager has inspected them. Armed with steel gages which measure exactly the proper size of the spool desired, the gager picks out several spools from the box before him and measures them. They must fill the gage exactly. There are 15 different sizes of spools made at the mill. The 14 smaller sizes are made by the same process, but the larger size, called a bobbin or long-length spool, has to be made in pieces. There are three of these pieces, the "barrel" and the two ends or heads. The barrels are turned from white birch sticks about two feet long and from two to 2½ inches square at the ends. The heads are fashioned from blocks that are from four to five inches square at the ends. What they call a Weymouth lathe rounds off the big blocks. Then the parts are taken to another machine, where they are glued and driven firmly together. The gluing is done by hand.

The freshly-glued bobbin is taken to a third machine which drills holes in the two heads. Then stout pegs are driven in, and the bobbins are taken to the dry-house to remain until the glue has become hard and firm. It is then the finishers turn to take the big bobbins in hand, and when they are done with them, the clumsy-looking sticks have been fashioned into perfect bobbins that need only a little sandpapering and some shellac on one end to be called finished. One has little idea of the amount of waste that is made in a spool mill. When the roughers start in with their long sticks, there are knots and bad pieces that must be cut out and thrown away. It is the easiest thing in the world, with machinery that is whizzing and whirring so fast that the eye cannot follow its movements, to bore a hole a little from the centre of the block or make some other slight mistake, and then the block is of no further use and is thrown in with the waste. Sometimes the finishing machines run so fast that the heads of the spools become the least bit scorched and colored. That is enough to make the spool imperfect, and it is thrown away. There is a constant picking out of bad pieces and throwing them out, all through the process of making spools. Over half of the lumber brought into the mill is thrown into the waste heap.

THE OPENED GATE.



UNCLE SAM:—"Well, after Judge Wheeler's decision, I s'pose I'll have to let you in and call that load dressed lumber."

YOUNG CANADA:—"If you'd called it anything else, I'd have called your head a manufacture of wood."

STRENGTH OF WOOD.

"As a result of nearly 40,000 tests of timber made at the laboratory of the Washington University of St. Louis, under the direction of the forestry division of the Department of Agriculture," says Railway Engineering and Mechanics, "the following facts have been determined: Seasoned timber is about twice as strong as green timber, but well seasoned timber loses its strength with the absorption of moisture; timbers of large sections have equal strength per square inch with small ones when they are equally free from blemish; knots are as great a source of weakness in a column as in a beam; bleeding timber does not impair its qualities."

With some kinds of piston rod packing, when the engine stands still over night, there is a deposit of packing and rust on the rod where the packing comes in contact with it. This evil may be greatly lessened by locating a sight feed oiler so that it will drop cylinder oil on the rod continually while running. Give it a trial.