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**PLANING MILL PRACTICE.**

WHAT do we do, or what can we do, to make all of our planed stuff of uniform thickness? Every man for himself and every mill for itself seems to be the motto and way of doing business, each having a style and thickness of its own, and each varying a little. Some have a way of making their work just a little larger, and anything that does not plane up at that goes one-eighth of an inch thinner. Another mill has a way of making its stuff a little thin, which picks up all these thin boards and everything goes into what they call a standard thickness. That is the standard for that mill. But, to be more particular, what do these individual mills do to make their own stuff of their standard, uniform thickness? Every man, when he first starts up, takes up his rule and tries one edge and then the other, to see if both sides are alike, and if one edge is a little thicker than the other, he stops, and if he is running two sides he raises or lowers the pressure bars till he gets it right, and then proceeds. But just as likely as not when he measured the first time his rule, instead of being straight across, was held at an angle of several degrees, and the board was really thinner than he thought it was, and when he comes to measure again the fault is corrected, and now he finds it wrong because he was wrong himself the first time he measured it, and the adjustment has to be all overhauled again. Finally it goes right, or, at any rate, it goes to suit him, and he goes on with his work.

Many persons carry one of these little caliper rules in their pockets, which is well enough in itself, but generally they have been carried so long that the figures are all worn out and they have to rub the bar in their hair to draw out the figures, the same as I have seen people rub the old four pences and six-pences to show the bar on them.

The way of measuring stuff to see that it is of the right thickness when we first start up is the correct way, but the way rules are often used is anything but what it ought to be, and a great many times makes the stuff anything but of a uniform thickness.

If we should take a solid gauge for thickness and slip it on to the edge of the board we should find that our rule measurements were very far from being a perfect thing.

If any person will take the pains to measure the stuff he is planing with a rule, and be as exact as he can, and then take a solid gauge made of some kind of hard wood or metal, and he will see that the ordinary measure by a rule is quite a ways from being perfect, and yet we are surprised to see that boards will show quite a difference when measured by a solid gauge, and when they are piled up the pile will stand square.

We all (or most all) of us watch the pile as it grows higher and higher, and when it goes away from the mill, and if it piles up square we "root the case" and are satisfied that the mill is running right. But, as I have said, if we take this same pile and slip a solid gauge over each edge we shall more than as likely as not find that it will show it to be quite a ways from both edges being alike.

Now, while I shall argue that all stuff, wherever planed, should be of one thickness, i. e., that  $\frac{1}{2}$  inch should be just  $\frac{1}{2}$  inch every where, and  $\frac{3}{4}$  should be just that anywhere we may find it, or  $1\frac{1}{2}$  should all be that, no matter who planes it or where it comes from. If we are to have 15 16 lot it all be of a uniform thickness, and not be 1-32 scant or full, as the case may be, according to the mill it may come from.

Well, how are we to get at this uniformity? We all know that under the present conditions it is next to impossible

to do it. We might as well try to bring order out of chaos as to attempt any such thing under the now existing circumstances, when everybody "paddles his own canoe."

Lumber conventions get together and talk up matters of interest in their business where dollars and cents are concerned, but I never have seen or heard of their talking up anything of this kind, notwithstanding I do think this and some other like things would be matters of interest to talk up when planing mill men have their big talks.

As an operator, I can see why it is next to impossible for every board in a lot (unless it should be a small lot) to be of the same thickness. You see, a man starts out on a lot, say 10,000 feet of boards, and he runs along till his knives get dull, and all the while his stuff is varying in thickness a little. The rule hardly shows it, but if a solid gauge is slipped over the edge it will show very plainly there is a decided change in thickness. Well, he runs till he thinks it best to sharpen his knives, and after sharpening starts up to run the rest of the lot. Perhaps he don't even try the thickness by rule, but if he did, the difference was so small he didn't think it worth noticing, and works on till the lot is finished. Now the "almost impossible" comes in in the present arrangement of the parts of the planing machine. If the operator wants to alter just a least bit, he must let his board run out and come up with the tightening nuts and turn down perhaps half a turn and then turn up again till he guesses he is about right, and starts up. Maybe he is right and maybe not. If not, he tries it again, perhaps this time guessing. We have to come down to the fact that all these little alterations are little, if any, better than guess work.

A great many planers have a gauge to set them by when we are about to make any considerable alteration, but when we come to alter just a little or, as we nearly all say, "just a hair," then a gauge does not amount to anything, and we have to guess that we have lowered or raised the head about enough. We should have to do all of this even if we had the most perfect apparatus in the world for measuring the thickness of stuff, but if we had better gauges for making these measurements and paid strict attention to their use, I think planed stuff would be much more uniform in thickness. When nothing better is to be had, if we take a good, hard piece of oak and cut into it across the grain about two inches deep, just the thickness you want the stuff, you will have something that will last a great while and be very accurate. But the hardest of oak wears away finally, and gradually the standard becomes thicker, until we have to make a new oak gauge and reduce thickness to just the point we want it.

A wooden gauge is always more or less faulty, because in damp weather it absorbs moisture to that extent that it becomes perceptibly larger. I thought one time that I would have a perfect gauge to work two sides with tongue and groove in the centre, so I took a piece of hard maple and planed to pieces 5-16 and another  $\frac{1}{2}$  inch, and cutting the  $\frac{1}{2}$  inch in the centre in a way to form a tongue and groove, I glued the three parts together solid. I did have a nice one and as perfect as a wooden gauge could be, but I found by using a solid iron gauge for thickness that wet weather would make it quite a little larger. By using the two together I could, by watching out, make stuff very nearly all alike.

I have in my mind a gauge which, I think, would give good satisfaction to all parties concerned.

A bar of steel,  $\frac{1}{2}$  by 1 inch and about 6 inches long, ground and polished and marked like a rule thirty seconds on one

side and tenths and twelfths on the other. On one end of this bar should be a solid flat head, having considerable surface and projecting  $1\frac{1}{2}$  or 2 inches. On the bar should be a sliding head just as large as the solid one, and fastened firmly with a set screw. The movable head could be set to any point and would always be reliable in the scale on the bar was right, the thickness would be correct, and the tool could be used as long as any ordinary man would want to work in a planing mill.

If it went through the section fan several times or got into the furnaces a couple of times, where wrenches and lots of other tools frequently find a stopping place, it will become very much demoralized. If such a tool were in common use, as it ought to be, another ought to be bought for about \$1.50, which is the price such a thing ought to be made to retail for. We ought to have this for this work only, and not make it, as many other tools are made, with forty or fifty things attached to it. Say a saw set and glass cutter and can opener, a hammer and screw driver and gimlet twister and socket wrench. Tools work best that are made for and used for a special purpose and not for anything else. We think sometimes it is a gain to use a monkey wrench for a hammer, but if we do we very soon have neither wrench nor hammer to use, and have to beg, borrow, or buy both a wrench and hammer.

Now, I don't think a solid gauge to slip on to the edge of the board would cure all the ills that planing humanity is heir to or make every board from Maine to California of exactly the same thickness, yet I do think if they used to a greater extent than they are, and a certain amount of heedlessness was taken out of some of our handling and planing machines by some kind of patented process, there would be very much less grumbling among those who make the door and window frames and casings and other pieces of work where these are brought together and show their varying thickness, and I have to be trimmed with plane and chisel in consequence. J. T. Langdon, in the *Builder and Wood-Worker*.

**AN AMERICAN OPINION OF CANADA AND ITS RESOURCES.**

The following is taken from the *Mississippi Valley Lumberman and Manufacturer*, and is an instance of the feeling existing across the border, regarding the agricultural timber and mineral resources of Canada.

Last week we had occasion to notice the commencement of the construction of the Winnipeg & Hudson Bay railway, and alluded to the magnificent territory which extends from the great region known as British America, stretching in a broad belt from the Atlantic to the Pacific and all north of the Northern boundary of the United States to the Arctic seas. This has been a *terra incognita* to all the world except the Hudson Bay Fur Company, who carefully concealed its wonders from the public gaze for a century. A thin border of settlements stretched themselves out the length of the St. Lawrence River, and pushed their way west along the Southern British border until they have reached the Pacific coast. This belt of, say 100 miles wide and 3,000 miles long, has been demonstrated to be not only a habitable country, but one capable of sustaining as dense a population as the same belt across Europe and Asia does now. A quarter of a century ago a large part of this belt was reported to be an arid waste, so bleak and desolate that only farred animals and Esquimaux could inhabit it. Now Manitoba, Assiniboine and Saskatchewan are conceded to be the best rivals if not superlatives to Dakota and Montana as wheat producing countries. Van