
### THE COMMERCIAL SIDE OF WOOD-WORKING.

IT is important in running a wood-working establishment that the closest attention should be given to the mechanical departments of the business. If the machinery in use is not the latest and best, the business will be handicapped, and losses will be sustained. The day has gone by when, with an ancient equipment, the owner of shop or mill can keep alongside, much less in front, of his competitors. And it is encouraging to observe that so much attention is given to this side of the business in mechanical and class journals.

We would not want to see any effort withdrawn from this branch of wood-working. Let Mr. J. H. Miner, and the many others who have made a study of these questions, give to their fellow-workmen their best thought and work. But has not too little attention been given to the counting-house? First-class machinery, properly handled, will help to increase the profits, or to hold, at least, a fair margin in days when competition is at its keenest. But what of wise buying of products? What of shrewd business management of details in the counting-house and workshop? What of a wide and intelligent study of the markets where wood-working products are sold, so that the stock turned out shall be of a class that will meet the largest demand of the consuming public? What of giving thought to the lines manufactured, so that trade may be anticipated and specialties manufactured for which a good sale can be secured?

These questions all suggest a wide field of discussion. The matter of wise buying may of itself settle the question of doing a profitable business or not. The axiom, "Goods well bought are half sold," though applied usually to the realm of the retail merchant, has just as fitting an application to the manufacturer. Practically, in the present day when the profits of the manufacturer are whittled down so fine, he cannot expect to do a paying business unless he buys at close figures the raw material used. It is not enough that the owner of the average planing mill shall be a first-class mechanic himself and know when the stock is turned out that no competitor can get ahead of him in point of perfectness of manufacture. He must also be a business man, and have learned the art of buying his stock right, and know where to place it to the best advantage.

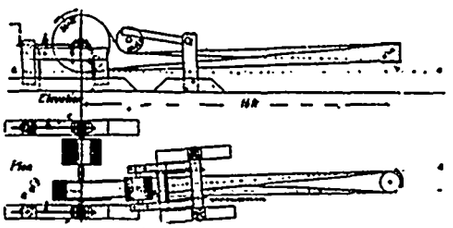
We have simply touched the fringe of the question; said that which is suggestive, rather than discussed any particular point. We are convinced that the business side of wood-working has had too little attention in the past, and the intention is, in this department of the CANADA LUMBERMAN, to deal with various phases of the question. We want to help the men who have capital invested in wood-working plants in Canada to make money by their ventures.

### COUNTERSHAFT FOR DRIVING A SHINGLE MACHINE.

THE accompanying drawings illustrate a method of putting in a countershaft for driving a shingle machine with an endless belt, using a "live tightener," and is thus described by a writer in the Wood Worker: One of the hardest places in the mill on a belt is at this place because we are limited to width and weight on account of the quarter-twist and speed, and when the counter and the tightener are not properly put in (which is more often than otherwise) the case is worse.

In the drawings the dotted lines at *a* show where to line from. The two three-quarter inch iron rods *b* have eyes through which the bolts *c* project; the other end is threaded about two feet, and with the crank-nut make it handy to pull the shaft back from the machine to take up the slack in belt while the machine is in motion. The bolts *c* have a shoulder just below the base of the box, which allows the nut to tighten on the eye of the pull-back bolts independent of the fastening of the box to the bridge tree, and makes the bolts rigid, so they will not catch in the slot cut in bridgetree for them to slide in. The two bolts in each box should be connected beneath the bridgetrees with a piece of ¼ x2-inch iron, the nuts being run up only so far as not to require loosening in order to use the pull-backs.

My experience is, the best belt for this place is a light double-leather, provided it is not exposed to the weather in the least; in damp places, or where the belts are not



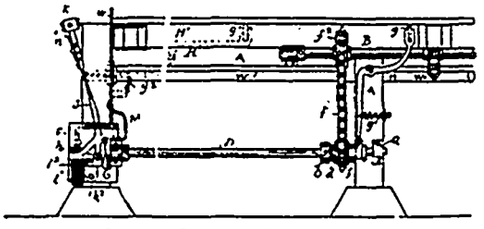
A Countershaft for Driving a Shingle Machine.

cared for properly, four-ply stitched gum or six-ply cotton (Gandy) may be used to better advantage, as with this method of taking up the slack at any time belts which have a tendency to stretch more or less are not such a serious objection.

The countershaft with the pulleys here illustrated should turn 600 revolutions per minute, giving a speed of 1,800 to the saw arbor with a twelve inch pulley, and a belt speed of 5,400 feet per minute, which is about the limit for good results. If it is desired to drive the saw faster, I should advise a smaller driven pulley, so as to not exceed this travel. I know I'm treading on dangerous ground here, but actual results of experiments at this place lead me to this conclusion.

I would recommend a distance of sixteen feet between centers as about the right thing; longer belts than those required for this do not seem to give any better results, while shorter lengths are a positive detriment to the life of the belt.

### NEW PATENTS IN WOODWORKING MACHINERY.



LUMBER STAMPING ATTACHMENT.

Patentee: John P. Reedy, Williamport, Pa., patented Ottawa, 6th February, 1895; 6 years.

Claim: 1st. The combination of a lumber sawing or trimming machine with an impact stamp located so as to swing in a plain at right angles to the line of feed of the planks and with mechanism for effecting a rapid vibration of said stamp whereby the marking of the ends of the successive planks can be effected without any stoppage in their forward movement, substantially as specified. 2nd. A controlling device for said mechanism having a portion projecting into the path of the forwardly moving plank. 3rd. With a lever carrying an impact stamp and located so as to swing in a plane at right angles to the line of feed, a cam acting upon said lever so as to carry its stamp away from the plank, a spring acting upon the lever so as to bring the stamp into contact with the end of the plank when said lever is released from the control of the cam and means for rotating said cam. 4th. A spring for bringing the stamp forcibly into contact with the end of the plank on its release and a recoil spring whereby the stamp is slightly retracted after giving its blow. 5th. A driving clutch for the shaft and a clutch controlling lever having a portion projecting into the path of the plank as the latter moves forward. 6th. A clutch controlling lever without a portion projecting into the path of the forwardly moving planks. 7th. Means for operating said cam and a structure carrying said lever and adjustable from and towards the face of the cam, so as to vary the extent of movement imparted by the latter to the stamp lever, all substantially as specified.

### RUNNING THIN CIRCULARS.

FOR a number of years, writes a correspondent of the Tradesman, I have been actively experimenting to find out how to run thin circular saws, without diminishing the output of the mill nor lowering the standard of quality. These trials have resulted satisfactorily and the results are worthy of more than passing notice.

In my charge at present are two circulars 76 inches in diameter, 12-gage at periphery, 9-gage at eye; two 11-gage at periphery, 9-gage at eye, 72 inches in diameter, and several 10-gage. These saws were purchased to meet the demand for a reform in the waste of the saw kerf. An experience of a number of years trying to meet this demand has taught me the coming circular for all classes of work is of 11-gage and dressed to cut scant 3.15 inch. If the mill men will give such a saw the proper attention it will surprise them and save them a great amount of money. The several things essential to make a thin saw run nicely are to give the saw plenty of teeth (not less than 90; in fact, for 72-inch saws, I run 100 teeth). The saw should be run not less than 600 revolutions, and should have plenty of power to back it up. It should be well opened close up to the teeth, leaving a rim of not less than four inches. The usual manufacturers' pamphlets should be avoided as far as to the proper manner in which to hammer saws, and as to the proper speed. The saw should be opened more at about 10 or 12 inches from the teeth than any other place, and good results will be obtained. Hammer the saw to the highest speed and do not be afraid to push it. I run a 11-gage saw as fast and crowd it as much as I can possibly do with an 8-gage.

I use the following rules: 100 teeth, with plenty of sawdust room, and line the front of teeth on a line just 10 inches from the collar, or close to it. I use a collar 14 inches diameter, with four lug pins close to the edge, and run the saw to its highest speed—600. I use a sawyer's governor and in hard wood or bad cuts slow the saw down so as to hold it straight. The saw is backed by a 16x20 engine, which runs nothing but this saw.

A board sawed properly with a circular will dress on less than band-sawed stock, and a circular will also cut faster than a band mill. To mill men I would suggest that they try a pair of thin circulars, giving them a little attention and experimenting to some extent with them. They will be surprised at the successful results obtained and also the amount of lumber sawed. Use a little judgment and avoid fake instructions given in "Sawyers' Guides," written by men who never operated a saw mill in their lives and who instruct others how to run their special brands of saws. Their ways may be all right in shops, but they do not saw lumber, and that is what saws must do. Recently we sent a saw to a well-known firm to be reground. The firm hammered the saw and returned it, with the instructions that it would not run if another gage was ground off. The saw was 12-gage and we only wanted it smoothed. How did this exalted gentleman (who had never run a saw in his life) get such universal knowledge as to dictate to mill owners what they should run? It only shows how little they know whereof they speak.