

MACHINE FOR CUTTING SLABS AND EDGINGS INTO FIREWOOD.

MANY lumber manufacturers have experienced considerable inconvenience in disposing of their lath edgings and slabs, owing to the difficulty in getting the material to the furnaces to be burned. This induced Mr. Kilgour Shives, of Campbellton, N.B., to design a machine for cutting slabs and edgings into firewood. This machine, of which an illustration is presented herewith, is said to give exceedingly good results. Referring to its construction, Mr. Shives writes as follows:

"This machine was built to cut 4-foot slabs or edgings into 16-inch or 12-inch lengths, as may be desired. It is a strong, heavy, substantial machine, built to do very heavy work and stand lots of rough usage. It is a self-contained machine, requiring only one belt to drive from shaft, the feed being driven by a small belt from end of arbors. The arbor is of 3-inch steel, and the driving pulley 12-inch diameter and 9-inch face. The saws are 30 inches diameter, and make 1,350 revolutions per minute.

The chains that carry the wood through the saws and the sprockets are very heavy for the work, No. 85 Ewart chain and F⁷ attachments being used. The saws, being on the arbor above the table, do not break as they frequently do when the saw arbor is placed under the table, and there is no danger of the operator being injured by pieces of wood flying towards him, as is the case when the arbor is placed under the table."

Mr. Shives is prepared to build these machines for any persons desiring same, and will be pleased to give further particulars and quote prices upon application.

A DOUBLE-ACTING BAND SAW.

The idea of utilizing a band saw so that a board will be taken off from the log at both the forward and backward movement of the carriage is not entirely new, although it has not been heretofore considered practicable. Now a Minneapolis firm claim to have attained success. They took an old discarded band saw and cut teeth on the smooth side. The double-acting band saw was then swung over the wheels of the Allis band on the "long side" and put in operation. At first the men on the carriage were a little slow in getting onto their job. It made them hustle to have to set the logs over at both ends of the track, but when they got used to it very little time was lost, excepting, of course, that the carriage would not return as fast with the saw cutting its way through the log as it would be in the old way doing no sawing at all.

The experiment was declared satisfactory, and next year the firm hope to be able to increase their output by 75 per cent. All the changes that will have to be made in the mill will be to move the sawyer's lever back a little to permit of the live rolls being extended between the two sides of the band saw, and along in front of the log deck for a distance of about 14 feet, in order to bring back the board sawed off on the return of the carriage. The live rolls will have to be extended to this distance. The reason why this method of sawing has not been successful hereto-

fore is the fact that it was not possible to keep the saw on the wheels. In other words, the tension was not strong enough at the right point. While sawing in the ordinary way, the large wheels of the band saw are tilted toward the log, and the saw is rolled a little shorter on the teeth side in order to hold the saw to the wheels. Now, with the log coming against both sides of the saw, it will be necessary for the wheels to be placed perfectly straight, but the face of the wheel will have to be made convex, and the saw will have to be so rolled that it will be longer in the centre, and shorter and having greater tension on the teeth sides. This will hold the saw to the wheels, no matter which way the pressure of the log is against the saw.

SECOND-HAND MACHINERY.

FROM various causes, such as death of proprietor, insolvency, fires, dissolution of partnership, etc., there is always a large amount of second-hand machinery for sale all over the



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country. The objective "second-hand," when applied to machinery, takes from it whatever of distinctive price may have attached to it when new. The further description that it is "as good as new" adds but little to its value, and if one has been used only a day, a week, a month, or a year, no wear may be perceptible, but it is logically true that much of its life and usefulness is spent.

There is perhaps more second-hand saw mill, wood-working and cooperage machinery for sale now than at any previous time. The improved prospects in the lumber, cooperage and wood-working trades are also creating a larger demand for it.

Very many widows and orphans have the most part of their inheritances left them in the form of machinery plants, either as whole or part owners. Where the surviving parties are competent to carry on the business successfully, and are honest, the widow and the orphans may secure an income. But at best the widow owner of stock in a machinery plant is at a disadvantage, and nine times out of ten it is better that she sell out and put her means where she can control it. Where a widow, suddenly bereft of her husband, is left a saw or planing mill or other machinery plant as sole owner, she will find it about the

most unsatisfactory of all species of property. She cannot operate it herself, and it is next to impossible to find anyone else who can or will operate it successfully, or who will take proper care of it. The remedy in such a case is to sell the plant as soon as possible. Of course, there are some widows who can and do operate the plants their husbands left them with fair success, but their number is but one out of two thousand. We can call to mind only two or three in all the southern states.

A large proportion of the idle second-hand wood-working machinery is the result of financial embarrassments. It generally falls into the hands of bankers or capitalists who advanced money to the original operator. As a rule the banker or the capitalist will hold on to the machinery in the hope of getting at least a large per cent. of his money back, until it so deteriorates that it becomes a question whether he can sell it at all. The writer has in mind one wood-working plant, consisting of a saw mill, planing mill and attachments for producing all sorts of finished wood-

work for the wholesale or retail trade, said to have cost originally \$25,000, that fell into the hands of a banking firm early in 1893, and has been held awaiting a purchaser since. No effort was made to advertise the plant for sale, as the bank officials felt confident that the plant would bring the small sum of \$5,000 or \$6,000 that had been advanced upon it. After four years of idleness the machinery has deteriorated greatly in value, the cost of a watchman and insurance has enlarged their claims against the plant, and now they are looking for someone to take the entire plant off their hands at \$2,000. As a rule, machinery that has been run for any length of time deteriorates more rapidly in value by standing idle than it would under constant operation in careful hands.

It is not difficult to sell a small saw mill plant to a neighbor for a fair price on good terms, because in every locality there is always someone anxious to embark in the lumber manufacturing business, and generally the less he knows of the business the more enthusiastic he is on the subject. But for large plants buyers are few, and their views on prices, if based on experience, are very low. Parties finding themselves with a large amount of second-hand machinery on their hands as assets to be realized on should lose no time in seeking a purchaser. If there is not one in the neighborhood able and willing to buy it at a fair price, and the owner has no acquaintance or but a limited acquaintance with people engaged in the trade for which his second-hand machinery is suitable, he should immediately proceed to cultivate their acquaintance. This can be done by a judicious advertisement in the trade papers that represent the interests that use the class of machinery to be sold. Pick out the right sort of an advertising medium and go in to win. Remember that while there is a fixed price on all standard new machinery, there is none on it at second-hand. It is worth only what it will bring. The more bidders the better offers will be had.—The Tradesman.

J. Woodruff is building a saw mill at Sydenham, Ont.