

TALKS WITH WOOD-WORKERS.

THE arrangement of the machinery of a mill is a matter of practical import to wood-workers. I have come across some sensible thoughts on this question which will, I believe, be appreciated by my readers.

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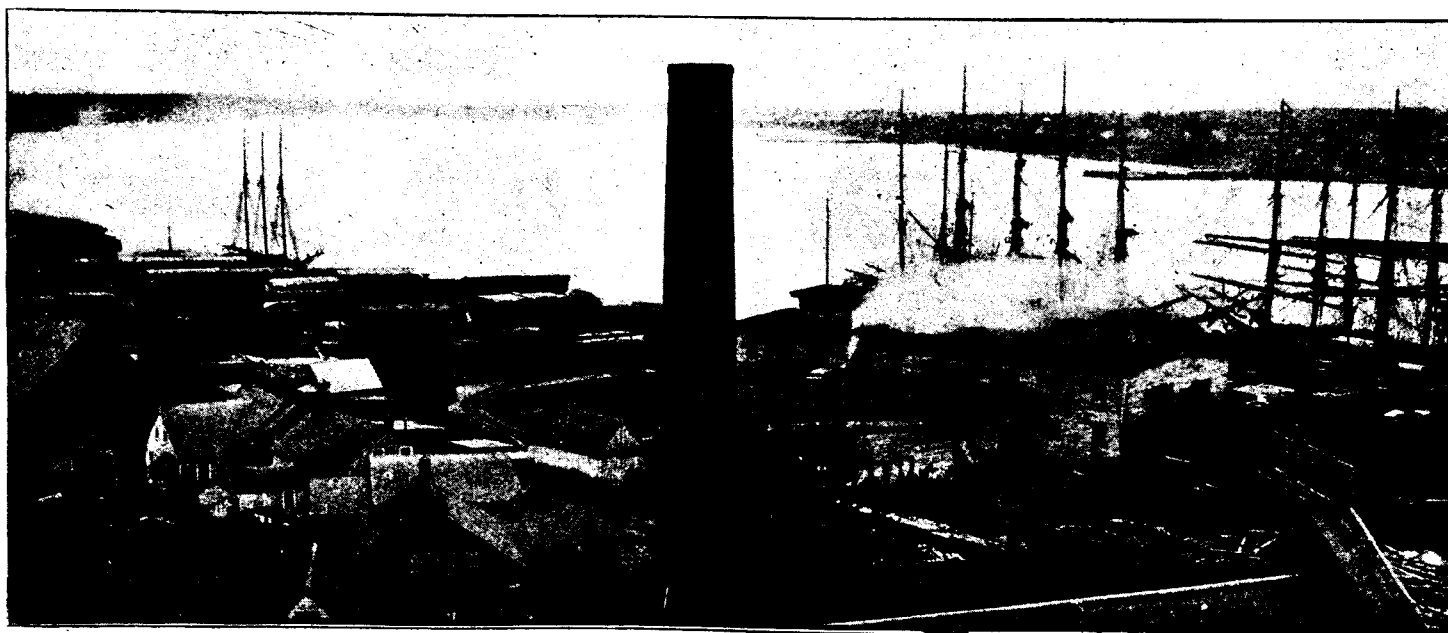
It makes no difference how small a mill is if it is not overcrowded with machines. The great trouble generally is that mill men are too greedy to get a large number of machines when they have not room to put them in, so that they are in each other's way. This is not the case with wood-working mills especially, but as we are in the wood-working business we had better not branch out into any other, for fear we shall make a mistake somewhere. There is some excuse for planing machines being crowded, for we can push their work entirely out of the building, and if there is a convenience for getting the stock up to the machines we can get along very well if they are close together. The chances are, however, that in crowded mills the planers quite as often as any, come in for their full share of inconvenience from being too close together. In years gone by mill men had to have large floor space to lay down their work for the matcher, but now when everything is sawed to stock width, we can dispense with some of this room and set machines nearer together without much inconvenience. The common tendency, however, is to crowd

to set it down on the floor and not have it touch anything. They do not stop to think that all the machines that are run should have free space and good light. No one can see to set a machine up well where there is poor and insufficient light. It should have good light, that the operator may see that the work comes out nice as it runs through, and may not be obliged to carry his work to some near or distant window to look at it. Band saws are frequently put in some out of the way place. There is but one way to put in and arrange machines, and the plan should be made at the same time the drawings for the mill are made. The man knows what kind and the amount of work he expects to do, and he can sit down and arrange every piece of machinery before the building is erected. In fact, it should be so done. Plan your building to accommodate your machines and not to crowd them into it. Of course, as is many times the case, a company may buy a building already erected. Then it must take its chances and do the best it can. As a general thing, it is far better to build your own mill and arrange the machinery so that it shall be situated in the most convenient manner that you can devise. The importance of this method cannot be over-estimated. The extra cost of each day of handling the stock makes in the aggregate a large expense account, which makes the proprietor wonder why his mill cannot be run as cheaply as his neighbor's. The latter, by con-

NEW BRUNSWICK CROWN LANDS.

M. R. EDWARD JACK writes as follows of the crown lands of New Brunswick:

Within the past few years there has been a great and noticeable improvement in the management of the crown lands of the Province, as compared with former periods. Timber lands are not now being sold. On the contrary they and their products are being jealously guarded, and disposed of in the manner most profitable, and at the same time most beneficial to the Province. The Free Grant Act is being much more wisely administered than in former years, care being now taken to preserve the timber lands intact, as far as it is possible to do so. The system of twenty-five year leases, renewable every year, which the Government has lately adopted, is working remarkably well. Under that system a very great deal more land than formerly is under lease, and the provincial revenues are thereby largely increased. I think the Province must now have as much as 5,500 square miles under lease. (This is, of course, a mere guess.) From these miles the Government is in receipt of an annual rental of \$4 per square mile, which will be a source of permanent revenue for a great many years. The holders of these long leases are showing a great deal more care in the protection and preservation of the land and lumber, than they were accustomed to exhibit under the old system of short term licenses. The



J. B. SNOWBALL'S MILLS AT CHATHAM, N. B.

machines too close together, and the cost of handling stock is very largely increased in consequence.

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Men too often think that because they have a lot of machines in their mills they can do a great amount of work, never taking into serious consideration the cost of getting the stock to and from the machines. In the matter of moulding machines, it is too often the case that the stock has to be carried to the machine piece by piece and taken away in the same manner. There might be some excuse for this if we had but little to do, but where machines are doing a large amount of stock work, they should be located that loads of stock, either from teams or floor trucks (which are far the most preferable) can be laid down or left, as in the case of using floor trucks, so the feeder can get them easily. In setting machines too close together we have to resort to the plan of carrying up one or two pieces at a time, and this, with machines that are feeding 75 or more feet per minute, is slow and costly work, and smacks not of the rush style that we must adopt to keep up with the times. "Laying down floors" for the matcher is one of the "way back" systems which have given place to something better and quicker; but that does not warrant crowding in machines so that we shall have to run over one to get to another.

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A great many mill men seem to think that they can put a moulding machine anywhere, so that there is room

veniently handling his lumber in the mill, makes a percentage of profit where the former loses and eventually go to the wall. Men manufacturing light work can crowd their machines more closely together, if the work is so arranged that it can be passed from one to the other without extra carrying.

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It needs the nicest calculation to arrange the different kinds of machines so that a shop or mill can be run at the least expense, and this reduction of expense is made positively necessary from the fact that lumber workers like men in every kind of business, have cut prices to the lowest notch. If lumber working mills were benevolent institutions, we might not advocate doing the work as cheaply as possible, but "necessity is the mother of invention," and we must devise some means whereby we shall save a margin of profit on the investment. No other plan seems so natural and easy of accomplishment as arranging the machinery in your mill so that the work can be done economically. No one person can make plans for each mill and shop. Each individual owner must take the subject into serious consideration and make a study of it, as the officers of a railroad do in making out their time-tables so that every train shall meet in the right place.

JAS.

Increasing the diameter of a bearing increases the friction, and increasing its length reduces the pressure per square inch, but does not alter the amount of friction.

reason is, of course, apparent to every one. The licensees have now some kind of a substantial interest in the land.

In addition to the improvements just mentioned, there have been more surveys of lumber leases made during the past year, than for many years previous, with the result that wherever these surveys were made upon lands which were not formerly under lease, the lumbermen have come in and applied for licenses. Any expense that the Government has incurred in this connection has been amply repaid and justified by the results. A singular instance of the benefit resulting from the making of such surveys occurred on the Restigouche, where upwards of one hundred square miles were literally discovered—that is to say, errors in previous surveys were disclosed whereby that much additional area of timber lands was made available to the Government for licensing. This new found land was, I think, all applied for and taken up, with the result that \$800 of new revenue went into the Government treasury in the shape of bonuses; and there will be, in addition, \$400 or more of a constant annual revenue therefrom.

Much more surveying should, however, be carried on at once; and more extended examinations should be made into the situation and character of our fertile public lands. Former Governments totally disregarded the best interests of the country, when they located to settlers spruce and hemlock lands which were never intended for settlement.