TALKS WITH WOOD-WORKERS.

IT has been suggested that the LUMBERMAN could profitably use a portion of its space each month with practical talks to the many wood-workers who are readers of this journal. Wood-working is an important section of the lumber industry, and anything that can be said to strengthen the hands and help to improve and facilitate the work of those whose business it is to make into the perfect article the timber after it has passed through the hands of the saw mill man, will strengthen the lumber industry as a whole. It will be a pleasure to the writer to chat with readers along these lines once a month, and with the object of making these talks as useful as possible, I am in hopes that readers will do their part in contributing points, suggestions and information from out of their every-day experience.

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I have been shown an article on "Mortising Machines," which will appear in this number of the LUMBERMAN. Workmen have different views as to mortising, and it may be that all readers will not agree with Mr. Harmon, the writer of the article in question. It seems to me, however, that he has brought out some strong practical points as to the best methods of utilizing a mortising machine. It is doubtful whether all workmen have recognized the force of what is said in regard to mortising soft wood. We are apt to do many things without thinking, and because hard wood has been always bored before mortising we may have come to the conclusion that this rule would apply to all woods. Mr. Harmon says that this does not necessarily follow. Many other suggestions out of actual experience are made by this writer.

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Anyone who has had much to do with equipping a wood-working shop knows how quickly the machinery runs into money. Having locked up, as it is supposed to be, a considerable amount of capital in machinery the owner is naturally anxious that he should not be called upon too speedily again to replenish this department of his business. If good judgment and wise economy has been shown in buying the various machines the plant will last for a good while. It not unfrequently happens, however, and the remark can be made here, that the fullest economy is not always shown in the purchase of machinery. Because of the poor character of the machinery, it may not be long in use before something gets out of kilter. But no matter how good the machinery may be it will wear out after a time, and it is here that many men make a mistake. Machinery requires men to run it, and it has well been said that it costs as much to employ a man to run a worn-out machine as a good one. I would be disposed to put this even stronger; it costs more to employ a man to run a worn-out machine than a good one, for the reason, that no matter how capable the man may be he is not going to put in the same work each day tinkering away on an old machine. Let the "boss" take notice of this, and in a quiet hour figure out the cost for replenishing a worn-out machine, and against that what it is costing him per day to pay a first-class workman to get only partial work out of said old machine.

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So many have been the improvements made in planing machines we are apt to suppose that a state of perfection in these machines has been reached. But what folly. The brain of man in these closing days of the 19th century is too active to permit of perfection even in planing machines. The records of the patent office show that constant improvements in planers and matchers are being made right along. Do you not think so, fellow-workers?

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The question of transmission of power in every machine shop is a many-sided one. Perhaps there is no subject more discussed in different ways in mechanical journals of the day than that of transmission of belts, the adhesion of ropes and the driving power of bands or other tractive apparatus for transmission. It is to be expected that mechanics will hold widely different opinions on a question of this kind, and that views will be made public that others will look upon as nothing but fallacy. A writer in Industry has been exposing what he considers a mechanical fallacy in an adhesion of ropes, bands, etc. He says: "Adhesion instead of being a virtue is commonly a vice, lessening first cost at a loss of double as much in maintenance. There is no lack of tractive force, in fact, there is too much of it in most driving gearing, and we recommend that when an agent comes around to explain what a high duty he can attain with a rope, or how much the driving power of a band can be increased, the safest way is to place no confidence in such schemes and have nothing to do with them. If ropes slip, more ropes are needed; if belts slip they are too narrow. If a shaft is required to perform a certain work, we provide one at least three times as large as the torsional strain demands; a wide factor of efficiency is provided in wheel teeth, beams, framing, indeed in nearly all the elements of machinery until we come to belts and ropes for transmission. These are commonly strained to their full capacity, hence the demand for increasing 'adhesion.'"

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Just as there is no end of nostrums, alleged to cure every ill the flesh is heir to, so there is no end to the number of wrinkles that are constantly being shoved under the nose of the worker in mechanical lines to help in some department of his work. Some of these are, no doubt, good, and from the travelling man one will not unfrequently pick up a real good thing. But it is a case where there needs to be good care used, or one may easily get rid of his quarter. Men loose valuable time and sometimes spoil good material; this being the case I am disposed to say with a writer in the Lumber World, "Beware of the 'wrinkle' man." To illustrate the admonition this writer tells of a recent wrinkle that will interest wood workers. The wrinkle was clothed in these words: "A good furniture polish may be made by putting equal parts of spirit of wine, vinegar and olive oil in a large bottle, and shaking thoroughly every day for a week, when it will be ready for use. This polish should be applied to the furniture with a soft woollen cloth and thoroughly rubbed in. If the furniture is very dirty it may be rubbed clean with a woollen cloth dipped in kerosene." Answering the question, What do you think of that? the same writer points out what little practical use it can be. He says for one thing it is barely probable that a pint of olive oil and a pint of vinegar and a pint of spirit of wine mixed and treated as directed may form a three pint mixture that will clean polished wood. A break in either elements will make a new compound that may act very differently from the one struck by the man who made this wrinkle. Again, is the province of a polish cleaner to be "rubbed into" the polish? As the polish depends upon the surface, what will become of the polish when the perfect surface of the varnish is changed by the "rubbing in" of an emulsion of olive oil, spirit of wine and vinegar? Will not any "woollen cloth" scratch any fine polish on wood? And what effect will "kerosene" have on a polish? I have tried this "wrinkle," using the articles named as they are sold in general. The result? Well, a piano finish was utterly spoiled by it without "thoroughly rubbing it in." A carriage-body finish was deprived of its shine totally. On chairs and sofas it spoiled the finish. It dulled the faces of so-called "French walnut" veneers. Ordinary fillered-oak, thickly covered with varnish, came out speckled and spoiled.

JAS.

A REMARKABLE DAM.

ONE of the most remarkable dams in the world for height and construction is that by which the Vyrnwy river, Northern Wales, is enabled to supply water to the city of Liverpool, some seventy miles distant. In building this dam a great trench was excavated across the valley for a length of 1,100 feet, a width of 120 and a maximum depth of sixty. The masonry was started in this trench; it consists of immense irregular blocks of slate, wedged together and thoroughly bedded in Portland cement mortar, the faces being formed of cut stone block, fitted together with great care, the greatest height of the dam being 161 feet. Its most remarkable feature is the lack of any channel to carry off floods, the surplus in the lake flowing down the front of the dam covers an area four and three-fourth miles long, from one quarter to five-eights of a mile wide and holds largely over 12,000,000 gallons. The aqueduct, leading from the intake tower to the distributing reservoir, about two miles from the city, is sixty-eight miles long, and consists principally of a large cast iron pipe line from thirty-nine to forty-two inches in diameter. There are a number of reservoirs and tanks along the line, and at one place is a great filtering plant.

CANADIAN LUMBERING IN OHIO.

THE Timberman, of Chicago, tells of a peculiar feature of the lumber business in Ohio in which Canadians have a somewhat strange interest. It appears that a few weeks ago a certain lumberman of Defiance, Ohio, was placed under arrest on a charge of violating the alien contract labor law. Those charged with the violation of the federal statutes deny that they are amenable thereto, as they engage their labor on the American side of the line, though they do employ a large number of Canadians. But however this may be, the fact has developed that a large business has been done for many years in that part of Ohio in the shipment of timber to Quebec for export. Large numbers of men were employed cutting timber and preparing it for export the work being done under contract with Quebec merchants. The story of the development of this business is told as follows: Back in the early fifties, when northwestern Ohio was still largely a forest country, the Canadian-French crossed the lakes and established head-quarters at Defiance in the very heart of the magnificently timbered Maumee valley. From that place gangs of hewers and choppers were sent out into the forests, converting the oak, walnut and poplar into timber which was floated down the river and thence by lake to Quebec. It has been a large industry, which has afforded employment to thousands of men and benefited not only the laborers brought from Canada, but contractors, merchants, etc., in Ohio, particularly along the Maumee valley from Toledo up. It is estimated that during the five months of the present season there will be taken from the forests for this purpose 1,200,000 cubic feet of timber, which will average in Ohio 33 cents per cubic foot, or a total of about $400,000; all foreign money brought to Ohio in one season by the timber industry. And this has led to the action referred to on the part of federal officials at Toledo.

A LUMBER SPEECH.

DISCUSSING the Government's Tariff Bill in the Commons a few days ago, Mr. Bennett, of East Simcoe, as representing a constituency in which is embraced the large lumber interests of the Georgian Bay territories, said: He blamed the Ontario Government for disposing of timber limits to American speculators without restricting them to the manufacture of the logs in Canada. The result had been that millions upon millions of feet of logs had been taken out of the country. The Dominion Government had imposed a $2 and then a $3 export duty on logs. The effect of this was to bring about the reopening of saw mills on the shore of Georgian Bay, but in 1888, largely due to the intercession of Mr. Charlton, the export duty was removed, in consideration of the fact of the American duty on lumber being reduced from $2 to $1 per thousand feet. The result had been to almost destroy the lumber industry, which was the mainstay of Georgian Bay towns, and the expatriation of 12,000 people, who were engaged in that industry. Why, he asked, should all these people be expatriated by the Government simply to please Mr. Charlton and Mr. Edwards. He asked the House to consider this question honestly, and interfere for the protection of the people whose rights had been denied by the Ontario Government. The lumbermen had made money even when the American duty on lumber was $2 a thousand. He demanded that now the masses should be given a chance instead of the pampered class. The Americans must have our white pine, and if under the Wilson Bill the duty of $2 a thousand were reimposed on lumber the American consumer would pay the duty and not the Canadian producer. Mr. Bennett expressed the hope that the demand of the thousands of people dependent upon this industry for their livelihood would be heeded by the Government. He proposed that an export duty of $3 to $5 a thousand feet should be imposed upon logs. Mr. Bennett strongly advocated the completion of the Trent Valley Canal, and expressed the hope that the Government would be awake to this matter. He considered this to be a more important national undertaking than the project of deepening the St. Lawrence canals.