

LOOK OVER YOUR PLANT.

While business is not so brisk as it was a year ago, nor so much so as, we believe, it will be a few months hence, just at present is exactly the right time for mill-owners to thoroughly examine their plants, make repairs, put in new and improved machinery and make a general renovation. It pays to keep abreast of the times and to keep your mill up to date in every respect, but most emphatically it pays to do this at a time when there is any degree of trade slackness, and when, as a consequence, the disarrangement of ordinary business will be at a minimum. A large firm of machinery manufacturers told us recently that they had scarcely ever put in so many new boilers and other machinery as during the so-called hard times of last winter. For not only were they supplying equipments for a fair number of new mills; but a good many older ones, not pressed by the rush of orders which has been keeping them engaged at high pressure for so long, were glad to seize the opportunity to look over their plants and put in new machinery wherever it was required. The depression gave them a breathing spell, and, in one way almost a welcome one, because it allowed them to get things in proper shape for another future rush. Replacing old and half-worn-out machinery with new and better is often the most truly economical thing a planing or sawmill can do; and this is just the time to do it, when there is a temporary lull.

WATERPROOF GLUE.

Aside from glue and its cost as factors in the development of built-up lumber, there has entered the trade of late another idea in this connection, which is that of waterproof glue. At various times during the past, there have been efforts at supplying a waterproof glue, but many of them have proved failures, either through costing too much, or from some other cause, yet the idea has persistently bobbed up, time and again, and, during the past year or two there have been developed some pretentious undertakings in this line in which a glue or cement is used in making built-up lumber that is seemingly waterproof, and, according to information obtained from the promoters, who keep secret the formulae of their glue, it is cheaper rather than more expensive than the ordinary glue used in veneering. If this new idea continues to make good it will be a factor contributing materially to further development in certain lines of veneer usage, where the work has been more or less handicapped heretofore because exposure to moisture prevented its being done with ordinary glue. This applies to buggy and automobile bodies, to outside work of various kinds in connection with house building and to the making of various kinds of packages, in the form both of boxes and of barrels or cylindrical packages. There is, probably, not a branch of the veneer industry which will be watched with more interest than this one.

Taken altogether, the veneer industry, though it has been marked with many failures in the early days of the past, has prospered in the later years of the decade, and its future to-day looks bright and fully as promising as the future of any of the woodworking industries.

CANADIAN TIMBER SUPPLY.

In a report on the Canadian timber acreage, the "American Lumberman" says: The estimate made by Mr. Treadwell Cleveland, jr., of the United States Forest Service, is even lower than that by Mr. B. E. Fernow, Dean of Forestry at the University of Toronto, who placed it at 300,000,000 acres. Mr. Cleveland places Canada's acreage, stocked with good commercial timber, as at present not exceeding 260,000,000 acres, a strangely low estimate when Canada's official figures give the forest area of the Province of Quebec alone at 209,000,000 acres, not, however, all stocked with good commercial timber. Mr. Cleveland asserts that Canada does not possess much more than 50 per cent. of the quantity of good timber still to be cut in the United States, although the former is exporting twice as much as the United States. In other words, Canada is in that respect using up twice as much of its timber resources as is the United States. To convey a rough idea of the supposed value of the timber lands of Canada, it may be stated that a rough estimate, said to be conservative, of the value of Quebec's forest area, 209,741,000 acres, or 327,721 square miles, is \$2,709,327,692. There is one point upon which none of the experts can differ, namely, the necessity of dealing with the forests of the country on business principles, and soon.

MOISTURE AND STRENGTH OF WOOD.

The United States Forest Service made some time ago a thorough study of this question. The results of its investigations are interesting and instructive. It has been found that the relation of moisture to strength follows a definite law. The strength of all kinds of wood increases rapidly with proper drying, the amount of increase depending on the species and the degree of dryness. Thus the strength of a piece of unseasoned red spruce may be increased by over four hundred per cent. by a thorough drying at the temperature of boiling water. But the strength decreases again as the wood reabsorbs moisture. Air-dried wood protected from the weather, and containing twelve per cent. of moisture, is, according to species, 1.7 to 2.4 times stronger than when green. Drying also increases the stiffness of wood. These conclusions have been drawn from pieces of small cross-section, not exceeding four inches by four inches. Large timber requires years of drying before the moisture is reduced to the point at which the strength begins to increase. It has been found that, under normal conditions, wood fibre will absorb a definite amount of moisture. Additional water only fills the pores. It has also been found that the water which simply fills the pores has no effect on the strength. The fibre saturation points are: For long-leaf pine, 20; red spruce, 31; chestnut, 25; red gum, 25; red fir, 23; white ash, 20.5; Norway pine, 30 per cent., estimated on the dry weight of the wood. Timber that has been dried and resoaked is slightly weaker than when green.—Engineering Times.

—The thirty-fifth annual special issue of the "Timber Trades Journal," London, Eng., keeps up its reputation as a full and complete representative of the lumber trade, not only of Great Britain, but of the world's great producing countries as well. It comprises nearly 400 pages of matter, and is well illustrated.