

a large tannery, for which industry there is every encouragement, as hemlock grows in thick forests just above the town. Three breweries furnish beer to whet the thirst of Wausautes; its population being Teutonic in a large degree. Two brick-yards near the city, are in full blast and turn out a good article for building purposes. A water power grist mill by Alderson & Silverthorn is kept busy at custom work throughout the year. New buildings are going up in all parts of the corporation; most of them private dwellings, of quite a superior character to those usually seen in frontier towns. We were informed yesterday that 130 new buildings were erected last year, 150 will probably be built this season. Aug. Kickbush has in contemplation the erection of a large brick store on Main street. A Beaver Dam man is also to build a large hardware store on Washington street next month. Pratt, of Stevens Point, is building a large wooden two-story building on Third street, for general store purposes. A number of small shops are going up in various quarters of the town, while to cap the climax, a substantial brick school house costing \$18,000 is approaching completion, on Jefferson street, and will prove an ornament and credit to Wausau.

A WOODEN RAILWAY IN WISCONSIN.

We learn that contractors are driving work on the Tomah & Chicago narrow gauge railroad from Wauzeka to Reedstown, and it is expected that trains will be running over that portion of the road by the middle of September. The rails used are maple, which are sawed out $3\frac{1}{2} \times 5$ inches. These are let into the ties and fastened at the ends with dowel pins, the gains in the ties being made a trifle larger than will admit the rails, and on either side of the rail are driven wedges in opposite directions. The maple rails are

obtained at a cost of \$15 per 1,000 feet, 15,000 feet being required to lay a mile of track. It is estimated that the maple rail will last over one year without repairs, hence the interest on capital invested in iron rails would re-lay a track every twelve months. Last fall, on the Elkader road in Iowa, a portion of the track was laid with maple rail, and an examination made of them this spring shows that they have not been injured in the least by constant use. There is no doubt that the wooden rail will be extensively used in sections of country where heavy capitalists do not wish to invest their money to the extent of putting down iron.

JOHN S. LOOMIS' SAND-PAPERING MACHINE.

The Brooklyn (New York) Moulding and Planing Mill, belonging to Mr. John S. Loomis, is one of the most extensive establishments of its kind in the United States. In the line of mouldings, especially, a reputation has been built up by this factory which causes its products to be particularly sought for by the more thoroughly informed builders of the middle and eastern states. This desirable reputation has been secured principally by the use of a machine which thoroughly smooths and perfects every piece of moulding manufactured. The machine is called "Loomis' Sand-Papering Machine" and is the invention of John S. Loomis, Esq. Letters patent were granted on the 26th of May, 1868, and improvements thereon, August 29, 1871. So many points of merit and value are observable in the machine that mention of them will interest the readers of the WISCONSIN LUMBERMEN. The machine

will thoroughly and perfectly sand-paper *thirty thousand* feet per hour of any style or form of mouldings. The corners of the mouldings are left remarkably clear and sharp—more so even than when sand-papered by hand. The surface of the moulding is left much smoother than ordinary hand work and is preferred by painters. One machine will sand-paper for at least four moulding machines and will not use over ten cents worth of sand-paper per day. A boy can use the machine as well as a man—saving skilled or expensive labor. Of so great value is the machine that until the present time Mr. Loomis has never consented—although often asked—to allow his patent to be constructed for general use; preferring to have the exclusive use and control of his valuable invention. So great has been the desire of parties interested in wood-working to secure machines, that Mr. Loomis has concluded that he will soon allow them to be placed upon the market. So rapid and perfect is the work accomplished by these machines that Mr. Loomis really owes it to the trade that they should come into general use; and we are glad to chronicle the fact that he intends placing them within the reach of the moulding and wood-working mills. The mill belonging to Mr. Loomis employs one hundred hands constantly and does an annual business of \$250,000. Illustrations of the sand-papering machine will soon appear in the *WISCONSIN LUMBERMAN*, when we shall expect to give a full and accurate description of it.

BURNETTIZING.

The process of "burnettizing" timber and lumber has as yet been little introduced in the west, or indeed but little understood or appreciated.

When we consider the enormous consumption of lumber, with its great variety of uses and frequent exposure to the destructive action of moisture, heat, and imperfect ventilation, the importance of some process to preserve it from decay can hardly be estimated. The value of such a process is not simply in the cost of the material preserved, great as that may be. Its greatest economy consists in saving the expense of reconstruction, as well as the inconvenience and delay of frequent repairs. In bridges, railroad tracks, ships' timbers and spars, sills of houses, &c., the cost of replacing is much greater than the first cost of the lumber. It should be borne in mind, however, that many of the cheaper kinds of lumber, when burnettized, are more durable and much cheaper than the more expensive woods, unprepared.

In the case of bridges, another consideration deserves mention. Of the many terrible disasters occasioned by the giving way of these structures, under a loaded train of cars, most have risen from the gradual and unnoticed decay of the timbers, which might have been prevented by subjecting them to the preserving process. As burnettized stuff is also comparatively unflammable, another danger to which railroad bridges are exposed, that of