

THE ANDREWS LUMBER DRIER.

THERE may be persons who do not appreciate the advantages of the artificial drying of lumber. But the shrewd men, in the manufacture of furniture and other woodwork where reputation would be sacrificed by a lack of proper material for good gluing and finishing, recognize a good system of drying as an important element of their success. High scientific authorities and thoroughly practical men are now agreed that the hot-blast and rapid-current systems are wasteful, and that steam heat is the only safe means for artificial drying. The mode of applying steam heat most efficiently and economically is therefore now the essential point.

The Andrews lumber drier, illustrated herewith, has a double inner wall, reaching nearly to the ceiling and nearly to the floor, and extending toward the middle of the drier; also a tight outer wall of rolled hard brass. The space between these two walls forms a down flue, communicating at its foot with an extension flue at the bottom of the kiln. Above these bottom flues are the steam coils which furnish the heat.

In the car drier the lumber is placed upon cars outside the kiln and is rolled in on tracks. The cars stand directly above the coils and close enough to get the advantage of the radiant heat. The air from the heaters passes up slowly through the lumber, taking up moisture from it, and then goes over the inner wall down the side flues to the bottom. On its way down, as it comes in contact with the sheet-brass outer wall, its moisture condenses on the cool metal and trickles down. By means of small gutters on the inside of the metal walls near their foot, the water is conveyed out of the kiln. The air, having thus parted with much of its moisture, passes through the bottom flue to the coils to be heated again, its partial dryness now making it more effective than common air for this purpose; yet this air is still so tempered with moisture that no absolutely dry air comes in contact with the lumber except at the dry end of the kiln. This circulation goes on continuously until the seasoning is complete.

By this process the lumber is dried in a moist air at a high temperature, and this has been found to give wonderful results. The humidity of the air is so gradually, effectually, and, at last, so rapidly lessened that warping and checking are reduced to a minimum.

This continued use of the same body of air, without access of cold currents, saves a large part of the heat, and hence, in this respect, is more economical than any system yet devised.

This kiln does its work perfectly either in summer or winter. Summer drying by the Andrews process and drier is usually done in a few hours less than winter drying. The temperature within the kiln is so much higher than that outside that the metal walls are very efficient as condensers—the inside temperature is seldom less than 150°, especially toward the finish, while the outside air in summer ranges from 90° down to 50°. Thus the metal walls of the drier, which are very nearly of the temperature of the outer air, are from 60° to 100° colder than the drying room, their efficiency increasing as the inside temperature rises. This difference between outside and inside temperature is amply sufficient for condensing purposes.

The Andrews is a continuous process. In other systems, when the engine or fan is stopped, both the source of heat and the circulation cease. With a kiln full of green lumber in the process of drying, this stoppage is often the cause of losing the entire contents from mould and mildew. In this kiln, as long as steam is allowed to pass from boiler to kiln it will work even at a very low pressure. In the car drier as each car is loaded it is rolled into the drying room and pushed forward. This is repeated each day until the kiln is filled with cars. When the cars have passed through the kiln and reached the delivering end they are ready to take out and unload upon the rear platform; or they can be rolled upon transfer cars for unloading elsewhere. The lumber from this process is natural in color, bright, and lively.

In the construction of this kiln much labor and

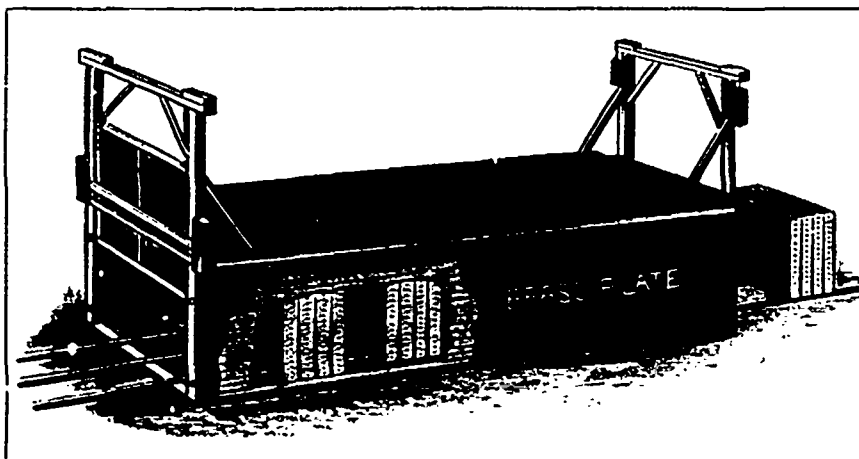
material are saved, as it is of the simplest form. No expensive foundation or separate house for engine, blower, and heater is needed. All kilns sold are furnished with automatic steam fire extinguishers, which do away with any suspicion of danger from fire, thereby lessening fire risk, a point that fire insurance companies have for a long time been trying to impress upon lumbermen and manufacturers of wood-work.

Further particulars regarding this drier will be cheerfully furnished by addressing the Dominion Dry Kiln Co., Canada Life Building, Toronto.

TRADE NOTES.

The Dodge Wood Split Pulley Co., of Toronto, advise us of a very brisk spring business. The larger class of sawmill men are becoming better acquainted with the wood split pulley and we learn are now patronizing the Dodge Co. quite liberally. They argue that when such firms as Hurdman's, of Ottawa, Gillies, of Braeside, Rathbun, of Deseronto, etc., etc., can find it profitable to adopt the Dodge patent pulleys, that it is fairly reasonable to say it would pay every sawmill man in Canada to look into the matter and see if they do not require Dodge Wood Split Pulleys.

A man by the name of C. B. Dudley, who claims to have some reputation as a chemist, has recently made some analysis of anti-friction metals among which is the Magnolia Metal. There are gross errors in the analysis of Magnolia Metal, and those of other anti-friction metals are incorrect. H. G. Torrey, U.S. Assayer in U.S. mint service, New York, has written the following so far as Magnolia is concerned: "In the analysis of Magnolia Metal, Dr. Dudley has overstated one constituent part, and has omitted tin (which it always contains) and other materials. On the same page is given an analysis of antimonial



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lead, which may be correct, but not an ounce of this is ever used in Magnolia Metal."

Nothing in connection with machinery is of so much importance as good metal for its frictional parts. Trying to be economical in this respect can only be accomplished by using the best metal you can get; and we say every man to his trade. Not every man can make Babbits. The trouble with Babbits is it cannot be made twice alike. You would not take your watch to a blacksmith for repairs, though a good man in his way. Mr. Alonzo W. Spooner, of Port Hope, makes a reliable metal for all such purposes. People may advertise and say all they like against his metal (copperine) but we know it is doing the best and hardest work in Canada, and that it is gaining in favor every year. We admire his saying that it is Canadian made and stumps the world. There is no bark on his talk.

A POOR GIRL WINS \$15,000.

The Province of Quebec lottery continues to pursue the even tenor of its way in no manner molested by the officers of the law, who are fast cleaning out the People's and other libraries that endeavored to secure a foothold in Quebec. The Provincial Government makes an exception in the case of this particular lottery and extends to it the protection of special legislation. On May 4 a drawing took place when the capital prize of \$15,000 was won by Miss Mary Donovan, 113 Dufresne Street, Montreal, Quebec. In this case Dame Fortune was not blind. Miss Donovan belongs to a poor but highly respectable family. The father, now dead, was one of the good parishioners of Reverend J. J. Salmon, parish priest of St. Mary's Church, Craig Street, who takes pleasure in recalling the merits of this good man. The mother, left a widow, depended mostly for a living on her daughter's daily labor.

THE MAIL BAG.

NEWS BUDGET FROM BRITISH COLUMBIA.—Mr. J. B. Kennedy, president of the Brunette Sawmill Co., is in Manitoba and the Northwest on business. Morton Bros. Nicomekl Sawmill, B.C., have sold their old boiler and engine to make room for larger and stronger ones, to enable them to meet the demands of a growing trade. Mr. Ernest Buse has sold his interest in the sawmill near Hastings to the Buse Milling Co. Mr. George B. Shaw, a prominent lumberman of Wisconsin, is expected to visit British Columbia very shortly. The Mechanics Mill Co., of New Westminster, has assigned. Henry Drum and P. A. Paulson, of Tacoma, Wash., have secured an option on 40,000 acres of timber land in British Columbia, tributary to Victoria, and propose to organize a syndicate for the purchase of a mill and the working up of the timber.

NEW BRUNSWICK BUDGET.—A Madawaska, N.B., correspondent of the St. John Telegraph tells us Mr. A. Cushing, of St. John, 11th May, came to look after the Alagash drive of about 3,000,000, which is under the management of W. J. Noblis. It will reach the corporation limits shortly. Robert Conner's drive is about in the limits of the corporation. John A. Morrison's drives are all out in the Main River at St. John. His one on two mile brook has formed a jam, and in all probability he will be put to a lot of trouble to break it. Neil McLean has abandoned his drive on Nigger brook. W. H. Conliff's drive on the Alagash is coming along nicely. Stephens and Dickens drives are together; it comprises about 7,000,000; Robert Conners has it in charge. Burgess' drive is about in River St.

John; Tidley, Tirreck, Cranford and Burgess' drives on Grand River are nearly into and soon will be in Main River, St. John. Burgess' drive in Little River is partly out, Beaver brook and Ryan brook more or less left behind; what he has on Main stream will be down in a few days. Water falling fast. Never was a finer spring for driving the St. John River, the water low and keeps about the same pitch; those who have the corporation drives above and below Grand Falls must make a small fortune, unless through their own fault. The last few weeks the Main River has been running thick with logs, and will not leave St. John mills in fear of a supply to meet their demand.

SAULT STE. MARIE, MICH.—A deal has been closed here by which Frank

Perry, of this city, Lewis A. Hall, of Bay Mills, and J. L. Norton, of Lockport, Ill., composing the Perry Lumber Company, bought 192 square miles of the Canadian Indian reservation tributary to the Goulais and Batchawanna rivers, about forty miles above here. The bonus paid for the right to cut timber was \$50,000 after which came the timber royalties. The deal will reach into the millions, and will result in pine, spruce and cedar operations of immense proportions. The Soo Paper Company, of Niagara Falls, N.Y., will build two mills at the mouth of the Waiskay river, ten miles above here. One will cut lengths of spruce into pulp wood and the other will be a cedar mill. Docks will also be built. The company owns over 12,000 acres of spruce and cedar lands at the Waiskai. Mr. Perry has long been a heavy operator, and Mr. Hall is of the well known firm of Hall & Buell, a concern that has handled from 50,000,000 feet upwards in upper Michigan for years. He is also a member of the Hall & Munson Lumber Company, of Bay Mills. O. E. Elsemore, with James T. Hurst, has left for Canada for the purpose of looking over some timber limits on the Wahnapitac river with the view of investment. John Boyle, of London, Ont. has purchased a quantity of timber on section 22, town 20-2 West, Gladwin county, this State, and is building camps to lumber this summer.

THE REDDAWAY BELTING.

The "Camel" brand of belting, advertised by F. Reddaway & Co., of Montreal, Que., in another column, has claims that make it worth the while of those interested to carefully examine. This firm supplies all kinds of linen belts, fire hose, etc.