

A FEW SUGGESTIONS

..... REGARDING THE SUCCESSFUL

Drying of Lumber, Shingles, Heading, etc.

It is a difficult matter to set forth in a brief communication the reasons why some kilns are faultless and others worthless. Arguments may be convincing to those who have had experience, and yet bear no weight with those who have not. It is a fact accepted by all, however, that lumber can be dried without injury if the passage of the interior moisture to the surface precedes or keeps pace with surface evaporation. If the operation is uniform and extends to all parts of the material, uniform results will be obtained without warping, twisting or injury. Restrict the application of heat to one side or one edge of a board, for instance, and it will be unevenly dried and left in a warped, crooked and strained condition. Hasten the surface evaporation without expediting the escape of interior moisture proportionately, and the exterior will contract more rapidly than the interior, and checking and injury will result. Heat will drive the interior moisture to the surface, but too much heat or too little or an uneven application of it, is disastrous. If evaporation is properly controlled, most lumber one inch or less in thickness will stand a temperature of 100 deg. at the start and an increase of 1 deg. per hour until evaporation is completed. Time is saved by applying as much heat as lumber will stand. We pipe our kilns the entire length, graduating the heating surface so as to increase the temperature 1 deg. to the foot, measuring from cold end. In a kiln 100 feet long with a temperature of 100 degrees at the receiving end, this gives 200 deg. at the unloading end. Whether temperature be higher or lower, and kiln loaded or empty, the graduation of heat remains uniform. Pipes are so placed that the lumber feels the direct radiation of heat. The circulation is upward through the lumber, and downward at sides between brass condensing plates and inner partitions. Thus an absolutely even and progressive heating is secured. A circulation lengthwise of kiln is wholly avoided, a humid or saturated atmosphere can be maintained about lumber while heating up, and during the entire process heating precedes evaporation. As might be expected, the highest results are obtained, and never anything else. We avoid engines, fans, chimneys and additional heating rooms, having a natural and perfect circulation in a vertical direction, the only one that will secure even heating. The kiln is fire proof and more durable and slightly than any other. The last degree of economy is reached as we supply only the heat absorbed by the lumber, and that lost on the condensing plates. Among those who have bought and used all the kilns that have come upon the market, certain facts are accepted as satisfactorily proven.

1st.—That condensing kilns have a clear advantage over all ventilating systems of 30% to 50% in running expenses—fuel and attendance.

2nd.—That lengthwise or horizontal currents of hot air in a long kiln cannot possibly be made to heat or dry lumber evenly. If entrance and departure is at top of kiln, the body of heat will be at top, and bottom lumber will mildew. If entrance and departure be at bottom under the two end cars, the heated current will rise in centre taking a rainbow shape. An augur would be better adapted to rounding and truing billiard balls than such a current to even heating and drying of lumber.

3rd.—That all fans, blowers and power methods of creating circulation are worse than useless, because expensive, dangerous and destructive to even circulation.

4th.—That properly graduated heating appliances placed the entire length of kiln so that lumber will feel direct radiation of heat, is the only stable or unvarying or satisfactory means of securing or maintaining a progressive system of heating in a lumber dryer.

In conclusion, we can say this, we are prepared to give a valid guarantee to each purchaser, that our kiln will do more work in less time, at less expense, and in better condition than any other. When any other kiln will fill this guarantee, we will refund the cost of ours. We shall be pleased to furnish plans and estimates. Believing that purchasers need no other inducements than our guarantee, our references and our prices, we leave them to call on us, if they desire an interview instead of sending an agent to them, unless in exceptional cases. We shall be glad to have you call on us, and if you will to have you make our offices headquarters while in the city.

..... SEND FOR DESCRIPTIVE CIRCULAR OF THE

ANDREWS LUMBER DRYER

TO THE DOMINION DRY KILN COMPANY
TORONTO, ONT.