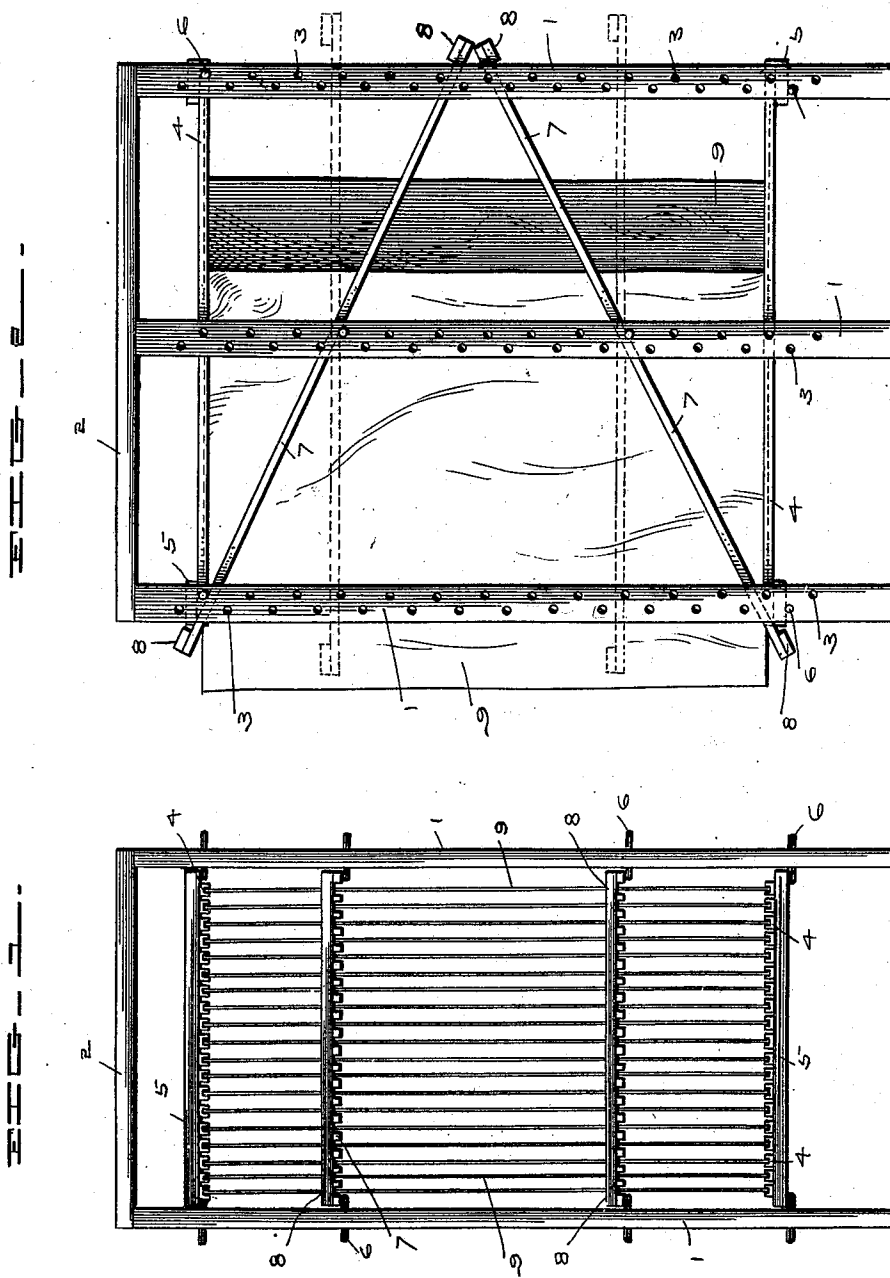


(No Model.)

P. B. RAYMOND.
LUMBER DRYING RACK.

No. 504,279.

Patented Aug. 29, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

PERLEY B. RAYMOND, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO ADAMS & WILLIAMSON, OF SAME PLACE.

LUMBER-DRYING RACK.

SPECIFICATION forming part of Letters Patent No. 504,279, dated August 29, 1893.

Application filed February 6, 1892. Serial No. 420,503. (No model.)

To all whom it may concern:

Be it known that I, PERLEY B. RAYMOND, of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Racks for Drying Lumber; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like numerals refer to like parts.

My invention relates to improvements in the construction of racks for drying veneer and thin lumber, the object being to hold the sheets or boards in proper position while drying, so that they will not warp, buckle, or split, and thus injure the sheet, and will be understood from the following description.

In the drawings, Figure 1 is a front view of my drying rack, and Fig. 2 is a side view of the same.

The device comprises an outside skeleton frame formed of uprights (1) and top cross pieces (2) for holding the parts together, and these may be made as strong or as light as desired. The uprights of this frame are conveniently pierced with holes (3), through which pass pins (6), which are intended to support or provide rests for the rack proper. This rack consists of top and bottom cross pieces (5), and running at right angles to these, and of such depth as may be required, is a series of grooved slides (4), which are intended to receive the sheets of veneer or thin boards of lumber, and hold them in position during the operation of drying. Thus, in Fig. 1, these sheets are indicated at (9), and their upper and lower ends rest in the grooves of the slides (4). In Fig. 2, one of these sheets is shown as partly drawn out, while another behind it is shown shaded and still in position in the rack. The object of the grooves is not only to hold the sheets in position during the operation of drying, but they are made of such depth as to allow a free circulation of air between the sheets and around the ends of the stuff, and prevent its splitting or its unequal drying at any point. I have found, however, upon experiment that while a rack constructed in this manner has many valuable advantages, there yet remained something to be done where very large sheets were to be dried,

and that something was to provide intermediate supports between the ends of the sheets so as to secure the drying of the sheets uniformly throughout their entire length and width, and to prevent them from splitting and breaking during the operation, and this latter arrangement is the principal object of the present invention. To accomplish this result I provide a series of intermediate bracing strips or bars (7), supported at or near their centers upon one of the pins that pass through holes in the central upright, as shown in Fig. 2, this arrangement providing a support without fixed relations to the upright, allowing the strips or bars to be tilted upward or downward in the manner hereinafter described. These bracing strips or bars (7) extend to the depth of the kiln, and their ends are joined by cross pieces (8), and are supported upon the pins that pass through the uprights, as shown in Figs. 1 and 2, it being observed that the position of the slats (7) is between the strips of veneer. Consequently they alternate with the grooves in the upper and lower cross bars (5) of the rack itself, and these intermediate bracing bars as united at their ends may be tilted easily upon their supporting pins when desired. It is intended, of course, that the cross pieces 8 shall be so arranged as not to interfere with the insertion or withdrawal of the stuff to be dried from the rack grooves, and this is accomplished by tilting one of the cross pieces 8 upward and the lower one downward, in the manner shown in the full lines in Fig. 2, and the strips of veneer (9) may thus be inserted or withdrawn from the rack grooves without any difficulty. These rack grooves may be made of any suitable width, ordinarily five-eighths of an inch, to accommodate a half dozen sheets of thin veneer, but the spaces between these grooved rack bars are perhaps one and one half inches, thus allowing a free circulation of air all around the ends of the stuff, insuring its even and perfect drying. The brace strips (7) and cross pieces 8 having been thrown up and down in the position shown in Fig. 2, the stuff to be dried is inserted in the grooves, and the bracing strips, and cross pieces connecting their ends which, as before mentioned, really constitute a series of intermediate

racks, are pulled down to the horizontal position shown in the dotted lines in Fig. 2, and such brace strips extending backward through the depth of the kiln, touch and brace the sheets of veneer at all points, and support them above, below, and also between the ends where they enter the rack grooves, in proper position for securing the best results during the operation of drying.

It is becoming common to use larger and still larger sheets of veneer, and without some such arrangement as these intermediate bracing strips or frames it would be almost impossible to satisfactorily dry large sized stuff so as to prevent it from warping, breaking, or splitting, or becoming injured or curled up during the operation.

The method herein shown of supporting the rack in the framework upon pins, or supporting the intermediate bracing strips, may be varied if necessary, but the principle will be substantially the same however they are supported or braced, and I do not intend to limit myself to the exact construction herein shown.

What I claim as my invention, and desire to secure by Letters Patent, is the following:

1. In a rack for holding veneers or thin lumber while being dried, a movable bracing frame composed of cross pieces and a series of connecting strips rigidly secured thereto sufficiently close together to support and brace the strips of lumber placed between them, substantially as shown and described.

2. A rack for holding veneers or thin lumber while being dried, consisting of a framework, a movable bracing frame composed of cross pieces and a series of connecting strips rigidly secured thereto sufficiently close together to support and brace the strips of lumber placed between them, and means of supporting the bracing frame in the framework, substantially as shown and described.

3. In a rack for holding veneers or thin lumber while being dried, a series of strips passing through such rack, whereby the sheets will be so held and supported laterally as to prevent warping or buckling during the process of drying, such strips having a central bearing, and their ends attached to cross-pieces, whereby such cross pieces and the strips may be thrown up or down out of the way during the insertion or removal of the material to be dried, substantially as shown and described.

4. A rack for holding veneers or thin lumber while being dried, comprising a framework, a pair of cross-bars provided with oppositely arranged grooves placed parallel to each other and adapted to receive between them the sheets of material, a series of bracing strips whose ends are suitably connected together, such strips having an adjustable central bearing and passing between the sheets of material to be dried and adapted to hold the same laterally in proper position for

drying and to prevent any warping or breaking thereof, substantially as shown and described.

5. A rack for holding veneers or thin lumber while being dried, consisting of a framework, a rack supported therein provided with adjustable grooved slides at the top and bottom to receive the ends of the sheets of material, such grooved slides placed at suitable distances apart, allowing the free circulation of air about the stuff, in combination with one or more intermediate bracing rack frames formed of a series of strips whose ends are suitably connected together, such strips having an adjustable central bearing and passing between the sheets of material to be dried, and adapted to hold the same laterally in proper position for drying; and to prevent any warping or breaking thereof, substantially as shown and described.

6. A rack for holding veneers or other thin lumber while being dried, comprising a framework, racks supported therein, grooves formed at the upper and lower ends of such racks to receive the ends of the sheets of material to be dried, bracing strips for supporting the material laterally between the ends and having a central bearing for allowing the ends to be thrown up or down during the insertion or removal of the material from the rack grooves, substantially as shown and described.

7. A rack for holding veneers or other thin lumber while being dried, consisting of a framework, adjustable racks with grooved guides arranged in pairs parallel to each other in a horizontal position, and with the grooved faces toward each other, in combination with bracing strips having an adjustable central bearing and passing through the rack frame and between the sheets of material to be dried, the ends of such strips connected to and supported by cross pieces, such cross pieces adjustably supported from the framework, whereby the material to be dried will be prevented from warping, buckling, or breaking, substantially as shown and described.

8. A rack for holding veneers or other thin lumber in place while being dried, consisting of a framework, a series of grooved bars adjustable vertically and adapted to receive the ends of the sheets of material to be dried, in combination with a series of cross strips between such grooved bars having a central bearing and connected at the ends to cross pieces, such cross pieces adjustably supported upon the framework, whereby the sheets of material to be dried may be prevented from warping or buckling, substantially as shown and described.

In witness whereof I have hereunto set my hand this 3d day of February, 1892.

PERLEY B. RAYMOND.

Witnesses:

H. D. NEALY,
M. D. WILLIAMSON.