

900,167.

Patented Oct. 6, 1908.

FIG. 1.

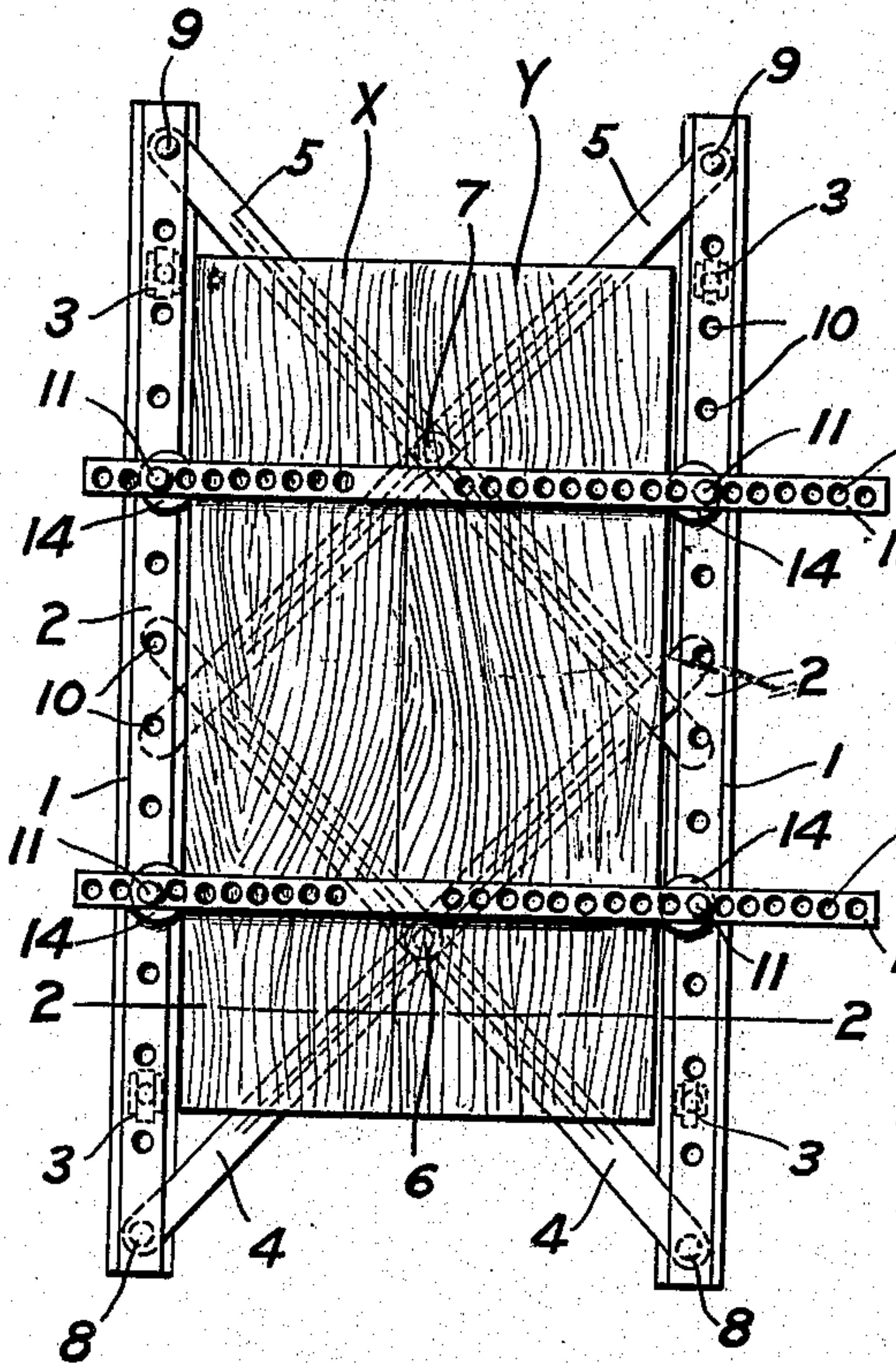


FIG. 3.

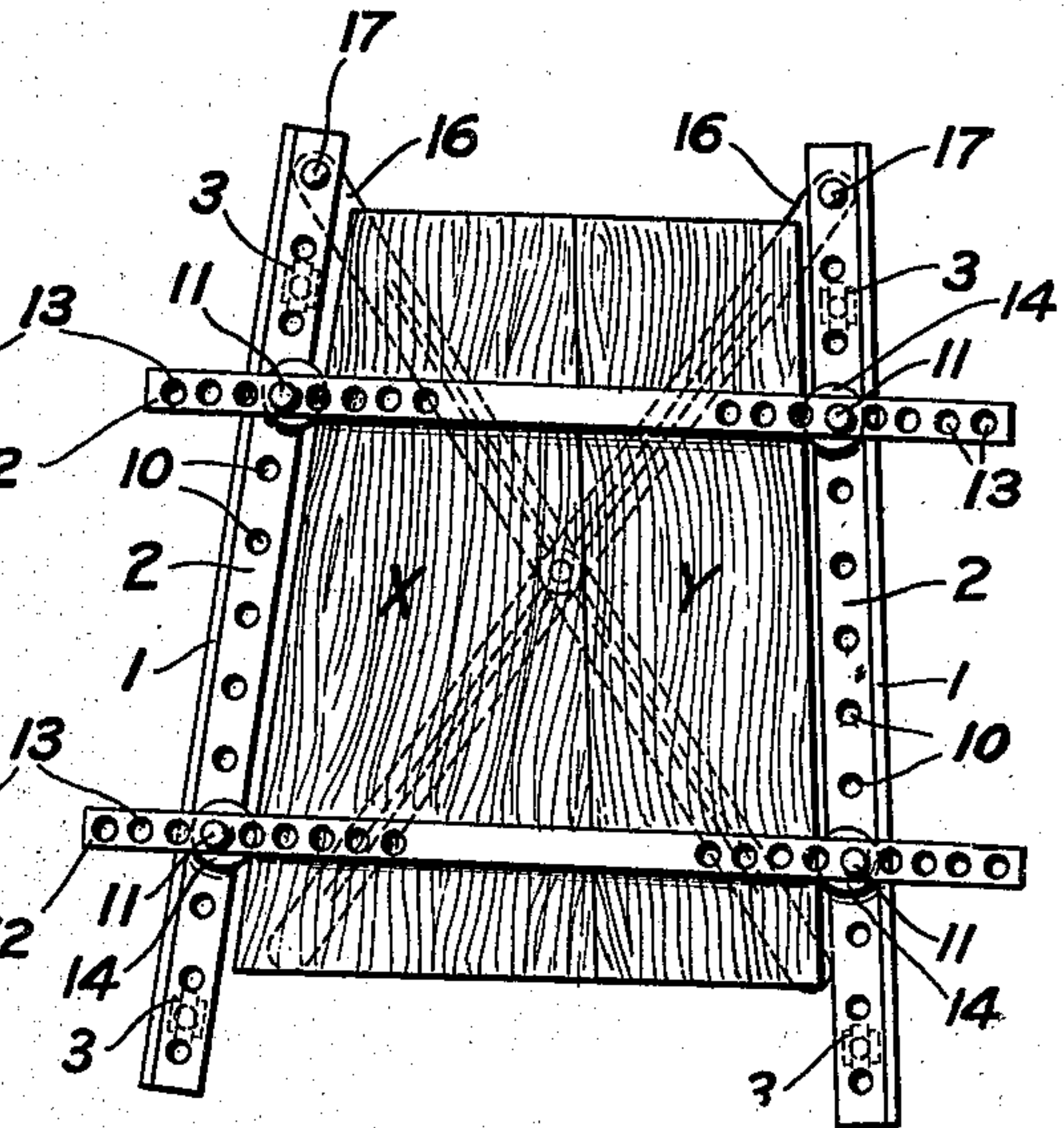


FIG. 2.

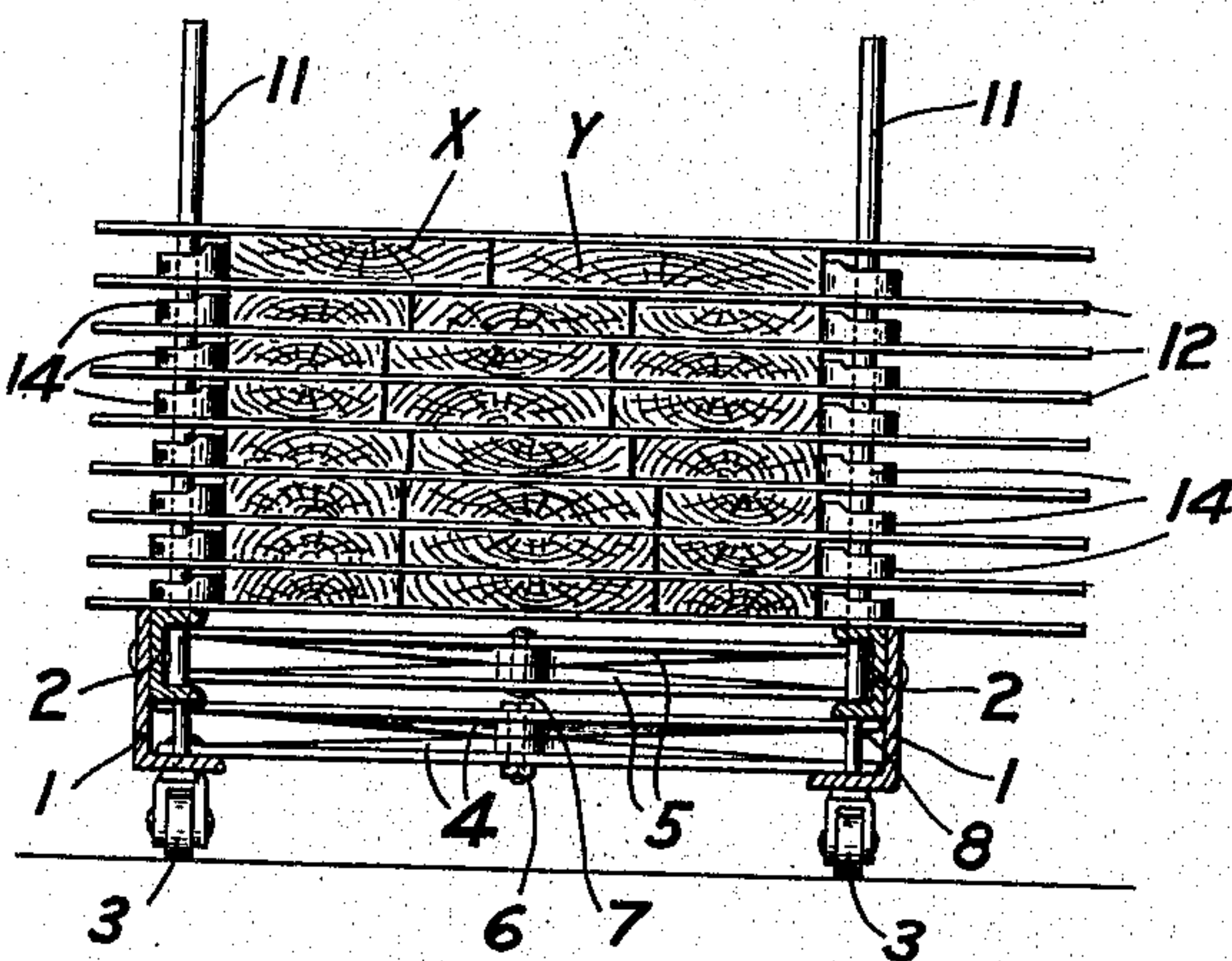


FIG. 4.

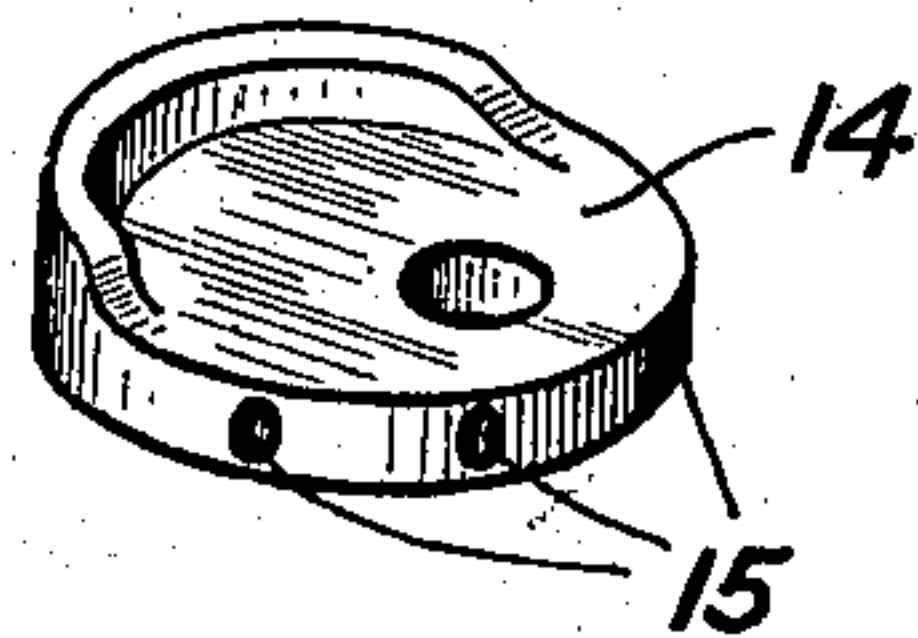
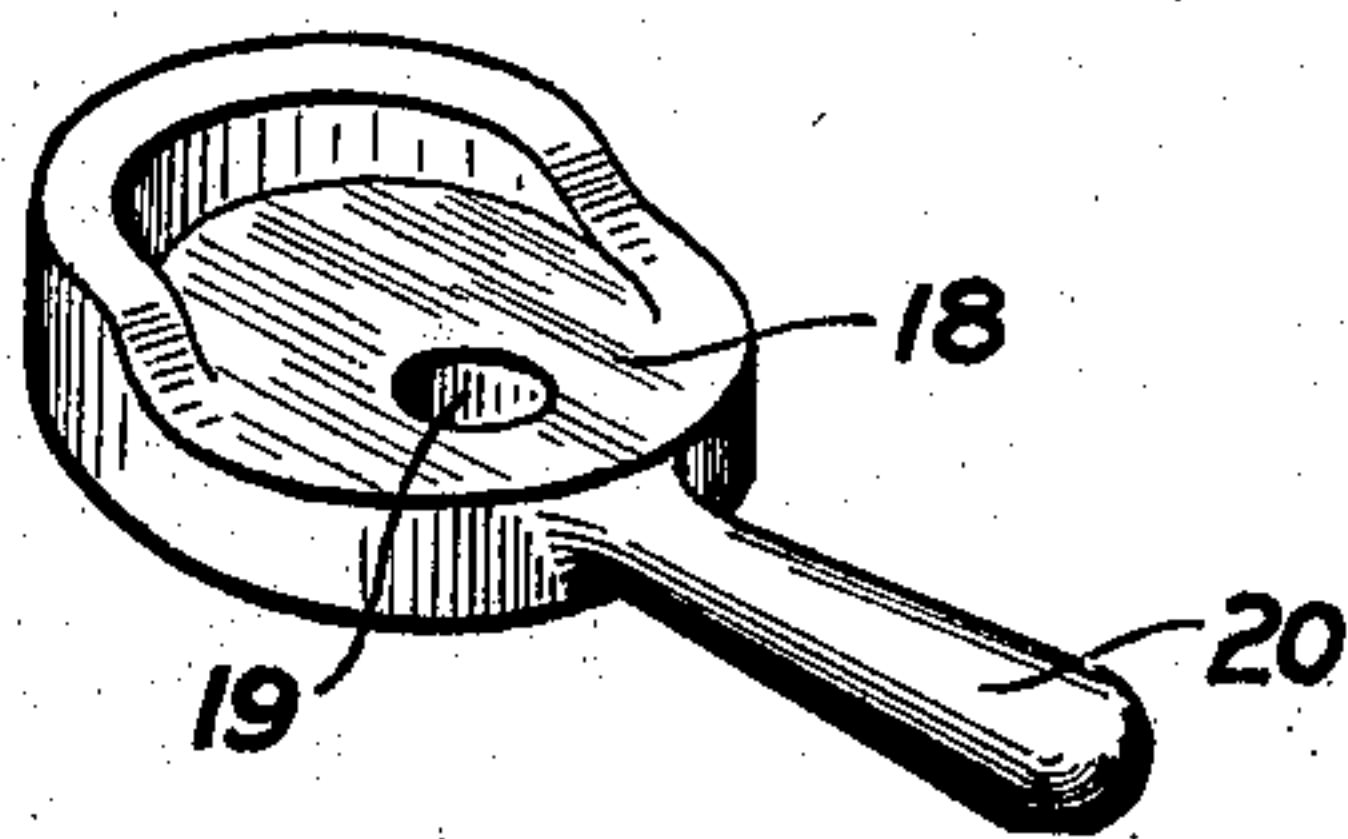


FIG. 5.



WITNESSES:

H. Gurnee.
C. W. Carroll

INVENTOR:

Anton Hettel
by O. J. O'Connell
his attorney

UNITED STATES PATENT OFFICE.

ANTON HETTEL, OF ROCHESTER, NEW YORK, ASSIGNOR TO ALPHA R. BEAL, OF ROCHESTER, NEW YORK.

GLUING-FRAME.

No. 900,167.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed January 23, 1908. Serial No. 412,343.

To all whom it may concern:

Be it known that I, ANTON HETTEL, a citizen of the United States, and resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Gluing-Frames, of which the following is a specification.

This invention relates to gluing frames, and consists in the construction and combination of parts hereinafter described and claimed.

In the drawings: Figure 1 is a top plan view of a truck piled with lumber in the process of gluing; Fig. 2 is a cross-section on the line 2—2 of Fig. 1; Fig. 3 is a top plan view of a modified form of the device, set for wedge-shaped lumber; Fig. 4 is a perspective view of a locking cam; and Fig. 5 is a similar view of a modified form of locking cam.

The truck is composed of a pair of side rails, and each rail comprises an angle iron 1 and a channel piece 2 which are riveted together. Suitable casters 3, 3 are inserted in the lower side of the angle irons. In the form in which the frame is usually made, the members of a pair of lazy-tongs 4, 4 and 5, 5 are, respectively, pivoted to the side rails, at each end, so that their free ends are directed inwardly and bear against said side rails, the angle irons 1, 1 containing the free ends of the tongs 4, 4, and the channel pieces 2, 2 containing the free ends of the tongs 5, 5. The side rails are maintained parallel to each other by these means, when moved toward or from each other, the free ends of the lazy-tongs 4, 4 and 5, 5 sliding to and fro within the recesses in the pieces 1 and 2, respectively, as the side rails are closed or spread apart.

Upright posts are provided on the side rails by rods 11 that slip through holes 10, 10, placed opposite each other in the channel pieces 2, 2, and stand upon the angle irons 1, 1, respectively.

When lumber, represented by X, Y, in Fig. 1, is to be glued together, two or more pairs of these posts 11 are inserted in the channel bars 2, and a cross bar 12 is slipped over each pair. These cross bars 12 are perforated to receive the posts 11, and a number of perforations adapt the cross bars for different widths of lumber. The cross bars

both hold the side rails 2, 2 rigidly apart at the proper distance, and support the lumber. Next the pieces of lumber X, Y, which are to be glued together, are laid upon the cross bars 12 as shown in Fig. 1, with their outer edges parallel to the side rails; an eccentric or cam 14 is slipped upon each of the posts 11 above the cross bars 12; and another cross bar 12 is placed upon each pair of posts, above the cams and lumber (see Fig. 2). The cams rest upon the lower cross bar 12, and are adapted to bear against the lumber. A suitable spanner or wrench having been inserted in the holes 15 in the periphery of said cams, those located on one side of the truck are turned so as to force the pieces of lumber away from the posts 11 on which the cams are located, and towards the posts 11 on the opposite side of the truck. Finally, the cams 14 upon the posts last referred to are turned so as to force the pieces of lumber X, Y, back against the first mentioned cams. The cross bars 12 both resist the pressure of the cams upon the lumber, and, as they are tightened by the action of the cams, afford a means for holding the lumber down flat while being subjected to lateral pressure.

If desired, more than two pairs of cams may be used to force the boards together, the number employed mainly depending upon the length of the boards, and it is also obvious that cams on one side rail only will suffice.

Fig. 2 shows how several sets of boards are piled up on the truck, with cross bars 12, and cams 14 between each set, and cross bars above the uppermost set to keep the latter from buckling under lateral pressure. These considerations should also be noted, viz: that the number of sets of boards that may be placed upon the truck depends solely upon the length of the posts 11; that the cross bars 12 constitute spacers between the pairs of boards that prevent them from becoming glued together; that the more the truck is loaded, the more rigid it becomes, because braced by a greater number of cross bars; and that when the desired number of boards have been fixed in position upon the truck, it may be rolled upon the casters 3 to the drying room.

In the modified form illustrated in Fig. 3, only one pair of lazy-tongs 16, 16 is used. These tongs are pivoted at one end to the

channel pieces 2, 2, and their other ends are free. The channel pieces 2, 2 may thus, if desired, be set at an angle to each other in order to receive boards whose edges are not parallel. By having the perforations 13 in the cross bars 12 sufficiently close together, a fine adjustment may be obtained. In operation the cross bars 12 and the cams 14 are placed upon the posts 11, and set up as before. Practically the same adjustment for angular pieces of lumber like those shown in Fig. 3 may be obtained with the frame shown in Fig. 1, in which two pairs of lazy-tongs are employed, by making one or both of the pivots 6 and 7 of the lazy-tongs, removable, as for example the bolt 6 shown in Fig. 2.

In Fig. 5 a modified form of cam is shown, comprising an eccentric disk 18, through which there is a hole 19 adapted to fit one of the posts 11, and which has a handle 20 integral with said disk. The form of cam shown in Fig. 4 is preferable for general use, as it is more readily reached by a removable spanner than the handle 20 of the cam 18 is, when a considerable number of boards are upon the truck.

If it is desired to glue together unusually long boards, such as store counters &c., two or more of the trucks shown in Fig. 1 may be placed end to end and the boards laid upon them, and if the boards vary in width, two or more short trucks may be set end to end, so that a different one may be used for each width. So too, the frames may be combined in other ways to accommodate boards of various widths and lengths, so that they are available for a great variety of work and many different uses.

What I claim is:

1. In a gluing frame, the combination of a pair of side rails; a pair of lazy-tongs attached at one end to the side rails and whose free ends are adapted to bear against them; cross bars adapted to support the lumber; adjustable connections between said cross bars and said side rails, whereby the latter are locked by the former in an extended position; means attached to the side rails, adapted to engage the lumber and to compress it; substantially as shown and described.

2. In a gluing frame, the combination of a pair of side rails; a pair of lazy-tongs attached at one end to the side rails, and whose free ends are adapted to bear against them; posts extending up from said side rails in pairs, the members of which are placed opposite each other; cross bars perforated at each end to receive said upwardly extending posts, and adapted both to support the lumber and to lock the side rails in an extended position; and means attached to said side rails, adapted to engage the lumber and to

compress it; substantially as shown and described. 65

3. In a gluing frame, the combination of a pair of side rails; a pair of lazy-tongs attached at one end to the side rails and whose free ends are adapted to bear against them; posts extending up from said side rails in pairs, the members of which are placed opposite each other; cross bars perforated at each end to receive said upwardly extending posts, and adapted both to support the lumber and to lock the side rails in an extended position; and cams eccentrically perforated to receive said upwardly-extending posts, and adapted to lie upon said cross bars and adjacent to the lumber; substantially as shown and described. 70 75 80

4. In a gluing frame, the combination of a pair of side rails; a pair of lazy-tongs attached at one end to the side rails and whose free ends are adapted to bear against them; posts extending up from said side rails in pairs, the members of which are placed opposite each other; cross bars perforated at each end to receive said upwardly-extending posts, and adapted both to support the lumber and to lock the side rails in an extended position; cams eccentrically perforated to receive said upwardly-extending posts, and adapted to lie upon said cross bars and adjacent to the lumber; and means for holding the lumber flat while under lateral compression; substantially as shown and described. 85 90 95

5. In a gluing frame, the combination of a pair of side rails; two or more pairs of lazy-tongs, each pair being attached at one end to the side rails, and having its other ends free and adapted, respectively, to bear against the side rails; cross bars, adapted to support the lumber; adjustable connections between said side rails and said cross bars, whereby the side rails are locked in an extended position; and means attached to the side rails, adapted to engage the lumber and to compress it; substantially as shown and described. 100 105 110

6. In a gluing frame, the combination of a pair of side rails; two pairs of lazy-tongs, each pair being attached at one end to the side rails, and having its other ends free and adapted, respectively, to bear against the side rails, and one of said lazy-tongs having its pivot removable; cross bars, adapted to support the lumber; adjustable connections between said side rails and said cross bars, whereby the side rails are locked in an extended position; and means attached to the side rails, adapted to engage lumber and to compress it; substantially as shown and described. 115 120

ANTON HETTEL.

Witnesses:

A. R. BEAL,
D. GURNEE.