L. M. COX.

FRUIT BOX PRESS.

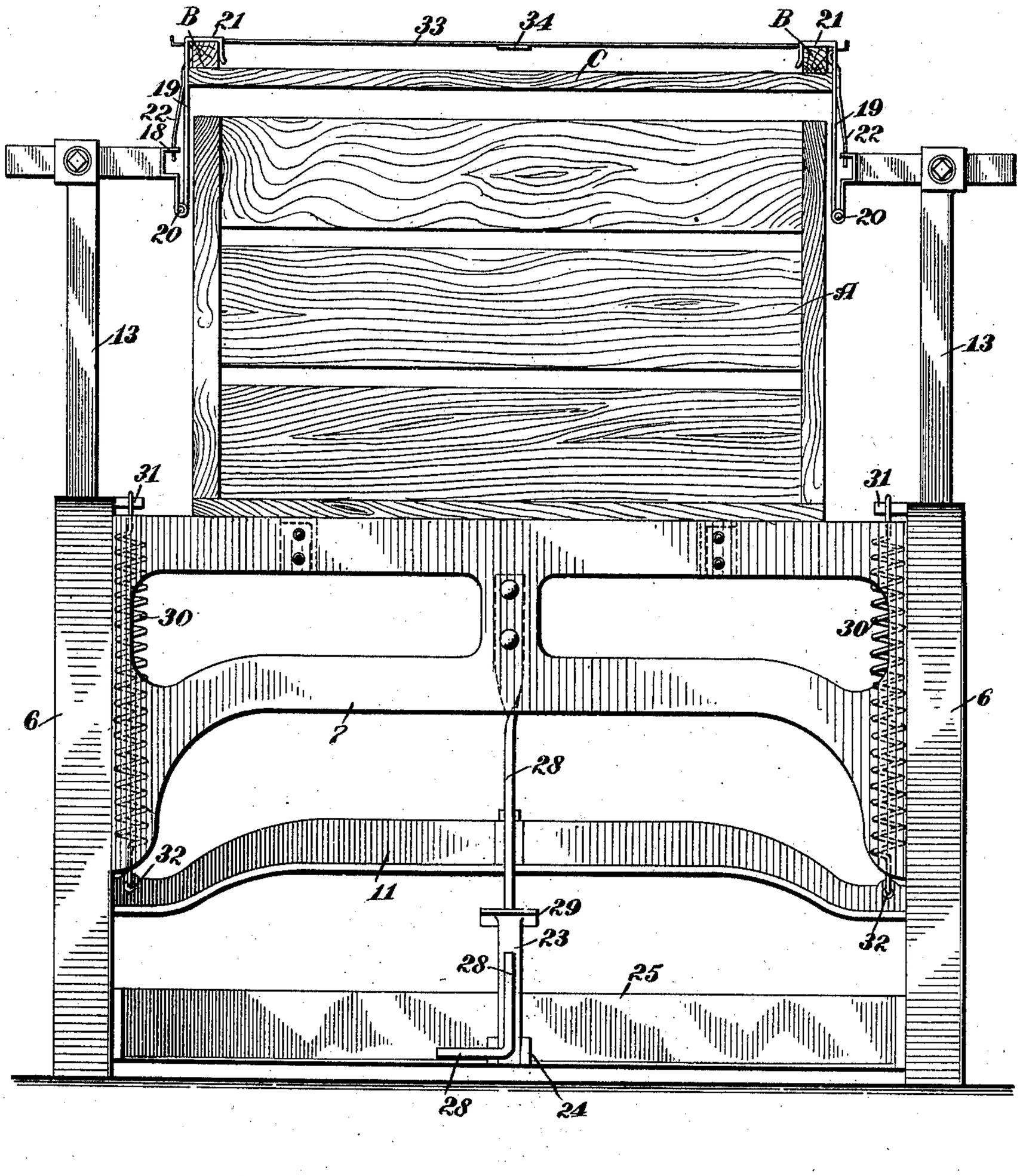
APPLICATION FILED JUNE 11, 1909.

963,521.

Patented July 5, 1910.

3 SHEETS—SHEET 1.

Fig. 1



WITNESSES

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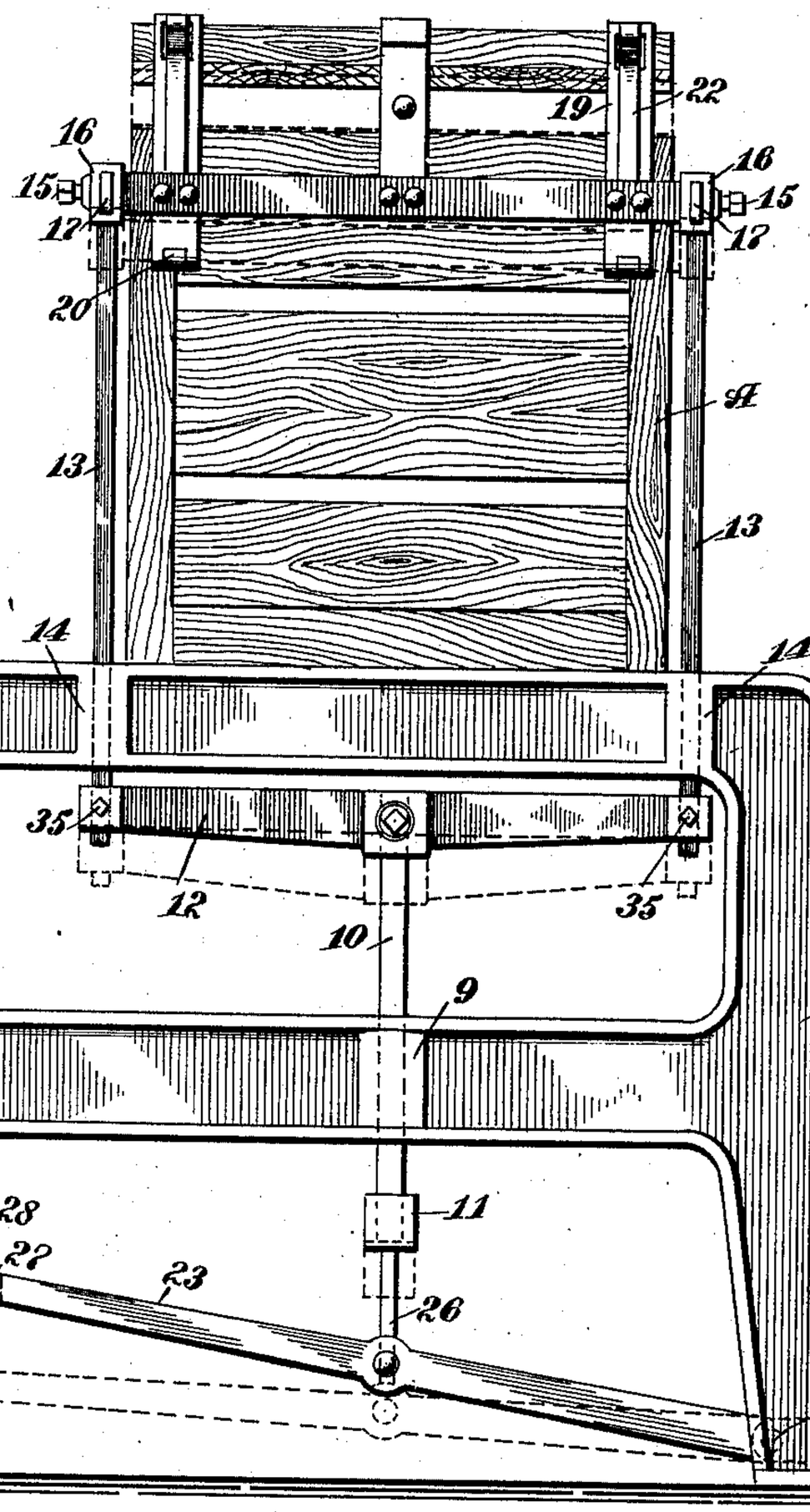
3 SHEETS—SHEET 2.

Fig. 2



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3 SHEETS—SHEET 3.

Fig. 3

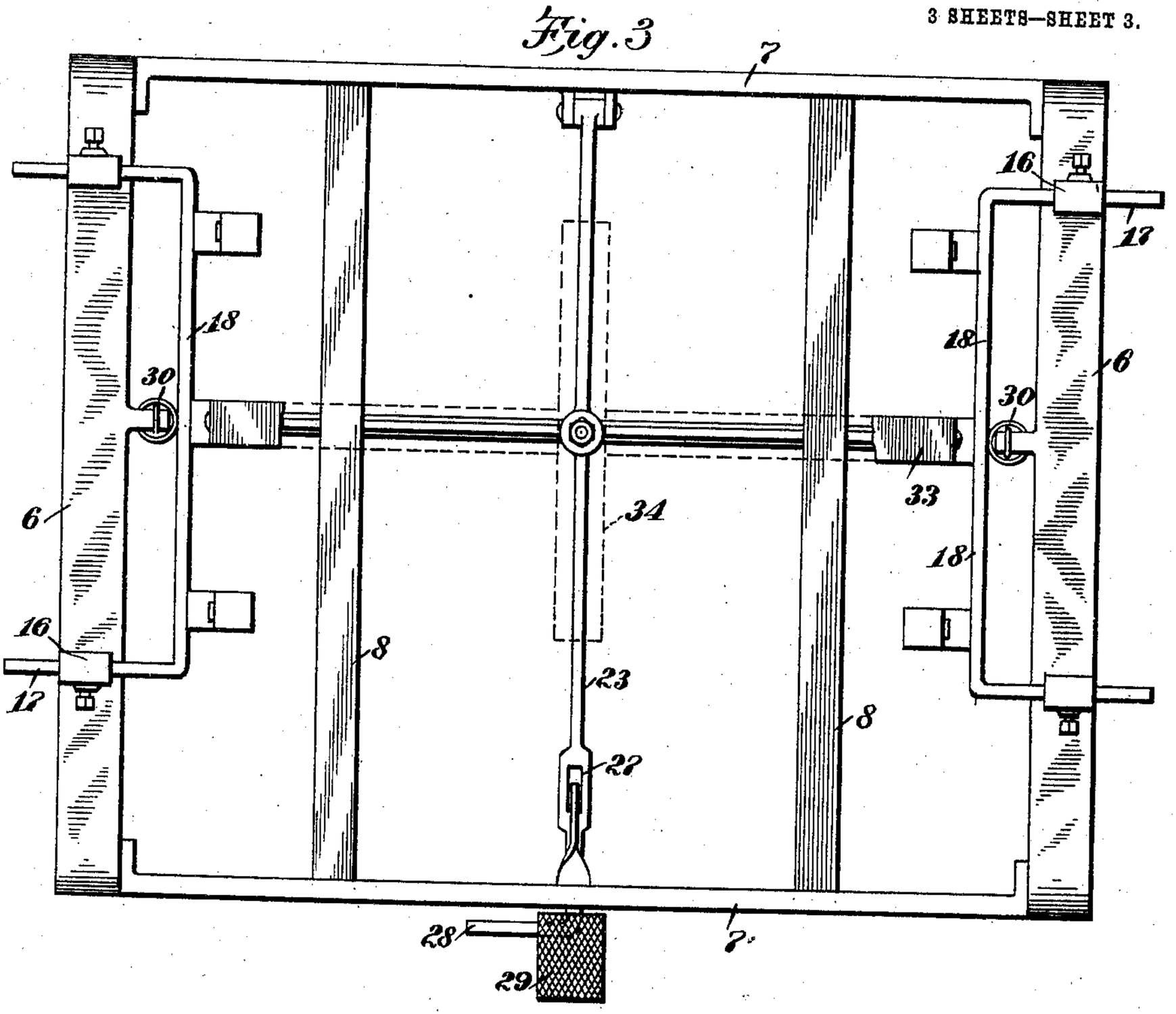


Fig. 4

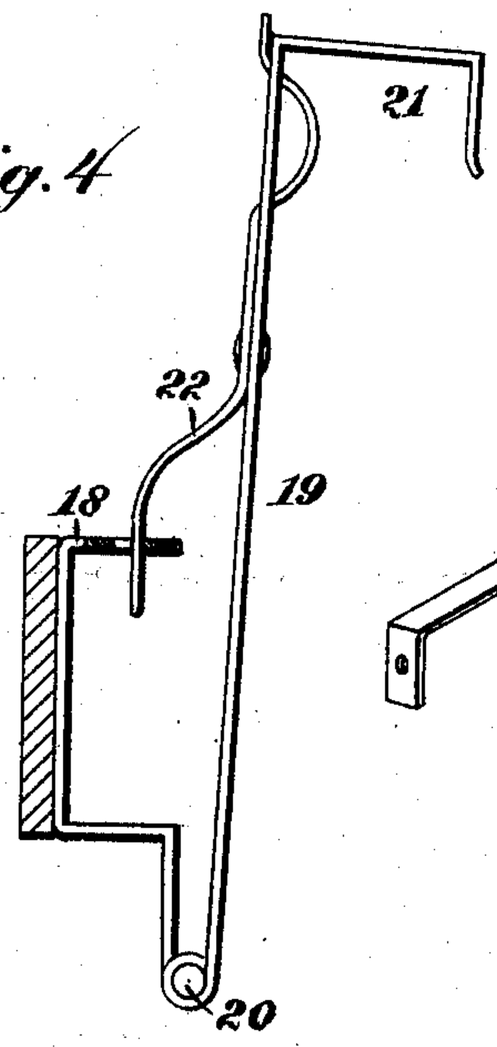
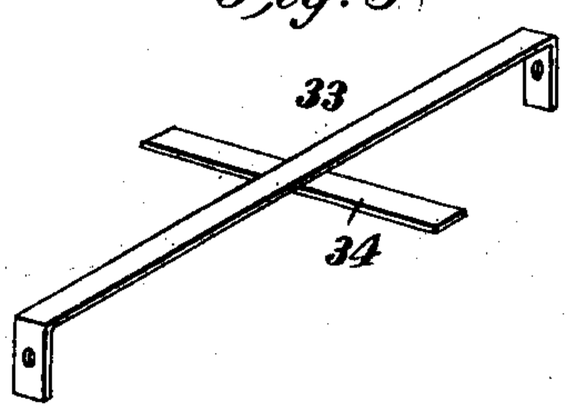


Fig. 5.



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FRUIT-BOX PRESS.

963,521. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed June 11, 1909. Serial No. 501,515.

To all whom it may concern:

Be it known that I, LUCIEN M. COX, a citizen of the United States, and residing near Toppenish, in the county of Yakima and State of Washington, have invented a certain new and useful Fruit-Box Press, of which the following is a full, clear, and exact description.

The principal objects which the present invention has in view are: To provide a press for holding the boards and cleats for the tops of boxes or crates to be placed in position and there held for nailing; to provide a press which will maintain the parts to be nailed on a box independently of handling by the operator, thereby leaving the mechanic free to use both hands in the process of nailing; to provide a press which will accommodate within wide radius various sizes of boxes; and to provide a press wherein the box structure is squared before the top is secured thereto.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, wherein like characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of a press constructed in accordance with my invention, the box and box top being in position for operation; Fig. 2 is a side elevation of the same; Fig. 3 is a plan view of the press, the box and box cover having been removed; Fig. 4 is a detail view in side elevation of the boards and cleat holders; and Fig. 5 is an isometric perspective of an auxiliary press member for use on presses wherein the median section of the top tends to bulge excessively.

The side members 6 are joined by front and rear frames 7, between which are extended guides 8 which also serve as a cross bracing for the frame. The principal purpose which the guides 8 perform is to provide a rest for the box A during the operation of putting the cover on the same.

In the sides 6, 6, are formed bearings 9 in which are mounted rods 10, connected at the lower end with a cross beam 11 and at the top with spreader bars 12. At each end of the spreader bars are erected draw bars 13, which are slidably mounted in the spreader bars to permit of vertical adjustment and are held in the adjusted position by set screws 35. These draw bars pass through slots provided in projections 14 formed in the sides 6. Guides 16 are mounted upon the ends of the draw rods 13 and are slotted to receive the extension bars 17, which are adjustably mounted in the guides 16 and are secured in their adjusted position by screw nuts 15.

The extension bars 17, 17, on each side of the machine are adjustable to and from each other, approaching or receding from a box mounted upon the slides 8 of the press. The extension bars 17 are joined and in some cases integrally formed with cross bars 18. Mounted upon the bars 18 are spring holders 19, which are hinged at 20 and are pressed forward at the upper end, where they are bent to the squared shape shown at 21, the downward extensions of which are adapted to grip cleats B, which are forced against the same by springs 22 suitably mounted in the bars 18 as shown particularly in Fig. 1 of the drawings.

The tops for fruit boxes generally consist of two and rarely more than three boards, which are cut to extend lengthwise of the boxes. These boards are pressed upward between the spring holders 19, which hold the boards in position by their spring pressure. Prior to putting the boards C into position, the cleats B have been pushed within the squared ends 21 of the holders 19, where they are held by the pressure of the springs 22. With the holders thus operating to grip the cleats B and the boards C constituting the top of the box, the press is now ready to receive the box A which is raised on to the guides 8 and shoved into position between the bars 18.

With a box thus held, the cross beam 11 is depressed by means of a lever 23 which is pivoted at 24 in a brace 25. The lever 23 is connected with the cross beam 11 by means of a rod 26. The forward end of the lever is slotted at 27 to receive a kicker rack 28. By the operator putting his foot upon the foot rest 29 of the lever 23, he depresses the lever 23 to the position shown in dotted lines in Fig. 2 of the drawings. The kicker rack 28 may be actuated by a weight or by a spring, to throw it into engagement with the lever 23 to hold it in its depressed position, the teeth of the kicker rack passing over the edge of the slot 27.

When the lever 23 is in position shown in dotted lines in Fig. 2 of the drawings, the boards C and cleats B of the top are pressed firmly down upon the box A.

The lever 23 being held in position by the kicker rack 28, the mechanic is at liberty to move from the press or to move about the same. In the operation it will be observed that the cleats and boards have been held by the lever so that when they are placed upon the box in the position above described, it is not necessary for the mechanic to hold the cleats or boards with one hand while driving the nails with the other.

It will also be observed that after the box A has been shoved into position, if it be twisted from the rectilinear shape desired for the box, it will be drawn by the spring holders 19 into the desired shape as the top is pressed down upon the box.

The cross beam 11 and parts connected therewith are raised by means of heavy spiral springs 30, secured upon extensions 31 on the stationary frame and by eyelets 32 in the brace 11.

Whenever the box cover C and the cleats B are secured in position, the kicker rack 28 is forced out of engagement with the lever 23, whereupon the springs 30 raise the cross beam 11 and the parts connected therewith to the position shown in Figs. 1 and 2 of the drawings. In this position the box which has been provided with a top, is removed from the guides 8 and the cleat holders and top board holders are again supplied with cleats and boards ready to receive the succeeding box.

The cross brace 33, shown in detail in Fig. 5 of the drawings, is a suitable strap having resiliency sufficient to avoid cramping the top, and has transversely extended from the center of the strap 33 an arm 34, said strap being secured to the bars 18 as shown in Fig. 3 of the drawings. When provided with the strap 33 and cross arm 34, the presser members exert a pressure upon the median section of the cover as well as upon the ends thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A fruit box press comprising a supporting frame; end clamping devices for holding the covering boards in guided position above the box structure; spring clips connected with said clamping devices for retaining in operative position box cleats; and means for drawing said boards and cleats toward the said supporting frame.

2. A fruit box press comprising a supporting frame; resilient holding members for box covering cleats; and means for depressing said holding members upon a box when supported on said frame.

3. A fruit box press comprising a supporting frame; end clamping devices for holding the covering boards in guided position above the box structure; spring clips connected with said clamping devices for retaining in operative position box cleats; means for drawing said boards and cleats toward the said supporting frame; and means for adjusting laterally said clamping devices.

4. A fruit box press comprising a supporting frame; resilient holding members for box covering cleats; means for depressing said holding members upon a box when supported on said frame; and means for adjusting laterally said holding members.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LUCIEN M. COX.

Witnesses:
ROSCOE MADDOX,
S. L. AMES.