No. 663,847. Patented Dec. 18, 1900.

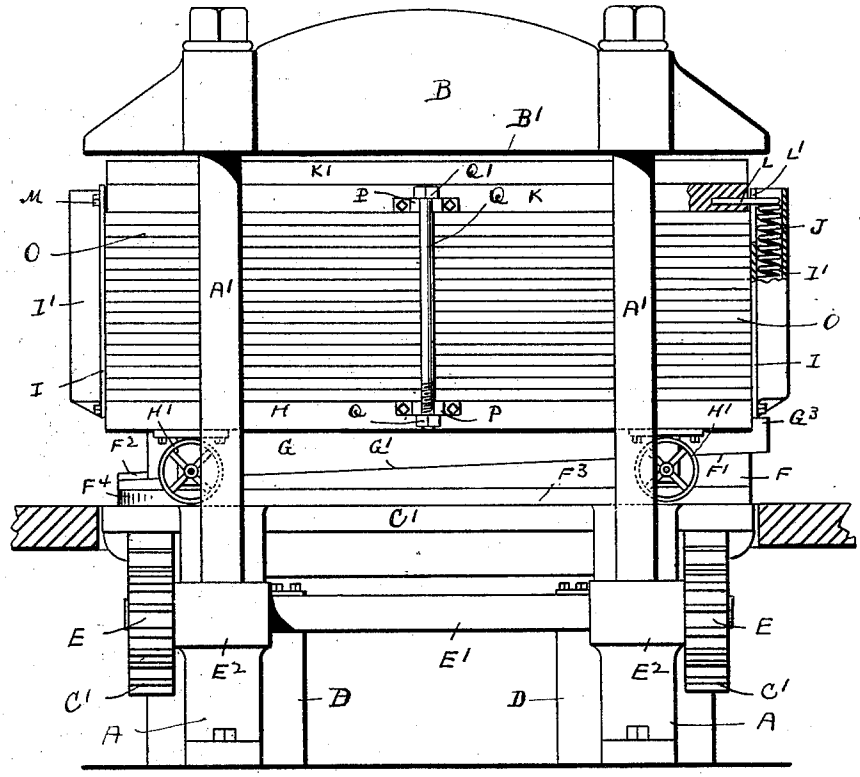
F. H. BANCROFT.

PRESS.

(Application filed Sept. 16, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.



Witnesses;

C. Forest Wesson.

M. C. Price

Inventor;

Frank H. Bancroft.

By Rufus B. Fowler Atty

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(No Model.) 2 Sheets—Sheet 2.

FIG. 2.

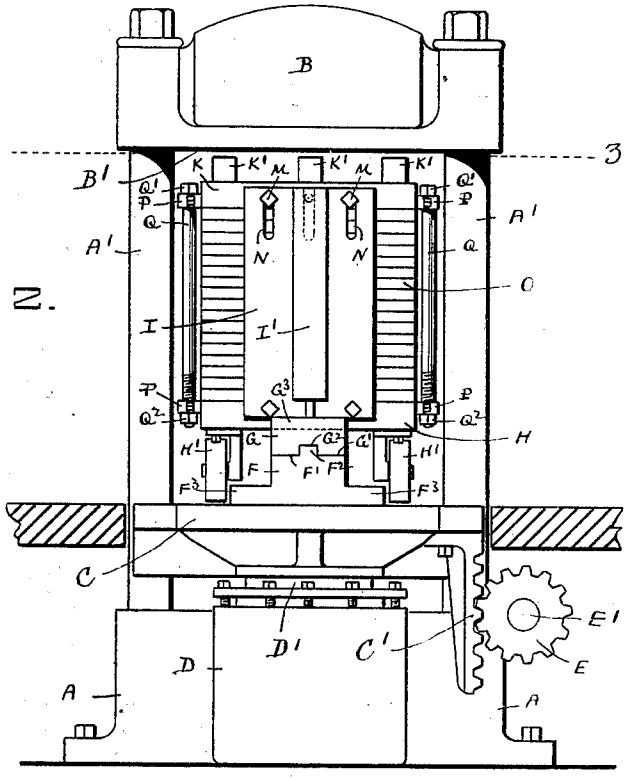
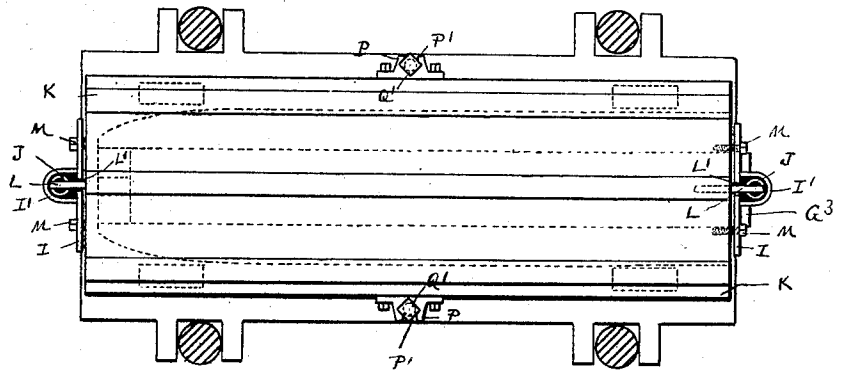


FIG. 3.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK H. BANCROFT, OF GARDNER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO HENRY M. RICH, OF SAME PLACE.

PRESS.

SPECIFICATION forming part of Letters Patent No. 663,847, dated December 18, 1900.

Application filed September 16, 1899. Serial No. 730,721. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. BANCROFT, a citizen of the United States, and a resident of Gardner, in the county of Worcester and Commonwealth of Massachusetts, have invented new and useful Improvements in Presses, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 represents a side elevation of a press embodying my invention. Fig. 2 is an end view. Fig. 3 is a top view shown in section on line 3 3, Figs. 1 and 2.

Similar letters refer to similar parts in the different figures.

My invention relates particularly to a press designed for pressing veneered sheets of wood, such as the front of drawers or similar articles; and it has for its object to provide means for pressing a multiplicity of pieces at a single operation and closely clamping the pressed pieces while subject to pressure in order to hold the glued pieces in contact during the operation of drying; and it consists in the construction and arrangement of parts, as hereinafter described, and set forth in the annexed claims.

Referring to the accompanying drawings, A denotes the base of the press, upon which are mounted upright posts A′, united at their upper ends by a cross-head B, the under surface of which forms the stationary or fixed pressing-surface. Below the cross-head is a follower C, constituting the reciprocating pressing-surface and capable of being raised by means of any suitable mechanism, that in the present instance consisting of a pair of hydraulic cylinders D D, containing pistons or plungers D′, upon which the follower C is mounted.

Suitable supply and exhaust pipes and controlling-valves (not shown) are provided, by which the pistons D′ are actuated in the usual and well-known manner in hydraulic presses. In order to secure the uniform movement of both ends of the follower, I couple its ends together by means of racks C′, attached to the under side of the follower and at opposite ends and engaging pinions E E, which are attached to a common shaft E′, journaled in bearings E^2, so that the two ends move simultaneously and maintain the follower in a horizontal position. Attached to the upper side of the follower C is a block F, having its upper surface F′ inclined and provided with a longitudinal rib or tongue F^2. The block F is provided on each side with flanges F^3, which are tapered at one end, as at F^4. Sliding upon the inclined surface F′ of the block F is a wedge G, having its under surface G′ inclined and resting upon the inclined surface F′ and provided with a groove G^2 to receive the rib or tongue F^2. The forward end of the wedge G is provided with an upturned lug G^3, arranged to be struck by a truck, in order to slide the wedge, as hereinafter described.

The veneered wood or other articles to be pressed are placed upon a truck consisting of a body H, mounted upon wheels H′ and having attached to its opposite ends plates I, provided with vertical tubular chambers I′, containing spiral springs J, which are housed in the chambers I′. Between the plates I and corresponding in size to the truck-body H is a cover K, having inserted in each end studs L, which project through slots L′ in the plates I and extend over and rest upon the upper ends of the springs J, by which the weight of the cover K is supported. Bolts M pass through closed slots N in the plates I and are held in the ends of the cover K in order to limit the movement of the cover K as it is pressed upward by the springs J. The articles to be pressed are placed between the truck-body H and the cover K, and the truck is rolled upon the follower C, the edges of the flanges F^3, with their tapered ends F^4, guiding the wheels H′ of the truck, so that the truck will stand centrally between the upright posts A′. As the truck moves forward upon the follower C the truck-body H moves over the wedge G, which rests upon the inclined surface F′ of the block F until the forward end of the body H strikes the upwardly-projecting lug G^3, when the wedge G is drawn forward upon the inclined surface F′ until it strikes the under side of the truck and causes the weight of the truck and the work held thereon to be supported by the follower C and the interposed block F and wedge G, thereby relieving the truck-wheels H′ from pressure. Water un-

der pressure is now admitted to the hydraulic cylinders D and the follower C forced upwardly, bringing the ribs K′, attached to the upper surface of the cover K, against the under surface of the cross-head B, thereby crowding the cover K down and imparting the requisite pressure to the glued pieces O. The edges of the truck-body H and the cover K are provided with lugs P, having open slots P′ to receive the clamping-bolts Q, having heads Q′ and nuts Q^2, which are tightened on the bolts to clamp the pressed work between the truck H and cover K. The truck, with the pressed and clamped work thereon, is then withdrawn from the press and another loaded truck substituted and the operation repeated. When the work has stood in its clamped position upon the truck long enough to become thoroughly dried, the nuts Q^2 are unscrewed and the springs J allowed to crowd the cover K up, bringing the bolts M at the upper ends of the slots N and releasing the work.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a press, the combination with the pressing members, of a block attached to one of said members, and having an inclined upper surface, a truck on which the work is held and a wedge interposed between the under surface of said truck and the inclined surface of said block, substantially as described.

2. In a press, the combination with the pressing members, of a truck on which the work is held, a wedge interposed between the under surface of said truck and one of said pressing members, and means by which said wedge is drawn into position by the forward movement of said truck, substantially as described.

3. In a press, the combination with the pressing members, of a truck on which the work is held, a block attached to one of said pressing members having a tapered end by which the truck is positioned on said pressing member, and a wedge sliding on said block and arranged to receive the pressure on the body of said truck, substantially as described.

4. In a press, the combination with the pressing members, of a body on which the work is supported, a cover for the work, springs by which the cover and body are separated, means for limiting the motion of said cover as actuated by said springs, and means for clamping the body and cover together, substantially as described.

5. In a press, the combination of a fixed cross-head and a reciprocating follower, said cross-head and follower forming the pressing members, and an inclined block on said follower, a truck on which the work is held, arranged so that its body slides over said block, a wedge arranged to slide on said block and having a lug projecting into the path of said truck, whereby said wedge is drawn along said inclined block by the forward movement of said truck, substantially as described.

6. The combination with the pressing members of a press, of a truck supported on one of said pressing members and comprising a body portion, vertical plates attached to said body and having chambers open at their top and forming housings for spiral springs, springs held in said housings, a cover for the work held on said body, studs held in said cover and resting on said springs by which the weight of said cover is supported, substantially as described.

In testimony whereof I have hereunto signed this specification, in presence of two subscribing witnesses, this 5th day of September, 1899.

FRANK H. BANCROFT.

Witnesses:
BERTHA M. ATKINS,
GERTRUDE B. BLANDIN BRYANT.