

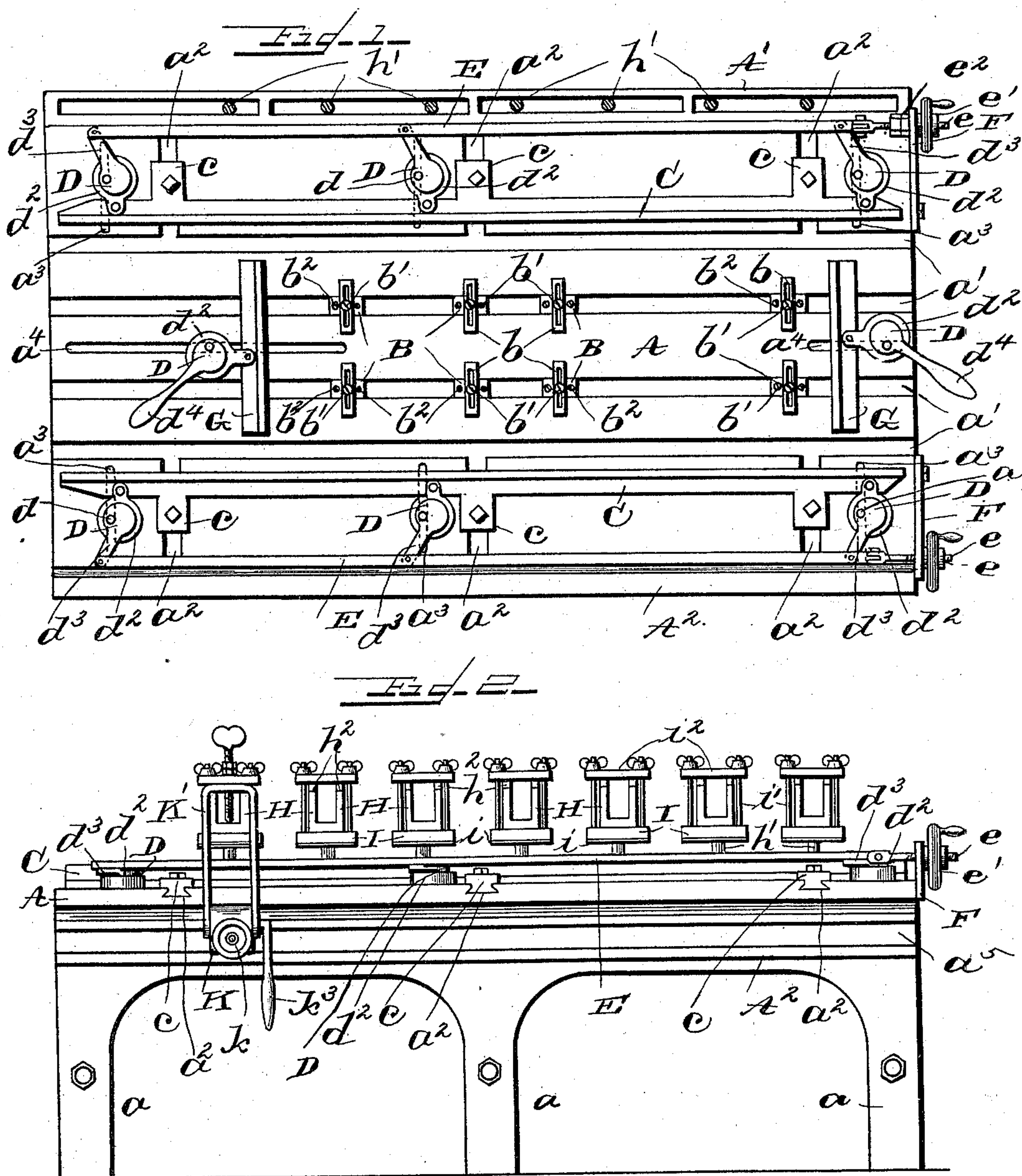
(No Model.)

3 Sheets—Sheet 1.

J. S. CARTER.
PRESS FOR MAKING VENEER DOORS, &c.

No. 585,906.

Patented July 6, 1897.



WITNESSES—

G. A. Pauberschmitt,
J. D. Kingsbury

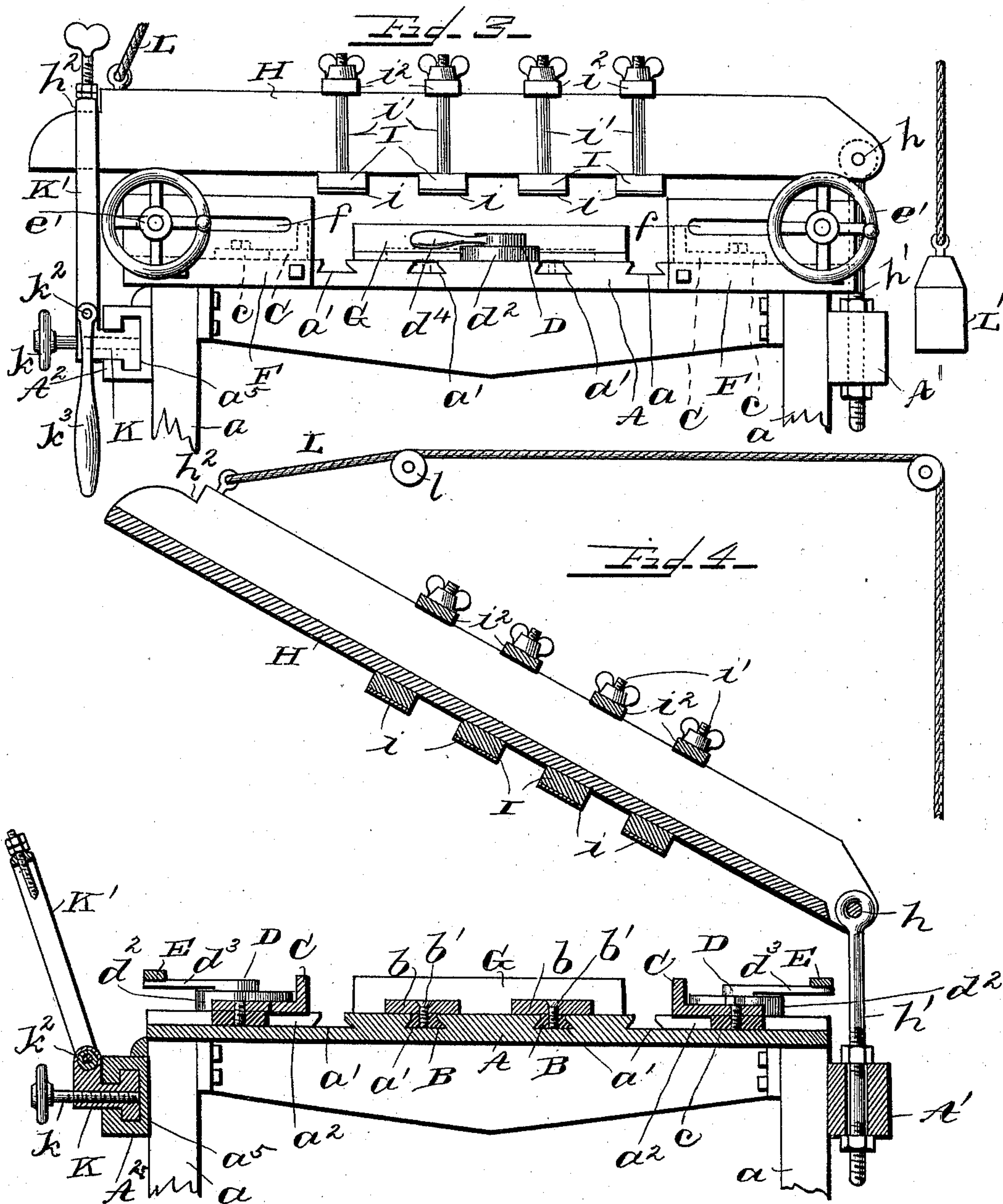
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3 Sheets—Sheet 2.

No. 585,906.

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Witnesses.

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(No Model.)

3 Sheets—Sheet 3.

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Fig. 5

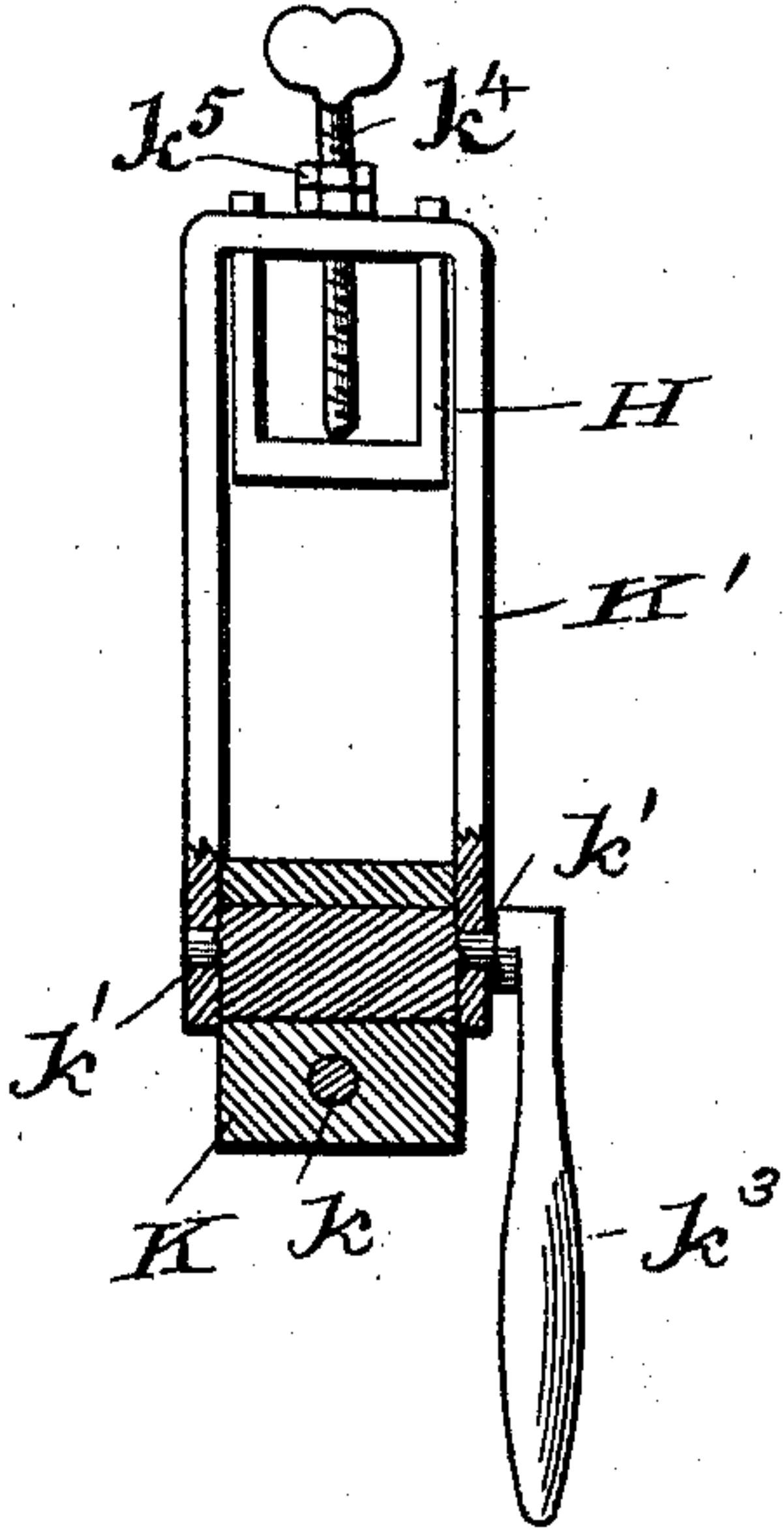
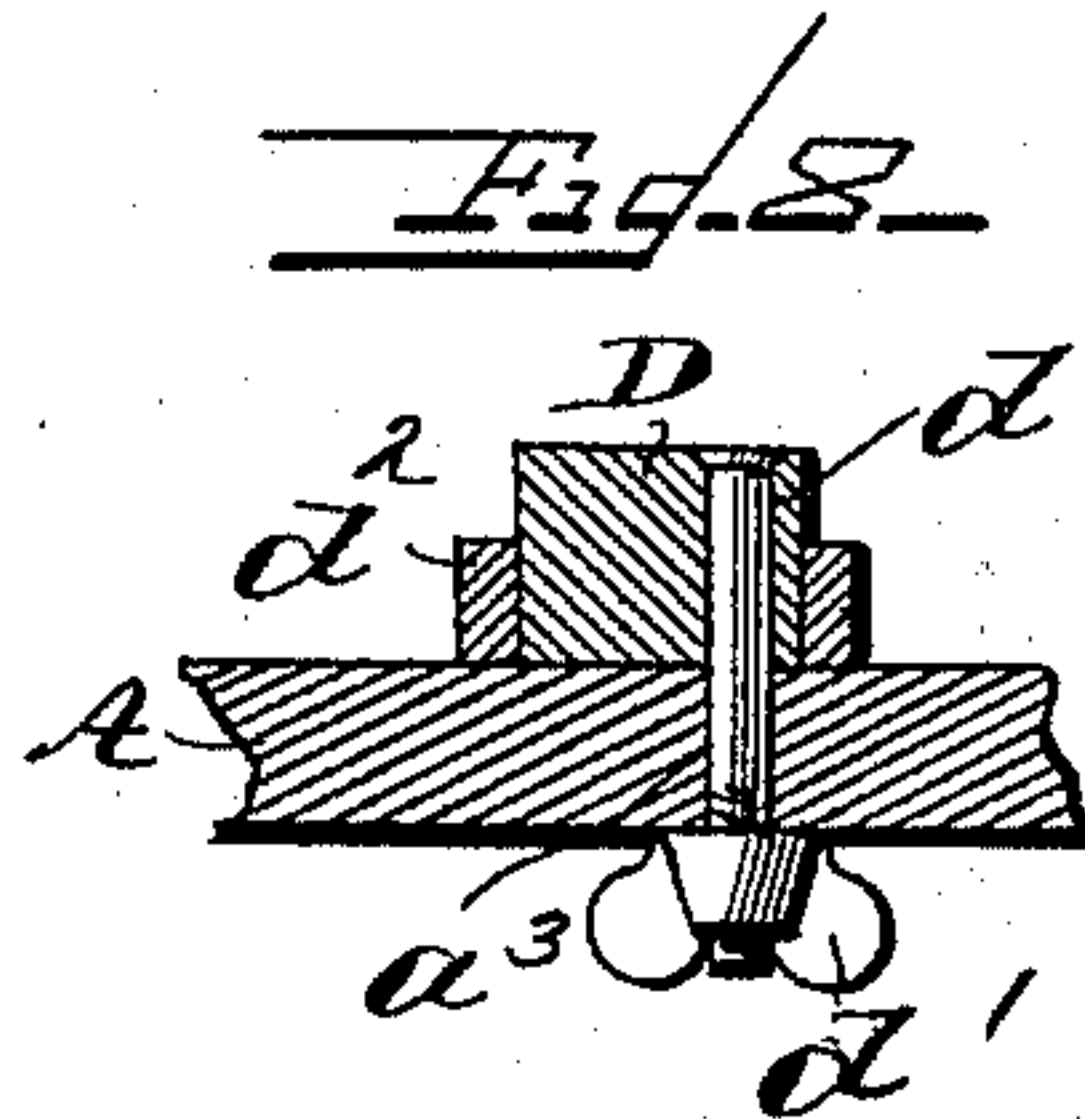
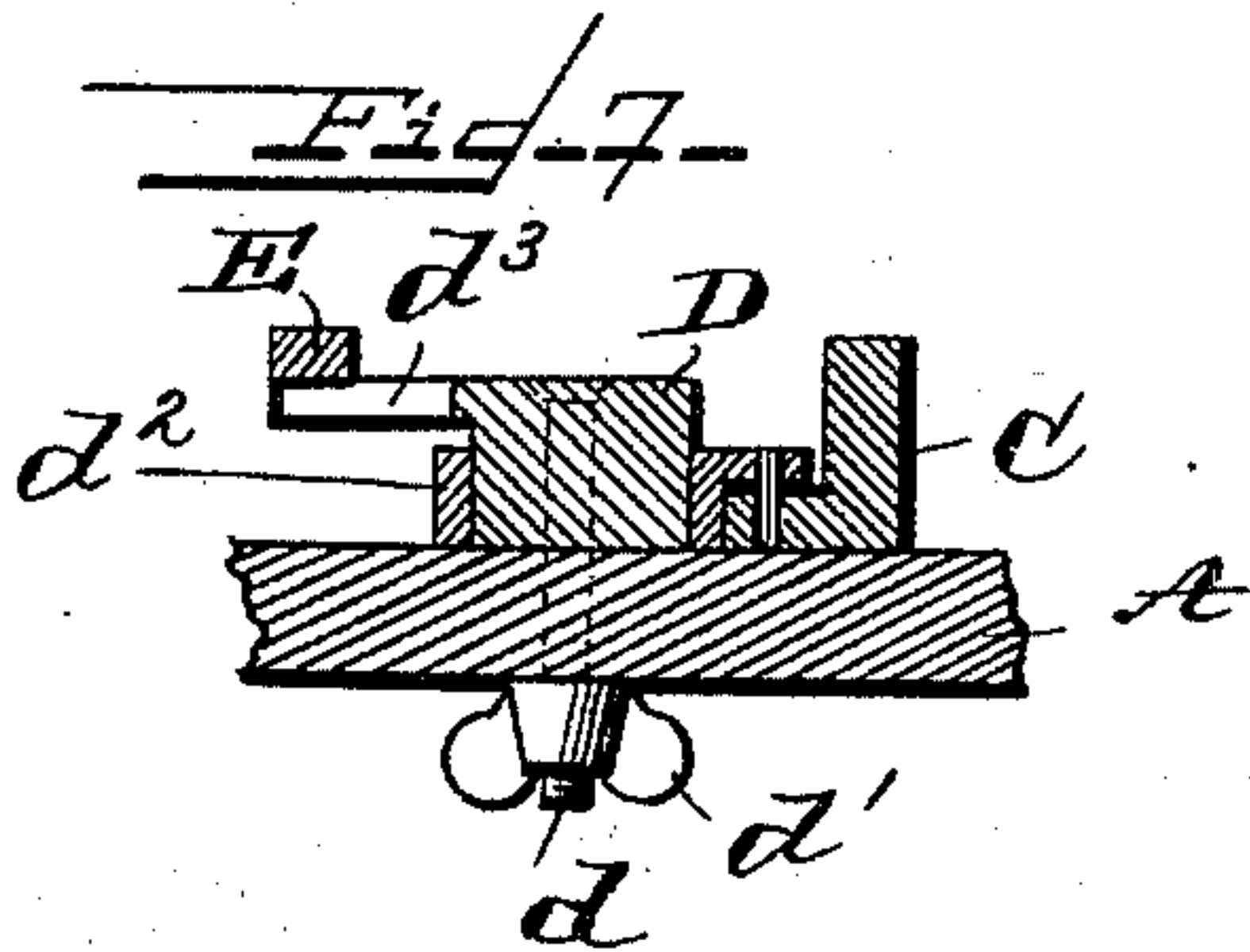
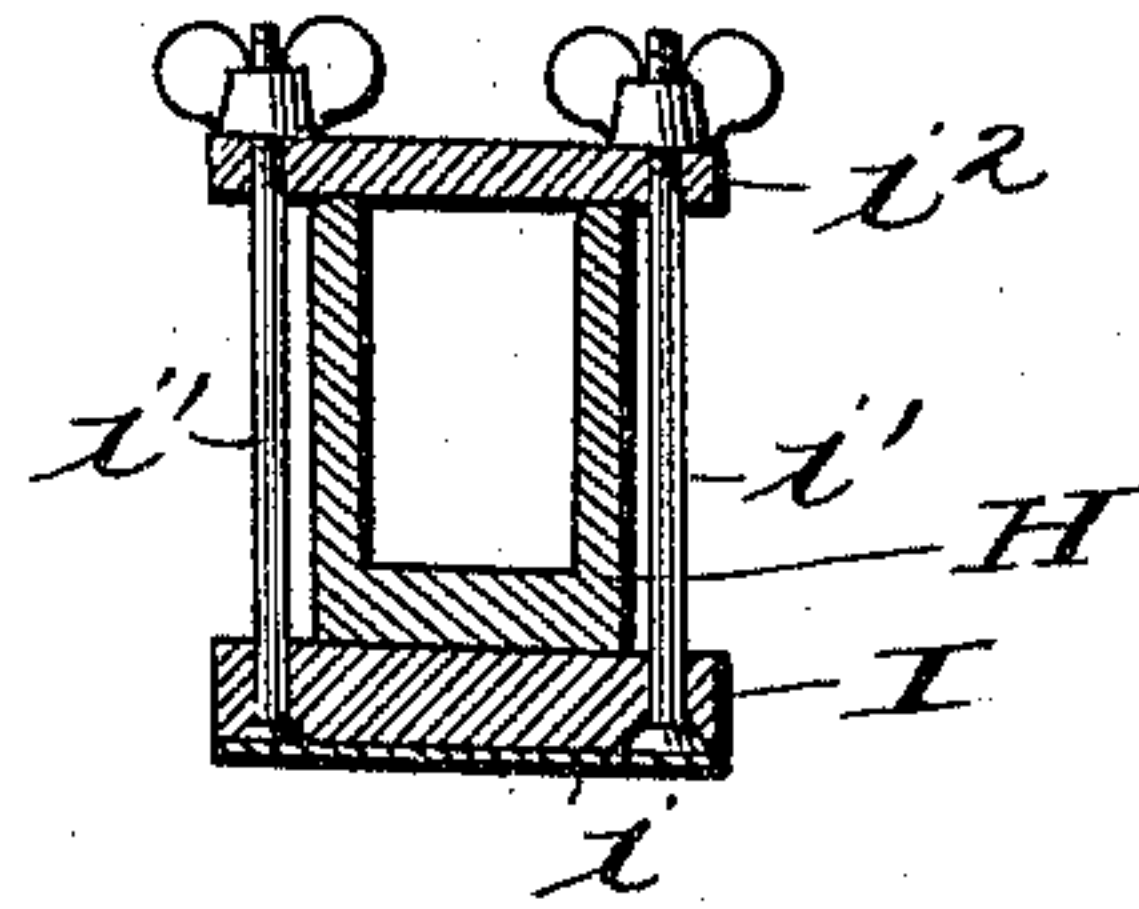


Fig. 6



WITNESSES

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UNITED STATES PATENT OFFICE,

JOHN S. CARTER, OF BUFFALO, NEW YORK.

PRESS FOR MAKING VENEER DOORS, &c.

SPECIFICATION forming part of Letters Patent No. 585,906, dated July 6, 1897.

Application filed October 22, 1896. Serial No. 609,671. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. CARTER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Presses for Making Veneer Doors, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improvement in presses for making veneer doors, &c.; and it consists in the novel features of construction and combination of parts hereinafter described, reference being had to the accompanying drawings, which illustrate one form in which I have contemplated embodying my invention, and said invention is fully disclosed in the following description and claims.

Referring to the said drawings, Figure 1 represents a top plan view of my improved press. Fig. 2 is a side elevation of the same. Fig. 3 is an end view. Fig. 4 is a vertical transverse sectional view. Figs. 5, 6, 7, and 8 are detail views of parts of the mechanism.

The object of my invention is to provide a simple and effective press for making veneer doors, in which the door can be built up, the parts glued together and subjected to compression horizontally and vertically to unite them, and one which can be operated for this purpose without the employment of skilled labor.

In the drawings, A represents the horizontal bed-plate supported by suitable standards a a at a convenient height and having its top face provided with a series of parallel longitudinally-extending dovetail grooves a' a' , four being shown. The bed-plate is also provided at each side with a series of parallel transversely-extending dovetail grooves a^2 a^2 .

B B represent adjustable sliding blocks adapted to fit the grooves a' , each block being provided with a guide-plate b , slotted and secured to the block by an adjusting-screw b' , which extends vertically through the block and engages the bottom of the slot a' to clamp the block in the groove and the slotted plate to said block. I may, however, provide the block B with screws b^2 b^2 , as shown, for clamping the block in the groove, in which case

the screw b' will serve simply to adjust the plate b with respect to the block. These guide-plates and blocks can be placed in any of said grooves a , and will be arranged to serve as guides in placing the parts of the side frames of the veneer door which is to be built up in the press in position. They will obviously be adjusted to different positions, according to the style of the door which is to be constructed.

C C represent the lateral clamping-bars, each consisting of a longitudinal bar having on its innerside a vertically-extending flange to engage the edge of the door. The bar C is provided with a dovetailed block c for each of the grooves a^2 a^2 , formed integrally therewith or secured thereto, as in the drawings, and I provide each bar with two or more (in this instance three) devices for moving it laterally. In the present case each of these actuating devices consists of an eccentric or cam D, secured to the bed-plate by means of a bolt d , which passes through a transversely-disposed slot a^3 in the bed-plate, and is provided either above or below the bed-plate with a clamping wing-nut d' . (See Fig. 8.)

d^2 represents an eccentric-strap which is connected to the clamping-bar C, and the eccentric D is provided with an arm d^3 by which it can be turned. In order to secure the simultaneous movement of all the actuating devices for each clamping-bar, I provide a longitudinally-extending actuating-rod E, to which each of the arms d^3 is pivotally connected, so that the longitudinal movement of said rod E will move all the eccentrics D and insure the even movement of the entire clamping-bar C. At one end of the bed-plate is a vertically-disposed plate F, having a horizontal slot f therein, through which extends a threaded portion e of the actuating-rod E, said threaded portion being provided with a nut e , preferably in the form of a hand-wheel, by means of which said rod can be moved endwise to move up the bar C. One of said rods E is also provided with jam-nuts e^2 , (see Fig. 1,) by means of which the position of its bar C can be regulated so as to form a solid resistance against which the other bar clamps the door.

It will be noted that by loosening the wing-nuts d' the eccentrics, bar, and rod E can be

simultaneously moved transversely of the bed-plate to adjust it to any width of door which it is desired to make.

At each end of the bed-plate I provide an end clamping-bar G. This bar may slide upon the top of the bed-plate or it may be provided with dovetail guiding-blocks engaging slots $a' a'$, but it is ordinarily sufficient to allow it to slide upon the top of the platen, as shown. Each of the bars G is provided with a single actuating device consisting of the eccentric D, having the securing-bolt passing through a longitudinal slot a^4 in the platen and provided with wing-nut d' , the strap d^2 , and an operating-arm d^4 , which is long enough to be grasped and moved by the operator. It will thus be seen that by means of the clamping-bars C C and G G the pressure can be applied horizontally in both directions to the door.

In order to apply pressure vertically, I employ a series of transversely-extending presser-bars H. These bars are preferably formed of U-shaped castings having a flat lower face, thus combining strength and minimum weight, and at the rear side of the bed-plate they are each provided with a horizontal hinge-bolt h , which is engaged by an eyebolt h' , extending down through a slotted portion A' of the bed-plate, which in this instance consists of a slotted bar bolted or otherwise secured to the side of the bed-plate. The eyebolt h' is provided with a nut above and below the bar A' , so that the height of the presser-bar can be accurately adjusted. In order to apply the pressure just where it is most desired, I provide each bar H with a series of presser-blocks I, which are preferably formed of wood or iron, covered on their lower sides with a heavy rubber facing i . Each of these presser-blocks is provided with a pair of attaching-bolts $i' i'$, extending up to the top of the bar H and through a cross-plate i^2 , where they are provided with wing or other nuts, so that they can be placed in any desired positions along the bar H. It will also be seen that the presser-bars may be moved longitudinally of the bed-plate to any desired position by loosening the nuts on the eyebolt.

At the front side of the bed-plate is a bar A^2 , (formed in this instance separate from and secured to the bed-plate,) provided with a dovetail slot a^5 , and in this slot I locate a number of sliding blocks K, which carry the tightening devices for the presser-bars. Each of the blocks K is provided with a set-screw k for clamping it in the slot a^5 and with a pair of perforated ears $k' k'$, forming bearings, in which is journaled an eccentric or cam shaft k^2 . This shaft is provided with an operating-arm k^3 , and upon the eccentric portions of the shaft are placed the ends of a loop or yoke K' . The front end of each of the presser-bars is provided with a shoulder h^2 , which is engaged by the yoke K' , after which the eccentric-shaft is rotated to apply pressure to the presser-bar.

The blocks K will of course be adjusted along the slot or groove a^5 , so as to be in line with the presser-bars. In order to sustain the presser-bars when not in use, I provide each with a rope L, passing over a pulley l in a suitable support and provided with a weight L' , by which means they may be maintained in an elevated position above the bed-plate.

The operation of the press is as follows: The device having been adjusted to the particular size and style of door to be made, the parts of the door, consisting of thin strips which have been made to fit accurately with respect to each other, are laid in position and glued. One of the side clamping-bars and the end clamping-bars are then moved up by their actuating devices in order to apply pressure to the edges of the door. The presser-bars H are then drawn down upon the door. The yokes K' are slipped on and the pressure applied, as previously described. When the door has set long enough, the pressure devices are released and the finished door is removed from the press.

In order to adapt the press to doors of different thickness, the yokes K' are each provided with a set-screw k^4 , which engages the bottoms of the cross-bars H when a thin door is being made, and can be set to any desired position by means of jam-nuts $k^5 k^5$. These set-screws cooperate with the adjustable eyebolts which secure the rear ends of the cross-bars to the bed-plate, and by means of these devices the press can be arranged to make doors of different thickness.

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

1. The combination with the bed-plate provided along one of its longitudinal edges with a slotted portion of a series of presser-bars extending transversely over said bed-plate, each bar being provided at one end with a bolt pivoted thereto, and adjustably secured to said slotted portion of the bed-plate, and a series of yokes adjustably secured to the other longitudinal edge of the bed-plate and adapted to engage the free ends of said presser-bars, substantially as described.

2. The combination with the bed-plate, of a series of presser-bars extending transversely over the same, vertically and laterally adjustable devices connecting said presser-bars to said bed-plate on one side of the same, a guide on the opposite side of said bed-plate, a series of movable blocks engaging said guide, an eccentric mounted in each of said blocks, and provided with an operating-arm, and a yoke pivotally secured to each of said eccentrics and adapted to engage one of said presser-bars, substantially as described.

3. The combination with the bed-plate provided along one side with a slotted portion, of a series of presser-bars extending transversely over said bed-plate, each bar being provided at one end with a bolt pivoted thereto, and adjustably secured to said slotted portion of the bed-plate, a grooved guide on the

side of said bed-plate opposite said slotted portion, a series of movable blocks engaging said guide, an eccentric mounted in each of said blocks and provided with an operating-arm, a yoke pivotally engaging each of said eccentrics, and adapted to engage one of said presser-bars and a set-screw in each of said blocks for holding it in its adjusted position, substantially as described.

4. The combination with the bed-plate provided at one side with a longitudinally-slotted portion, of a series of presser-bars each provided with a securing device pivoted to the bar and having a screw-threaded portion engaging said slotted portion of the bed-plate, securing-nuts on said threaded portions for clamping said securing devices to the bed-plate, and adjusting the presser-bar with respect to the same, the yokes adapted to engage the free ends of said presser-bars, and the eccentrics engaging portions of said yokes for clamping the presser-bars upon the work, substantially as described.

5. The combination with the bed-plate provided with slots disposed perpendicularly to one edge of the bed-plate of a horizontally-movable presser-bar, eccentric-straps connected therewith, eccentrics engaging said straps and pivoted to the bed-plate by bolts passing through said slots, a connecting-bar connected operatively to said eccentrics, for securing the simultaneous movement of the same and means for moving said connecting-bar longitudinally, substantially as described.

6. The combination with the bed-plate, provided with slots disposed perpendicularly to

one edge of the bed-plate, of a horizontally-movable presser-bar, eccentric-straps connected therewith, eccentrics engaging said straps and pivoted to the bed-plate by bolts passing through said slots, a connecting-bar connected operatively to said eccentrics for securing the simultaneous movement of the same, said bar being provided with a threaded portion, a horizontally-slotted plate engaging said threaded portion of the connecting-bar and an operating-nut on said threaded portion adjacent to said slotted plate, substantially as described.

7. The combination with the bed-plate provided along one side with a slotted portion, of a series of presser-bars extending transversely across the same, each bar being provided at one end with a bolt pivoted thereto and adjustably secured to said slotted portion of the bed-plate, a series of movable blocks engaging the bed-plate on the side opposite said slotted portion, an eccentric in each of said blocks, a yoke pivoted on each eccentric and adapted to engage one of the said presser-bars, and a series of independently-adjustable presser-blocks on each of said presser-bars, whereby the presser-blocks of each bar can be adjusted independently of the blocks of other bars, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. CARTER.

Witnesses:

MARK H. BERRY,
FRANK B. OWEN.