

(No Model.)

3 Sheets—Sheet 1.

F. F. RAYMOND, 2d.
HEEL NAILING MACHINE.

No. 347,514.

Patented Aug. 17, 1886.

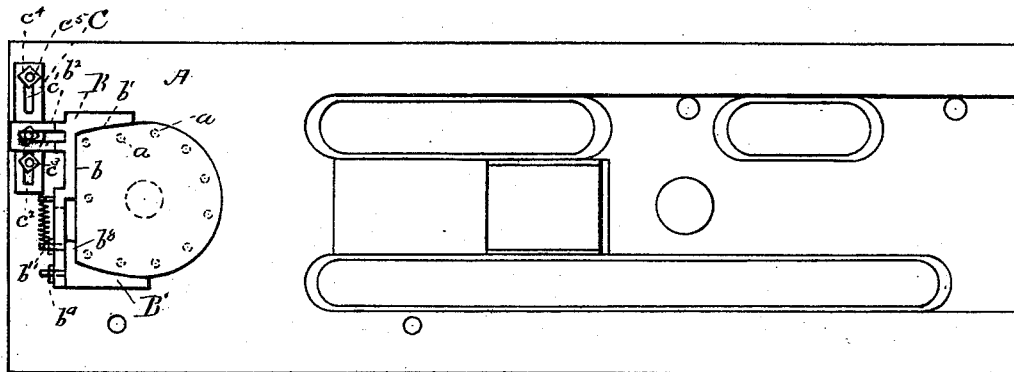
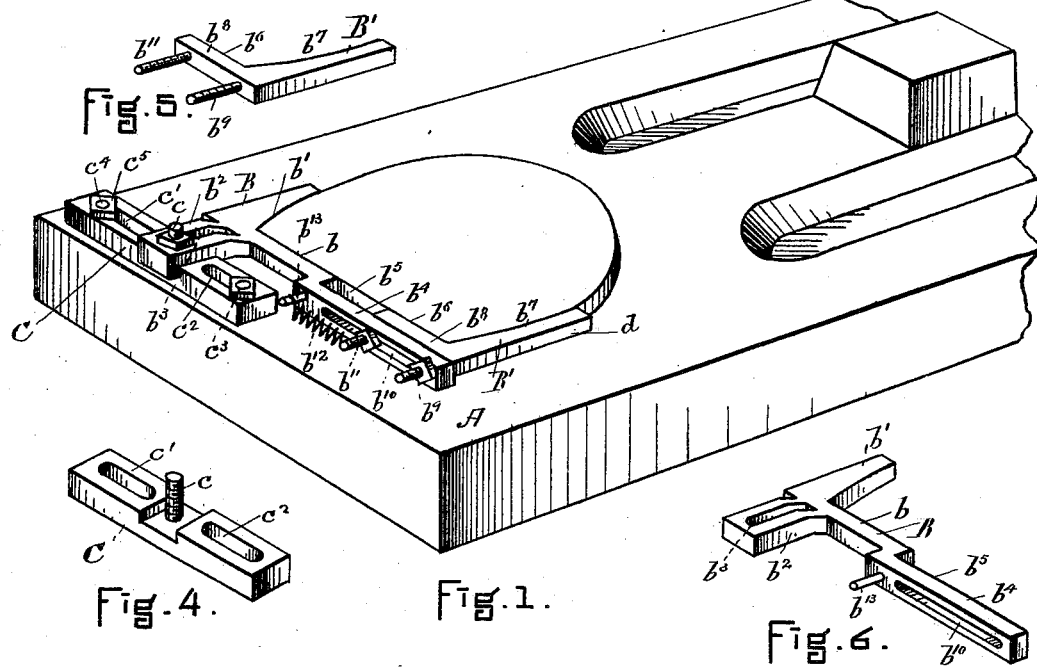


Fig. 2.

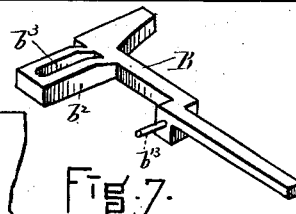


Fig. 7.

WITNESSES.

J. M. Deane
Fred. B. Deane

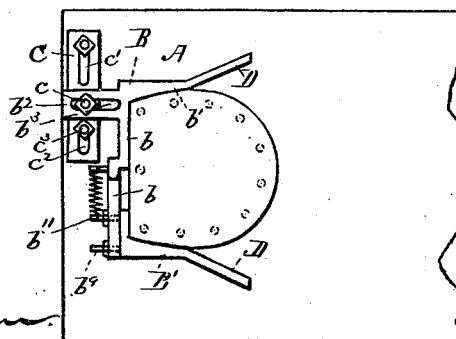


Fig. 3.

INVENTOR.
F. F. Raymond

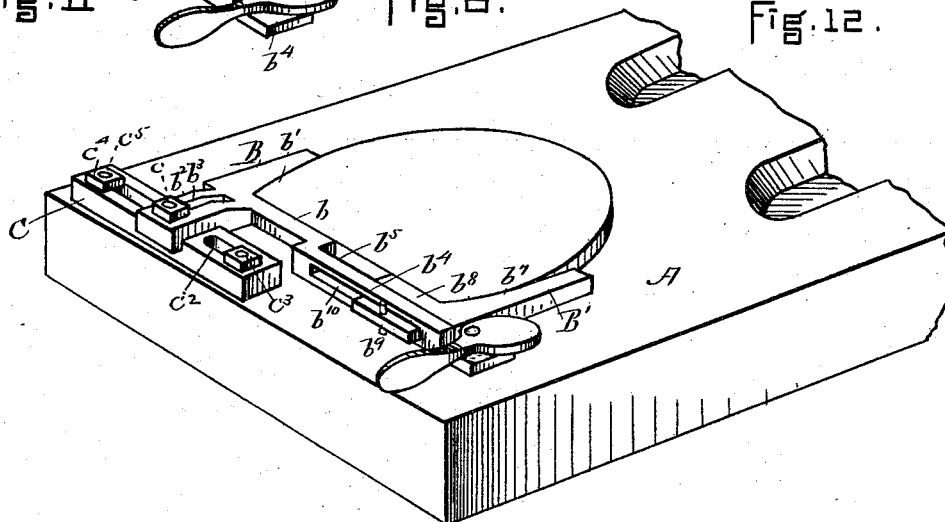
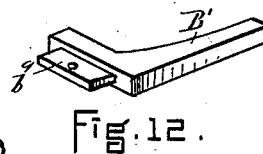
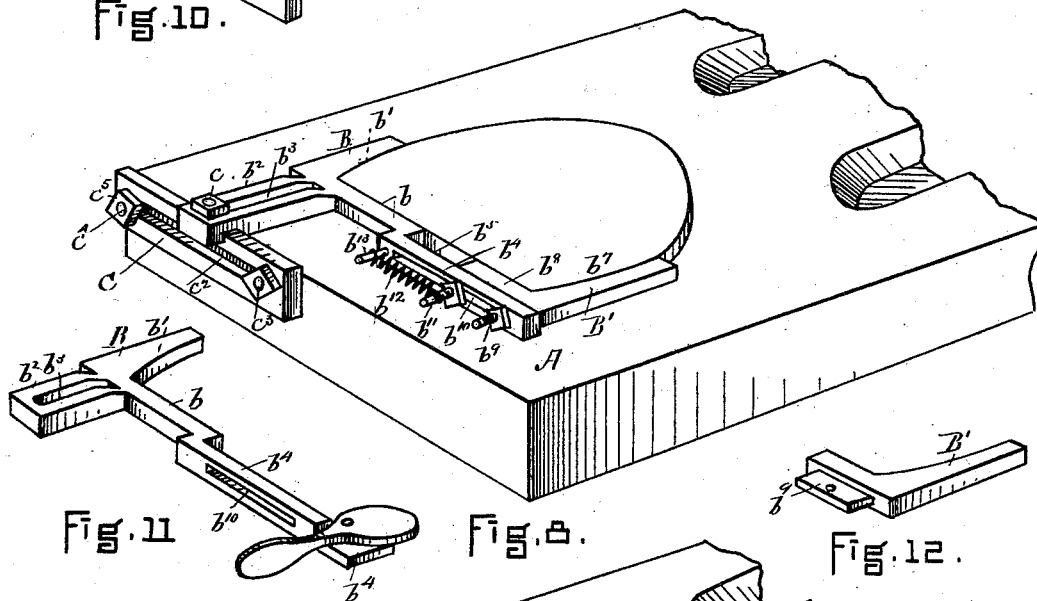
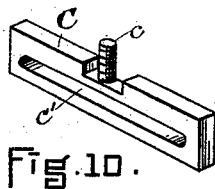
(No Model.)

3 Sheets—Sheet 2.

F. F. RAYMOND, 2d.
HEEL NAILING MACHINE.

No. 347,514.

Patented Aug. 17, 1886.



WITNESSES.

J. M. Dolan
Fred. B. Dolan

INVENTOR.
A. F. Raymond

(No Model.)

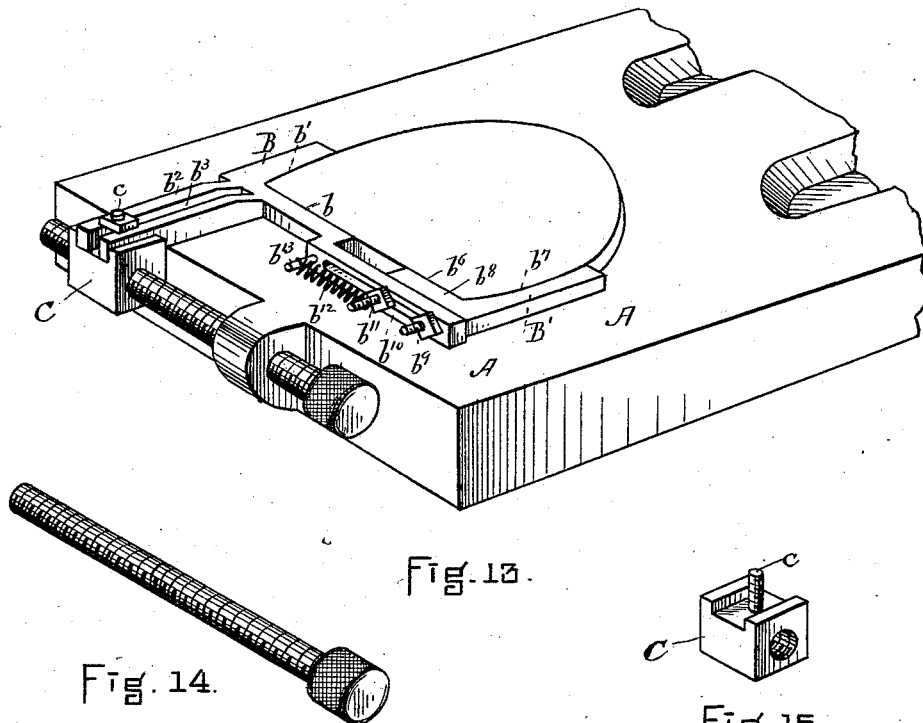
3 Sheets—Sheet 3.

F. F. RAYMOND, 2d.

HEEL NAILING MACHINE.

No. 347,514.

Patented Aug. 17, 1886.



WITNESSES.

J. Mc. Dolan.
Fred. B. Dolan.

INVENTOR

D. D. Raymond

UNITED STATES PATENT OFFICE.

FREEBORN F. RAYMOND, 2D, OF NEWTON, MASSACHUSETTS.

HEEL-NAILING MACHINE.

SPECIFICATION forming part of Letters Patent No. 347,514, dated August 17, 1886.

Application filed May 28, 1886. Serial No. 203,505. (No model.)

To all whom it may concern:

Be it known that I, FREEBORN F. RAYMOND, 2d, of Newton, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Heel-Nailing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification in explaining its nature.

The invention relates especially to a device for clamping or holding upon the surface of a templet or other plate a top lift or heel-blank, and it comprises, first, a jaw or angle-plate, and means for adjusting it to a fixed position upon the surface of the said plate; and, second, a second jaw or angle-plate movable in relation to the first jaw or angle-plate, and drawn or moved toward it, preferably by a suitable spring.

Referring to the drawings, Figure 1 is a view in perspective of a portion of a templet-plate inverted having my improvement. Fig. 2 is a plan view of a templet-plate inverted and reduced in size having my invention. Fig. 3 is a plan view of a part of a templet-plate inverted to show a slight modification. Figs. 4, 5, 6, and 7 are perspective views of various parts of the device. Fig. 8 is a view of the end of a templet-plate, showing one adjusting-block attached to the side or end thereof, instead of to the surface. Fig. 9 shows substantially the same construction as in Fig. 1, with the exception that a cam for moving the parts is shown as a mechanical equivalent for the spring. Fig. 10 is a view in perspective of the form of adjusting-block used when the construction shown in Fig. 8 is employed. Fig. 11 is a detail view to illustrate the cam construction shown in Fig. 9. Fig. 12 is a view of one section or jaw, showing in lieu of the guide-pins a slide extending therefrom. Fig. 13 is a view of the end of a templet-plate bearing my device and showing a nut and adjusting-screw as an equivalent for the adjustable block of the other figures. Fig. 14 is a view of the screw. Fig. 15 is a view of the adjustable block.

In the drawings, A is the templet. B is an angle-plate, which is adapted to be secured in a fixed position upon the templet-plate, so as

to bring its gaging-edges b b' into proper relation to the line of holes a of the templet. The plate B has an extension, b^2 , provided with a slot, b^3 , which receives a screw-stud, c , projecting from the cross-plate C. This cross-plate has the slots or recesses c' c^2 , one of which receives a screw-stud and nut, c^3 , extending from the templet-plate, and the other a screw-stud, c^4 , which receives the holding-nut c^5 . The angle-plate also has an extension, b^4 , which has a recess, b^5 . The second angle-plate, B', has the gage-surface b^6 b' , and the arm b^8 , which provides the gage-surface b^7 , is adapted to enter or extend within the recess b^5 of the angle-plate B. It also has a dowel pin or guide, b^9 , which enters the slot b^{10} in the extension b^4 of the plate B, and a pin, b^{11} , which also enters said slot, and to the outer end of which is fastened a spring, b^{12} , preferably a coil-spring, which connects it with a pin or stud, b^{13} , extending from the plate B, and by means of which the angle-plate B' is drawn toward the angle-plate B. This slot or recess may be formed as represented in Fig. 6 or as shown in Fig. 7.

The angle-plates may have an outwardly-turned guiding-extension, D, if desired.

In use the angle-plate B is adjusted upon the templet or other plate to bring its gaging-surfaces in proper relation to the holes of the templet, and it is then fastened in place so as to be fixed or immovable, and the plate C, in connection with the slotted arm of the angle-plate, affords a cheap and ready means of adjusting it in any desired position. The other angle-plate, B', is drawn toward the angle-plate B, and held by its spring in such position until a lift or heel blank is inserted between the plates, when it is moved outward by the contact of the lift therewith to provide sufficient space between the surfaces b' b' for the reception of the lift, and the lift is held in place with its edge against the end or breast gages b' b^6 by the clamping action of the movable angle-plate B' thereon. The angle-plate B' may have a straight outwardly-extending guiding-surface, d , if desired. The spring should have sufficient tension to draw the plate B' quite forcibly toward the angle-plate B, so that the clamping action of the plates shall be sufficiently powerful to firmly hold a

lift or heel blank in place. In Fig. 8 the devices for adjusting the fixed plate B' are represented as applied to the front edge of the templet-plate.

5 It will be seen that the parts of the plates B B' which provide the gage-surfaces b' b'' are in effect jaws, in that they serve to grasp and hold the top plate.

While I have shown a spring for moving the jaw or angle-plate B' to the jaw or angle-plate B, I would say that I do not confine myself to this means of moving and holding the jaw or plate, but may use any mechanical device for giving the jaw or angle-plate such movement; and in Fig. 9 I show a cam or eccentric to illustrate one of the many mechanical equivalents for the spring for the purpose of moving and holding the jaw or plate.

In lieu of the movable cross plate or block C, and as a mechanical equivalent therefor, I may use the block C represented in Figs. 13 and 15, and an adjusting-screw which is carried by the templet-plate and passes through a screw-hole formed in the block C. This form of construction is somewhat more expensive than that shown in Figs. 1 and 8, but is desirable for certain uses.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A heel-blank or top-lift holder for heel-nailing machines, comprising the stationary jaw or angle-plate B and a movable jaw or angle-plate, B', substantially as described.

35 2. The combination, in a top-lift or heel-blank holding device for heel-nailing machines, of a fixed jaw or angle-plate, B, a movable jaw or plate, B', and a spring for drawing or moving one jaw or angle-plate toward the other, substantially as described.

3. The combination of the jaw or angle-plate B, having the arm b' and recess b'' , with the jaw or angle-plate B', having the arm b'' , adapted to enter the recess in the arm b' , and a spring for moving the said jaw or angle-plate toward the fixed jaw or plate, substantially as described.

4. The combination of the jaws or angle-plates and adjusting devices, comprising a slotted arm, b'' , and a slide-plate C, having the screw stud c , adapted to enter the slot in the arm b'' and to receive a fastening-nut, and also having the slots c' c'' and screw-studs c' c'' and their nuts, substantially as described.

5. The combination of a templet or support- ing plate with jaws or angle-plates B and B' thereon and devices for adjusting them to an operative position upon the plate and for locking one of said jaws or plates in such position, substantially as described.

6. The combination of a templet or support- ing plate with two jaws or angle-plates, B B', secured thereto, and devices for moving one of said jaws or angle-plates toward the other, substantially as described.

7. The combination of a templet or support- ing plate with a top-lift or heel-blank holding device, comprising a fixed jaw or angle-plate and a movable jaw or angle-plate adapted to be moved toward the fixed jaw or angle-plate, which top-lift or heel-blank holding device is supported by a block or slide, C, movable horizontally upon the templet, substantially as described.

FREEBORN F. RAYMOND, 2D.

Witnesses:

J. M. DOLAN,
FRED. B. DOLAN.