(No Model.)

C. W. GLIDDEN.

HEEL NAILING MACHINE.

No. 409,637. Patented Aug. 20, 1889.

Fig. 1.

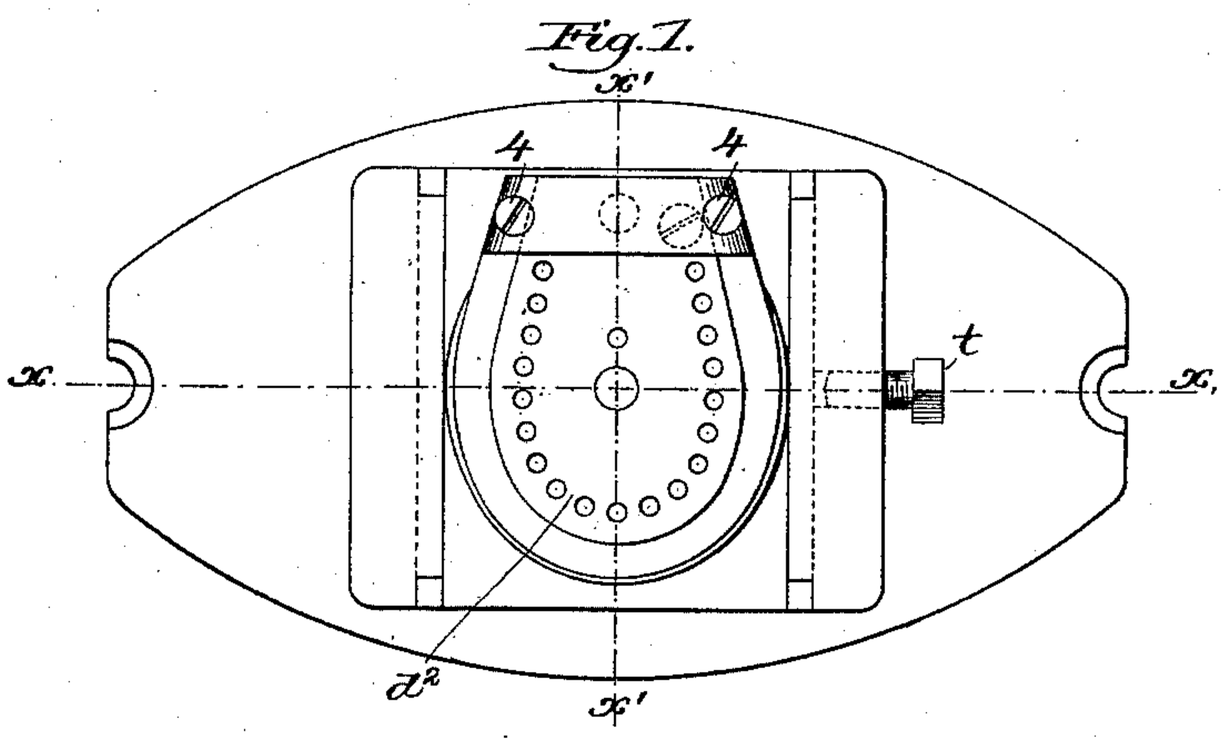


Fig. 2.

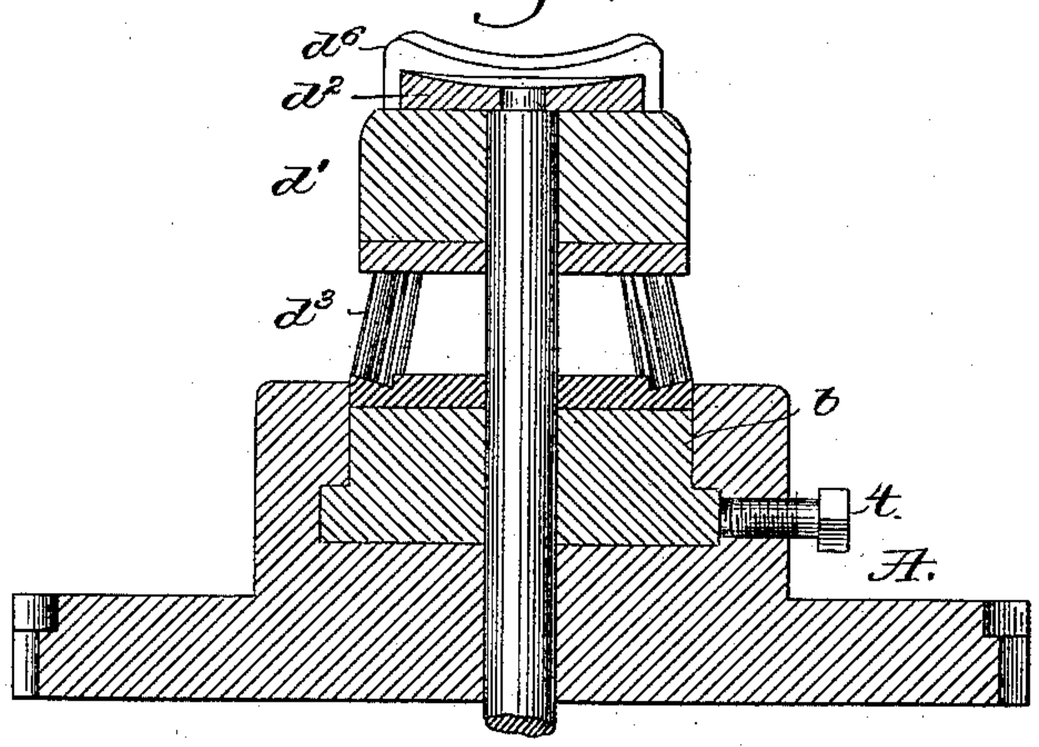
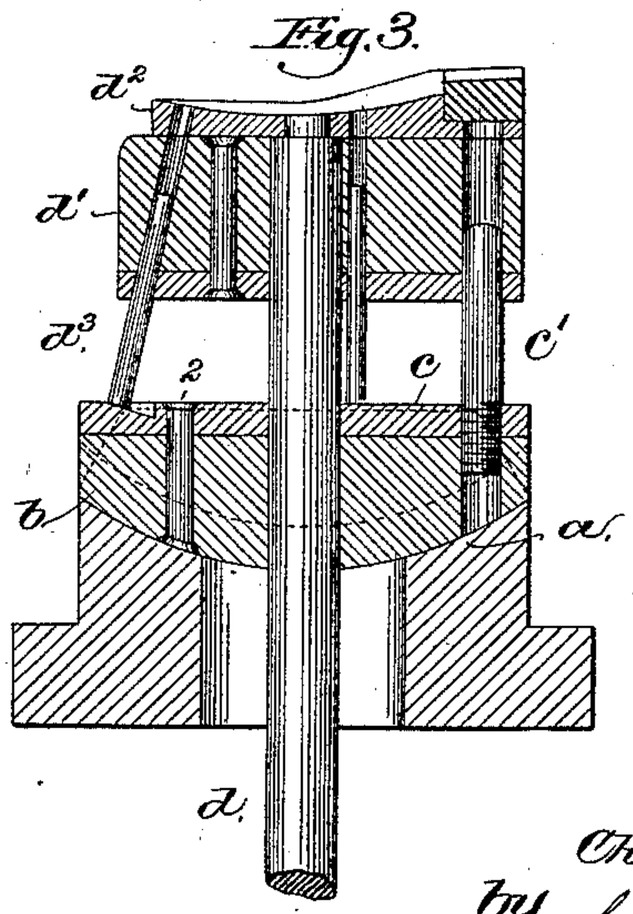


Fig. 3.



Witnesses.
John F. C. Preinkert
Frederick L. Emery.

Inventor:
Charles W. Glidden,
by Crosby & Gregory
Attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES W. GLIDDEN, OF LYNN, ASSIGNOR TO JAMES W. BROOKS, TRUSTEE, OF CAMBRIDGE, MASSACHUSETTS.

HEEL-NAILING MACHINE.

SPECIFICATION forming part of Letters Patent No. 409,637, dated August 20, 1889.

Application filed April 23, 1889. Serial No. 308,303. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. GLIDDEN, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Heel-Nailing Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In the manufacture of that class of shoe having what is known as "spring-heel" it has been found difficult to correctly drive the nails into the shoe at the heel because of variations in the thickness of the heel due to inequality of thickness, or to taper, or both, of the lift inserted between the end of the sole and the upper lying next the heel of the last. To obviate this trouble, I have mounted the nail-box and driver-plate upon a rocking or tipping seat, so that the nail-box is free to tip in a direction of the length of the sole, to thereby enable the top plate of the nail-box to adapt itself to and lie properly against the heel-end of the sole in which the nails are to be driven.

My invention consists, essentially, in the combination with a nail-box, drivers and driver-plate, and a convexed support, of a block having a convexed seat for the support, whereby the said nail-box, drivers, and driver-plate may tip to enable the top plate of the nail-box to adapt itself to the holes into which the nails are to be driven.

Figure 1 is a top or plan view of a nail-box and its support embodying my invention; Fig. 2, a section of the parts shown in Fig. 1 on the line x, and Fig. 3 a section on the line x'.

The block A has a central portion provided with a concaved seat a, (see Fig. 3,) on which is mounted a convexed support b, having the driver-plate c attached to its upper side by suitable rivets or screws 2, and free to tip, as required. The support, as well as the driver-plate, is provided with a central opening, through which is extended loosely the usual rod d, upon the upper end of which is secured the nail-box d', provided at its upper side with a top plate having holes into which are loaded the nails to be driven into the heel, the said holes also receiving the drivers d^3. The block A is provided with an enlarged opening w about the rod d, so that the support may tip without the rod striking the block. The top plate d^2 (shown as concaved to conform to the rounded or molded heel part of the sole) is supposed to be detachable or changeable for one of another size or with the nail-holes arranged in a different curve, the said top plate being shown as held in place at one end by a bridge-piece d^6, through which and into the nail-box are extended screws 4.

It will be noticed that part of the driver-plate upon which rests the lower ends of the drivers d^3 is inclined to thus enable the drivers to be placed in inclined position and drive the nails into the heel at an inclination. The concaved seat formed in the raised part of the block A is shown as extended sufficiently to leave concaved grooves, and the support b, entering the said groove, is convexed at its lower side and flanged to rock on the seat a in the block, the said flanges fitting the said grooves, such flanges and grooves preventing the support from being lifted vertically from its bearing upon the seat, the gist of my invention lying in so constructing the support and block as to leave a convex surface in one to co-operate with a concaved portion of the other, so that the support, together with the nail-box and top plate, may rock or tip freely in the direction of the length of the sole or heel part thereof to adapt the top plate to any variations in thickness of a spring-heel.

The apparatus as so far described is adapted to rock or tip in the direction of the length of the sole; but it sometimes happens with the devices described and on particular classes of stock that it is desirable to compress one part of the heel more than the other part to thus shape the bottom of the heel; and to do this I have provided the block A with a tapped or threaded hole, in which I may place a set-screw, as t, it constituting a locking device, which may be turned in against the support when it is desired to conform the convexed foot or bottom thereof rigidly in place on the said block, and so as to press on the heel harder at one portion of its length than at another portion. The convexed flanges are shown as extended laterally from the convexed bottom of the support and entering

grooves in the block of proper shape to receive them.

I claim—

1. A nail-box, drivers and driver-plate, and a convexed tipping support combined with a block having co-operating concaved surface, whereby the support, together with the nail-box and drivers, may tip to conform to variations in thickness or shape of a heel, substantially as described.

2. The block having a convexed seat and a nail-box and convexed tipping-support, combined with a locking device to fix the support in adjusted position, substantially as described.

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

CHARLES W. GLIDDEN.

Witnesses:

H. P. FAIRFIELD,

GEO. W. HAMMATT.