

C. GLANTZ.
Machinery for Crimping the Uppers for
No. 145,940. Boots and Shoes. Patented Dec. 30, 1873.

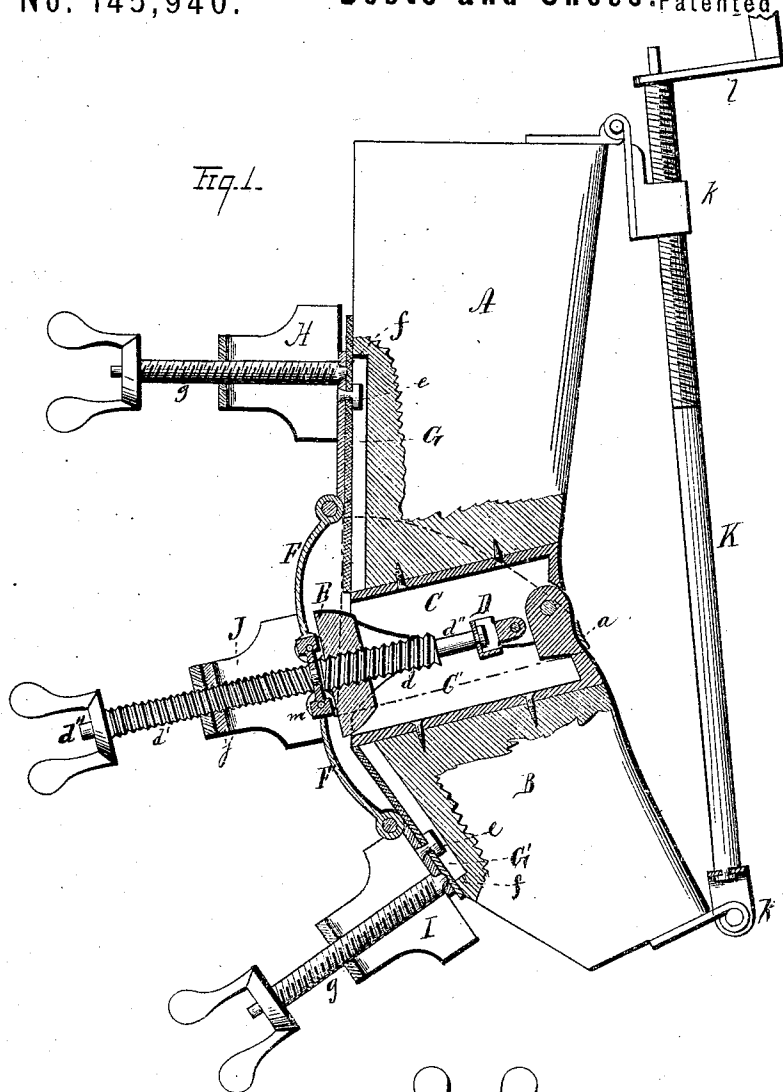
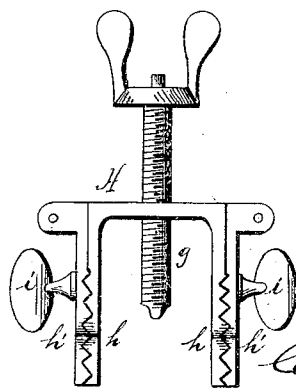


Fig. 2.



WITNESSES.

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CHRISTIAN GLANTZ, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN MACHINERY FOR CRIMPING THE UPPERS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **145,940**, dated December 30, 1873; application filed July 16, 1873.

To all whom it may concern:

Be it known that I, CHRISTIAN GLANTZ, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Boot and Shoe Crimping Machines; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in boot and shoe crimping machines, and consists as follows:

In the drawings, Figure 1 represents a longitudinal section of the crimper complete. Fig. 2, a side view of one of the holding-clamps.

A B represent the leg and foot blocks, or sections of the tree or form proper, hinged together at the instep by the metal jaws C C'. Within this metal jaw C is pivoted a toggle, D, the shaft or rod *d''* of which is provided with a rapid left-hand screw-thread, *d*, and a slow right-hand screw-thread, *d'*. E is a heavy wedge-shaped nut placed on the rapid left-hand screw *d*, and adapted to fit and work between the edges of the jaws C C'. Encircling the screw-rod *d'*, in a groove therein, is a collar, *m*, of the hinged straps F F', which straps are provided at their ends, on the under side, with lugs *e*, which work in slots G G' in the edges of the foot and leg sections A B. In the faces of this strap F F', at its ends, are holes *ff*, which receive the ends *f'* of the set-screws *g* of the clamps H I. The clamps H I are constructed with double-hinged gripping-jaws, *h h'*, provided with clamp-screws *i i'*, and a set-screw, *g*, one of the pair of jaws being on each side of the tree. These clamps and their set-screws are made of a length sufficient, when placed in position, to reach over or straddle the tree and gripe the edges of the smallest and also the largest size of boot or shoe upper. K is a help-screw, placed in front of the tree and attached thereto by hinged toggles *k k*, secured to the top and foot of the tree. *l* is a crank-arm by which the screw-rod is operated. A shield, *a*, (see dotted lines in Fig. 1,) is placed over the gap or mouth of the jaws to present a smooth surface for the leather. *j* is a nut

placed on the slow right-hand screw-thread *d'*, on which nut the center clamp J rests. This nut is for adjusting the distance of the jaws of the clamp J from the work.

The operation of this machine is as follows: The boot or gaiter upper to be crimped or shaped is applied to the tree A B when the two sections are nearly straight, the instep of the leather coming against the shield over the jaws C C', and is secured in this position at the front or foot and leg edges of the upper by the clamps H I, which gripe and hold the leather in their jaws at each side of the tree. In order to impart the desired tension or shape to the upper, the screw *d'* is turned to the right, which, by the action of its right and left screws *d d'*, forces the nut *j*, and with it the clamp J, slowly outward, while the wedge-nut E at the same time rapidly forces the jaws C C' apart until the sections A B are nearly at right angles and the leather properly crimped. At the same time that the nut *j* and center clamp J are raised, the hinged straps F F', by the sections of the tree bending or moving away from their ends, are collapsed or drawn together, their lugs *e* sliding in the slots G G' in the edges of the tree, and drawing with them the clamps H I, which are attached to these straps by the set-screws *g* in the holes *ff*, so that the clamps H and I are always held at the same distance from the collar *m* of the straps F F', but approach each other in the arc of a circle, of which the collar is the center, thus pulling or crimping the leather at the instep as necessitated by the separation of the jaws C C' and the stretching action of the clamp J. By this means the leather is drawn and shaped over the tree from three different directions, and with no liability of tearing between the clamps, and creasing or wrinkling is avoided.

In ordinary work only these devices above referred to are used, but in case heavy leather is to be shaped, and sufficient power to shape it cannot be obtained by the screw *d'*, the additional help-screw K is applied to the tree, as shown, which will give the requisite amount of power to shape the leather.

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

1. In combination with the jaws C C', the toggle D and shaft d'' , the latter provided with a right and left screw, d d' , and a wedge-nut, E, substantially as and for the purposes set forth.

2. In combination with the right-and-left screws d d' and wedge-nut, E, the nut j , for carrying the middle clamp J from the jaws C, as and for the purposes described.

3. In combination with the foot and leg sections A B, the hinged swivel-headed help-screw K, substantially as and for the purposes described.

4. In combination with the shaft d'' the collar m , hinged straps F F', and lateral clamps H I, substantially as and for the purposes set forth and described.

5. The crimping-tree, composed of hinged sections A B, right and left screws d'' d' , wedge-nut E, lateral clamps H I, connected with hinged straps F F', center clamp J, and with or without the help-screw K, all substantially as and for the purposes set forth and shown.

In testimony that I claim the foregoing, I have hereunto set my hand this 15th day of July, 1873.

CHRISTIAN GLANTZ.

Witnesses:

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