J. S. PERKINS.

Crimping Machine for Boots and Shoes.

No. 206,195. Patented July 23, 1878.

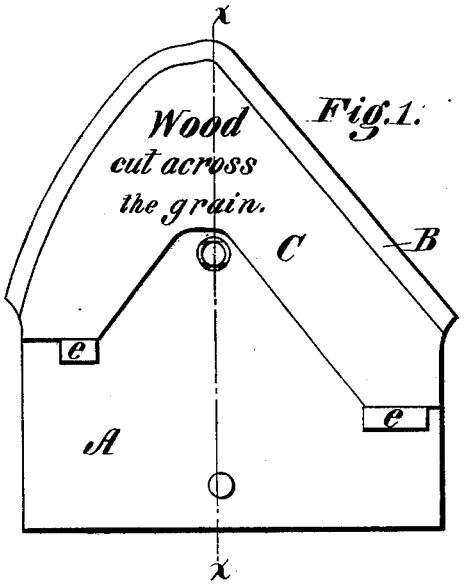

Fig. 1.

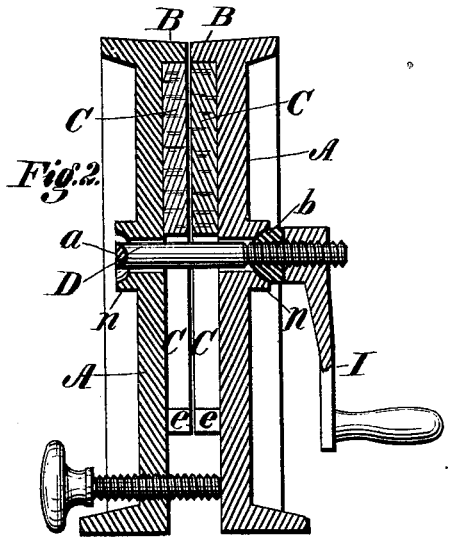

Fig. 2.

Witnesses:

Donn S. Twitchell.

Leon Bacon

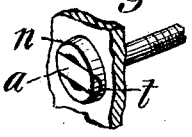

Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN S. PERKINS, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN CRIMPING-MACHINES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **206,195**, dated July 23, 1878; application filed May 25, 1878.

To all whom it may concern:

Be it known that I, JOHN S. PERKINS, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain Improvements in Jaws for Crimping Boots and Shoes, of which the following is a specification:

My invention consists in constructing the jaws with an inwardly-projecting flange, or with a flange and lugs on its face, for the purpose of securing or holding in place a wood lining.

It further consists in providing the clamping-bolt with spherical bearings, to enable the jaws to move with ease in any direction to automatically adjust themselves to articles being crimped, all as hereinafter more fully described.

Figure 1 is a face view of one of the jaws. Fig. 2 is a transverse section on the line *x x* of Fig. 1; and Fig. 3 is a perspective view of a portion of a jaw, showing the bolt-head and its socket.

Heretofore crimping-jaws have been made of metal, and also of metal covered on their face with leather, wood, and other material. When covered or lined with wood, it has usually been done by taking a thin piece of wood and securing it to the face of the jaw by bolts, screws, or similar means, with the grain of the wood arranged parallel with the face of the jaw. In some cases, however, the wood has been cut across the grain in a thin sheet, and then secured to the face of the jaw in such a manner as to present the end of the grain to the leather to be crimped, which latter is the plan I prefer to use. When wood is used it is customary to protect its upper edge from wear by facing it with a narrow strip of thin metal, which has to be let into the wood so as to be flush with the face thereof, and to which it is secured by screws or rivets.

In making my improved jaws, I make the metal jaw A with an inwardly-projecting flange, B, around the upper edges, as shown in Fig. 1, and with lugs *e* on its face at the point where the lower edge of the wood lining comes when in place. This is most conveniently done by casting the jaw with the flange and lugs all in one continuous piece, though it is obvious that either or both the flange and lugs may be made separate, and afterward secured to the jaw, if desired. I then provide a piece of wood, C, of a thickness equal to the depth of the flange B, of the required size and shape to fit in between the flange and the lugs *e*, as shown in Figs. 1 and 2. This wood lining is cut across the grain, so that when inserted it will present the end of the grain to the leather to be crimped, the grain of the wood running at right angles to the face of the jaw. By thus fitting it in while the wood is dry, it will be seen that when wet, as it necessarily is while crimping boots or shoes, the swelling of the wood lining only serves to make it crowd against the flange and the lugs, thereby holding it securely and firmly in place. If desired, screws or nails may be inserted through holes in the flange into the wood lining, to prevent it from being displaced in case it should become loose by subsequent shrinkage when standing for considerable time without use; and, if desired, the lugs or the flange, or both, may be slightly undercut or beveled inward, so as to lock over the edge of the wood for the same purpose, the wood being forced in tight while dry.

By these means the wood lining can be secured without having any nails, screws, or rivets on any portion of its face, thus presenting to the leather a smooth unbroken surface of wood. At the same time the flange B, coming flush with the inner face of the lining C, or nearly so, protects it from wear at that point as effectually as did the metal strip formerly secured to the face of the wood.

It is obvious that, if desired, the flange and lugs may be united, or that the flange may be made continuous all around the edges of the wood, if preferred; but I prefer the plan shown.

As the leather to be crimped varies in thickness more or less on the foot and leg portions of the upper, it is desirable to have the jaws and their clamping-bolt so constructed as to permit the jaws to adapt or adjust themselves to the varying thicknesses; and to accomplish this result I make a boss, *n*, on the outer face of each jaw, around the bolt-hole, as shown in Fig. 2, the mouth of the hole in this boss being made concave or hemispherical, as shown in said figure.

In order to keep the bolt D from turning when the crank I is turned, I provide the bolt with a T-shaped head, *a*, which is rounded on

its bearing-surface, and which fits in a correspondingly-shaped notch, *t*, formed in the boss *n* on one jaw, the hole in the jaw being somewhat larger than the body of the bolt, as shown in Fig. 2, thus leaving the jaw free to tip or adjust itself on the rounded bearing-surface of the head *a*, this adjustment, of course, being in a plane at right angle to the axis of the bolt-head. On the opposite side I slip onto the bolt a washer, *b*, the bearing-face of which is made hemispherical to fit the concave socket made for it in the outer face of the jaw, as shown in Fig. 2, and then apply the crank I, having a screw-thread in its hub, in the usual manner, though, if preferred, the separate washer *b* may be dispensed with by making the hub itself of the requisite form to fit the concave socket.

It will be seen that by this means the right-hand jaw is free to adjust itself or tip in any and all directions, and thus to adjust itself to the article being crimped perfectly, it working, in connection with the spherical washer or nut, on the principle of the ball-and-socket joint.

It is obvious that this form of bearing may be applied to both jaws; but if so, then other means must be used to hold the bolt D from turning; and inasmuch as its application to the one jaw answers every purpose, I prefer to make the parts as above described.

Having thus described my invention, what I claim is—

1. A crimping-jaw, A, provided with an inwardly-projecting flange, or flange and lugs, arranged to hold the wood lining C in place and protect its edge from wear, substantially as described.

2. The combination, with a pair of crimping-jaws, of a clamping-bolt, D, provided with the hemispherical bearings at one or both sides, substantially as herein set forth.

JOHN S. PERKINS.

Witnesses:
H. THOMPSON,
GEORGE H. BALL.