Dec. 29, 1936. W. G. HEIBER ET AL 2,066,148

CLAMP

Filed March 30, 1935

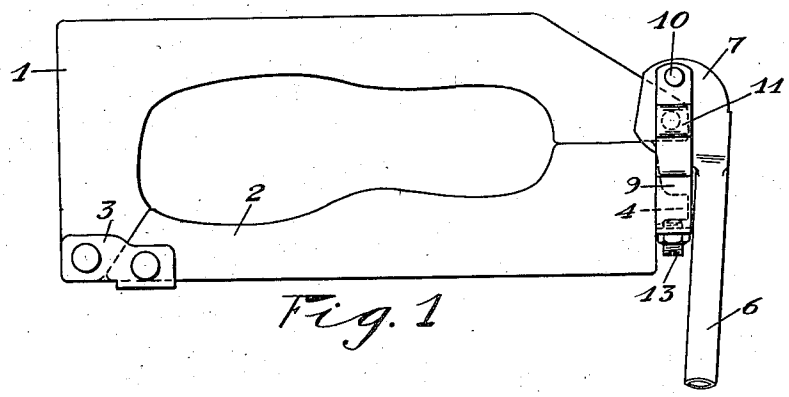



Fig. 1

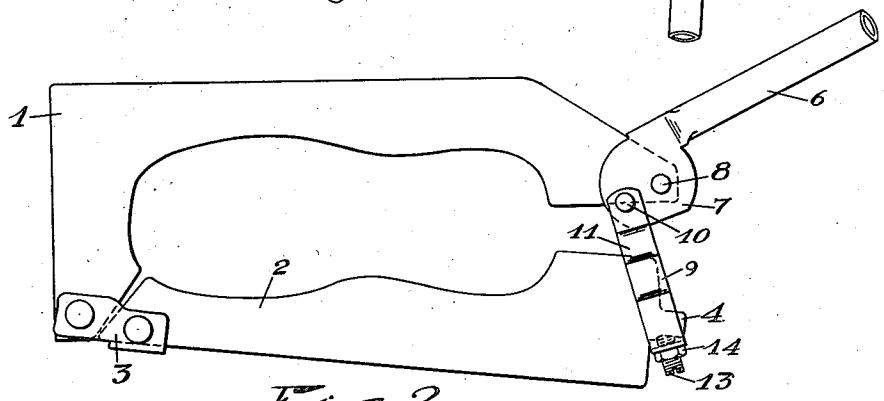



Fig. 2

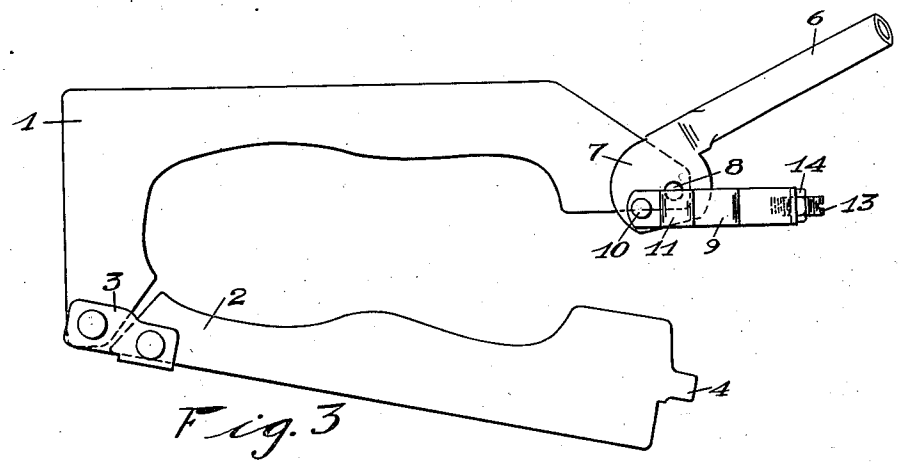
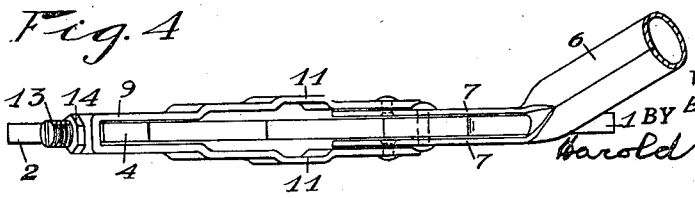



Fig. 3

Fig. 4




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2,066,148

## CLAMP

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Application March 30, 1935, Serial No. 13,919

3 Claims. (Cl. 12—107)

This invention relates to a clamp, and more particularly to a mechanism used for holding a lasted shoe during the operation of cementing a sole thereto or performing other necessary operations on the shoe, and has for its object to afford a simple construction that can be readily manipulated by the operator and which will materially assist in speeding up the operations on the shoe.

A more particular purpose of the invention is to afford a practical and inexpensive construction of few parts which can readily be brought into proper relation to a shoe and in which the clamping members can be held positively either in a partially open position to permit of correctly positioning the shoe upper and other parts, or in a completely closed position after the necessary preparatory operations are completed.

To these and other ends, the invention consists in the arrangement and construction of parts that will appear clearly from the following description when read in conjunction with the accompanying drawing, the novel features being pointed out in the claims following the specification.

In the drawing:

Fig. 1 is a plan view of one embodiment of the invention, showing the clamping members entirely closed, or in final operative position;

Fig. 2 is a plan view showing the position of the parts when the clamping members are held in a partially open position, which position is occupied when the clamp is preliminarily positioned on the shoe while stretching the upper or performing other necessary preparatory operations;

Fig. 3 is a plan view of the construction when the clamping members are separated, and

Fig. 4 is an end elevation looking from right to left of Fig. 2.

The construction shown is in the nature of an improvement on the structure disclosed in Patent No. 1,934,351, dated November 7, 1933, and is designed more particularly for use in connection with "prewelt" shoes, in which the welt is preliminarily stitched to the upper and lining and lasted, such clamping mechanism being intended to engage between the welt and upper and clamp onto the lasted assembly, to permit of cementing the outer sole.

Referring more particularly to the drawing, in which like reference characters refer to the same parts throughout the several views, 1 and 2 designate a pair of separable clamping members which are preferably pivotally connected by means of a suitable hinge member 3, and 4 designates a locking projection or extension provided on the free end of the clamping member 2 to be engaged by the retaining means, as will be described presently, although the latter may engage and retain the clamping member 2 in any suitable manner other than with the projection 4.

According to a preferred embodiment of the invention, an operating lever 6 is provided having a bifurcated portion 7 that straddles the free end of the clamping member 1 and is pivoted thereto at 8 whereby the lever 6 can be swung on the clamping member 1 from its extreme outer position illustrated in Figs. 2 and 3 to its extreme inner position shown in Fig. 1.

The pivoted lever 6 carries the retaining member, which is preferably loop-shaped, consisting of a strap bent upon itself and designated generally at 9 with its ends straddling the bifurcated portion 7 and pivoted eccentrically thereto at 10. The strap or loop-shaped member 9 may have offset portions 11 to clear the rivet or pivot 8 when swung thereover, as shown in Figs. 1 and 3, and may be reduced in width at its outer end to fit closely over the locking portion 4, as shown in Fig. 4.

It is desirable to provide for taking up wear between the retaining member and the locking portion 4 to insure a tight engagement between the clamping members, and to effect this, there is employed an adjustable contact element or screw 13 engaging a threaded opening in the end of the retaining member 9 and threaded surfaces in the adjacent walls of said loop member, the contact post being adjustable to engage the side of the locking projection 4 and held in its adjusted position by the nut 14.

The clamping members are shown in open or separated relation in Fig. 3, and are initially brought into preliminary engagement with a prewelted upper, positioned on a last, by inserting the clamping members between the welt and upper, swinging the retaining member 9 over the locking projection 4 and moving the lever 6 back to its extreme position until the parts assume the relation shown in Fig. 2. The frictional engagement of the several parts is such as to hold the clamp in this position on the shoe upper while the upper, lining and welt may be stretched or otherwise manually adjusted into the exact desired relation with the insole to which the upper is secured. The operator has both hands free to perform these preliminary operations on the shoe, the clamp being held thereon by the re-

taining member 9 while in the position shown in Fig. 2.

When the upper, lining and welt are all positioned with relation to the clamp to the satisfaction of the operator, he then throws the lever 6 from the position shown in Fig. 2 to that shown in Fig. 1, during which movement the pivotal point 10 passes outwardly and around the pivotal point 8 until it is past the center of the latter, with relation to the point of contact between retaining member 9 and the locking portion 4, so as to hold the clamping members tightly in operative relation and prevent any accidental displacement. To release the clamping members, it is necessary to grasp the lever 6 and draw it outwardly from the position shown in Fig. 1 until the pivot point 10 has passed inwardly around the pivot point 8, whereupon the retaining member 9 is free to be swung away from the clamping member 2 and the latter can be separated from clamping member 1.

While the invention has been described with relation to a more or less specific form and arrangement of parts, it is not confined to the details set forth, and this application is intended to cover any modified arrangements coming within the purposes of the invention or the scope of the following claims.

We claim:

1. A shoe clamp comprising a pair of separable clamping plates, an operating lever having a bifurcated portion straddling and pivotally secured to one of said clamping plates, a locking portion on the other clamping plate, and a retaining member having its ends straddling and pivotally connected to said operating lever eccentrically thereof, said retaining member straddling said locking portion and other clamping plate and movable over said plate while assuming locking position, the pivotal points of the operating lever and retaining member being substantially in line with the point of engagement between the retaining member and locking portion when the parts are in clamping position.

2. A shoe clamp comprising a pair of separable clamping plates, an operating lever having a bifurcated portion straddling and pivotally secured to one of said clamping plates, a locking portion on the other clamping plate, and a loop-shaped retaining member having its ends straddling and pivotally secured to said bifurcated portion of the operating lever eccentrically thereof, said loop-shaped retaining member straddling said other clamping plate and locking portion and engageable with the latter to hold the clamping plates in either a partially open relation or an entirely closed relation, the pivotal points of the operating lever and retaining member being substantially in line with the point of engagement between the retaining member and locking portion when the parts are in clamping position.

3. A shoe clamp comprising a pair of separable clamping plates, an operating lever having a bifurcated portion straddling and pivotally secured to one of said clamping plates, a loop-shaped retaining member having its ends straddling and pivotally secured to said bifurcated portion of the operating lever eccentrically thereof, the other of said clamping plates having a locking projection, the loop shaped portion of said retaining member being engageable with said locking portion and acting to hold the clamping plates in either a partially open relation or an entirely closed relation depending upon the position of the operating lever, and means adjustable with relation to the loop shaped portion of the retaining member for contacting the said locking portion.

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